All Hazards Crisis Communication Training for School Bus Drivers: An Interim Report

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implied, of the US Department of Homeland Security.
Introduction:

The need for additional security-focused training programs for the school bus industry was first identified by Rutgers University’s Center for Transportation Safety, Security and Risk (CTSSR) while conducting comprehensive nationwide research focused on the need for and availability of all-hazards-related training for the surface transportation sector. Recognizing the criticality of the pupil transportation sector to national security, the Department of Homeland Security (DHS) acted quickly, funding an investigation into the industry’s training practices, with the ultimate goal of designing a program to enhance drivers’ ability to communicate during all hazard situations in an effective, age-appropriate manner to their young passengers.

This summary report, together with its four appendices, presents a series of key findings, identifies next steps, and builds a strong case for the Transportation Security Administration (TSA), through its Highway and Motor Carrier (TSA-HMC) group, to work with CTSSR to develop communications-focused training for the nation’s school bus drivers.

Issue:

As federal authorities are well aware, school buses are at risk from a number of hazards. Based on school threat assessments, for example, the Federal Emergency Management Agency (FEMA) determined that the vulnerability of buses is on par with that of students and faculty in the
classroom environment. Very recently, the TSA’s School Bus Security Risk Assessment (SBSRA) report underscored this conclusion, identifying school buses as, among other things, appealing targets for terrorists. The SBSRA report went further still, identifying school bus drivers as a potential “single point of failure,” due to their role as the primary provider of security within the bus environment.¹

In addition to threats of the type considered by FEMA and TSA, members of the pupil transportation industry have expressed considerable concern over the safety and security implications of the many higher probability, yet (typically) lower consequence “everyday crises.” Among the most worrisome in this regard are crises arising from student violence, traffic accidents, and student behavioral issues. As TSA so clearly recognized, the role of drivers in preventing and minimizing the consequences of such events is critical. Yet as CTSSR discovered, security training for school bus drivers, especially training focused on age-appropriate communications, is sorely lacking.

The lack of communications-focused training causes particular concern because the capacity of drivers to effectively convey information to, and receive it from, their student passengers during a crisis greatly impacts their ability to manage the situation effectively. The consequences of poor communication can be immediate and serious, such as failure to execute an effective evacuation; or delayed, for example through development of post-incident mental health conditions including post traumatic stress disorder; but all are cause for concern.² Equipping

¹ For more information on federal programs related to school safety and security, see Appendix C.
² For more information on federal programs related to children’s reactions to crises and the delayed psychological effects of trauma, see Appendix B.
drivers with the appropriate communications-focused knowledge and skills, therefore, is of the utmost importance. This outcome can best be achieved through the development and dissemination of a targeted, industry-specific training program focused on age-appropriate crisis communication.

**Need for Training:**

Based on a review of existing literature and instructional materials, as well as information gathered through an extensive series of in-depth interviews and focus groups with leaders of the pupil transportation field, the need for crisis communication training targeted specifically at school bus drivers is undeniable. To date, no products of this kind have been created for the industry.

A single driver may be responsible for the supervision and safety of 60 or more students at a time, all while actively navigating an environment that poses different and arguably greater risks than those encountered in the classroom. But beyond possession of a Commercial Driver’s License (CDL), there is no federally-mandated educational minimum or training regimen that must be completed prior to taking the wheel of a school bus. Instead, driver preparations are left to the discretion of lower level authorities, such as state governments and even individual school districts. Further complicating matters, no single entity is tasked with maintaining a comprehensive database of training protocols or materials, identifying and sharing best training practices, or in any other way overseeing school bus driver instruction at a multi-state level. Instead, materials are housed in disparate locations, including databases maintained exclusively by private contractors; and in a number of formats, such as paper forms, VHS tapes, and electronic documents.
In the absence of federal standards for driver training, and in light of the uncoordinated nature of the pupil transportation industry’s efforts in this regard, it is hardly surprising that significant variation exists from state to state, county to county, and even school district to school district. Some drivers receive comprehensive, ongoing instruction in a variety of subjects ranging from student management to terrorism awareness, while others receive virtually none beyond basic vehicle operations.³

These realities complicated CTSSR’s efforts to obtain a comprehensive snapshot of the industry’s training environment. Fortunately, Center researchers succeeded in gathering and analyzing materials considered by those in the field to be the “gold standard” in safety and security training.⁴ In general, however, the complete lack of coordination within the industry underscores the need for some sort of corrective initiative at the national level, designed to facilitate not only the sharing of best practices between transportation practitioners, but to ease the identification of gaps in existing offerings, such that innovative new training materials can be created to fill critical voids.

Even in the absence of a comprehensive snapshot of the industry’s training landscape, the need to provide school bus drivers with the knowledge and skills to communicate with their student passengers in an age-appropriate manner during all hazard events is clear. Throughout the research completed to date, industry representatives voiced concern over the drivers’ ability to handle crises, with a particular emphasis on their capacity to communicate effectively with the students involved. Historically, there has been some attention paid to the issues of greatest

³ For more information on existing school bus driver training protocols, see Appendix A.
⁴ For more information on existing trainings reviewed throughout the research process, see Appendices A, B and C.
concern to the industry, such as illegal bus boardings, weapons aboard buses, fights, and bullying. While this is a commendable start, none of the programs reviewed by CTSSR provided any type of actionable instructions regarding how to speak with the children involved in these crises; nor were any industry representatives able to identify existing training materials designed to foster such skills.

