

**Customer Perceptions of Transit Security**

FINAL REPORT  
December 2010

Submitted by:

Jon Carnegie, AICP/PP  
Deva Deka, Ph.D.

Alan M. Voorhees Transportation Center  
Rutgers University



NJDOT Research Project Manager  
Vincent F. Nichnadowicz

In cooperation with

New Jersey  
Department of Transportation  
Bureau of Research  
and  
U. S. Department of Transportation  
Federal Highway Administration



## **DISCLAIMER STATEMENT**

“The contents of this report reflect the views of the authors who are responsible for the facts and the accuracy of the data presented herein. The contents do not necessarily reflect the official views or policies of the New Jersey Department of Transportation or the Federal Highway Administration. This report does not constitute a standard, specification, or regulation.”



1. Report No. FHWA-NJ-2010-008		2. Government Accession No.		3. Recipient's Catalog No.	
4. Title and Subtitle Customer Perceptions of Transit Security				5. Report Date December 2010	
				6. Performing Organization Code	
7. Author(s) Jon Carnegie and Deva Deka, Ph.D.				8. Performing Organization Report No.	
9. Performing Organization Name and Address Alan M. Voorhees Transportation Center Rutgers, The State University of New Jersey 33 Livingston Avenue, New Brunswick, NJ 08901				10. Work Unit No.	
				11. Contract or Grant No.	
12. Sponsoring Agency Name and Address New Jersey Department of Transportation PO 600 Trenton, NJ 08625		Federal Highway Administration US Department of Transportation Washington, D.C.		13. Type of Report and Period Covered	
				14. Sponsoring Agency Code	
15. Supplementary Notes					
16. Abstract The objectives of this research were to: a) examine the extent to which NJ TRANSIT (NJT) security measures provide customers with a sense of overall security/comfort when using the system; b) identify which security measures appear to enhance customer perceptions of safety and what measures could further enhance customer perceptions of security; and c) examine what elements of a transit security public awareness campaign might resonate most with NJT customers. Observations from the focus groups conducted for this study provide insights into how NJT customers perceive transit security and how well they understand the role they play in transit security equation. The focus groups also shed light on which security measures are visible to customers and which measures apparently help to make them feel safe. Finally the focus groups confirm that NJT customers seem to be well aware of expectations regarding the need to be aware of suspicious activity or objects and are familiar with the "See Something, Say Something" campaign used by MTA and the Port Authority. However, there was significant confusion regarding how and when to report suspicious activity/objects, especially with regard to what phone number to call. The study concludes that it would be beneficial for NJT to work closely with New York Metropolitan Transportation Authority (MTA), the Port Authority, AMTRAK and other transit providers operating in the metropolitan region to ensure security initiatives being undertaken by each agency, at a minimum, are coordinated with each other. Further NJT should explore the potential for implementing joint public awareness campaigns with shared slogans, imagery and media strategies. Cooperating agencies should consider creating a universal reporting procedure and phone number that can be used across geographic and institutional boundaries to eliminate unnecessary customer confusion regarding when and who to call to report security concerns.					
17. Key Words Transit Security, Transit Safety, Perceptions of Transit Security, Security Awareness Campaigns			18. Distribution Statement		
19. Security Classif. (of this report) Unclassified		20. Security Classif. (of this page) Unclassified		21. No of Pages 67	22. Price



## **ACKNOWLEDGEMENTS**

Many people contributed to this study. We are particularly indebted to Andrea Lubin, Senior Research Specialist at the Voorhees Transportation Center, Marc Weiner, PhD, Associate Director, and Orin Puniello, Research Project Coordinator, of the Bloustein Center for Survey Research at Rutgers University. Marc, Orin and Andrea were largely responsible for carrying out the focus groups conducted for this study. Marc co-moderated or attended most of the focus groups, provided his expert advice on focus group moderation. Andrea shepherded our research protocol through the Institutional Research Board with great expertise. Orin and Andrea managed logistical efforts and were present for all of the focus groups. Orin's diligence and attention to detail are extraordinary. Thanks are also due to the members of the Research Project Selection and Implementation Panel that contributed in a variety of ways to supporting the overall research effort. Panel members over the duration of the study included Pippa Woods, Janice Pepper, Merle Weiss, Allison Doyle and Pat Batersby-Seres all from NJ TRANSIT and NJDOT project manager Vincent Nichnadowicz, whose patience and support throughout the research process helped bring this report to fruition.





## TABLE OF CONTENTS

	<u>Page</u>
EXECUTIVE SUMMARY .....	1
INTRODUCTION.....	5
RESEARCH OBJECTIVES AND APPROACH .....	5
LITERATURE REVIEW .....	6
Literature Search Methods.....	6
Threats Against Transit and Available Countermeasures .....	7
The Challenge of Providing Transit Security .....	10
Customer Perception of Security .....	12
Public Awareness Campaigns .....	13
Summary .....	15
REVIEW OF NJ TRANSIT CUSTOMER COMPLAINT DATA .....	16
FOCUS GROUPS .....	18
General Safety and Security–Round 1 Focus Groups.....	18
<u>Bus Commuters</u> .....	19
<u>Local Bus Riders</u> .....	19
<u>Regional Rail Riders</u> .....	19
General Travel Experience–Round 1 Focus Groups .....	20
Transit Security Concerns & Measures used by NJT Round 1 Focus Groups....	20
<u>Bus Commuters</u> .....	21
<u>Local Bus Riders</u> .....	22
<u>Regional Rail Riders</u> .....	23
Personal Experience with Safety & Security Incidents Round 1 Focus Groups .	24
<u>Bus Commuters</u> .....	24
<u>Local Bus Riders</u> .....	25
<u>Regional Rail Riders</u> .....	25
Post-9/11 NJT Security–Round 1 Focus Groups.....	26
General Use of NJT Services– Round 2 Focus Groups.....	26
Security Concerns when using NJT Services– Round 2 Focus Groups.....	26
The Role NJT Customers Play in Transit Security–Round 2 Focus Groups ...	28
Effectiveness of Security Awareness Campaigns–Round 2 Focus Groups....	28
Accessing Transportation Information–Round 2 Focus Groups.....	34
Participants’ Reflections–Round 2 Focus Groups.....	34
DISCUSSION AND CONCLUSIONS.....	35
REFERENCES.....	37
APPENDIX A – FOCUS GROUP TOPIC GUIDES .....	39
APPENDIX B – NJ TRANSIT CUSTOMER COMPLAINT DATA SUMMARY TABLES...	49

<b>LIST OF FIGURES</b>	<b><u>Page</u></b>
<b>Figure 1. Round 2 focus group poster “A” .....</b>	<b>29</b>
<b>Figure 2. Round 2 focus group poster “B” .....</b>	<b>30</b>
<b>Figure 3. Round 2 focus group poster “C” .....</b>	<b>30</b>
<b>Figure 4. Round 2 focus group poster “D” .....</b>	<b>31</b>
<b>Figure 5. Round 2 focus group poster “E” .....</b>	<b>31</b>
<b>Figure 6. Round 2 focus group poster “F” .....</b>	<b>32</b>
<b>Figure 7. Round 2 focus group package images 1-4.....</b>	<b>33</b>

**LIST OF TABLES**

**Page**

**Table 1. Transit security measures and passengers' potential awareness .....8**

**Table 2. Transit security measures, their purpose, and applicability under  
different threat levels .....9**

**Table 3. Transit agencies' assessment of security needs.....11**

**Table 4. Complaints reported by bus passengers (FY2008).....16**

**Table 5. Complaints reported by regional rail passengers (FY2008).....17**

**Table 6. Complaints reported by light rail passengers (FY2008) .....17**

**Table 7. Focus group dates and locations.....18**



## EXECUTIVE SUMMARY

Since the terrorist attacks of 11 September 2001, the northeast blackout of 2003, and the Madrid (2004) and London (2005) subway bombings, NJ TRANSIT (NJT) has invested significant operating and capital resources to improve the security of its transit system. While these measures have undoubtedly improved the security of NJT facilities and services, what is not known is how these measures have affected NJT customers' perceptions of safety and security. The objectives of this research were to: a) examine the extent to which NJT security measures provide customers with a sense of overall security/comfort when using the system; b) identify which security measures appear to enhance customer perceptions of safety and what measures could further enhance customer perceptions of security; and c) examine what elements of a transit security public awareness campaign might resonate most with NJT customers. To achieve these objectives the research team reviewed national literature on transit security implementation, customer perceptions of transit security and transit security public awareness campaigns; analyzed NJT customer complaint data; and conducted a series of five customer focus groups.

A national literature review revealed that transit agencies employ a range of safety/security strategies to address the threats and vulnerabilities unique to each system. The strategies vary widely by agency and are associated strongly with the transportation mode. Customer perceptions of transit security are different from the perceptions of transit operators. In that regard, customers appear to have a greater feeling or sense of security than operators. Customer perception of security varies across demographic and socioeconomic groups, most notably between men and women. Perceptions also vary from one geographic region to another.

Fiscal Year 2008 NJT customer complaint data for bus, rail, and light rail passengers shows that complaints about terrorism or related issues constituted a very small proportion (less than one percent) of passenger complaints for all modes. Examples included reports of suspicious or unattended items, objects or packages; suspicious persons taking photos of transit vehicles when stopped to pick-up and drop-off passengers; and persons appearing to examine locked transit equipment.

For rail passengers, inclusive of regional rail and light rail riders, the most common complaints were about the physical condition of stations, followed by complaints about accident/injury and conductor behavior, respectively. For bus passengers, the most common complaints were about accident/injury, followed by complaints regarding driver behavior. Together, these two types of complaints constituted more than 80 % of all complaints from bus passengers. In terms of location, 48 % of the complaints from regional rail passengers were about stations or incidents in stations, whereas, 38 % were about vehicles or incidents on vehicles. For light rail, a smaller proportion of passenger complaints were about stations and a larger proportion were about vehicles. Complaints about bus stops or incidents at bus stops were less prevalent than complaints about rail stations. However, a significant proportion of bus passengers complained

about areas surrounding bus stops. This type of complaint was not evident in the rail passenger data.

For this study, the research team conducted two rounds of focus groups. The first three sessions were conducted in November 2008. These were designed to elicit input on customer perceptions of safety and security while using NJT facilities and services and their knowledge or awareness of various security measures. The second round of focus groups included two sessions conducted in November 2009 with the purpose of more explicitly exploring customer understanding of the role they play in ensuring transit security and their familiarity with public awareness campaigns related to transit security.

The focus groups revealed that overall, NJT customers feel a high level of anxiety related to safety/security concerns in general. This anxiety appeared to be most prevalent among commuters traveling into and out of Manhattan on a frequent basis, especially when using one of the cross-Hudson tunnels. It was also clear that participants closely related feelings of personal safety with perceptions of transit system security. In addition, they did not readily distinguish between the terms safety and security and frequently used them interchangeably. A number of participants noted that the two terms go “hand in hand,” acknowledging that the word safety was most associated with feelings of personal well-being while security referred more to external factors such as presence of lighting and police, that helped to make them feel safe. One participant noted that it was possible to feel unsafe in a very secure environment and vice versa.

When prompted to discuss their thoughts on safety and security, participants indicated that their physical space was an important factor in helping them to feel safe (e.g. being in open space vs. in a closed area such as a tunnel). Some indicated that the presence of law enforcement officials helped them feel safe, while others disagreed and noted that seeing too much police and/or security presence made them feel apprehensive. In addition to police presence, participants suggested that the presence of security cameras and adequate lighting also contributed to feelings of safety.

When asked about their reaction to the possible use of rigorous security measures on NJT services, such as passenger screening procedures used at airports, participants opined that such measures would result in delays and frustration. Some questioned the feasibility of such measures at public transit facilities. In the case of rail commuters, all but one participant agreed that implementing airport-like screening at train stations would be too restrictive and cause unacceptable delay.

The benefit of security cameras was debated in all of the focus group sessions. Some participants suggested that cameras served as a deterrent to crime and other nefarious behavior. Others noted that they only provide an illusion of security, since there is no certainty that the cameras are actually operational or being monitored. Participants also speculated that camera images might be too grainy or of too poor quality to be useful. They further opined that the information gathered from the cameras was only useful to law enforcement after an incident, not before or during it. Most participants in all sessions voiced support for the

security command center at the Port Authority bus terminal in New York City. They noted that the command center which is publically visible, includes a variety of camera monitoring screens and other related devices and makes it clear that the camera feeds are being monitored by security personnel.

Despite an overall feeling of anxiety about transit security in general, participants in all sessions indicated that they felt safe most of the time while using NJT services. According to participants, a variety of factors affect their feeling of safety while using transit. Presence of police and adequate lighting were the most consistently cited factors contributing to feelings of safety. Interestingly, several participants in each session explained that too much police presence, including those armed like military personnel, causes them anxiety. They interpreted higher levels of police presence as an indication of potential danger. The most common security concerns mentioned in all sessions were passenger misconduct, vehicle accidents, and fear of unattended packages (e.g., potential bomb threat).

In terms of customer awareness of security measures, most participants reported only being aware of police (with and without K-9 units) and security cameras. When prompted, no participants remembered observing radiation detectors at stations. Only a few were aware of who to call if they observed suspicious behavior or objects. Participants in all sessions had mixed reactions regarding the capability of bus drivers and/or train conductors to address emergency situations. It was generally acknowledged that these individuals are often burdened with multi-tasking while onboard. Participants did not feel that front-line workers could devote enough of their attention to potential safety concerns to be effective.

The issue of crowding was discussed to some extent in all three sessions. Some felt that public transit has become more crowded in the past few years and this raises security concerns in terms of fellow passengers violating one another's space as well as impeding the ability to safely exit a vehicle in the event of an emergency. While the potential dangers of crowding were highlighted by some, others indicated that they felt more comfortable and safe in the presence of crowds, especially feeling more at ease when they see the same commuters on a regular basis.

