



Terrorism and Transit Security:

12 Recommendations for Progress

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HOMELAND SECURITY

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*(CNN) -- U.S. mass transit systems were put on higher alert after Thursday's bombings in London, with officials in major cities urging Americans to go about their business but be on the lookout for anything suspicious... New York Police Commissioner Ray Kelly told CNN his officers were "doing everything that's prudent, everything that we reasonably can do to protect the city." But he said it was impossible to put a police officer "on every train all the time, or one on every station all the time."*¹

TERRORISM AND TRANSIT SECURITY

Public transit systems around the world have for decades served as a principal venue for terrorist acts. While the most significant of these attacks – such as the sarin attack in Tokyo or the bombing of the Paris Metro – garnered worldwide public attention during the 1990s, popular and political response in the U.S. was generally muted. Whatever the reasons for this indifference among many elected officials, it was not justified.

During the mid-1990s, four separate acts of terrorism and extreme violence on U.S. transit and rail systems killed 14 and injured more than 1,000. While police and intelligence officials who oversee transit properties grew much more vigilant and vocal in the late-1990s in calling for increased attention to the vulnerability of public transit systems to terrorist acts, the issue still had not caught the attention of most transit passengers, voters, the media, or elected officials.

This all changed, of course, on September 11th, 2001. While the focus of the 9/11 attacks was on a different part of the transportation system, the effects on the affected public transit systems were dramatic and, in the case of New York, long-lasting. Concern over the vulnerability of open, accessible public transit systems and their passengers has been heightened further by the more recent, deadly March 11th, 2004 attacks on commuter rail trains in Madrid, Spain and the July 7th and July 21st, 2005 attacks on the London Underground and bus systems. Because of extensive international news coverage and elevated public concern over the London attacks in particular, transit security in the U.S. is now widely viewed as an important public policy issue.

The question is whether the attention and subsequent fear generated by these attacks will motivate policymakers into action. Indeed, one of the more sobering lessons from the research conducted as background to this paper is that significant system- or industry-wide changes in security planning have often required either prolonged exposure to smaller-scale attacks (such as those perpetrated by the IRA against transit systems in greater London) or a mass casualty event (such as in Tokyo, Madrid, or most recently London). Absent such events, warnings by vigilant police and intelligence officials have too often gone unheeded by many elected officials.

Given rising concern over transit terrorism in the U.S., I offer here a dozen observations on transit security, drawing largely on an upcoming report I recently co-authored with seven colleagues at UCLA, UC Berkeley, and San Jose State University for the Mineta Transportation Institute in San Jose and the UCLA International Institute in Los Angeles.

A DOZEN OBSERVATIONS TO GUIDE BETTER TRANSIT SECURITY

Public transit systems are open, dynamic, and inherently vulnerable to terrorist attacks; they simply cannot be closed and secured like other parts of the transportation system.

Public transit systems are a central part of urban life. They assemble strangers from diverse economic, social, ethnic and religious backgrounds and convey them through a wide array of neighborhoods and districts. They are, by definition, open, dynamic systems that cannot be closed and regulated like the air transport system. Such sentiments were expressed repeatedly by the hundreds of people interviewed and surveyed in our study.

The public transit industry is vulnerable to security policies or programs that reduce the speed, comfort, or convenience of transit, or may benefit significantly from policies that increase the attractiveness of transit.

Despite significant public investments over the past three decades, public transit systems around the U.S. continue to lose market share to private vehicles. Many transit systems have made important strides in increasing the comfort, safety, and convenience of using transit, but matching the speed and flexibility of private autos remains a tall order. Transit security policies and programs that increase the hassle of or delays in riding buses and trains may significantly undermine an already vulnerable and distressed industry. If, on the other hand, security policies and programs can be implemented to improve both safety and security on public transit without increasing the perceived burden of using transit, the collateral benefits of security efforts may be significant and long-lasting.

The threat of transit terrorism is probably not universal; most attacks in the developed world have been on the largest systems in the largest cities.