In the absence of age-appropriate crisis communication training for school bus drivers, one might reasonably expect the industry to tap the wealth of products created in conjunction with school facility-focused safety programs. Programs of this kind are ubiquitous, and support for their development has been provided at the federal level since the passage of the No Child Left Behind Act of 2001. Expecting to find communications-specific materials intended for use in facility-based crisis situations, CTSSR researchers investigated a variety of federal efforts including DHS’s School Safety Program, FEMA’s Safe School Projects, and the Department of Education’s Safe and Drug-Free Schools Initiative. At the same time, a selection of state-level preparedness efforts was reviewed, including those from Kentucky, Kansas, Missouri and Pennsylvania.

Somewhat surprisingly, communication with students received little mention in the majority of these efforts. When the issue did merit specific consideration, it was restricted to logistical concerns (i.e. technological support, inter-stakeholder communications, etc.) rather than the provision of specific guidance on how to address and instruct the children involved in a crisis event. Perhaps even more unexpected, however, was the finding that buses, which for many

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5 For more information on the crises of greatest concern to the pupil transportation industry, see Appendix A.
students represent their first interface with the school environment each morning and the last interaction each afternoon, were rarely addressed at all in these planning efforts. The almost total omission of school buses from facility-focused safety programs lends credence to the notion, voiced time and again throughout our interview process, that school safety and security concerns are myopic, stopping at the school house door and failing to take into account the process of transporting students to and from that location.

Of the federal agencies whose efforts were reviewed by CTSSR, the only one to specifically address the needs of the pupil transportation industry was TSA’s Highway and Motor Carrier (TSA-HMC) group. Through multiple collaborative efforts, TSA-HMC has sponsored the creation of such well-known training products as the First Observer and the STSA programs; and in so doing, has made a name for itself within the industry as the go-to agency for programs to enhance the safety and security of the school bus environment. Repeatedly, the leaders of the national associations and others in the field spoke highly of TSA’s efforts, and expressed enthusiasm at the mention of the Agency’s possible continued involvement by way of CTSSR’s development of training on age-appropriate crisis communication.

The uniqueness of CTSSR’s proposed training, as well as the pupil transportation industry’s support for its creation in collaboration with TSA-HMC, are clear. But what if the training were not developed? What might be the ramifications of failing to fill this critical instructional gap, opting instead to maintain the status quo? Although no one can know the consequences of

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6 For more information on facility-focused safety and security plans, see Appendix C.
7 For more information on the pupil transportation industry’s opinion and use of existing TSA training materials, see Appendix A.
such inaction with any certainty, the field of child psychology offers some clues as to how inadequate or poorly executed communications might affect the children involved in a crisis aboard their school bus.

To begin with, it is important to understand that most crises are short-lived, typically 15 minutes or less, while the time available to safely evacuate a school bus during such an event could be significantly shorter. A driver’s ability to communicate with their student passengers in an effective, concise manner, therefore, may literally mean the difference between life and death to the children at risk. When coupled with considerations such as children’s limited ability to understand risks and make decisions under duress, as well as the physical limitations associated with their developing bodies, the criticality of training drivers to execute age-appropriate crisis communication becomes even clearer. What is more, students with disabilities and behavioral issues, a significant component of the school bus population, may experience unique and even greater difficulties during such events, further complicating the driver’s efforts to implement an appropriate response.

While the effects of poor communication during a crisis may be immediate, manifesting as a failure to properly shelter in place or execute an evacuation, they may also become apparent long after the event is over. Children exposed to trauma are known to exhibit a variety of negative effects, ranging from generalized fear and social withdrawal to long-term mental health consequences such as anxiety, mood, attention, and/or conduct disorders. Not only will enhancing drivers’ capacity to communicate during a crisis help to avert these devastating outcomes, raising drivers’ awareness of such post-trauma effects may help them better relate to students who exhibit these behaviors after a trauma experienced in their personal life or at school.
Challenges:

Although the need to train school bus drivers in age-appropriate crisis communication is evident, a number of hurdles must be overcome in order to create suitable course materials for this purpose. Some challenges arise from the unique characteristics and capacities of the pupil transportation workforce, which is characterized by high levels of turnover and drivers who may exhibit low literacy or limited English proficiency.\(^8\) The relationship (or the lack thereof) that exists between emergency planning for school facilities and school buses may also complicate the course development process, both because no materials can be borrowed from existing facility-based plans, and because it is not always clear what role school buses are expected to fill during evacuations and other crises. Finally, the largely unprecedented nature of this instructional endeavor must be recognized for the challenge that it is, but also as a great opportunity to enhance the safety and security of our nation’s school children by lessening the likelihood that the driver will become the “single point of failure” during a crisis.

Why TSA?

The initial research phase of this project has been supported by DHS National Transportation Security Center of Excellence (NTSCOE) grant monies. Unfortunately, while sufficient to complete the research necessary to create course materials, DHS has not committed funding for the actual production of the training in FY 2011-12.