All of the individuals that participated in the second round of focus groups agreed that transit riders have a role to play in keeping NJT secure. Most believed this role was, in fact, a responsibility. In that regard, there was unfortunately a great deal of confusion about what to look for as well as when and how to report suspicious activity or objects. Round 2 focus group participants were universally familiar with the slogan "If you See Something, Say Something"; and stated that they had seen it depicted on billboards in New York City, posters in Newark Penn Station and on PATH trains, and on news tickers on NJT buses, and had heard the slogan on radio station 1010 WINS. Participants had either seen or heard the phrase multiple times.

With regard to transit security awareness campaigns more generally, Round 2 focus group participants suggested an effective campaign must include a ubiquitous slogan or image repeated over and over at multiple times in multiple locations. Participants also believed that

slogans that were catchy and easy to remember were more likely to be effective as are campaigns containing memorable visual imagery. Finally, participants preferred campaigns that listed information such as telephone numbers, concisely and in large print. When asked how campaigns might be improved, participants universally agreed that phone numbers needed to be printed in larger fonts and be easier to remember.

Observations from the focus group conducted for this study provide insights into how NJT customers perceive transit security and how well they understand the role they play in transit security equation. The focus groups also shed light on which security measures are visible to customers and which measures apparently help to make them feel safe. Interestingly, the study also makes clear that NJT customers are also at least part of the time customers of other New York metropolitan area transit agencies. Many of the region's key transit facilities including Newark Penn Station, New York Penn Station and the PATH stations and the Port Authority Bus Terminal integrate services operated by multiple agencies. As a result, the line between different agency efforts related to transit security appears to be blurred. This has had both positive and negative outcomes.

On the one hand, NJT customers seem to be well aware of expectations regarding the need to be aware of suspicious activity or objects. They are clearly familiar with the "See Something, Say Something" campaign used by MTA and the Port Authority even though NJT has never implemented a campaign of its own using this slogan. This is a benefit. On the other hand, there was significant confusion regarding how and when to report suspicious activity/objects, especially with regard to what phone number to call.

This finding in particular suggests that it would be beneficial for NJT to work closely with MTA, the Port Authority, AMTRAK and other transit providers operating in the metropolitan region to ensure security initiatives being undertaken by each agency at a minimum are coordinated with another. Further NJT should explore the potential for implementing joint public awareness campaigns with shared slogans, imagery and media strategies. Finally, cooperating agencies should consider creating a universal reporting procedure and phone number that can be used across geographic and institutional boundaries to eliminate unnecessary customer confusion regarding when and who to call to report security concerns.



## **INTRODUCTION**

Since the terrorist attacks of 11 September 2001, the northeast blackout of 2003, and the Madrid (2004) and London (2005) subway bombings, NJ TRANSIT (NJT) has invested significant operating and capital resources to improve the security of its transit system. Stations, terminals and other buildings have been hardened with the installation of barriers. Closed-circuit television cameras have been installed at key locations throughout the system. Additional police and K-9 units have been deployed; and customers are repeatedly reminded via announcements and posters to report suspicious packages or behavior.

While these measures have undoubtedly improved the security of NJT facilities and services, what is not known is how these measures have affected NJT customers' perceptions of safety and security. What concerns do customers have about their security? What actions would they like to see the agency take? How can customers be actively engaged as eyes on the street to improve security? NJ Transit has received millions of dollars in federal Transit Security Grant Program funding to date. Additional funds are anticipated. In addition, operating costs for securing the transit system total in the hundreds of millions each year. The results of this study will be used to inform investment decisions and maximize the benefits of these investments.

## **RESEARCH OBJECTIVES AND APPROACH**

The objectives of this study were to:

- Examine if NJT security measures provide customers with a sense of overall security/comfort when using the system.
- Identify which security measures appear to enhance customer perceptions of safety and what measures could further enhance customer perceptions of security.
- Examine which elements of a transit security public awareness campaign might resonate most with NJT customers.

To achieve the study research objectives, the research team reviewed national literature on transit security implementation, customer perceptions of transit security and transit security public awareness campaigns; analyzed NJT customer complaint data; and conducted a series of five customer focus groups.

## **LITERATURE REVIEW**

Since the terrorist attacks of 11 September 2001, ensuring the security of public places and properties in the United States has been a priority public policy concern. Significant planning and investment have occurred to harden potential targets, including public transit systems. The bombings of mass transit facilities in Madrid (2004) and London (2005) further emphasized the vulnerability of transit systems even in a heightened security environment.

The evolution of public safety and security concerns in the public transit industry over the past three decades can be tracked in the literature. During the 1980s and 1990s, literature on transit security was almost entirely focused on protecting transit passengers, personnel and facilities from ordinary criminal activity. Understandably, the primary focus of the literature published since 2001 has been on terrorism and terrorist threats. Our review of the literature focused mainly on the documents and articles published in the post-9/11 period. The post-9/11 literature is dominated by reports published by, or under the auspices of, the Federal Transit Administration (FTA), the American Public Transit Association (APTA), and the Transportation Security Administration (TSA). Only a limited number of articles have been published in academic journals. One reason for the limited number of academic publications may be the scarcity of publicly available information on security initiatives.

This section describes the methods used to conduct the literature search and summarizes the results related to the nature of security threats facing transit agencies and the range of security measures available to transit agencies to counter these threats; the challenges faced by transit agencies in providing system security in the context of competing needs; and past research designed to help understand customers' perception of security in the fields of public transit and aviation.

### **Literature Search Methods**

The literature search was conducted using a number of methods. First, Rutgers University Library electronic databases and indexes were searched using search engines such as PAIS International and Archive, Social Sciences Full Text, Project MUSE, Homeland Security Digital Library, Academic Search Premier, and LexisNexis Academic. These searches were useful in identifying a number of academic and non-academic articles. Second, the research team conducted direct searches of internet resources such as the websites of various agencies and institutions, including the Federal Transit Administration, Transportation Security Administration, Department of Homeland Security, American Public Transit Association, Transportation Research Board, Center for Urban Transportation, and the Volpe Center. These searches helped identify several useful reports and surveys on security. Third, searches for past surveys through the Roper Center web site <sup>(1)</sup> uncovered a few security surveys conducted by Gallup/CNN/USA Today, Associated Press/Ipsos, and CBS News. These surveys provided only general information about people's perception of terrorism, and none included questions on transit security measures. Finally, searches were conducted using the TRIS Online Transportation Library, Google Scholar, and the Yahoo and Google search engines.

## Threats Against Transit and Available Countermeasures

Security threats against transit systems can come from a variety of sources and take various forms. Such threats may include: arson, explosives, weapons of mass destruction, sabotage, network failure, cyber attacks, disruption of power, the use of a transit vehicle as a weapon or weapon delivery mechanism and hostage taking. The use of transit facilities and services as a venue for crime and terrorist threats is not a new phenomena. In fact, criminal acts against transit systems worldwide happen daily and there have been hundreds of terrorist attacks targeting transit over the last three decades <sup>(2)</sup>.

Because transit serves large numbers of people that are often concentrated in vehicles, on platforms and at stops and because access to transit is open and almost universally accessible to the public, security experts consider transit an 'ideal target' for terrorists. According to Staes, et. al., of the terrorist attacks against transit, 32 % occur on buses, 26 % occur on subways and trains, 12 % occur in train stations, and 7 % occur in bus terminals. The remainder occur in other types of vehicles and places <sup>(3)</sup>. These modal statistics must be juxtaposed against the factors of terrorist activity and modal availability. If an area such as the Middle-East which has been plagued with terrorist activity for decades, has only bus service in a majority of the areas, the terrorist attacks will naturally be on or against those bus operations and assets.

The Public Transportation System Security and Emergency Preparedness Planning Guide, prepared by the Federal Transit Administration <sup>(4)</sup>, recommends that all transit agencies undertake a threat and vulnerability assessment. Through a series of scenarios the report identifies the most probable threats against train and bus operations and further classifies these threats into specific targets such as train stations, bus stops, bus vehicles, rail cars, command centers, power stations, etc. The report describes a host of countermeasures to address the threats and indicates the role different types of transit personnel can play in addressing the threats in different situations.

Application of transit security measures varies with threat levels. Guidelines are provided by the Federal Transit Administration (FTA) for application of strategies for different threat levels indicated by the National Transit Response Mode system (NTRM), devised after the Homeland Security Advisory System (HSAS). Although the NTRM is primarily meant to be used for selection of different security strategies, public announcement of its color-coded threat levels may also be perceived as a security strategy.

The most highly recommended transit security system in the post-9/11 era is the 'layered defense' system, a coherent and integrated system consisting of an intertwining concentric set of security features that selectively protect against terrorist attacks <sup>(5)</sup>. The greatest benefit from this approach is that it cannot be easily breached because the nature of the system is multi-layered. While terrorists can eliminate a single measure like a protective barrier or a closed-circuit television camera (CCTV) with relative ease, it is difficult to penetrate a layered defense system because of the multiplicity of measures arranged in a sequence and unknown to the general public.

**Table 1. Transit security measures and passengers' potential awareness**

<b>Transit Security Measure</b>	<b>Visibility to Passengers</b>
<b><i>Facility-specific Measures</i></b>	
Physical barriers	High
Locking systems/Access control	Low
Public address systems and signage	Medium
Sweeps/inspections	High
Alteration of operations	Low
Local alarm system	Low
Perimeter alarm systems	Low
Advanced or sophisticated remote alarm system	Low
Simple or high security lighting	High
Watchmen	High
Highly trained armed guards	Very High
K-9 units	Very High
Remote sensors or detectors	Low
CCTV	Medium
<b><i>Vehicle-specific Measures</i></b>	
Panic button for operators	Low
Two-way radio	Medium
CAD/AVL technologies	Low
Onboard video camera	Medium
Onboard security personnel	Very High
Onboard sworn police	Very High
Protective structure for operator	Low
Specially trained operator	Low
<b><i>Other Measures</i></b>	
Designated "Shelter in place" locations	Low
Decontamination site	Low
Mitigation equipment	Medium
Fire suppression equipment	Medium
Employee awareness program	Low
Employee screening	Low
Basic communication	Low
Intelligence/Information sharing	Low
Formal contingency plans	Low
Evacuation and assembly lockdown	Low
Drills	High

The literature on transit security measures includes discussion of both covert and overt measures. For example, overt measures include physical barriers, lighting, watchmen, trained armed guards, onboard security personnel, and CCTV cameras. Each of these measures is visible to passengers and the general public. Other measures like front-line employee training, formal contingency plans, communication plans, etc. are covert and have little public visibility. Table 1 includes a composite inventory of measures prepared from a variety of sources.

There is no single way to classify transit security measures. Staes et. al. <sup>(3)</sup> categorize transit security measures into prevention, response/mitigation, and monitoring. In another study, the

FTA classifies transit security measures into deterrence and detection, mitigation, and response <sup>(6)</sup>. In this classification framework, deterrence and detection methods take various forms, including access control, high visibility patrols, K-9 teams, screening, sweeps/inspections, information sharing, training and drills, lighting, remote sensors, etc. Mitigation includes fire suppression, protective equipment, decontamination, etc., whereas response includes strategies involving emergency evacuation, lockdown, shelter-in-place, as well as control of heating, ventilation, and air conditioning systems.

Another report by the Federal Transit Administration provides a detailed description of all transit security measures and their applicability to address various types of threats against different components of a transit system, such as stations, vehicles, and tunnels <sup>(7)</sup>. As a series of publications and instructional media by the National Transit Institute reveal, the awareness and reaction of transit employees can play a major role in protecting lives and transit properties <sup>(2,8,9)</sup>. A report prepared by Allan and Volinski for the National Center for Transit Research specifically addresses security measures for bus operators. In this report, all measures for protecting bus operators, including different types of technologies, are discussed in detail <sup>(10)</sup>.

**Table 2. Transit security measures, their purpose, and applicability under different threat levels**

<b>Threat Level</b>	<b>Measures</b>	<b>Purpose</b>
Minimum	<ul style="list-style-type: none"> <li>- Simple physical barriers</li> <li>- Simple locks</li> </ul>	Impede unauthorized external activity
Low	<ul style="list-style-type: none"> <li>- Basic local alarm system</li> <li>- Simple security lighting</li> <li>- Basic security physical barriers</li> <li>- High security locks</li> </ul>	Impede and detect unauthorized external activity
Medium	<ul style="list-style-type: none"> <li>- Advanced remote alarm system</li> <li>- High security physical barriers</li> <li>- Watchmen</li> <li>- Basic communication</li> </ul>	Impede, detect and assess unauthorized external activity
High	<ul style="list-style-type: none"> <li>- CCTV</li> <li>- Perimeter alarm system</li> <li>- Highly trained armed guards</li> <li>- Access controls</li> <li>- High security lighting</li> <li>- Local law enforcement coordination</li> <li>- Formal contingency plans</li> </ul>	Impede, detect and assess unauthorized external and internal activity
Maximum	<ul style="list-style-type: none"> <li>- Sophisticated alarm system</li> <li>- Onsite armed response force</li> </ul>	Impede, detect, assess and neutralize unauthorized external and internal activity

Source: Staes et. al. (2006)

Unfortunately, few studies provide a cost-benefit assessment of the security measures. Information is sporadically available on advantages and disadvantages of particular technologies like CCTV <sup>(11)</sup>, and K-9 units <sup>(12)</sup>, but a comprehensive comparison of measures in terms of costs and benefits is generally unavailable. Staes et., al., provides some indication about the utility of different security measures under different threat levels. The information

provided by that study is summarized in Table 2. The measures listed for each threat level can be generally considered cumulative in that what is applicable for a lower threat level is also applicable for a higher threat level <sup>(3)</sup>.

It should be noted that the security measures mentioned in Table 2 are primarily meant for securing transit facilities, such as rail stations and bus terminals. As indicated by Allan and Volinski, transit vehicles, especially buses, require additional security measures <sup>(10)</sup>. Such measures include two-way radio, panic buttons for operators, computer aided dispatch (CAD) and automatic vehicle location (AVL) technologies, onboard video camera, special structures for protecting operators, and other onboard security measures.