The deadliest and most politically influential terrorist attacks on transit have occurred on the largest transit systems in the most politically and economically powerful world cities, such as London, Madrid, Moscow, New York, Paris, and Tokyo. This suggests that efforts to combat transit terrorism should be focused on cities and transit systems where the likelihood and potential effects of terrorism are greatest. This observed asymmetry of risk likely reflects both the symbolic importance of particular world cities, and the fact that transit use tends to be concentrated in the largest and most densely developed metropolitan areas.

This asymmetry of risk is at odds with a political system of public finance that favors distributing funding somewhat equally across jurisdictions.

There is a strong tendency in the public finance of transportation, and indeed in most realms of public finance, to distribute funding widely among political districts and jurisdictions. This helps to explain why federal per rider subsidies tend to be far higher in places like Chapel Hill, North Carolina than in places like New York City. This natural tendency to spread money out evenly does not square with the asymmetry of transit systems' risk of terrorist attack, and may undermine the effectiveness of federal and state transit security policies and programs.

Many transit managers struggle to balance the costs and (uncertain) benefits of increased security against the costs and (certain) benefits of attracting passengers.

Transit managers are in the business of attracting and conveying paying customers. They endeavor to provide safe, fast, and reliable service at a reasonable price, but transit systems worldwide have struggled in a losing, century-long battle with private vehicles for market share in urban travel – especially in most U.S. cities. Thus, from the perspective of transit system planners and managers, safety and security are important, albeit intermediate, means to the end goal of carrying passengers. Thus, federal leadership is required to motivate and support security preparedness programs.

Given the varying roles and mandates of agencies of the central government (ministries, federal agencies, etc.), intelligence services, police agencies, and transit operators on matters of security, close coordination and cooperation are critical to effective transit security planning.

There is a need for a multi-layered and multi-pronged system of security in which various agencies play very different roles. Many transit officials with whom we spoke suggested that inter-agency cooperation is common to the industry, which bodes well for increased coordination with police and security agencies in the years ahead. As one U.S. industry representative from the American Public Transportation Association put it:

The transit industry, because it's public, is very mutually supportive. Transit agencies aren't in competition with each other. In fact, we have a long history of aiding one another with training programs. Even if you've hired a consultant to help you with a program, we've seen people really sharing that program or that information.

An important benefit of improved coordination is standardization of emergency training, security audits, and disaster preparedness procedures, and the issuance of common guidelines about security.

While the airline industry has adopted common international security standards and procedures, many other modes – and in particular public transit – have not done so. For example, several of our European interviewees noted that while many EU member countries have developed highly integrated international passenger rail service, similarly integrated systems of rail security have been slow in coming. Many respondents from U.S. transit agencies surveyed noted that, under the guidance of the federal government, standardized security plans and training programs were gradually being integrated into already-established emergency response training programs traditionally aimed at responding to personal/property crime and smaller-scale emergencies.

Despite significant progress in increasing coordination between transit and police/intelligence agencies, however, much work remains.

Despite significant and ongoing efforts to improve the coordination and cooperation between the many, largely independent transit agencies operating in large U.S. metropolitan areas, seamless integration of routes, schedules, and fares have long proven elusive. Given the widely divergent goals and objectives of public transit and police/intelligence agencies, the challenges to increased coordination and cooperation are even greater, most significantly ambiguity and uncertainty over lines of authority and responsibility. Put simply, it's not always clear who is responsible for what.

Passenger education and outreach is a challenge; informed passengers can increase surveillance and safety, fearful passengers may stop using public transit.

While most officials surveyed and interviewed agreed that public education and outreach had become an important part of transit security planning, respondents were in general more ambivalent about education and outreach than about policing, technologies, or crime prevention through environmental design. In particular, many cited the challenge of raising awareness without raising fear. One of the officials we interviewed in Madrid said that their goal following the March 11th, 2004 attacks was to augment feelings of security and diminish feelings of insecurity: “The methods we chose and implemented after the March attack were not so much about combating terrorism; rather they were used to help riders recover a feeling of security.”

The role of crime prevention through environmental design in security planning is waxing.