*Why should TSA-HMC step in to fill this funding void?* The answer is simple, yet compelling: as the federal agency tasked with ensuring the security of the nation’s transportation

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\(^8\) For more information on the pupil transportation workforce, see Appendix A.
infrastructure, of which school buses represent a vital component, TSA-HMC is a logical sponsor for this much-needed course. Underscoring this conclusion is the fact that, due to its exemplary history of developing training for school bus drivers, members of the pupil transportation industry are looking to TSA for continued support of this kind.

By sponsoring the design of age-appropriate crisis communication focused training for school bus drivers, TSA-HMC will not only continue to fulfill its overall mission to improve transportation safety and security, it will also further strengthen existing relations with the school bus industry. Finally, support for the development of this training course will leverage a preexisting DHS investment to provide quality training, resulting in a greatly reduced cost to TSA – clearly a win for all involved.

**Next Steps:**

This project is funded through June of 2011. This report marks the end of the first phase of research. In the remaining six months, the project team will conduct additional interviews in targeted subject areas, as well as two focus groups, to complete the research necessary to develop the training program. For example, we plan to interview child psychologists about best practices and approaches related to age-appropriate crisis communication. Additional interviews will also continue to build connections and support with those organizations that will be critical to delivery of the training. For example, more exploration of the connection of school boards and administrations to school bus driver training will also be included in the next phase. We plan to conduct two focus groups in the Spring of 2011, one with school bus drivers and one with school bus driver trainers. These meetings will elicit key feedback on desired formats and content of training products.
Our final report in June of 2011 will summarize all of the key research findings related to the identification of the need for this training, building from this first phase report. It will then go on to include a proposed conceptual course outline that describes the components of the training program in terms of both content and delivery mechanisms.

**About this Document:**

Included as appendices to this summary report is a series of four white papers, each of which was authored by an individual member of the CTSSR research team assigned to the *All Hazards Crisis Communication Training for School Bus Drivers* project. Together, these papers present the findings from the initial project phase; findings which informed the creation of this document, and have been referenced throughout its pages.

The first white paper (Appendix A), “An Overview of the Pupil Transportation Industry: Research to Inform the Creation of Age-Appropriate Crisis Communications for School Bus Drivers,” by Dr. Josephine Faass, relies on information gathered through extensive interviews with association members, state Pupil Transport Directors and others, to paint a comprehensive picture of the school bus industry. In it, Dr. Faass identifies training norms and needs, introduces the major industry organizations and their issues of greatest concern, and explores a sample of state-level training protocols. This paper represents a directed effort to identify industry needs and desires, as well as to determine such important factors as the preferred training delivery mechanism and length. Its contents will directly inform the creation of the course materials, helping to ensure that they satisfy industry needs and comply with existing training regimens.

Lauren Babcock-Dunning authored the second paper, “Crisis Communications with Children and Psychological Responses to Trauma: Research to Inform the Development of School Bus Driver
Babcock-Dunning drew on her expertise in psychology, as well as her past experience creating crisis communication-focused training for the public health and transit industries, to describe the immediate and delayed effects of crises on the human psyche and physical body. Also included in this write-up is a description of how children’s ages and development impact upon their ability to process information during an emergency, as well as on their ability to cope with and process the experience after the fact. This paper not only serves to underscore the importance of age-appropriate crisis communication, it introduces subject matter that will be incorporated directly into the training.

Dr. Judy Shaw’s “All-Hazards Communication Training for School Bus Drivers: A Review of School Safety Programs” (Appendix C) includes an extensive review of efforts at the federal and state levels to ensure the safety of school children. Purposely broad in scope, Dr. Shaw’s paper illustrates the “larger school security picture,” of which bus-related concerns are but a small component, such that the proposed training can be based on the most complete sampling of standards and best practices possible.

The fourth and final white paper, “A Review of Incident Data for Collisions, Crime and Terrorism,” (Appendix D) was written by Dr. Robert Stokes, and provides an overview of the types of crises most often encountered by those in the pupil transportation field. By presenting such data as the numbers of accidents involving school buses per year and the prevalence of terrorist acts involving buses, this paper paints a statistical picture of the target issues and industry.
Appendix A
An Overview of the Pupil Transportation Industry:

Research to inform the Creation of Age-Appropriate Crisis Communications for School Bus Drivers

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Introduction

This report provides the industry-specific foundation needed to create a course on age-appropriate crisis communications for school bus drivers. After a brief introduction to the research methodology, a generalized school bus driver profile, a description of the basics of the training landscape, a snapshot of logistical considerations specific to training pupil transporters, an overview of school bus driver associations, and a review of existing state and federal training are presented. Summaries of a sample of existing trainings focused on emergency operations, communications, and student management, are also included here. Finally, the document’s concluding section presents a list of recommendations to inform future course creation.

Research Methodology

In preparing this report, a variety of research techniques were employed. Initial investigations took the form of reviews of industry, governmental and popular literature sources. These reviews provided the background necessary to write interview and focus group protocols, and served to familiarize the researcher with a host of pertinent issues related to the field of pupil transportation.

With this literature-based informational foundation in place, a subset of industry representatives were contacted through referrals obtained from the Transportation Security Administration. These individuals were then interviewed, both in-person and over the phone. Snowball (i.e. referral-based) sampling was then used to identify additional study participants.