### **The Challenge of Providing Transit Security**

The increasing significance of transit security in the post-9/11 period is clearly evident from a survey of transit agencies conducted by the American Public Transit Association <sup>(13)</sup>. The survey, which included 120 agencies of varying sizes, revealed that 88% of the agencies adopted new or additional security measures after the 9/11 terrorist attacks and 74% reported increasing the use of security measures already in place on 9/11. Table 3 provides a partial summary of survey results showing how agencies rated security needs and priorities.

The survey revealed that the addition of new security measures and enhancement of existing measures were more common among large, multi-modal transit agencies than small agencies. The increasing demand for security measures has put added pressure on the constrained budgets of all transit agencies, but to a greater degree on large multi-modal agencies like NJT. The survey also revealed a significant shortage of funds for transit agencies in meeting their increasing security needs.

Other surveys have more directly demonstrated a severe shortage of funds to meet the increasing demand for transit security. For example, a survey conducted by the US Government Accountability Office (GAO) in 2002 found that insufficient funding was perceived by transit agencies as the most significant challenge to securing transit <sup>(3)</sup>. While 44% of the agencies stated insufficient funding as the most significant challenge, another 16% indicated that the most significant challenge was balancing expenditure between security and other needs, meaning that for 60% of the transit agencies surveyed, insufficient funds for security was a significant concern.

According to the GAO, the three primary objectives of transportation security are effectiveness, efficiency and customer satisfaction <sup>(14)</sup>. In the context of transportation security, effectiveness refers to the success of security programs or measures in reducing the chances of violent acts and minimizing damages when they occur. Efficiency refers to balancing enhanced security with acceptable cost. Finally, customer satisfaction usually refers to maintaining customer convenience and comfort, promptness of screening, and respect for the privacy of customers or passengers. The GAO points out that decisions related to implementing transportation security measures often require tradeoffs between these three security-related objectives.

**Table 3. Transit agencies' assessment of security needs**

<b>Needs and funding priorities</b>	<b>Very Important</b>	<b>Important</b>
<b>Operating Funding</b>		
Funding Current Transit Agency/Local Law Enforcement Security Personnel	60.8%	17.5%
Funding Additional Transit Agency/Local Law Enforcement Security Personnel	52.9%	27.5%
Funding for Over-Time/Extra Personnel During Heightened Alert Levels	50.5%	29.7%
Creation of New Security Units, e.g., K-9 Teams	14.4%	24.4%
Training for Security Personnel	48.7%	38.1%
Security Training for Other Personnel	45.7%	39.7%
Security Planning Activities	42.6%	44.3%
Joint Transit/Law Enforcement Training	45.7%	36.2%
Customer Outreach	31.0%	40.5%
Access to Security Intelligence Information	34.5%	36.3%
Ongoing Technical Support for Security Plan Development	45.1%	40.7%
<b>Capital Funding</b>		
Automated Vehicle Locator Systems	67.9%	18.8%
Radio Communications Systems	85.7%	10.7%
Passenger-Operator Intercoms	21.6%	43.1%
Security Cameras On-Board Vehicles	72.6%	20.4%
Security Cameras in Stations	75.0%	16.3%
Public Address Systems On-Board Vehicles	42.2%	36.7%
Public Address Systems in Stations	42.4%	38.4%
Security Fencing Around Facilities	54.4%	32.5%
Chemical/Biological/Radiological Detection Devices	19.8%	34.0%
Intrusion Detection Devices	42.1%	33.3%
Controlled Access to Facilities and Secure Areas	71.1%	23.7%

Source: American Public Transit Association, 2004

Such tradeoffs are demonstrated in a study by Thomas Sanquist<sup>(15)</sup>. In one set of analyses, Sanquist shows the level of utility (satisfaction) for different security measures for given levels of risk of loss. Similarly, he shows the variations in utility from security measures for different levels of intrusion. For example, he shows that canine units and radiation detectors can achieve high levels of utility for low levels of intrusion, whereas surveillance measures have a moderate level utility but a high level of intrusion.

Moreover, agencies face tradeoffs between security objectives and other important transit agency priorities such as maintaining system infrastructure in a state of good repair, managing growing ridership and enhancing customer service. Security-related tradeoffs and tradeoffs between competing transit needs are evidenced in a 2004 report published by American Public Transportation Association (APTA) which notes that the need for additional security measures has put intense pressure on the already tight transit agency budgets<sup>(13)</sup>.

## Customer Perception of Security

Studies on customers' perception of security are limited. Despite increasing concern about security in the post-9/11 era, not many studies have been conducted to investigate customers' perception of security. Among the few studies on security that included a survey of customers, some were conducted in the realm of aviation, while others focused on public transit passengers.

The only study that made a serious attempt to explore transit consumers' perception of security was completed by the FTA in 2001<sup>(16)</sup>. The results of this study were intended to provide input to FTA in addressing strategic security improvement goals and provide insights to transit agencies for improving customer and employee perceptions of security. A total of 25 transit agencies of various sizes from different regions of the country were surveyed. A total of 2,593 customers and 634 transit vehicle operators were interviewed. The brief survey consisted of questions pertaining to perception of security, perception of change in transit security, perception of security measures, perception of different types of security breaches, etc. Key findings from the study include:

- The overall perception of security was generally very high among customers. More than 45% of customers perceived their transit systems to be very secure and another 30% perceived their systems to be secure.
- Slight variations existed in consumer perception of transit across the geographic regions of the country. Perception of security was the highest in the Northeast and lowest in the Midwest.
- Consumer perception of security was lower for multi-modal systems and systems with more than 250 buses compared to smaller systems.
- Among security measures, security cameras and police patrols made customers feel the most secure (about 33% for each), followed by lighting (about 12%), intercom (about 9%) and other measures (about 13%).
- Customers felt most threatened by teenagers who they worried may harm them in some way. The crimes they worried about most were robbery and assault.
- Female passengers' perception of security was markedly lower than male passengers.
- Operators' perception of both in-vehicle and at-station security was distinctly lower than customers.
- About 35% of operators had observed security breaches, while only about 12% of customers observed such events.

One of the limitations of the FTA study is that the survey was conducted prior to the 9/11 terrorist attacks, when people's perception of transit security was quite different from today. Some of the study's findings, such as the Midwest having a lower perception of security than the Northeast, may no longer be valid in light of the 9/11 experience in New York and Washington DC.



A report prepared by Countermeasures Assessment and Security Experts, LLC, and others for the Transit Cooperative Research Program (TCRP) also provides some relevant insights regarding customers' perception of transit security<sup>(17)</sup>. The study notes that transit customers in metropolitan areas affected by the 9/11 terrorist attacks have a greater awareness of transit systems' vulnerabilities than customers from other parts of the country. The study also observes that customers in the affected metropolitan areas have a greater tolerance for security measures, including those that cause delays and inconveniences. One of the key observations of the study is that security sweeps and visible presence of officers increase passenger perception of security. Unfortunately, the study does not provide any insights on consumers' perception of other security measures.

The report also provides some indication about the security perceptions of transit managers and employees. Both groups consider transit buses to be the least vulnerable, followed by light rail systems. Commuter rail and subway systems are considered to be the most vulnerable of all transit modes because of the concentration of a large number of passengers in those systems, whereas light rail is considered vulnerable because they are generally open systems with no fixed entry points. Despite being governed by stronger security regulations than other transit modes, ferries are also considered highly vulnerable, and this perception of vulnerability is even higher when ferries are allowed to carry vehicles<sup>(17)</sup>.

Studies on perception of security are more common in the field of aviation, where security measures are more rigorous than public transit. In 2005, the Transportation Security Administration (TSA) conducted an air passenger survey at 25 airports across the country<sup>(18)</sup>. Survey questions inquired about seven aspects of the Federal security screening process. Survey respondents were asked about time taken for passenger screening, baggage screening, overall screening experience, thoroughness of screening, confidence in the TSA, and courtesy of screeners. Results showed a generally favorable perception of the screening process. Some questions asked in this survey are relevant to a survey of transit passengers also, but because of differences in the application of security measures in aviation and transit, they have only limited use for a transit passenger survey.

A survey conducted by the London Chamber of Commerce and Industry (2006) sought to examine business leaders' perceptions of airport security in the aftermath of the 2005 bombings of London's transit system<sup>(19)</sup>. Respondents were asked about their perception of potential terrorist attacks, support for existing and additional security measures, changing travel plans because of additional security, and adverse economic impacts of the security measures. Some of the questions in this survey are relevant to a survey of perceptions on transit security, especially if one is concerned about the negative perceptions of security, such as delay, inconvenience, and loss of privacy. The survey indicated that a vast majority of the respondents anticipated future terrorist attacks against transit and supported profiling of air passengers, but opposed a complete ban on hand luggage on flights.

## Public Awareness Campaigns

A review of agency practice revealed a variety of slogans and communication strategies used to raise customer awareness about transit security and the role customers play in helping to keep transit systems secure. The fundamental purpose behind security awareness campaigns is to encourage civilians to be vigilant and to report suspicious packages, persons, or activity to the proper authorities. The slogan most widely used by transit agencies appears to be "*If you See Something, Say Something*" or "*See Something, Say Something*." This phrase was introduced by the New York City Metropolitan Transportation Authority (MTA) in 1993 <sup>(20)</sup>.

MTA uses various media to communicate its message, including television and radio advertisements; posters placed in bus stations, rail stations and on rail cars buses; as well as newsprint ads and public address system announcements. Based upon the literature reviewed, most other transit agencies using this campaign slogan, have limited their outreach to bus/rail posters and public address system announcements as opposed to radio, television, or print campaigns. According to MTA, "...dozens of agencies in this country and around the world have asked permission to use it in their own anti-terrorism campaigns." <sup>(20)</sup> Examples of other entities/agencies using the slogan include: Amtrak, Port Authority of New York and New Jersey, Chicago Transit Authority (CTA), and Harris County Metro in Houston, TX.

The slogan is also used in the country of Australia, to promote security awareness broadly, not just with regard to transit system security. In Australia, the central government has made a concerted effort to increase security awareness in general. Along with using "*See Something, Say Something*" at the local level; the government launched the National Security Public Information Campaign. This initiative includes "...the distribution of a special booklet, written in thirty-one languages, to all households across the continent explaining terrorism in order to bring it up on the public agenda." <sup>(21)</sup> The campaign utilized television, radio, and prints ads over time in multiple phases. The first phase slogan, "*Lets Look Out for Australia*" was launched in December of 2002. This was followed by the second phase slogan, "*Every Piece of Information Helps*," in September of 2004. The latest slogan in use, during the third phase, is "*Every Detail Helps*." <sup>(22)</sup>

The Washington Metropolitan Area Transit Authority (WMATA) uses the slogans, "*Hey, Is That Your Bag?*" and "*See It, Say It*." WMATA instituted the "Hey, Is That Your Bag?" campaign after the Madrid transit system bombings in 2004. The primary media used by WMATA are posters and continuous announcements over the public address system. According to WMATA, the campaign resulted in a spike in suspicious package reporting and the transit police reported an increase in calls to its 441 emergency line in the first five months of the campaign. This was more than double the number of reports received the prior year during that same period <sup>(23)</sup>.

In a statement to United States Senate Committee on Homeland Security and Government Affairs, on 21 September 2005, then Metro Police Chief Polly Hanson stated that "WMATA has increased public announcements to our customers, stressing the need to be attentive to their surroundings. WMATA's recent public outreach efforts include campaigns known as, "See It,

Say It” and “Hey, Is that Your Bag?,” which was cited by former Department of Homeland Security (DHS) Under Secretary Hutchinson as an effective tool for raising passenger awareness and involvement in the transit environment.”<sup>(24)</sup>

The London Metropolitan Police use the slogan “*If You Suspect It, Report It*” as part of “...an aggressive campaign to more vigorously educate the citizenry about maintaining vigilance regarding suspicious activities or objects not only in public areas, but also in their neighborhoods.”<sup>(21)</sup> The slogan has spread throughout the country and is one of the primary slogans used as part of anti-terrorism public awareness initiatives throughout the United Kingdom.

King County Metro Transit, the transit provider in Seattle, WA uses the slogan “*Driven by Safety*” as an organizational tool encouraging general safety awareness among transit employees and customers. According to King County Metro officials: “A team approach reaches beyond police officers. ‘Driven by Safety’ is more than a slogan at Metro; it’s a way of life. All transit passengers and employees deserve a safe, secure, and dependable bus ride. That’s why safety begins with each and every one of Metro’s employees and extends out to the equipment, the facilities, and the services provided. Passengers also play an important role.”<sup>(25)</sup>

In addition to the above, other security-oriented campaigns are utilized at large multi-modal transit agencies such as the Los Angeles County MTA, Boston MBTA, and Philadelphia’s SEPTA. However, specific campaign slogans were not readily identifiable. These campaigns focus on public vigilance and some extend into issues of personal safety as well. They most often rely on pamphlets, handouts, posters and public address system announcements to communicate with customers.

## **Summary**

The literature describes the wide range of approaches and technologies used throughout the world to secure transit facilities and services. The particular strategies and technologies used at each agency vary and are shaped by a number of considerations, including the size of the agency, geographic location, agency perceptions of effectiveness, available funding, competing operational priorities, and concerns regarding intrusiveness and civil liberties. Further, the literature indicates that customer perceptions of security may be different from that of transit operators and that perceptions can vary by mode, among different demographic groups and different geographic regions. Finally, it is clear from the review that public awareness campaigns are a method frequently used by transit agencies to raise passenger awareness about transit security, to encourage them to remain alert and to report suspicious activity and objects to authorities if they encounter any.