Most of the survey and interview respondents in our study were familiar with the concept of crime prevention through environmental design (CPTED), and most viewed CPTED – which considers how the physical design of spaces can affect both the likelihood and impact of criminal or terrorist activity – as an important longer-term strategy to address both crime and terrorism on transit systems. According to the respondents to our survey, CPTED was given much less weight in security planning prior to 9/11. Since 9/11, however, over 80 percent of the respondents now believe that CPTED is a somewhat or very effective strategy in preventing terrorist attacks. This ranking of effectiveness is similar to both policing and security hardware and technology strategies, and well ahead of public education and outreach.

Since 9/11, transit agencies are more likely to adopt comprehensive, multi-pronged approaches to security planning than in years past.

The survey and interviews conducted for our study focused in detail on four types of security strategies – policing, technology, education and outreach, and crime prevention through environmental design. We found that attention to all of these strategies has increased since 9/11, and over half of the respondents now view all four strategies as central or significant parts of security planning efforts. This broad support for all four security strategies reflects a consensus regarding the need for comprehensive, multi-pronged approach to transit security planning.

Given the uncertain effectiveness of anti-transit terrorism efforts, the most tangible benefits of increased attention to and spending on transit security may be a reduction in transit-related person and property crimes.

Terrorist attacks on transit systems in the U.S. and abroad have increased in recent years in both frequency and severity. Likewise, public and political concern over the issue has skyrocketed since 9/11. The fact remains, however, that transit patrons remain far more likely to be victimized by personal crime than a terrorist act. According to Federal Transit Administration data, more than 1,100 people have been killed on/by public transit, and more than 75,000 have been injured on/by transit in the U.S. since September 11th, 2001. Further, studies have repeatedly shown that fear of crime is a significant deterrent to transit use for many people. So while political attention and public resources are currently focused on transit terrorism, reductions of personal and property crimes on public transit system could prove the largest single benefit of safer, more secure public transit systems.

THE NEXT STEPS

Our interviews with and surveys of transit officials in the U.S. and around the world collectively paint a picture of an industry struggling to integrate new responsibilities for increased security with goals of conveying large numbers of people as quickly and seamlessly as possible. While coordinated security planning has increased significantly in recent years, this remains a largely atomized industry, where service and fare policies are for the most part set autonomously by local governing boards. While such organizational models can give transit managers the flexibility to customize services to fit local transportation needs, they may not be congruent with national and international planning and a coordinated response to global terrorist threats.

As such, federal leadership and funding of aggressive new programs, and effective coordination with state, local and private sector transit stakeholders, are vital to reducing the likelihood of terrorist attacks on transit systems, and mitigating the effects of attacks that do occur. While the daily conveyance of passengers in metropolitan areas may be matters of largely local concern and responsibility, protecting these passengers from international terrorist attacks clearly is a federal mandate.

Public transit systems have for decades been the single most common venue for terrorist attacks worldwide. This suggests that, in the years ahead, the global war on terror could be waged on America's buses, subways and streetcars. And wars, as we know, are declared, fought and financed by national governments.

ABOUT THE AUTHOR

Brian D. Taylor is an Associate Professor and Vice-Chair of Urban Planning and Director of the Institute of Transportation Studies at UCLA. His research centers on both transportation finance and travel demographics. He has examined the politics of transportation finance, including the influence of finance on the development of metropolitan freeway systems and the effect of public transit subsidy programs on both system performance and social equity. His research on the demographics of travel behavior has emphasized access-deprived populations, including women, racial-ethnic minorities, the disabled, and the poor. His work in this area has also explored the relationships between transportation and urban form, with a focus on commuting and employment access for low-wage workers. Most recently his research has examined (1) technological and political obstacles to pricing roads and public transit systems, and (2) the factors explaining changes in transit ridership on public transit systems, including the deployment of rapid bus service in congested suburban settings, and transit system design for increased security. At UCLA Professor Taylor teaches courses in transportation policy and planning and research design. Prior to coming to UCLA in 1994, he was a faculty member in the Department of City and Regional Planning at the University of North Carolina at Chapel Hill, and before that a Transportation Analyst with the Metropolitan Transportation Commission in Oakland, California.

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ENDNOTES

¹ (<http://www.cnn.com/2005/US/07/07/us.response/>; Posted: Thursday, July 7, 2005, 11:41 pm EDT (03:41 GMT))

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