Finally, the researcher attended the annual conferences of both the National Association for Pupil Transportation (NAPT), and the National Association of State Directors of Pupil Transportation
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An event of informal conversations, as well as more structured interviews, with individuals representing many facets of the school bus industry. Additionally, a focus group was held in conjunction with the opening roundtable at the NAPT conference, and was attended by transportation providers and association officials alike.

A Generalized School Bus Driver Profile

Among the most important things to understand in order to create useful and useable training are the needs and abilities of the target audience. Clearly, there is no single “bus driver profile,” but in the course of conversations with members of the pupil transportation industry, certain common characteristics came to light. These characteristics are presented here in summary form, however, discussion of their impacts from a training perspective are discussed as needed throughout the following sections of this report.

Career Status: Although there are “career drivers,” such individuals appear to be extremely rare. Much more common are those for whom pupil transportation provides either a gateway to future employment or a stopgap in the post-career period of life. Younger workers often move on to become public transit operators, where the pay and benefits are better (many school bus drivers receive no benefits), and there is no need for student management. Long distance trucking is another popular career path for CDL holders. For older individuals, student transportation can serve as a career terminus, providing income to supplement an existing pension. A third, and arguably much smaller population consists of those who
work their way up the ranks of the pupil transport industry, eventually holding positions as transportation coordinators, managers of private firms, and/or occupying leadership roles within national industry associations.

Age: Pupil transportation is an industry that many drivers come to after completing their “real” careers, therefore, it is hardly surprising that a large number of school bus drivers are of advanced age.

Education, Literacy and English Proficiency: Like many other occupations, school bus drivers possess varied educational backgrounds; however, given the manual nature of the job and the tendency to offer oral examinations as a means to satisfy any training or certification requirements, poorly educated individuals can and often do occupy such positions. Literacy rates appear varied across the industry, with some areas reporting relatively high levels, and others citing drivers’ inability to read as a major obstacle to the training process. Similarly, English proficiency is not uniform; and may be essentially non-existent among drivers in areas with large non-English speaking populations.

The Basics of the Training Landscape

Any training products developed to instruct drivers in age appropriate crisis communications must align with existing training regimens and best practices related to evacuations and other emergency procedures. It is vitally important, therefore, to understand existing training practices within the pupil transportation industry.
The only federal requirement to become a school bus driver is the possession of a CDL; beyond that, training minimums are at the discretion of the individual states, and vary considerably from one to another. Some, such as New York, California, and Connecticut, were reported by study participants to have comprehensive training regimens, and some even provide materials on CD for quality control purposes. Other states are far less rigorous, relying on the discretion of the individual school district and/or public and private service providers for the identification and satisfaction of training needs.

In the majority of cases, training is developed by the transportation service providers (whether public or private), either completely in-house, or in cooperation with a private contracting firm. Beyond any state requirements, the content and scheduling of driver training protocols is at the discretion of the school district. In instances where transportation services are publicly provided (currently about 60% of districts in the US), the district (or its contractor) will create and disseminate whatever training it deems necessary. When services are provided by a private entity (about 40% of the market share nationwide and growing), training requirements are written into a district’s request for proposals when it is put out to bid. Clearly, this system gives rise to a high level of variability in training requirements and approaches, and currently, no single organization maintains training-related records (comprehensive or otherwise) at a national or even multi-state level.

The only area in which consistency in training can be observed is in the realm of large contracting firms. Groups such as First Student, that provide school busing services in multiple
states/jurisdictions, utilize standard training protocols across their service areas, altering them as needed to meet district specifications as needed.

It is worth noting, however, that despite this uniformity in driver preparations, the quality of services provided by large private entities varies from place to place. Focus group participants from Michigan, for example, lamented the exceptionally poor performance of First Student in their district. Their claims that the company had underbid long-time, local providers by providing a cost estimate so low that it could only be realized with planned infractions, was supported by others in the group. Many felt that the penalties for violations were not commensurate with the gravity of the offenses, encouraging such behavior. Focus group members did not depict First Student as a universally bad provider, however, noting its excellent service in the Chicago area. This finding speaks to the reality that consistency in training does not ensure standardized transportation services; other factors, including individual personalities, state laws, and local district characteristics appear to be at least equally important.

Regardless the state or school district, training is an ongoing process. Before picking up their first passenger, future drivers go through a fairly standard routine that brings them up to speed on job basics. This initial round of training does not include much on student management; and many people come back after their first few runs, complaining that they were ill-prepared to handle the reality of the school bus environment, where students’ actions and attitudes are as important as road conditions and knowledge of the vehicle. Communications with dispatch are another area with which everyone must be familiar from the outset. After their first year of service, all drivers engage in some sort of pre-school year “refresher” training,
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typically in the month of August. Additional “in-service” training occurs on an ongoing basis throughout the academic calendar.

Despite the lack variability in training requirements nationwide, nearly all drivers are familiar with at least a handful of topics related to crisis management and communications. Knowledge of how to properly evacuate a school bus – that is, through front and back doors and emergency exit windows and hatches – is instilled through drills. Some may know how to shelter in place aboard the vehicle, but only if this information was included in the evacuation drills. In general, remaining aboard the bus is considered the safest option because once outside, passengers are more difficult to keep track of and direct, and are vulnerable to injuries such as those from traffic or other roadside hazards.