## REVIEW OF NJ TRANSIT CUSTOMER COMPLAINT DATA

NJT provided the research team with three data sets on passenger complaints (one each for bus, rail and light rail) reported in FY2008. These data were reviewed and categorized by topic according to mode, location (e.g., in station/stop, in parking lot, on vehicle and around station/stop), and thirteen complaint types. The results of the customer complaint data analysis are presented in Tables 4, 5 and 6. Key observations include:

- Complaints about terrorism or related issues constituted a very small proportion (less than one percent) of passenger complaints for all modes. Examples included reports of suspicious or unattended items, objects or packages; suspicious persons taking photos of buses when stopped to pick-up and drop-off passengers; and person examining lock on platform equipment box.
- For rail transit, the most common complaints were about physical condition of stations, followed by complaints about accident/injury and conductor behavior, respectively. For buses, the most common complaints were about accident/injury, followed by complaints about driver behavior. Together these two types of complaint constituted more than 80% of all complaints from bus passengers.
- In terms of location, 48% of the rail complaints were about stations or incidents in stations, whereas 38% were about vehicles or incidents on vehicles. For light rail, a smaller proportion of complaints were about stations and a larger proportion about vehicles. Complaints about bus stops or incidents at bus stops were less prevalent than complaints pertaining to rail stations. However, a significant proportion of bus passengers reported complaints about areas surrounding bus stops. This type of complaint was not evident in the rail passenger data.

**Table 4. Complaints reported by bus passengers (FY2008)**

Type of Complaint/Incident	At Park-&Ride	On Bus	At Bus Stop or Terminal	Around Bus Stop or Terminal	Total	Percent of Total
Driver behavior	4	174	31	95	<b>321</b>	39.2%
Other employee behavior	0	0	7	1	<b>8</b>	1.0%
Other passengers' behavior	0	43	9	5	<b>57</b>	7.0%
Criminal activity	4	1	5	0	<b>10</b>	1.2%
Panhandling or homeless people	0	0	8	0	<b>8</b>	1.0%
Suspicious people	0	2	1	0	<b>3</b>	0.4%
Suspicious objects	0	1	0	0	<b>1</b>	0.1%
Vehicle issues	0	36	0	0	<b>36</b>	4.4%
Injury/accident	0	110	94	137	<b>341</b>	41.7%
Lack of policing	0	0	1	2	<b>3</b>	0.4%
Physical condition of station/stop	2	0	11	0	<b>13</b>	1.6%
Other	0	13	13	8	<b>34</b>	4.2%
<b>Total</b>	<b>10</b>	<b>380</b>	<b>180</b>	<b>248</b>	<b>818</b>	100.0%
Percent of Total	1.2%	46.5%	22.0%	30.3%	100.0%	

**Table 5. Complaints reported by regional rail passengers (FY2008)**

Type of Complaint/Incident	At Park-&-Ride	On Train	At or in Station	Around Station	Total	Percent of Total
Conductor behavior	0	77	14	9	<b>100</b>	16.4%
Other employee behavior	1	9	5	4	<b>19</b>	3.1%
Other passengers' behavior	1	35	29	6	<b>71</b>	11.6%
Criminal activity	6	13	18	7	<b>44</b>	7.2%
Panhandling or homeless people	0	0	33	1	<b>34</b>	5.6%
Suspicious people	0	6	3	0	<b>9</b>	1.5%
Suspicious objects	0	3	2	0	<b>5</b>	0.8%
Vehicle issues	0	35	5	1	<b>41</b>	6.7%
Injury/accident	1	46	62	8	<b>117</b>	19.2%
Lack of policing	0	2	13	4	<b>19</b>	3.1%
Lack of lighting	1	2	7	7	<b>17</b>	2.8%
Physical condition of station/stop	5	0	99	29	<b>134</b>	22.0%
Other	0	1	0	0	<b>0</b>	0.0%
<b>Total</b>	<b>15</b>	<b>229</b>	<b>290</b>	<b>76</b>	<b>610</b>	100.0%
Percent of Total	1.2%	46.5%	22.0%	30.3%	100.0%	

**Table 6. Complaints reported by light rail passengers (FY2008)**

Type of Complaint/Incident	At Park-&-Ride	On Train	At or in Station	Around Station	Total	Percent of Total
Conductor behavior	0	11	3	4	<b>18</b>	12.5%
Other employee behavior	0	4	5	0	<b>9</b>	6.3%
Other passengers' behavior	0	26	3	1	<b>30</b>	20.8%
Criminal activity	3	2	3	1	<b>9</b>	6.3%
Panhandling or homeless people	0	0	2	0	<b>2</b>	1.4%
Suspicious people	0	0	0	1	<b>1</b>	0.7%
Vehicle issues	0	6	0	0	<b>6</b>	4.2%
Injury/accident	1	16	5	4	<b>26</b>	18.1%
Lack of policing	0	6	8	9	<b>23</b>	16.0%
Physical condition of station/stop	0	0	12	8	<b>20</b>	13.9%
Other	0	0	0	0	<b>0</b>	0.0%
<b>Total</b>	<b>4</b>	<b>71</b>	<b>41</b>	<b>28</b>	<b>144</b>	100.0%
Percent of Total	2.8%	49.3%	28.5%	19.4%	100.0%	

## FOCUS GROUPS

The research team conducted two rounds of focus groups for this study. The first round of focus groups included three sessions conducted in November 2008. These sessions were designed to elicit input on customer perceptions of safety and security while using NJT facilities and services and their knowledge or awareness of various security measures. The second round of focus groups included two sessions conducted in November 2009 with the purpose of more explicitly exploring customer understanding of the role they play in ensuring transit security and their familiarity with public awareness campaigns related to transit security.

Focus group participants were recruited using printed fliers distributed at various rail stations and bus terminals. Approximately 14 passengers were recruited for each focus group, of which 8 to 12 were selected for participation based on gender, race and ethnicity. A topic guide approved by NJT was used by the focus group moderators at all sessions. Each session lasted approximately ninety minutes. All sessions were recorded on tape and transcribed. Table 7 identifies the dates and locations of each focus group.

**Table 7. Focus group dates and locations**

<b>Date</b>	<b>Location</b>	<b>Participants</b>
11/10/2008	Port Authority Bus Terminal, New York	Commuter bus passengers
11/11/2008	NJ TRANSIT Headquarters Newark, NJ	Local bus passengers
11/12/2008	NJ TRANSIT Headquarters Newark, NJ	Commuter train passengers
11/16/2009	Hoboken Terminal, Hoboken, NJ	Mixed mode
11/18/2009	NJ TRANSIT Headquarters Newark, NJ	Mixed mode

Marc Weiner, Associate Director of the Bloustein Center for Survey Research moderated the commuter bus and commuter rail passenger focus groups conducted in 2008 as well as the mixed mode session conducted on 11/18/2009. Jon Carnegie, Executive Director of the Voorhees Transportation Center, moderated the local bus rider focus group conducted in 2008 and the mixed mode session conducted on 11/16/2009. The following sections present a summary of the information gathered from the focus groups organized by topic area. Discussion on each topic area begins with a few general observations covering all the sessions, followed by a detailed discussion of key observations from each session.

### **General Safety and Security—Round 1 Focus Groups**

Overall, NJT passengers regardless of mode continue to feel a high level of anxiety related to their safety/security in the post 9/11 environment. Participants did not seem to identify a real, functional difference between the terms safety and security and instead noted that the two terms go “hand in hand.” Participants typically used the terms safe and secure interchangeably throughout the sessions. They generally acknowledged that safety was related to feelings of personal well-being while security referred more to external factors such as presence of police or good lighting, which helped to make them feel safe. As one participant reported, “Feeling

safe I think is a state of mind.” Notably, another participant opined that an individual can actually be secure but not feel safe.

Participant responses varied as to the types of public spaces in which they felt safe/secure. Most noted feeling unsafe in tunnels and other underground locations. Public spaces where they generally felt safe were airports and places of employment. When asked about their reaction to the possible use of rigorous security measures at NJT facilities (i.e., passenger screening similar to that used at airports) participants reported they felt such measures would cause unacceptable delays and frustration. Some questioned the feasibility of such measures at transit stations. In the rail commuter session, all but one participant noted that implementing airport-like screening at train stations would be too restrictive and cause too much delay.

### **Bus Commuters**

Public places where bus commuters felt least secure included public arenas, PATH and subway trains and train stations. Most noted feeling insecure when traveling in tunnels and being in underground locations. Types of public places where participants felt most safe included: airports, shopping malls and places of employment. Although not a public space, most noted feeling safest at their home or residence. Some indicated that since 9/11 they did not feel safe anywhere while others indicated feeling safe almost everywhere. When prompted to discuss their thoughts on safety and security, participants indicated that their physical space was an important factor in helping them to feel safe (e.g. being in open space vs. in a closed area such as a tunnel). Others indicated that the presence of law enforcement officials helped them feel safe. Additional security measures mentioned that contributed to feelings of safety included presence of security cameras and adequate lighting.

### **Local Bus Riders**

Local bus users did not report feeling safe in any particular public space. The majority noted feeling least safe/secure when traveling in tunnels and being in underground locations. Some indicated that they did not feel safe anywhere outside of their home or residence. As a reason for not feeling safe outside one’s home, they mentioned that violent events could occur “at random” in any place. Rudeness among passengers was mentioned as a significant safety concern. It was noted that rudeness led to confrontations, which in turn led to violence and unsafe conditions.

### **Regional Rail Riders**

Regional rail riders reported feeling the least secure in transit station parking lots, on the train and waiting on station platforms during evening hours. Types of public places participants reported feeling most safe included: places of employment, airports and the PATH stations. Again, most noted feeling safest at home. When asked to discuss their thoughts on safety and security, participants indicated that being in crowds and not being alone was as an important factor in helping them to feel safe. Some indicated that seeing law enforcement officers helped

them feel safe/secure, while others disagreed and noted that seeing too much police and/or security made them feel apprehensive. Additional security measures that contributed to feelings of safety included adequate lighting and being in a “good neighborhood.”

### **General Travel Experience–Round 1 Focus Groups**

With a few exceptions, participants in all three sessions generally commuted regularly by public transit and had done so for an extended period of time. Most bus riders indicated that they had been transit riders for several years, but the overall range was one year to 15 years. Most indicated they maintained the same transportation routine, with the earliest rider boarding the bus at 5:50 AM and the last rider boarding the bus at 10:30-11:30 PM. Some participants indicated taking rail as part of their commute. Most regional rail riders travelled from New Jersey to NYC on a regular basis. The remainder travelled locally within New Jersey. Most rail riders have been using transit for several years, but the overall range was 3 months to more than ten years. Most indicated that they maintained the same transportation routine, with the earliest rider boarding the train at 5:30 – 6:00 AM and the last rider boarding the train around 10 PM.

### **Transit Security Concerns and Measures Used by NJT–Round 1 Focus Groups**

The potential benefits of security cameras were debated in all three sessions. Some suggested that the cameras served as a deterrent to crime. Others noted that they only provided an illusion of security, since there is no certainty that the cameras are actually operational and constantly monitored. It was also speculated that the camera images might be grainy/poor quality. It was further noted that the information gathered via the cameras is only useful to law enforcement following a given emergency event, not during it. The rail commuter group was overall the most negative regarding the benefits from security cameras. However, most participants in all sessions voiced support for the security command center at the Port Authority station, which includes a variety of camera monitoring screens and other related devices. It was noted that this type of security center is beneficial because of its visibility to passengers.

Participants in all three sessions felt safe most of the time while using NJT facilities and services. A variety of factors affected their feeling of safety while using transit. Presence of police and adequate lighting were consistently cited as factors contributing to feelings of safety in all three sessions. Several participants in each session explained that too much police presence causes them anxiety, as they interpreted increased police presence as an indication of potential danger.

Only a few participants mentioned robbery as a concern. In fact, it was brought up as an issue only by the rail group. Most security concerns cited in all three sessions focused on bomb/terrorist attacks, vehicle accidents, and violence among passengers. Fear of persons appearing to be mentally unstable was mentioned in all three sessions.



NJT police (with and without K-9 units) and security cameras were cited by participants in all three sessions as the most frequently seen security measure. No participants reported being aware of radiation detectors at stations. Participants in all sessions had overall mixed opinions regarding the capability of bus drivers and/or train conductors to address emergency situations. Participants opined that these individuals are often burdened with multi-tasking while onboard and cannot devote enough attention to potential safety concerns.

Issues related to crowds were discussed to some extent in all sessions. Some felt that public transit has become more crowded in the past few years and this raises security concerns in terms of fellow passengers violating one another's space as well as impeding the ability to safely exit a vehicle in the event of an emergency. While the potential dangers of crowding were highlighted by some, others indicated that they felt more comfortable and safe in the presence of crowds, especially feeling more at ease when they see the same commuters on a regular basis.

### **Bus Commuters**

Most bus commuters reported feeling safe while using the NJT systems the majority of the time. Factors that affected their feelings of safety either onboard the bus or at terminals/stops included:

- Seat location on the bus (sitting near the front feels safer).
- Signage/directions on the bus regarding escape routes, etc.
- Bus operator's driving skills and attention to traffic (should not be multi-tasking).
- Presence of security cameras.
- Lack of NJ TRANSIT staff at the Port Authority bus terminal who can offer help or direction.
- Lack of better directional signage at the Port Authority bus terminal.
- Poor condition of Port Authority bus terminal elevators (dark, isolated).

With regard to perceptions of safety at the Port Authority bus terminal, one female participant reported feeling unsafe at the station in the evening because there are no NJT personnel to assist riders with questions/directions. She added that the bus schedules change in the late evening so it is very difficult to locate the bus loading location at the station. Another participant described the Boulevard East stop as safe. The Allwood Park-and-Ride was mentioned as not being well-lit on one side of the street, contributing to an atmosphere perceived to be unsafe.

When prompted to describe the types of security concerns they have while using NJT services, bus commuters cited the possibility of an on-board bomb or a non-terrorist mechanical explosion, vehicle accidents, the outbreak of a fight among passengers or between a passenger and the driver, and presence of persons appearing to be mentally unstable who

could accost fellow riders or the driver. Participants did not express concern about being robbed or mugged onboard or at stations.

