

CHAPTER 2

INTRODUCTION

2.1 BACKGROUND

As a result of the increasing frequency and severity of terrorist acts around the world (e.g., Israel, Egypt, India, Japan, Algeria, and Russia), acts in the United States, and acts committed abroad against the United States, both the U.S. government and the general public have become increasingly concerned about terrorist threats to the transportation system. The events of 9/11 initiated a national call to action to address transportation security gaps with particular attention to the potential use of transportation vehicles as instruments for committing terrorist acts. Protecting our trucking and bus system quickly became a very high-level priority. The Commercial Truck and Bus Safety Synthesis Program (CTBSSP) embarked on this effort to determine what security improvements have been accomplished and what improvements are underway in the trucking and commercial bus industries. (Please note that in this effort, commercial bus services are defined as intercity and tour/charter services. Transit bus services are not included.)

2.2 PURPOSE

The purpose of this study is to gain a better understanding of how the U.S. commercial trucking and bus industries have been affected by and responded to 9/11. This study is to provide a synthesis that reflects the general status of anti-terrorist security measures in the trucking and bus industries and to suggest future efforts that may be beneficial.

2.3 SCOPE

The scope of this study includes the following eight topic areas:

1. Identification of the key threats to the commercial trucking and bus industries;
2. Identification of risk management techniques available to assess potential security threats;
3. Identification of employee/driver hiring procedures, including employee identification/verification tech-

niques, that can enhance security and that have been shown to be effective;

4. Identification of current security procedures at commercial truck and bus training schools and potential threats, including student identification/verification procedures;
5. Identification of security procedures and how technology can or is being used to address security issues;
6. Identification of issues or problems associated with the implementation and/or use of specific security measures;
7. A summary of security research and development related to the commercial trucking and bus industries and what other research would be beneficial; and
8. Information on what has been done in other countries to enhance the security of commercial truck and bus safety, particularly in countries that have had to deal with significant terrorist activity.

These topics are examined through the results of an industry survey that was developed and fielded in the last quarter of 2002. The survey respondents include trucking companies, driver training schools, and commercial bus operators. Further subdivisions by function such as Less Than Truck Load (LTL) and hazardous materials (HAZMAT) are provided to the extent possible. Supplemental information in the forms of literature, Internet web pages, and discussions with government and industry representatives that were not part of the formal survey were also used in this study, particularly on topics for which survey results provided minimal information.

2.4 DATA COLLECTION APPROACH

A list of 14 open-ended questions (i.e., no multiple choice answers), based very closely on the eight topics of interest, was developed. The questionnaires were slightly modified for each of the four major industry subgroups (trucking, truck driver training school, motorcoach, and tour/charter bus) to reflect their relevance to that part of the industry. At the suggestion of the National Tank Truck Carriers (NTTC), two questions (#15 and #16) were added. Each questionnaire was

mailed with two letters, one from TRB to introduce Science Applications International Corporation (SAIC) and the project and another from SAIC to provide instructions to the respondents. The two letters are provided in Appendix A. The questionnaires (one for commercial trucks and one for buses) are provided in Appendix B.

The target survey group consisted of high-level company officials, preferably with a direct line responsibility for security. When the officer in charge of security was not known, the questionnaire was addressed either to the chief operations officer or to the president of the company. The target list was developed with the help of industry contacts, including several industry associations. The target list also included some randomly selected public trucking and bus companies listed on the New York Stock Exchange and NASDAQ. This biased the survey toward large companies. The questionnaire packets were mailed to 52 trucking companies, 29 bus companies, 5 driver training schools, and 5 embassies (see Table 2-1). The response instructions called for a scheduled telephone interview with an option for responding in writing by email and regular mail.

In addition to the mailings from TRB and SAIC, the ATA, the NTTC, the ABA, and the Institute for Makers of Explosives (IME) agreed to distribute questionnaires to a subset of their members. These industry associations provided respondents with the option of remaining anonymous and the choice of returning the questionnaire to SAIC or returning it to the industry association. About 80 questionnaires were distributed by these organizations, but their response rates were very low. Only two responses were received from respondents who were not on the original mailing list.

The majority of responses came after telephone contacts with the respondent organizations. About a dozen companies refused to participate as a matter of corporate policy. Nearly 20 percent of the responses were obtained through telephone interviews, and the rest were received as written responses via email or facsimile. The survey responses were collected from mid-September through the end of November 2002.

Limited-scope interviews were conducted with driver training schools, two federal agencies, and two embassies. Secondary information was obtained from published and nonpublished sources including ongoing projects at TRB, U.S. DOT,

FHWA, AASHTO, FTA, and the Volpe National Transportation Systems Center.

2.5 ANALYTICAL APPROACH

A major value-added component of this study is the information obtained through survey responses directly from the trucking and commercial bus industries and related organizations. Therefore, the survey data formed the basis and focus of the analyses. As previously described, the predominant means of obtaining this information was through an open-ended questionnaire. This format allowed the collection of unbiased (by a limited list of potential answers) and diverse answers with greater accuracy and depth than would be possible with multiple-choice answers. However, the open-ended format is also less conducive to rigorous statistical analysis. Conclusions drawn from the survey should be considered with the recognition that the survey responses represent a small portion of the industry, with more responses from large trucking and bus companies and companies with more active security programs. The large number of topic areas, the many subcategories (e.g., HAZMAT, LTL, charter bus, and intercity bus), and the small survey population mean that caution should be used in drawing detailed conclusions. The more general findings are more likely to be fair representations of the industry as a whole.

After survey completion, the analysis began with a review and extraction of the messages in the survey responses, followed by response categorization and tabulation. Response categories were combined as necessary, and identity information was removed to protect the anonymity of the respondents, some of whom required anonymity as a condition of participation. The tables that resulted from this activity are numerous and, in many areas, contain heterogeneous information that is not easily categorized and analyzed. In many cases in this report, responses are abridged and presented in tabular format along with response statistics. General trends in responses, rather than specific statistics, are assessed and discussed.

Survey conclusions were supplemented with information from literature searches and interviews with government and industry representatives that were not part of the formal survey. For several key questions, multiple respondents provided

TABLE 2-1 Number of questionnaires distributed/returned by category

Company Type	Number of Companies Contacted	Number of Respondents	Percentage of Respondents
Trucking Companies	52	20	38%
Truck Driver Training Schools	5	3	60%
Tour/Charter Bus Companies	20	9	45%
Motorcoach/Bus Companies	9	7	78%
Embassies	5	2	40%
TOTAL	91	41	45%

Source: SAIC, McLean, VA, December 2002.

the same answers. For these topic areas, the survey data were heavily relied on for drawing conclusions, and related supplemental information is mentioned when it was available. In other cases, observations were made based on a combination of weak or vague survey responses and strong supplementary information. Questions that elicited a generally heterogeneous response are only minimally discussed. However, this information is made available in the report

tables to provide completeness and because the data are unique. In some cases, seemingly disparate answers to one question or answers to a combination of related questions may provide a telling glimpse into the anti-terrorist activities of these industries.

Chapters 3 and 4 provide the trucking and bus industry survey results at the disaggregate level. A summary of key findings is provided in Chapter 1.