Handling of typical inconveniences, such as minor traffic accidents, stalled vehicles, and traffic jams, is also usually covered in training, as is basic first aid. Less likely to be addressed are terrorism-specific topics (for example hostage situations), weapons aboard the vehicle, and major events such as large or highly injurious accidents. How to deal with weather-specific crises, such as tornados or flash floods, may be covered where relevant; however, they are not a “standard” component of most bus drivers’ skill sets.

The Logistics of Training Pupil Transporters

Creation of training products that will be used by the target industry requires not only an understanding of the subject matter and needs/desires of the intended audience, but the design of
materials that can be utilized easily within the existing training infrastructure and culture. Recognizing this fact, the following paragraphs present an overview of the logistics of pupil transportation training, such that forthcoming educational materials can be developed in accordance with industry-specific norms and preferences.

The trainers of school bus drivers, called “SBDIs” (school Bus Driver instructors), are typically former drivers. Most SBDIs have worked their way through the ranks to obtain what is considered a midlevel position within a field where driving is an entry-level activity, and operations management is high level.

The vast majority of the training received by school bus drivers is in a classroom setting, although vehicle-based drills (mainly evacuations) are also standard. Much of this training is disseminated in a train-the-trainer format, making it subject to the same kinds of quality control-related issues observed in conjunction with the use of this approach in the public transit industry, namely: the degree to which individual trainers’ knowledge, attitudes and priorities impact upon the product that is delivered to the trainees. Motivated by concern over these issues, some states disseminate their key training components on CD to prevent alterations.

Despite the drawbacks of the train-the-trainer approach, general consensus supports its continued use within the industry. The appeal of this delivery mechanism appears to derive primarily from the perceived learning styles of the intended audience, as well as the fact that current
training practices and infrastructure are equipped to handle it. Classroom deliveries are not the only product type of interest to the industry, however; and interviewees expressed strong support for the creation of one or more additional product types to be used in conjunction with, or even in lieu of, a traditional, train-the-trainer course. Among the alternatives considered during the research process were online courses, videos, and games.

The notion of online courses received a tepid response; while some industry representatives believed it was a decent delivery mechanism, others preferred something that was not dependent upon drivers’ computer literacy and ability to access the internet, and could be used in a group setting. The idea of a game appeared beyond the scope of current training practices in the industry; however, in general, this mechanism suffers from the same weaknesses as web-based deliveries, and as such, appears less than ideal.

Of the train-the-trainer alternatives, the most enthusiastically-received idea was that of a video. The appeal of this format stems from the fact that it can be made available to trainers as a stand-alone product that can be easily incorporated, unaltered, into an existing or newly-created program. Videos are also favored because they allow for the depiction of scenarios that cannot be accurately portrayed in a classroom or exercise setting (i.e. adverse conditions, children’s reactions, etc.), making them particularly amenable to educating drivers on crisis communications. Study participants with direct training experience recommended that any video produced not exceed 12 minutes in length, with an ideal duration of 9-11 minutes.
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In discussing training options with industry representatives, several potential stumbling blocks became apparent. Two of the most significant concerns relates to literacy and English proficiency. Given the relatively low compensation offered to holders of such positions, school bus drivers may possess low to no level of literacy, and may speak little English. The former concern will impact upon our ability to use written text in the course of the training delivery; the latter may motivate the need to translate some or all of the materials into Spanish and/or other languages. Combined, these conditions mean that the overall “reading level” of the training should be kept very low, perhaps equivalent to a fourth grader, or even below.

In addition to potentially low literacy levels among the training audience, we were advised to be mindful of age-related issues which could impact upon students’ expectations and/or learning styles/abilities. In many areas, it appears that school bus drivers are of retirement age, and use this second “career” to augment an existing pension. Obviously, this fact could impact upon their preferred training delivery mechanisms, but it was also repeatedly cited as a reason why drivers may fail to understand the habits and perceptions of their young riders, a fact which at once complicates, and makes more critical, the training process.

Another possible delivery option would be to create an age appropriate crisis communications-focused module or add on for the Transportation Security Authority’s First Observer training. Although
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the exact form such a product would take, and the mechanism by which it would be delivered are unclear at this point, when described to interviewees, the idea received a largely positive response.

Threats to Pupil Transportation, Real and Perceived

Recently, the threat of a terrorist act against one or more of the nation’s school buses has received considerable attention at the federal level. This possibility has long occupied the minds of pupil transportation industry leaders, who by their own account have put considerable effort into raising policymakers’ awareness of the issue.

Should an attack occur on a school bus the consequences would be considerable, both in terms of the immediate physical impacts, as well as the negative psychological effects on the nation as a whole resulting from such an unprecedented (at least in this country) and despicable act. Despite the magnitude of the likely impacts, industry leaders are also quick to point out the relatively low likelihood of such a scenario coming to pass. More worrisome to those in the field are the lower consequence, higher probability events that put drivers’ and students’ safety at risk on a daily basis.

In determining which event types are of greatest concern, we turned to the nation’s largest private provider, First Student (FS), which leverages its large size and extensive service areas to collect comprehensive data related to accidents, injuries, and other common emergencies. These data are continually analyzed by the company to inform the development of driver training protocols,

Of greater concern to those in the field are the lower consequence, higher probability events that put drivers’ and students’ safety at risk on a daily basis.