When prompted to describe the security measures they remember seeing or being aware of, participants reported familiarity with uniformed police officers with and without K-9 units, bus attendants, random police searches, random searches with K-9 units, customer service staff, security cameras, and the security command center at Port Authority Bus Terminal. Most reported feeling about the same level of safety/security when riding transit in both the morning and evening hours, with a few indicating they felt more unsafe in the evening hours. A few participants also mentioned feeling less safe in the early morning hours.

With regard to bus drivers, several participants noted that the drivers seemed capable of addressing an emergency situation, while others expressed concern that many drivers would not know how to handle emergency events. It was also noted that driving a bus is a stressful activity and drivers often multi-task while driving, performing functions such as collecting tickets/fares and counting tickets. Participants suggested that these activities can potentially distract drivers and lead to accidents.

### **Local Bus Riders**

Most local bus riders reported feeling safe while using the NJT system the majority of the time. Factors that affect their feeling of safety either onboard the bus or at stops/terminals included:

- Presence of other riders (feels safer).
- Adequate lighting.
- General condition/maintenance/upkeep of the station (if the station is clean, participants feel more comfortable).
- Bus driver allowance for “courtesy stops” when a given stop appears dangerous.
- Police presence.
- Security cameras.

Local bus riders indicated presence of police, both in uniform and in plainclothes, were important elements of transit security. Some noted presence of security cameras as being important as well. One participant expressed concerns about the treatment of young riders by State Police at the Irvington bus terminal. She reported witnessing police harassing young riders. Other participants expressed concerns regarding the safety of the Market Street bus station. The Irvington terminal was cited as being well lit and safe due to the significant traffic and persons circulating at that location. Newark Penn Station was mentioned as safe because of the police and K-9 units often present.

When prompted to describe the security measures they remember seeing or being aware of, local bus riders reported regularly seeing uniformed police officers with and without K-9 units, military officers at some stations, and security cameras. When asked about radiation detectors,

participants indicated they had not seen them. One participant indicated that since 9/11 she always informs station police if she sees an unattended package. In discussing police presence, one participant reported that their presence decreases her feelings of security and raises her anxiety level. Another noted that she is concerned that military presence would intimidate her child and make him fearful of armed personnel. Another commented that she often sees military personnel “fraternizing” with one another and not seeming to paying attention, whereas uniformed police seem more “serious.”

Most participants reported feeling about the same level of safety when riding transit in both the morning and evening hours, although a few acknowledged feeling less safe in the evening hours. With regard to bus drivers, most acknowledged that drivers play a role in transit security (to an extent) and that they have the capability of using the police alert button on board the bus but that they do not seem to use it.

### **Regional Rail Riders**

Like bus commuters and local bus riders, most regional rail riders reported feeling safe while using the NJT system the majority of the time. Factors that affect their feeling of safety either onboard the train or at stations included:

- Presence of bags without obvious owners.
- Presence of conductors on board the train.
- Police presence.
- Presence of other commuters the participants see on a regular basis.

With regard to perceptions of safety and security, one participant expressed concern that sometimes there seems to be little police presence at Newark Penn Station and Elizabeth station. Another participant, however, mentioned that he regularly sees police at both the Trenton and Newark stations. Participants felt that there is too much police presence at certain stations and not enough at others.

When prompted to describe what concerns them most about security while riding NJT services, participants mentioned being mugged or robbed, risk of physical injury from a vehicle accident or from tripping on things left in an aisle, and the high speed of trains. All respondents felt safer onboard a train than at stations, the key reason being the presence of the conductor onboard. Concern at stations focused on lack of police presence, lack of adequate lighting, unavailability of ticket agents, presence of homeless individuals, and the lack of interior passenger waiting area with outside visibility. Many noted concerns about waiting on open train platforms.

When prompted to describe the security measures they remember seeing or being aware of, participants reported police officers, special lighting, security announcements (although some

complained that they were not loud enough or inaudible), signage/information (again, some complained there is not enough), and presence of conductors/other personnel. Participants had mixed opinions regarding conductors. Some indicated that they have witnessed conductors acting boldly to handle a crisis situation but others explained that conductors focused too much on collecting tickets/fares and did not pay enough attention to safety issues. Participants suggested conductors could be more proactive and circulate through the cars more frequently. One participant noted that if conductors could not meet the safety needs of passengers, then police should be on board to fulfill that role.

### **Personal Experience with Safety and Security Incidents–Round 1 Focus Groups**

Participants in all three sessions mentioned encountering hostile crowds, persons appearing to be mentally unstable and homeless individuals while using NJT facilities and services. These experiences caused passengers to feel unsafe. Most participants have never been approached by security personnel at a transit facility, although a few noted that they had been approached by officers for a random bag check or ticket confirmation.

Suggestions for how NJ TRANSIT can protect riders focused on addition of more police officers, improved lighting, improved signage, addition of more emergency call boxes, addition of more buses and bus lines to reduce overcrowding, increase in conductor/driver announcements when there is an unexpected delay, and improved visibility of security cameras. It was also suggested that having a distinct, well-publicized call number for passengers to report transit emergencies (such as 311) would be beneficial.

### **Bus Commuters:**

Encountering homeless persons or panhandlers, crowding and being pushed onboard or near the bus by other passengers were the most frequently mentioned perceived threats. When asked if they had ever been approached by security personnel, a few participants noted encountering police officers with guns at PATH stations. When asked about NJT security measures, participants noted that emergency call boxes were sometimes available in bus terminals. They suggested that NJT offer a specific phone number to call for transit-related emergency events, aside from the general emergency 911 number. None of the participants appeared to be aware of the existing NJT “TIPS” phone number, which is the number customers are supposed to call to report safety and security incidents.

When asked about specific ways in which NJT could protect riders, presence of additional uniformed police, more directional signage, greater visibility of security cameras, presence of an emergency call button near security cameras, inclusion of flashing lights on cameras to indicate the devices are operating, use of higher quality cameras, improved lighting at stations, use of a distinct phone number to call for transit emergencies, elimination of long bus queues at the Port Authority Bus Terminal during rush hour, and increasing the number of available buses to better meet passenger demand were mentioned.

## **Local Bus Riders**

Local bus riders mentioned crowding, fights, and mechanical problems with vehicles as perceived safety and security threats. When asked if they have ever been approached by security personnel or experienced a random check while riding transit or at a station, some noted that their bags had been checked at PATH stations and that transit operators checked light rail tickets. When asked for specific ways NJT could protect riders, participants mentioned better lighting, uniformed police on-board buses (especially on “dangerous” lines), driver radios, use of an emergency call button for passengers, a distinct NJT phone number for transit emergencies, signage alerting passengers what that number is, and a reduction in bus crowding. Participants also suggested that NJT vehicle operators could make more announcements to inform riders of the reasons for delays and emergency stops.

When asked what types of security measures they would like to see if their fares were increased, a participant responded that she would want to see more bus lines and increased police presence. Another participant noted that NJT should alter the current method of collecting fares on-board the bus so that riders would be compelled to buy tickets before boarding.

## **Regional Rail Riders**

Regional rail riders mentioned the following perceived threats: encountering crazy passengers, being robbed, explosive device hidden onboard, stabbing or shooting, and use of drugs/alcohol by fellow passengers while onboard. One participant suggested that NJT could restrict the number of open cars to a few so that all passengers are in close proximity to one another and to the conductor. However, some were of the opinion that closing some cars added to inconvenience in boarding. When asked for specific ways NJT could protect riders, participants mentioned armed police officers onboard trains (both uniformed and plainclothes), passenger screening (e.g. metal detectors), emergency call boxes on trains, more service staff available (e.g. ticket agents), well-lit waiting areas, and reduction in wait times before trains depart.

None of the participants reported having been approached by security personnel at a train station or while onboard for the purpose of a bag check or any other reason. Similarly, no one had experience reporting suspicious activity or objects to NJT police or personnel. When asked how NJT could protect riders, participants suggested the use of emergency call buttons on train cars. The three participants who typically commute to NYC were asked if their trains had ever stopped in the tunnel. They responded in the affirmative and explained that they were uncomfortable on the occasions when conductors did not announce why the stop had occurred.

## **Post-9/11 NJT Security—Round 1 Focus Groups**

Participants in all three sessions generally indicated they did not pay attention to government-declared threat levels (e.g. red, orange, yellow, blue and green) when deciding whether to use NJT services on any given day. Some noted paying attention to these threat levels only if they are flying. One participant observed that the threat levels were not publicized much anymore. A few expressed concern that as the events of 9/11 become more distant in memory, security will become more lax and people less alert to potential terrorist activity. Participants agreed that increased police presence was noticeable in the post 9/11 environment. When asked which security measures make them feel most safe, participants in all sessions cited police presence, both in uniform and plainclothes. Security cameras were also mentioned, although participants of each session debated the benefit of security cameras, with some indicating the presence of cameras increases their feeling of safety while using the transit system and others questioning whether cameras merely provide an illusion of security. When asked to identify what transit locations might be possible targets for a terrorist attack, responses included: bridges, crowded bus terminals and train platforms and iconic locations such as the Port Authority Bus Terminal, New York Penn Station and Madison Square Garden. Participants in all three groups expressed significant concern regarding trans-Hudson tunnels.

## **General Use of NJT Services—Round 2 Focus Groups**

As noted above, the Round 2 focus groups were conducted as mixed-mode sessions. All focus group participants were regular users of at least one of the three public transportation services offered by NJ TRANSIT—bus, light rail, commuter rail. Many utilized a combination of these services, and several indicated that they also used the bus and subway services offered by Port Authority Trans-Hudson (PATH) and Metropolitan Transportation Authority (MTA). All Round 2 focus group participants were New Jersey residents. Of the participants that chose to indicate the primary purpose for which they utilized NJT, all indicated that they used either the bus, light rail, or commuter rail for commuting to and from work. Most participants used NJT to commute to and from work in New Jersey, while a few commuted to New York City. All participants utilized NJT during peak morning and evening hours. Most participants had been using NJT for several years, with a range of less than one year to thirty-two years.

## **Security Concerns When Using NJT Services—Round 2 Focus Groups**

When asked to identify their security concerns when using NJT, all participants implicitly understood security concerns to mean threats to personal safety. A variety of security issues were discussed, and every participant was able to identify at least one security concern they had while using NJT services. Crime and misconduct - including fare evasion, vandalism, panhandling, pick-pocketing, theft, assault, and murder, as well as other anti-social behaviors - were overwhelmingly the most frequently identified concerns. Although seven participants cited terrorism as a concern, no one indicated that it was their most important concern while using NJT services and facilities. In fact, six participants believed that terrorism was not a security concern at all.

Crime was often cited as an explicitly more important concern than terrorism. As one participant stated: "I don't worry more so about terroristic international threat more so than an urban threat, like fellow passengers or just people walking the street, just regular civilian-type people, citizens. My threat is not from a foreign point, it's more like a domestic point for me."

The concern for domestic issues - here defined implicitly as everyday criminal and civil offenses, rather than domestic terrorism - resonated with many participants. Those participants that did not believe terrorism was a security concern tended to agree with the above quotation, often noting that crime would be a far likelier occurrence than terrorism. As another participant stated: "In the forefront of my mind or the commuter mind, not to speak for anyone else, a terrorist attack is not as much a focal point as it is that just like crime and assault and fellow passengers are a security concern, if those sorts of things aren't under control, you can infer that you also wouldn't be equipped for something such as a terrorist attack. If somebody can walk up behind me and shoot me, then they could just as easily drop a bag with a bomb in it next to me and the lack of cameras is going to be the same."

Some participants echoed the need for more surveillance. Nearly half of the participants stated that they had witnessed an increase in surveillance in the form of cameras and the presence of police officers while using NJT services, but a few believed more was required, particularly for dark or deserted stations and stops, as well as during early morning and late night travel. Some participants believed that stations needed to be redesigned in order to accommodate faster entry and exit for these same situations and times.

Although terrorism was not nearly discussed as often or for as long as crime and misconduct, more than half of the participants talked at length about their concerns about unattended packages. Unattended packages were a source of anxiety for most passengers, and there were eleven personal anecdotes about having encountered unattended packages. Some participants found the experience frightening, while others did not feel bothered by the experience. Some participants were fearful that they might encounter an unattended package in the future, and others were relieved that they had never encountered an unattended package.

The participants spoke more often and more enthusiastically about unattended packages than they had about terrorism, though no passenger spoke about any other concrete examples or instances of terrorist activity. The extent of participants' interest in this issue is perhaps as much a response to the ubiquitous image of the unattended package in NY/NJ security awareness campaigns as it is evidence of an actual security concern related to terrorism, given that the unattended package was the only identifiable example of terrorist activities.

Four participants believed that trains were likelier targets of terrorism than buses; no participants believed that buses were more vulnerable. Other security concerns included Swine Flu, fear that a bus driver or train conductor might become incapacitated, the proximity of trains to passengers waiting on platforms, and the presence of unauthorized personnel in secure areas. These concerns were mentioned briefly and in passing.

## **The Role NJT Customers Play in Transit Security—Round 2 Focus Groups**

All participants agreed that transit riders have a role to play in keeping NJT secure. Most riders believed this role was, in fact, a responsibility. This responsibility most often took the form of reporting suspicious activity to an appropriate person or organization, but participants were divided as to how to do so: reporting suspicious activity by phone, either by dialing 911 or 1-800-TIPS; reporting suspicious activity directly to a police officer; and reporting suspicious activity directly to a bus driver or train conductor were all mentioned.

Confusion with regards to how to report something was quite apparent, as participants were either unsure of what number to dial or what numbers even existed. Participants cited 911, 800-TIPS, and another 800 number as possible numbers to dial. Participants were also confused as to which person or organization they should contact. All participants reported having seen posters or heard public address announcements on trains or train platforms indicating that they should report suspicious activity. Participants were less likely to report seeing or hearing comparable messages on bus or at bus stops. Several participants stated that they felt uncomfortable reporting unattended packages, as the likelihood that a specific package would be dangerous seemed quite low. Some participants believed they had a responsibility to be aware, and a few specifically believed they should be observing passengers of Middle-Eastern descent. Participants also believed that they had a responsibility to intervene directly in a crime, particularly with regards to violent crime.