1 It is possible that materials would be delivered by existing First Responder trainers in conjunction with the larger program; alternately, school guidance councilors could be recruited to participate in the delivery, tailoring the program to their school’s needs and providing some sort of follow up services/refreshers.
recruitment strategies, and other essential business functions. In this highly fragmented industry, therefore, First Student’s efforts provide a uniquely comprehensive vision of the “everyday crises” of pupil transportation. Concern over these same event types was repeatedly voiced in by association leaders, school district transportation coordinators, and others; supporting the conclusion that this single organization’s assessment provides a fair assessment of the industry as a whole.

Six types of crises have been identified by FS as the most often faced by school bus drivers. Each provides possible fodder for the design of a crisis communications-focused course, potentially informing the creation of in-class activities, videos, and more.

**Illegal boardings by parents:** Illegal boarding of a school bus by a parent is a major concern. This act recently received considerable media coverage when a Florida father got on a bus to confront a student he believed to be bullying a friend of his daughter². Acts of this kind are not a new concern, however. Neither is this most recent event the most severe example; many study participants recounted stories of boardings, or attempted boardings by parents, one of whom carried a chain saw.

In no state is it legal for a parent to board a school bus, although in some areas it is common practice for parents or guardians to accompany small children to their seats, assisting them with

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² Notably, this “hot button” issue created a discernable divide between two of the major industry associations, NAPT and NASDPT, when the former invited the Florida father to their annual conference to participate in a discussion on bullying. NASDPT’s administration decried this move, accusing NAPT of rewarding bad parental behavior. NAPT, in turn, defended their actions, explaining that the event, while despicable, had created a “teachable moment,” which warranted industry attention.
seatbelts if any are present. If they encounter a parent who requests, or attempts, to board their vehicle, particularly if they appear hostile, drivers are generally instructed to keep the doors shut in order to block their entry, even if it means leaving waiting students at the bus stop.

**Bullying:** Bullying among students on buses is also common; and is considered a very serious, but highly insidious problem from a drivers’ perspective. This is because it’s not always possible to detect bullying, as it may take the form of quiet teasing or mild, repeated physical contact. Among industry leaders, it’s a commonly held belief that what older drivers consider “horseplay” or good natured teasing may actually be perceived as bullying by the students involved; a misconception that further hampers efforts to address such acts in the school bus environment.

Bullying has never been taken lightly by pupil transporters, but it appears that the perceived gravity of this issue has been heightened as a result of several bullying-inspired student suicides. Discussed later in this report is the general drop in student ridership industry-wide, and the resulting shift toward private forms of transportation to and from school. It is worth noting that much of the impetus for this trend may originate with parents’ and students’ concern over bullying on buses.

**Fights:** Similar to bullying, fights are a serious concern and are equally difficult for school bus drivers to manage. Unlike school teachers, drivers often attend to 70 or more children at a time, all of whom are positioned behind them, while actively navigating the roadways. These conditions make it difficult to take proper disciplinary actions when fights occur.
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Many transportation providers have agreements in place with their clients by which drivers can report such events and other types of disorderly conduct to school officials for action. Unfortunately, follow up on such reports is at best inconsistent, and at worst non-existent. In some cases, transportation providers have taken student discipline into their own institutional “hands,” creating a system of notices and penalties independent of school administrators. In the absence of such proactive actions on the part of their employers, however, drivers faced with non-responsive schools tend to cease reporting activities despite continued misbehavior, essentially “giving up.”

Drivers’ unsuccessful attempts to incite disciplinary actions within the school system are indicative of a larger problem voiced by a number of interviewees: the fundamental separation between the bus and the classroom. Considerable resources are dedicated to school-based preparedness actions such as sheltering in place, for example, yet such drills do not incorporate transportation-related concerns, nor are students instructed in how to utilize the skills gained through classroom exercises once aboard the school bus. Frustration within the pupil transportation industry at the artificial, and potentially dangerous divide between the school building and the school bus is quite apparent, and the task of bridging this divide was often suggested as an area ripe for federal intervention.

**Student-born weapons:** Students carrying weapons — particularly guns — onto school buses is also a major issue. Such items can be used in conjunction with bullying or fights with other students, or in an assault on the driver, either in a premeditated fashion or committed in the heat of the moment as a result of unwelcome disciplinary actions or other triggers. Weapons entering buses undetected are also likely to reach the school grounds, where they could be used with devastating consequences.
Hijackings: Bus hijackings are a concern for the industry as a whole, and may be perpetrated by a student passenger, a parent, or another individual who has illegally boarded the bus.

Bombs: The possibility of a bomb on a bus has not escaped industry attention, and some districts train drivers and technicians in bomb recognition and response procedures. Like hijackings, a bombing could be perpetrated by a student or other individual.

On the whole then, industry representatives appear to be in agreement that “traditional terrorism” is indeed a concern. The more common acts of violence, however, particularly those such as committed by the students themselves (such as bullying and fights), are believed to be more harmful. In fact, parents’ perception of the school bus as a dangerous environment, not because of the traffic worthiness of the vehicles or skill of the drivers, but because of these very student-perpetrated acts, is believed to be driving a downturn in ridership which presently threatens the industry’s continued viability.

Loss of Ridership: A Special Industry Challenge

While not directly related to the training under development, of all the challenges facing the school bus industry, perhaps the greatest is continual decreases in ridership. Once the primary means of moving children to and from school each day, more and more students are traveling in private vehicles, by public transit, on bicycles, and on foot. The reasons for this shift stem both from parental preferences, as well as school districts’ economic realities.
As previously mentioned, parents appear to be putting their children on school buses in fewer numbers, largely due to safety concerns including those related to bullying, and the pervasive lack of seatbelts on such vehicles.\(^3\) Compounding the effect of parental choices are school districts’ attempts to conserve resources in the wake of budgetary shortfalls. More and more, pupil transportation industry officials report districts expanding the distance from the school at which busing begins, some to as much as two miles or more, forcing students who live within this radius to walk or find alternate means of reaching the classroom. Some districts have taken other actions, such as forming cooperative agreements with public transit agencies to provide pupil transportation along regular routes.

Seeking to stem the loss of ridership, the American School Bus Council (profiled later in this report) has undertaken a major outreach campaign to publicize the benefits of school buses. Their message focuses on three main areas of benefit, which they cite as reasons to be a “Yellow School Bus Champion.” Under the “help the environment” heading, the Council estimates that each bus takes 36 cars off the road, saving some 2.3

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\(^3\) The issue of whether to mandate seatbelts on school buses has a long and sordid history. To date, there is no federal requirement for the inclusion of these safety devices on new buses (or their retrofitting into existing fleets), and it appears that there is no likelihood of such a mandate coming to pass in the foreseeable future. This is because school buses are recognized as the safest form of transportation available, with commercial aviation ranking a distant second. Despite ample evidence of the superior safety of school buses due to structural features such as reinforced role cages, however, the seatbelt issue continues to receive attention from the media, lawmakers and the public, particularly in the aftermath of one of the very rare accidents in which a child’s life is lost. Some states, such as Florida, have created their own legislative initiatives, requiring the inclusion of belts in all newly purchased vehicles. Among the members of the pupil transportation industry the possibility of providing seatbelts on buses is viewed in a decidedly negative light owning to issues such as the loss of transportation capacity (as much as 20% depending on the type of belt, seat and bus), the possibility of increased fatalities during roll overs, and concern over the supervision of belt use and the effects of improperly positioned belts.
billion gallons of gas (and the resulting emissions) annually. When discussing how buses improve “access to education,” they note that school buses may be the only means by which students can reach their school. Finally, school buses are described as 50 times safer than passenger cars, and are driven by trained and stringently licensed drivers, helping to “keep kids safe.”

Clearly, the Council’s campaign presents compelling evidence to support the continued use of school buses; however, by their own admission, estimates quoted throughout their materials are rough and could be successfully challenged. Additionally, key information; such as the relationship between school bus ridership and academic performance, particularly among vulnerable populations; as well as the safety impacts of a trend toward private vehicle transportation; is not available.

The promotional campaign is in its infancy, and it is still too early to determine what, if any, effect it will have on households’ and school districts’ transportation choices. Regardless this effort, however, within the industry there is obvious and widespread frustration about the continual loss of student riders. This frustration is compounded by the perception that federal and state governments (i.e. the National Highway Safety Administration, Departments of Transportation, and others) are unwilling to become actively involved in the promotion of school bus use to parents, students and others.

Ironically, the unwillingness on the part of regulatory authorities to become involved appears to stem from the perception that school buses are an extremely safe form of transportation. Scarce
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government resources, therefore, are better dedicated to issues like drunk driving and seatbelt use in cars. The fact that students who leave the bus in favor of a car, bike or walking are at greatly increased risk of injury or death does not appear to be a compelling argument.

Communications

Because the proposed training will focus on crisis communications, it is important to understand existing communications protocols and technologies. Only once such normal operating conditions are understood can approaches be devised to inform communications during all hazards scenarios.

As a rule, should something out of the ordinary occur while on their routes, bus drivers are instructed to notify dispatch, which goes on to communicate with the proper authorities. Plain speak is common, but transportation providers often make use of communications codes, which serve to standardize and shorten messages, and effectively disguise their meanings from non-drivers. There is no “universal code,” however, and terms and their definitions vary from provider to provider.

Most school bus fleets are equipped with some form of communications devices. Generally, two-way radios are used to contact dispatch, but cell phones are also relied on in some areas. It is worth noting that dispatch itself may sometimes prove inaccessible, however; either because there is no official “dispatch” at the hour of the trip (such as very late field trips) or because none exists (due to size or monetary constraints).

Technological supports vary to a large degree between locations and districts. Some possess state of the art systems that include features such as GPS to assist in vehicle location; this can be a
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particularly useful aide in an emergency, especially if communications are interrupted. An estimated 25% of vehicles are equipped with cameras that can record the actions of the driver, passengers, road conditions and more. While video may not assist the communications process in real time, it’s a useful tool to conduct “post-mortems” of events and analyze driver-passenger interactions, both for liability reasons, and to determine where drivers’ communications skills need improvement.

Despite some industry forerunners, many locales operate with what could be described as a technological deficit. In some places, buses possess no communications technology of any kind, leaving drivers essentially “on their own” once they leave the school yard.