## **The Effectiveness Of Security Awareness Campaigns—Round 2 Focus Groups**

When questioned about their familiarity with a series of security awareness campaigns, participants were able to identify slogans from these campaigns. All participants had some degree of familiarity with the following slogans and their derivations: “See It, Say It”; “If you See Something, Say Something”; “Be Alert, Stay Aware”; and “Stay Alert, Be Aware, and Report Suspicious Activity.” Participants stated that they had seen “If you See Something, Say Something” on billboards in New York City, posters in Newark Penn Station and on PATH trains, and on news tickers on NJ TRANSIT buses, and had heard the slogan on radio station 1010 WINS. Participants had either seen or heard these phrases multiple times. Participants believed these slogans were effective because of their catchiness, familiarity and ubiquity. As one participant stated, “‘See Something, Say Something’ is ingrained in our culture.

Only one participant was able to identify the slogan, “Every Piece of Information Helps,” and believed it was from *America’s Most Wanted*. No participant was able to identify the slogans, “Hey, Is That Your Bag?” and “If You Can Report It, We Can Stop It.” These three slogans were seen as ineffective, largely because they were unfamiliar and wordy, and in the case of “Hey, Is That Your Bag?” potentially intrusive.

Participants were shown a series of preexisting and hypothetical posters from security awareness campaigns, and were then asked to indicate which posters they found effective or ineffective and why. Poster A (see Figure 1) was generally agreed to be effective because it was familiar and recognizable, and given that the poster depicts the New York City subway,



participants believed they could relate to its context. Participants noted, however, that the phone number referenced in the poster was in a font size too small to see from a distance.



Figure 1. Round 2 focus group poster “A”

Poster B (see Figure 2) was generally deemed ineffective for its wordiness, its saturated informational context, and its blatant appeal to patriotism. Responses to Poster C (see Figure 3) were mixed, as some participants believed its nuanced design made it catchy and memorable, while others considered it too abstract and confusing, and even silly. Poster D (see Figure 4) was generally identified as ineffective. Both the images of the bomb and the eyes were considered frightening, and the font size used for the phone number was too small, as well as too complicated. Two participants found Poster D effective, but these participants, in essence, agreed with those that did not find it effective, as its disturbing nature was cited as the primary reason for its effectiveness. Responses to Poster E (see Figure 5) were mixed, as participants found its imagery too humorous for its otherwise serious subject matter. Its similarity in imagery to the film *March of the Penguins* was also a concern, insofar as the poster might be confused for a film poster. Other participants found it appealing even if they found it ineffective, and one participant suggested it might be a useful poster for a children’s security awareness campaign. Responses to Poster F (see Figure 6) were also mixed, as the appeal to group responsibility made it effective for some participants, whereas other participants found the printed information and phone number too small.



Figure 2. Round 2 focus group poster "B"



Figure 3. Round 2 focus group poster "C"

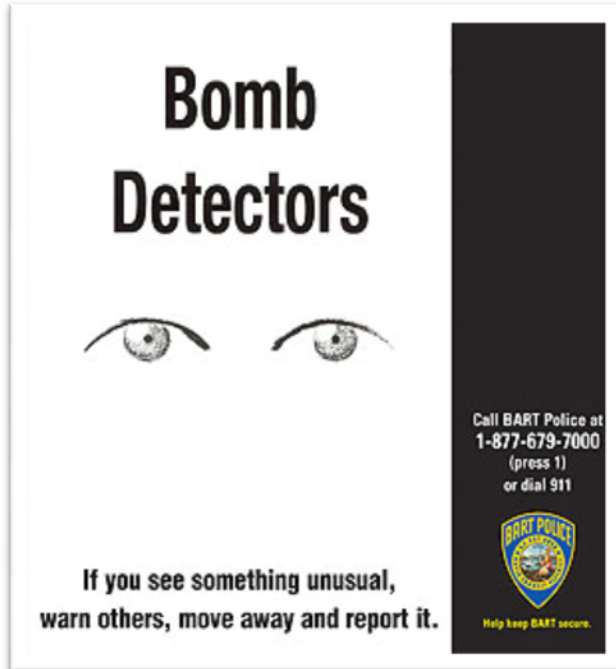


Figure 4. Round 2 focus group poster “D”



Figure 5. Round 2 focus group poster “E”



Figure 6. Round 2 focus group poster “F”

With regard to these posters and security awareness campaigns more generally, participants identified the elements of a campaign that they believed were effective and memorable. They cited the ubiquity of a slogan or image as integral to its success: seeing a phrase or photograph multiple times in multiple locations was identified as a key component of an effective campaign. As one participant stated, “Repetition is the key, it’s almost subliminal.” Participants also believed that slogans that were catchy and easy to remember were more likely to be effective. They also identified the visual imagery of a campaign as very important, and preferred images that were either contextually familiar, such as a subway car, or images that were arresting or even considered disturbing, such as unattended packages. Participants also preferred campaigns that listed information concisely and in large print.

When asked how campaigns might be improved, participants universally agreed that phone numbers needed to be printed in larger fonts. Participants also suggested that phone numbers needed to be easier to remember. They further suggested that slogans needed to be easier to remember, as well.

During the focus group session held in Newark on 18 November 2009, participants were shown a series of images of four packages and were asked to rank them on a scale of one to four, with one being the package the participants would be most likely to find suspicious and

subsequently report (See Figure 7). A majority of participants believed package one was the most suspicious because it was sealed and on an MTA subway car, implicitly underscoring the thread in the groups that trains are more vulnerable to terrorism than buses. Package two was identified by two participants as the most suspicious. The package, a box of chocolate on top of a suitcase, was deemed suspicious for its seeming harmless. Package three was listed by only one participant as the most suspicious. The participant cited the package's appearance in an airport as the primary reason for their selection. Other participants believed it was suspicious because of the presumed value of the items inside, as the package appeared to be from Tiffany & Co. Others believed it was not suspicious because the package was not sealed. Package four was identified by two participants as the most suspicious because it was sealed and in a train station.



**Figure 7. Round 2 focus group package images 1-4**

## **Accessing Transportation Information—Round 2 Focus Groups**

When asked where they access transportation information, focus group participants listed many sources. Several accessed information from television channels, including Channel 7, Channel 12, Channel 5, Channel 11, NBC 4, and Univision. Others received information from radio stations, including, Z100, 104.7, 1010 WINS, and WCBS 880. Some participants relied on newspapers, including *The Star-Ledger* and the *New York Post*. Several participants also reported using cited Yahoo, the NJT website, and the NJT phone service to access information. Some participants relied on television monitors and announcements at stations, while others generically cited, the Internet, online newspapers, and text message alerts. Two participants indicated that they did not use any source to access transportation information.

When asked to identify those sources from which they would prefer to be able to access transportation information, participants responded: the NJ TRANSIT website, NBC 4, 1010 WINS, 880, and Univision. Other participants indicated that they would like to receive information from the digital tickers on buses, announcements over the PA system, and from NJT staff directly on station platforms. Participants at the Hoboken focus group were asked to identify other websites they frequented for non-transportation information. The participants identified the following: Facebook, Weatherchannel.com, Yahoo, Google, MSN News, *The Washington Post* online, CNN, NJN, and Myspace. A few participants responded that they would like all of these sources to provide access to transportation information.

## **Participants' Reflections—Round 2 Focus Groups**

At the conclusion of both focus groups, participants were asked to write down the three most important issues discussed during the groups, or those issues that should have been discussed but were not. Many participants identified the main topics of the discussion as the most important issues. The most frequently identified issues and their derivations were: security, safety, campaign awareness, passenger safety, passenger awareness, the need for an increased police presence; and, security, "If You See It, Say It," and "Call 911." Other responses were more specific and nuanced. These included: call boxes at every bus and train stop; bus cameras to monitor passengers; a regular conversation between NJ TRANSIT and commuters regarding safety, security, and ridership; non-uniformed officers on trains and buses; better, more courteous drivers who speak English; more frequent reminders about what to look for and what to do in terms of security awareness; less paranoia about the risk of terrorism; and a suggestion that profiling should be allowed.

## **DISCUSSION AND CONCLUSIONS**

Like all other large transit agencies in the country, NJT faces a great challenge in protecting its passengers, personnel and facilities from ordinary forms of crime as well as terrorist threats. As the third largest transit agency in the country, it employs more than 11,000 workers, provides service to an area of 5,325 square miles and accounts for about 250 million passenger trips each year. It provides bus, rail and light rail service connecting various places of New Jersey, Philadelphia and New York, operates more than 2,000 buses on 236 bus routes, and serves 11 rail lines and 3 light rail lines with 711 trains and 45 light rail vehicles, respectively. The system consists of 162 rail stations, 60 light rail stations and 27 bus terminals, 17 bus maintenance facilities, 18 rail maintenance facilities, 666 rail bridges and 85 light rail bridges.

NJT currently employs a comprehensive program of security measures to secure the various components of its system. Measures include concrete barricades at key facilities, CCTV cameras, radiation detectors, K-9 patrol units, random search of passengers, training for front-line workers and public awareness campaigns. NJT also deploys its own police force, which consists of 220 sworn officers and 67 non-sworn security personnel. Created in 1983, the NJT Police Department is the only transit policing agency in the country with statewide authority. In terms of security, NJT states that the goal of its security program and its police department is to ensure a safe transit environment, promote the confidence of passengers, and enhance the maximum use of the transit system, at the same time upholding the rights of all people. The agency spends more than \$1.6 billion annually to operate its facilities and services, including significant expenditures on security.

The objectives of this study were to: 1) examine if NJT security measures provide customers with a sense of overall security/comfort when using the system; 2) identify which security measures appear to enhance customer perceptions of safety and what measures could further enhance customer perceptions of security; and 3) examine which elements of a transit security public awareness campaign might resonate most with NJT customers. It is clear from the complaint data analysis and focus groups that terrorism concerns appear to be of lower importance to customers than more general safety issues such as passenger misconduct, crime and the physical condition of NJT facilities, but that the two are closely related in the mind of NJT passengers. The focus groups also confirmed that, in general, NJT customers appear to feel safe while using NJT facilities and services. At the same time, customers remain anxious overall about security issues and the threat of terrorism. This was especially true for commuters who travel into and out of Manhattan on a regular basis.

The security measures that appear most effective in shaping customer perceptions of safety and security are presence of police personnel and the use of security cameras. Not coincidentally, these two measures were the most visible to both bus and rail customers. In addition, all of the individuals that participated in the second round of focus groups agreed that transit riders have a role to play in keeping NJT secure. Unfortunately there was significant confusion about what to look for as well as when and how to report suspicious activity or

objects. Round 2 focus group participants were universally familiar with the slogan “If you See Something, Say Something.”

With regard to transit security awareness campaigns more generally, Round 2 focus group participants suggested an effective campaign must include a ubiquitous slogan or image repeated over and over at multiple times in multiple locations. Participants also believed that slogans that were catchy and easy to remember were more likely to be effective as are campaigns containing memorable visual imagery. Finally, participants preferred campaigns that listed information such as telephone numbers concisely and in large print. When asked how campaigns might be improved, participants universally agreed that phone numbers needed to be printed in larger fonts and easier to remember.

Observations from the focus group conducted for this study provide insights into how NJT customers perceive transit security and how well they understand the role they play in transit security equation. The focus groups also shed light on which security measures are visible to customers and which measures apparently help to make them feel safe. Interestingly, the study also makes clear that NJT customers are also at least part of the time customers of other New York metropolitan area transit agencies. Many of the region’s key transit facilities including Newark Penn Station, New York Penn Station and the PATH stations and the Port Authority Bus Terminal integrate services operated by multiple agencies. As a result, the line between different agency efforts related to transit security appears to be blurred. This has had both positive and negative outcomes.

On the one hand, NJT customers seem to be well aware of expectations regarding the need to be aware of suspicious activity or objects. They are clearly familiar with the “See Something, Say Something” campaign used by MTA and the Port Authority even though NJT has never implemented a campaign of its own using this slogan. This is a benefit. On the other hand, there was significant confusion regarding how and when to report suspicious activity/objects, especially with regard to what phone number to call.

This finding in particular suggests that it would be beneficial for NJT to work closely with MTA, the Port Authority, AMTRAK and other transit providers operating in the metropolitan region to ensure security initiatives being undertaken by each agency at a minimum are coordinated with another. Further NJT should explore the potential for implementing joint public awareness campaigns with shared slogans, imagery and media strategies. Finally, cooperating agencies should consider creating a universal reporting procedure and phone number that can be used across geographic and institutional boundaries to eliminate unnecessary customer confusion regarding when and who to call to report security concerns.



## REFERENCES

- 1) <http://roperweb.ropercenter.uconn.edu/>
- 2) Federal Transit Administration. 2004. Transit Security Design Considerations. Washington, DC: Federal Transit Administration, US Department of Transportation.
- 3) Staes, Lisa, Amber Reep, and others. 2006. Identification of Cost-Effective Methods to Improve Security at Transit Operating/Maintenance Facilities and Passenger Stations. Federal Transit Administration. Washington, DC.
- 4) Federal Transit Administration. 2003. The Public Transportation System Security and Emergency Preparedness Planning Guide. Washington, DC.
- 5) Government Accounting Office. 2002. Mass Transit: Challenges in Securing Transit Systems. GAO-02-1075T. Washington, DC.  
[http://www.thefederationonline.org/events/2005\\_HFES/Sanquist.pdf](http://www.thefederationonline.org/events/2005_HFES/Sanquist.pdf)
- 6) Federal Transit Administration. 2006. Transit Agency Security And Emergency Management Protective Measures. Washington, DC.
- 7) National Transit Institute. 2002. System Security Awareness for Transit Employees. (Multimedia) Rutgers University, New Brunswick, NJ.
- 8) National Transit Institute. 2003. System Security Awareness for Transit Employees: Warning Signs. (Multimedia) Rutgers University, New Brunswick, NJ.
- 9) National Transit Institute. 2006. The Mark. (Multimedia) Rutgers University, New Brunswick, NJ.
- 10) Allan, Darin, and Joel Volinski. 2001. Cops, Cameras, and Enclosures: A Synthesis of the Effectiveness of Methods to Provide Enhanced Security for Bus Operators. National Center for Transit Research, Center for Urban Transportation Research. Tampa, FL.
- 11) Federal Transit Administration. 2007a. Security Cameras/Security Systems Fact Sheet: Transit Overview. Washington, DC: Federal Transit Administration. Washington, DC: US Department of Transportation
- 12) Transportation Research Board. 2007. K9 Units in Public Transportation: A Guide for Decision Makers. TCRP Report 86, volume 2.
- 13) American Public Transit Association. 2004. Survey of United States Transit System Security Needs and Funding Priorities: Summary of Findings. Washington, DC.
- 14) Government Accountability Office. 2007. Aviation Security: Risk, Experience, and Customer Concerns. Report to Congressional Requests. GAO-07-634. Washington, DC.

- 15) Sanquist, Thomas. Date unknown. The Human Element in Homeland Security Systems: Application Issues and Research Needs. PowerPoint Slides. Seattle: Pacific Northwest National Laboratory.
- 16) Federal Transit Administration. 2001. Security Perception Study. Washington, DC.
- 17) Countermeasures Assessment and Security Experts, LLC, and others. 2007. Public Transportation Passenger Security Inspections: A Guide for Policy Decision Makers. TCRP Report No. 86, Vol. 13).
- 18) Transportation Security Administration. March 3, 2005. Air Travelers Continue to Express High Confidence and Satisfaction in TSA Security and Customer Service. Press Release. [http://www.tsa.gov/press/releases/2005/press\\_release\\_0571.shtm](http://www.tsa.gov/press/releases/2005/press_release_0571.shtm)
- 19) London Chamber of Commerce and Industry. 2006. London Aviation Security Survey. London, UK.
- 20) New York Metropolitan Transportation Authority (NY MTA). Universal Resource Link as of July 15, 2009: <<http://www.mta.info/mta/security/index.html>>
- 21) Yael, Pries-Shimshi. "Creating a Citizenry Prepared for Terrorism: Education, Media, and Public Awareness." International Institute for Counter-Terrorism. January 6, 2009. Universal Resource Link as of July 15, 2009: <<http://www.ict.org.il/Articles/tabid/66/Articlsid/184/currentpage/13/Default.aspx>>
- 22) National Security Public Information Campaign. September 23, 2008. Australian Government, National Security. Universal Resource Link as of July 15, 2009: <[http://www.nationalsecurity.gov.au/agd/www/nationalsecurity.nsf/Page/Information\\_for\\_IndividualsNational\\_Security\\_Public\\_Information\\_Campaign](http://www.nationalsecurity.gov.au/agd/www/nationalsecurity.nsf/Page/Information_for_IndividualsNational_Security_Public_Information_Campaign)>
- 23) Freedman, Danny, Samantha Levine, Angie Marek. "Risk Analysis." Washington Post July 2004. Universal Resource Link as of July 15, 2009: <<http://www.washingtonpost.com/wp-srv/express/meg.pdf>>
- 24) Hanson, Polly. Statement of Polly Hanson Chief Metro Transit Police Department Washington Metropolitan Area Transit Authority. United States Senate Committee on Homeland Security and Government Affairs, Washington D.C. September 21, 2005. Universal Resource Link as of July 15, 2009: <<http://www.iwar.org.uk/homesec/resources/7-7/092105Hanson.pdf>>
- 25) King County Metro Transit. July 13, 2005. King County Department of Transportation, Metro Transit. Universal Resource Link as of July 15, 2009: <<http://transit.metrokc.gov/up/archives/2005/securityteam.html>>

**APPENDIX A – FOCUS GROUP TOPIC GUIDES**

**TOPIC GUIDE**  
**CUSTOMER PERCEPTIONS OF TRANSIT SECURITY FOCUS GROUPS**  
**ROUND 1 FOCUS GROUPS**  
**11/10/08**

**New Jersey Transit / Bloustein Center for Survey Research / Voorhees Transportation Center**

***[Total Project Runtime = 85 minutes against 90 to 105 allotted]***

**A. INTRODUCTION (10 minutes)**

1. Moderator introduces self and New Jersey Transit as sponsor of this evening's focus group, and, identifies VTC and BCSR as the research facilitators.
2. Explain what focus groups are for and how they work:
  - Groups have common denominators; focus closely on a topic.
  - We use of a "Topic Guide," but it's primarily an open discussion.
  - Observers/recording; only one person speaks at a time, and please start your comments by saying your name first.
  - Interested in everyone's opinion; no right or wrong answers.
3. Time Limit – we'll be done and you'll be on your way home by 8:30 or 8:45 pm. Incentives – you'll get the incentive when we're finished with the group, just as you leave.
4. Our purpose tonight: To find out, when people travel on New Jersey Transit, how they perceive things related to their safety and security. New Jersey Transit, with the help of VTC and BCSR, is designing a public information and opinion survey to study this issue, and this focus group will help us to understand the important questions to ask.
5. Self introductions: *Assistant moderator flips page on easel to show the following items pre-listed on the next page:*
  - Your first name?
  - Town you live in?
  - Your commute: where do you start and end your daily commute?
  - Your work: where do you work, and what's your occupation?

Moderator: To get to know each other a little, let's go around the room and share with each other this basic information. [INTRODUCTIONS ARE COMPLETED]. Now, please write your first name on the tent card in front of you. [ASSISTANT MODERATOR ASSURES ALL TENT CARDS ARE FACING OUT]

O.k., thanks. Now that we all know each other a little better, lets begin our discussion.

## **I. GENERAL SAFETY AND SECURITY (10 minutes)**

1. Let's talk about public places – malls, streets, stores, airports, parks, even where you work: Where do you generally feel the most safe and secure? Where you do feel the least safe and secure?
2. When you say you feel “safe,” what do you mean? How do you know you are “safe”? What do the words “safe” and “safety” mean?
3. How about the words “secure” and “security”? What do those words mean to you? How do you know when you are “secure”?
4. Now thinking about those definitions, in public places, what makes you feel safe and secure? And what makes you feel unsafe and insecure?

## **II. GENERAL TRAVEL EXPERIENCE (10 minutes)**

1. How long have you been using New Jersey Transit?
2. Which mode(s) of transit do you use?
3. How often do you use transit?
4. What time of day do you use transit? Daytime, evening, or both?

## **III. TRANSIT SAFETY AND SECURITY (20 minutes)**

1. Most of the time when you're using the New Jersey Transit System, do you feel safe?
2. How do you know when you are “safe”? By that I mean, what is it like for you to feel “safe” when using the New Jersey Transit System?
  - a. On a train or bus?
  - b. At a transit station?
2. What does the phrase “transit security” mean to you?
3. What security measures do you see when you ride New Jersey Transit?

*Assistant Moderator: As each security measure is mentioned, write on easel.*

4. What security concerns do you have when you ride New Jersey Transit?

*Moderator: If these specific issues do not come up, prompt them:*

*i. Robbery*

*ii. Assault*

*iii. Vehicle/System Accident*

*iv. Terrorist attack*

5. How about for the Northern New Jersey / New York City region in general? What security concerns do you have for this region?
6. When you are commuting or traveling, where do you feel most secure?

*Moderator: Do not prompt, but probe for physical locations:*

*i. trains*

*ii. buses*

*iii. train stations*

*iv. bus depots*

*v. airports*

#### **IV. SPECIFIC TRANSIT SAFETY AND SECURITY EXPERIENCES (15 minutes)**

1. Have you ever felt a particular threat while riding transit in New Jersey?
2. Have you ever been approached by security personnel at a transit facility?
3. As far as you know, does New Jersey Transit provide any ways to protect riders or provide ways for them to get help if needed? How about on buses / trains? How about at stations / terminals?
4. Are there any particular ways to protect riders that you would like to see, or see more of?

*Moderator: Do not prompt, but probe for:*

*i. Better lighting*

*ii. Emergency Call Phones / Call Buttons*

*iii. Police Presence*

*iv. Plain Clothes Police*

*v. Closed Circuit T.V. / Security Cameras*

*vi. Waiting Rooms*

*vii. Parking Lot Security*

*ix. Customer Service Staff*

*x. Conductors on Trains*

*xi. More security personnel*

*xii. Police dogs – K-9 units*

*xiii. Radiation detectors*

## **V. NJ TRANSIT SECURITY POST 9/11** (10 minutes)

1. *Just a few minutes ago, we listed a number of security measures that you see when you ride New Jersey Transit; they're written here on the easel.*
2. *Do you know how many of these measures changed over the last five years? By that, to the best you can recall, have you seen more of any of these over the last five years?*
3. *Which of all of these measures makes you feel the safest while using the transit system?*
4. *Which of the measures don't do anything to help you feel safe while using the transit system?*
5. *Do any of these measures make you feel less safe or more afraid?*
6. *Do you pay attention to government-declared threat levels (such as red, orange, and yellow)? Do those threat levels ever change the way you use New Jersey Transit?*
7. *Which transit places do you think are the most likely to be target for a terrorist attack?*

## **VI. GENERAL WRAP UP** (5 minutes)

1. Overall, now that we've been talking about it, let's ask again, when and where do you feel safe on the New Jersey Transit system? All of the time? Some of the time? Most of the time? When don't you feel safe? How about morning versus evening versus night? What about location: Are there some places you feel more safe than others? What are they are?
2. What security measures would you like to see, or see more of to help you feel safer when riding New Jersey Transit?
3. What do you think about using more rigorous security measures, like we see at airports – things like passenger screening and bag inspection? Is that a good idea? A bad idea?

## **VII. WRITTEN POST-SCRIPTS** (5 minutes)

*Assistant Moderator: Hand out one large index card to each participant.*

Finally, I'd like each of you to jot down up to three "bullet points" that tell us the most important things New Jersey Transit can do to improve your feeling of safety while riding the system. Just put down up to three points, thoughts, or ideas on these index cards.

## **VIII. ADJOURN FOCUS GROUPS**

Thank you for participating. Your help and input is extremely valuable to us. Now, please leave the index card at your seat, and move into the next room where we will distribute the incentives. Again, thank you for your help.

**TOPIC GUIDE**  
**CUSTOMER PERCEPTIONS OF TRANSIT SECURITY FOCUS GROUPS**  
**ROUND 2 FOCUS GROUPS**  
**11/16/2009**

**NJ TRANSIT / Bloustein Center for Survey Research / Voorhees Transportation Center**

***[Total Group Runtime = 90 minutes against 90 to 105 allotted]***

**I. INTRODUCTION (10 minutes)**

- a. Moderator introduces self and NJDOT/NJ TRANSIT as sponsor of this evening's focus group, and, identifies VTC and BCSR as the research facilitators.
- b. Explain what focus groups are for and how they work:
  - i. Groups have common denominators; focus closely on a topic.
  - ii. We use of a "Topic Guide," but it's primarily an open discussion.
  - iii. **Observers/recording; only one person speaks at a time, and please start your comments by saying your name first.**
  - iv. Interested in everyone's opinion; no right or wrong answers.
  - v. Please turn off or silence your cell-phones.
- c. Time Limit – we'll be done and you'll be on your way home by 7:30 or 7:45 pm.
  - i. Incentives – you'll receive the incentive when we're finished with the group, just as you leave.
- d. Our purpose tonight: NJ TRANSIT, with the help of VTC and BCSR, is designing an information and opinion survey to help put together a public awareness campaign about "transit security." This focus group will help us to understand the important questions to ask on that survey. Tonight we would like to have a conversation with you about transit security and what NJ TRANSIT customers perceive their role to be in helping to keep the transit system safe and secure. We will also talk about the type of messages that may be conveyed as part of the public awareness campaign and which methods of communicating the message may work best for NJ TRANSIT customers.
- e. Self introductions: *Assistant moderator flips page on easel to show the following items pre-listed on the next page*:
  - i. Your first name?
  - ii. Town you live in?
  - iii. Your commute: where do you start and end your daily commute?
  - iv. Your work: where do you work, and what's your occupation?



- v. Moderator: To get to know each other a little, let's go around the room and share with each other this basic information. [INTRODUCTIONS ARE COMPLETED]. Now, please write your first name on the tent card in front of you. [ASSISTANT MODERATOR ASSURES ALL TENT CARDS ARE FACING OUT]
- vi. O.k., thanks. Now that we all know each other a little better, lets begin our discussion.

## II. GENERAL TRAVEL EXPERIENCE (10 minutes)

- a. How long have you been using NJ TRANSIT?
- b. Which mode(s) of transit do you use?
- c. How often do you use transit?
- d. What time of day do you use transit? Daytime, evening, or both?

## III. TRANSIT SECURITY (15 minutes)

- a. What does the phrase "transit security" mean to you?
- b. What security concerns do you have when you ride NJ TRANSIT?

*Moderator: If these specific issues do not come up, prompt them:*

- i. *Robbery*
- ii. *Assault*
- iii. *Vehicle/System Accident*
- iv. *Terrorist attack*
- c. What security measures do you see when you ride New Jersey Transit?
- d. Which transit places do you think are the most likely to be a target for a terrorist attack?
- e. What role do NJ TRANSIT customers play in helping to keep the transit system safe and secure?

*Moderator: If these specific issues do not come up, prompt them:*

- i. *Staying alert and be aware of your surroundings*
- ii. *Keeping your personal items (hand bags, back packs, luggage, personal electronic equipment and laptops secure and close in proximity*
- iii. *Knowing where to go or what number to call if you need assistance or need to report something...**How many know where to call?***
- iv. *Reporting suspicious activity and unattended luggage*

- v. *Having an alternate travel plan if there is a problem on the system*
- vi. *Remaining calm in the event of an incident and listening to official instructions.*

#### IV. **SPECIFIC SECURITY SITUATIONS AND EXPERIENCES** (20 minutes)

- a. We are now going to discuss four situations and have a brief conversation about each. We may also show you a few images and have you react to them – 1) unattended bag, 2) suspicious package, 3) suspicious activity 4) suspicious behavior
  - i. When I say **<unattended bag...suspicious package...suspicious activity...suspicious behavior>** describe for me what you think about?
  - ii. Is this something you might report? Why or why not? How would you report it?
  - iii. If you said you would not report it, what would prevent you from doing so?
- b. Has anyone ever reported suspicious activity/behavior, unattended baggage or any other situation to NJ TRANSIT personnel or police?
  - i. If yes, tell us about that situation...what happened? What made you decide to report the situation? How did you report the situation? How did officials respond?
- c. What other situations do you think might prompt you to report something?
- d. How many of you think that you would never under any circumstances report something to NJ TRANSIT personnel or police? Why?

#### V. **FAMILIARITY WITH PAST AWARENESS CAMPAINGNS** (10 minutes)

- a. Now we'd like to talk for a while about awareness campaigns. New Jersey Transit uses awareness campaigns to communicate messages to its riders. Some of these deal with transit security. We'd like to know how familiar you are with any of these campaigns.
  - i. Examples: "mind the gap" "don't block the box" "55 saves lives" Don't drink and drive" "wash your hands often" "don't start what you can't stop (smoking)"
- b. Do you know of any past public awareness campaigns (transportation or not transportation related)?
  - i. Did it have a slogan or catch phrase? What was it?
  - ii. In what form did you see it? Poster? Announcement? Seat drop flyer?
  - iii. How frequently did you see it?
  - iv. Why was it memorable?

## VI. ELEMENTS OF AN AWARENESS CAMPAIGN (20 minutes)

- a. One important element of a public awareness campaign is the key message  
Please let me know your reaction – your thoughts and feelings – that you have to the following key messages (each slogan will be on a page on the flip chart):
  1. See Something, Say Something (NYC)
  2. Every piece of information helps (Australia)
  3. Every detail helps (Australia)
  4. See It, Say it (Australia)
  5. Hey, is that your bag? (Madrid)
  6. If you suspect it, report it (London)
  7. Only if you report it, can we stop it [fictional control slogan]
  8. If you report it, we can stop it [fictional control slogan]
  - ii. What do you think when you hear each of these slogans?
  - iii. Does the slogan resonate with you?
  - iv. Is the slogan too vague? Too specific?
- b. Another important element relates to the details of what we expect customers to do and how to report it...Get reactions to how much detail is too much detail, how we teach them what to look for etc...
  - i. What information would you like to know about transit security?
  - ii. Which of this information should be included in a campaign?
- c. Finally, how the message is communicated is important...Get reactions to different means of communication....Find if there is a threshold regarding how often the message should be communicated...Can too much make it lose effect...does the message need to change every once in a while to keep people's attention?
- d. Where do you go to get information about transportation?
  - i. What newspapers or magazine do you read?
  - ii. What radio stations do you listen to?
  - iii. What TV stations do you watch?
  - iv. What webpages do you view?
- e. Which one of the sources just listed would you most like to see information about transit security?

## VII. WRITTEN POST-SCRIPTS (5 minutes)

*Assistant Moderator: Hand out one large index card to each participant.*

Finally, I'd like each of you to jot down up to three "bullet points" that tell us the three most important things we discussed today or that we should have discussed but did not. Just put down up to three points, thoughts, or ideas on these index cards.

### **VIII. ADJOURN FOCUS GROUPS**

Thank you for participating. Your help and input is extremely valuable to us. Now, please leave the index card at your seat, and move into the next room where we will distribute the incentives. Again, thank you for your help.

## APPENDIX B – NJ TRANSIT COMPLAINT DATA SUMMARY TABLES

## **Summary of NJ TRANSIT Passenger Complaints on Safety and Security**

Oct. 1, 2008

NJ TRANSIT provided raw data on passenger complaints on safety- and security-related issues for FY08. The data were analyzed by VTC staff and summarized separately for three transit modes, namely, rail, light rail and bus. The complaints pertaining to each mode were categorized into 13 types and they were further classified by location: in station/stop, in parking lot, on vehicle, and around station/stop. Three of the accompanying tables provide a summary of the complaints by mode. Another set of tables provide examples of the recorded complaints.

Some of the key observations from the summary tables are follows.

1. Complaints about terrorism or related issues constitute a small proportion of passenger complaints for all modes. For example, the combined complaints about suspicious people, suspicious objects, lack of policing, and lack of lighting constitute only 8.2% of all rail complaints and 0.9% of all bus complaints. The proportion is relatively high at 16.7% for light rail, and that is due a relatively large number of complaints about lack of policing.
2. For rail transit, the most common complaints seem to be about physical condition of stations, followed by complaints about accident/injury and conductor behavior, respectively.
3. For light rail, the most common complaints are about other passengers' behavior, followed by physical condition of stations and lack of policing, respectively.
4. For buses, the most common complaints are about accident/injury, followed by complaints about driver behavior. These two types of complaints together constitute more than 80% of all complaints from bus passengers.
5. In terms of location, 47.5% of the rail complaints are about stations or incidents in stations, whereas 37.5% are about vehicles or incidents on vehicles. For light rail, a relatively smaller proportion of complaints are about stations and a larger proportion are about vehicles. Complaints about bus stops or incidents in bus stops constitute a smaller proportion than complaints pertaining to rail stations or light rail stations, but a significantly large proportion of bus passenger complaints are about areas surrounding bus stops.
6. A substantial proportion of the complaints are about NJ TRANSIT staff (conductor or bus operator) for all three modes of transit.
7. Overall, the passenger complaints for the three modes do not show a high level of concern about lack of protection against terrorism or potential terrorist acts. Instead they show traditional types of concerns about personal safety.

## Rail Complaints

Type of Incident	Location				Total	Percent of Total
	In Parking Lot	On Train	In Station	Around Station		
Complaint about conductor behavior	0	77	14	9	100	16.4%
Complaint about other officials' behavior	1	9	5	4	19	3.1%
Complaint about other passengers' behavior	1	35	29	6	71	11.6%
Complaint about criminal activity	6	13	18	7	44	7.2%
Complaint about panhandling or homeless people	0	0	33	1	34	5.6%
Complaint about suspicious people	0	6	3	0	9	1.5%
Complaint about suspicious objects	0	3	2	0	5	0.8%
Complaint about vehicle issues	0	35	5	1	41	6.7%
Complaint about injury/accident	1	46	62	8	117	19.2%
Complaint about lack of policing	0	2	13	4	19	3.1%
Complaint about lack of lighting	1	2	7	7	17	2.8%
Complaint about physical condition of station/stops	5	0	99	29	134	22.0%
Other Issues	0	1	0	0	0	0.0%
<b>Total</b>	<b>15</b>	<b>229</b>	<b>290</b>	<b>76</b>	<b>610</b>	<b>100.0%</b>
Percent of Total	2.5%	37.5%	47.5%	12.5%	100.0%	

## Light Rail Complaints

Type of Incident	In Parking Lot	On Train	In Station	Around Station	Total	Percent of Total
Complaint about conductor behavior	0	11	3	4	18	12.5%
Complaint about other officials' behavior	0	4	5	0	9	6.3%
Complaint about other passengers' behavior	0	26	3	1	30	20.8%
Complaint about criminal activity	3	2	3	1	9	6.3%
Complaint about panhandling or homeless people	0	0	2	0	2	1.4%
Complaint about suspicious people	0	0	0	1	1	0.7%
Complaint about vehicle issues	0	6	0	0	6	4.2%
Complaint about injury/accident	1	16	5	4	26	18.1%
Complaint about lack of policing	0	6	8	9	23	16.0%
Complaint about physical condition of station/stops	0	0	12	8	20	13.9%
Other Issues	0	0	0	0	0	0.0%
<b>Total</b>	<b>4</b>	<b>71</b>	<b>41</b>	<b>28</b>	<b>144</b>	<b>100.0%</b>
Percent of Total	2.8%	49.3%	28.5%	19.4%	100.0%	



## Bus Complaints

Type of Incident	In Park-and-Ride	On Bus	At Bus Stop or Terminal	Around Bus Stop or Terminal	Total	Percent of Total
Complaint about driver behavior	4	174	31	95	321	39.2%
Complaint about other officials' behavior	0	0	7	1	8	1.0%
Complaint about other passengers' behavior	0	43	9	5	57	7.0%
Complaint about criminal activity	4	1	5	0	10	1.2%
Complaint about panhandling or homeless people	0	0	8	0	8	1.0%
Complaint about suspicious people	0	2	1	0	3	0.4%
Complaint about suspicious objects	0	1	0	0	1	0.1%
Complaint about vehicle issues	0	36	0	0	36	4.4%
Complaint about injury/accident	0	110	94	137	341	41.7%
Complaint about lack of policing	0	0	1	2	3	0.4%
Complaint about physical condition of station/stop	2	0	11	0	13	1.6%
Administrative issue	0	13	13	8	34	4.2%
<b>Total</b>	<b>10</b>	<b>380</b>	<b>180</b>	<b>248</b>	<b>818</b>	<b>100.0%</b>
Percent of Total	1.2%	46.5%	22.0%	30.3%	100.0%	

## Examples of Rail Complaints

Type of Incident	In Parking Lot	On Train	In Station	Around Station
Complaint about conductor behavior		Conductor acting in rude manner; yelling at customers	Conductor not waiting for people, purposely closing doors so that passengers cannot enter	Horns are being blown excessively and residents are disrupted
Complaint about other officials' behavior	Blocking crosswalk when parking	Officials not treating passengers appropriately	Police activity causing delay, passenger being followed by official	appropriately and therefore did not look like an employee, unfair issuing of ticket
Complaint about other passengers' behavior	Cars speeding in parking lot	Passengers swearing, talking loud, and acting aggressively	Crowding by other passengers	People trespassing and dangerously crossing tracks
Complaint about criminal activity	Car vandalized	Assault, robbery	Theft	Theft
Complaint about panhandling or homeless people			Homeless person making passengers feel uncomfortable	Homeless person making passengers feel uncomfortable
Complaint about suspicious people		Officials need to step up and make passengers feel safer when suspicious behavior is present	Suspicious people disregarding rules, acting strangely	
Complaint about suspicious objects		Passengers upset because of unattended items left on train	Passenger uneasy about unattended object	
Complaint about vehicle issues		Trains with broken components, doors open when train moving	Hazards that pose potential threats to safety, such as problems with doors, spills, etc.	No lights or rail crossing bars present
Complaint about injury/accident	Need for traffic regulation	Train doors causing passengers harm	Passengers slipping and falling on steps	Issues with rail crossing bars hitting cars
Complaint about lack of policing		Need for crowd control	Need stronger police presence	Need stronger police presence
Complaint about lack of lighting	Lights out and not being fixed	Lack of lighting on train	Need light timers to be reset and need lights for better safety	Need better lighting for safer conditions
Complaint about physical condition of station/stops	Need for better ice/snow removal		Dirty, unkempt conditions	Problem regarding the gates at stops
Other Issues		Provide car with lower lights for sleeping		

## Examples of Light Rail Complaints

Type of Incident	In Parking Lot	On Train	In Station	Around Station
Complaint about conductor behavior		Driver left too quickly separating family, driver using cell phone	Driver honking horn, driver taking off despite passengers running to try to get on	Drivers need to drive more cautiously
Complaint about other officials' behavior		Person concerned about fare enforcement officer's dog on platform	Officer not answering question, being rude	
Complaint about other passengers' behavior		Passengers using profanity, talking loudly on phones, obnoxious girls making fun of people	Unsolicited person walking around station, use of profanity	Passenger selling unexpired validated tickets to others
Complaint about criminal activity	Vandalization of car	Drug activity, robbery	Prostitution, stolen property	Mugging
Complaint about panhandling or homeless people			Aggressive begging for money	
Complaint about suspicious people				Person looking suspiciously at lock on silver box behind platform
Complaint about vehicle issues		Smell of diesel fumes		
Complaint about injury/accident	Motorcycle hits passenger	Vehicle hit train, train door closing on people, train derailed and no assistance	People getting hurt on escalator and elevator	Person tripping, car hit light rail
Complaint about lack of policing		Need for more officers, person almost got attacked	Needs constant policing/need better security	Need policeman to cross people
Complaint about physical condition of station/stops			Lights not working on elevators, barricades	Need to check traffic signals at intersections, lack of security, broken fence, problem with traffic lights and driver confusion
Other issues				Confusion over who has right of way after exiting light rail

## Examples of Bus Complaints

Type of Incident	In Park-and-Ride	On Bus	At Bus Stop or Terminal	Around Bus Stop or Terminal
Complaint about driver behavior	Driver blowing horn inappropriately, driver not respecting signs	Bus driver acting rude	Bus driver not caring about people getting hurt when getting off bus, male driver using women's restroom	Driver stopping to pick up passengers in unsafe location, driver driving too fast
Complaint about other officials' behavior			Official refusing to act in dangerous situation, inappropriate behavior by officials	Police inaccurately accused car driver
Complaint about other passengers' behavior		Passengers playing music too loud, too loud on cell phone	Pushing and shoving in line	Passengers loitering in front of person's home
Complaint about criminal activity	Vandalized car, car broken into	Passenger got robbed	Illegal drug activity, attempt to steal passenger's bike	
Complaint about panhandling or homeless people			Homeless people causing disturbances and making people uncomfortable	
Complaint about suspicious people		Suspicious person making passenger feel uncomfortable	Suspicious people taking pictures of bus picking up passengers	
Complaint about suspicious objects		Suspicious box in overhead rack		
Complaint about vehicle issues		Problem with hand rail, shocks, bus smoking		
Complaint about injury/accident		Operator causing accidents by pulling off before people are seated	People getting hurt while getting off bus at the stops	Bus hit vehicle
Complaint about lack of policing			Need policing for relocated bus stop	Need officer to direct traffic
Complaint about physical condition of station/stops	Need turn arrows		No waiting area, no benches at gate	
Other Issues		Not enough space on bus for all passengers	Issue regarding claims department	Making of fake bus passes