Interestingly, study participants indicated that rural districts tend to have more sophisticated communications support than their urban counterparts. This is primarily because rural drivers are isolated and the ability to make contact with dispatch may mean the difference between life and death; a reality in stark contrast to that experienced by drivers in city conditions, where police and medical assistance are always close by and can be contacted by an individual on foot if need be.

Existing Federal Training

Some terrorist-focused training for school bus drivers exists at the federal level, but there is no mandate that it be used by transportation service providers. Providers may pick it up of their own accord, or school districts may specifically...
request its use in their RFPs. There is some sense that the latter scenario is less likely, because substantive changes to such a program, or its discontinuation, could prompt the need to rewrite contracts after they have been awarded, something districts appear reluctant to do. Even those districts that resist naming a specific training program in their RFPs, however, can still request that all drivers receive generic “terrorism training.” In such instances, the provider would have the option to utilize a federal program in its entirety, modify one for their own use, or create one anew.

TSA’s first terrorism-focused training exclusively for school bus drivers, “School Bus Watch,” was adapted from their existing “Highway Watch” program. Because it was the first of its kind, and because it was considered a quality program that included information on how to handle “routine” emergencies as well as terrorist events, the program was widely adopted by industry. At the time of its release, NAPT estimates that about 50% of drivers on the road had participated in the training.

The more recent, and by all accounts, very similar program entitled “First Observer,” received a less enthusiastic reception. The reasons for the lower levels of use among industry members include the fact that it is considered to be the same as its predecessor but with “slightly better graphics,” as well as the fact that many people felt they had been “taken for a ride” when they invested time and effort in School Bus Watch, which was then wholly discontinued.

Similarly, the School Transportation Security Awareness (STSA) program, by all accounts, has had little industry infiltration. The modules, which were available in a web-based format but have since been removed, were poorly received. The 24 minute video, which features a female bus driver who foils terrorists’ plans to hijack a school bus and use it to deliver a weapon to a school yard, received mixed reviews. It is worth noting that although students are involved in the scenario, the driver has essentially no communications with them as all of her attention appears to be focused on the terrorists, and on
contacting dispatch using a special code to let them know she’s in trouble but that it’s not safe to radio back. Some organizations felt the drivers’ actions were too risky, and would never suggest that their own employees behave similarly. Others felt she acted rightly. Still others believed that she didn’t do enough.

**School Bus Watch, in depth:** The School Bus Watch (SBW) program, which exists in PowerPoint format, was developed by DHS as an offshoot of its preexisting “Highway Watch” program. Highway Watch was targeted toward professional drivers, and provided them with the skills necessary to recognize potential terrorist activities on the nation’s roadways, and created a mechanism for reporting such observations. SBW was similar in focus, but targeted at pupil transporters. The intended audience included not only drivers, but mechanics, administrators and others; and the subjects covered in the training included: the Highway Watch program, traditional threats to school bus security, terrorist identities and weapons, elements of an attack, identifying suspicious behaviors, bus checking procedures, and reporting procedures.

The topic of communications with children is not treated in depth. On the slides dealing with attacks, the driver is told to get children out of harm’s way if an attack occurs on their vehicle, and to “reassure” the passengers in the event of a national attack (such as 9/11). Drivers are also instructed to tell students that they should communicate with them about anyone or anything that makes them feel unsafe (whether at the bus stop, on the bus, etc.).

**First Observer, in depth:** Unlike SBW, First Observer (FO) is a live action video that begins with a series of terrorism scenarios (suspicious person following a school bus, driver finding a package in a pre-
trip inspection, etc.) which are done in a high budget Hollywood style, and proceeds to a live lecture by a private contractor with military and other relevant experience. In addition to the materials covered in SBW, FO adds an in-depth examination of Tim McVey’s Oklahoma City attack to illustrate the stages of attack planning/conduct.

Beyond these minimal differences, no novel information is contained in the video as compared to its predecessor; in fact, FO appears to contain less school bus-specific information than SBW. Despite the lack of fresh material, however, many interviewees reported having used the program with their drivers, or adapted materials from FO in creating their own trainings.⁴

The 50 States:

By all accounts, the pupil transportation industry varies considerably from state to state. This is hardly surprising given the dearth of federal guidance regarding pupil transportation in general, and driver training in particular; however, even within states, marked differences exist between locales (i.e. counties, cities, school districts, etc.). Some, such as New York and California, are highly proactive at the state level, creating complex and ever-changing curricula, and team up with other entities, such as the Highway Patrol, for course delivery. Others, including Florida, offer some guidance to school districts and work to ensure that all drivers possess are minimally qualified to get behind the wheel, checking that they have passed drug and alcohol screenings, are familiar with proper evacuation procedures, and the like. North Carolina, a novelty among the states in that nearly 100% of transportation services are

⁴ While this appears to indicate a high level of industry infiltration, many study participants did not appear to differentiate between SBW and FO. Based on the estimates of association leaders, however, it appears that FO has been far less successful than SBW.
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public, relies on its Department of Transportation to provide driver training, which focused almost exclusively on vehicle operation.

A Sample of Existing State-Level Training:

In creating new course materials focused on age appropriate crisis communications, a complete review of existing learning materials for school bus drivers related to emergency response, communications, and age appropriate interactions with student passengers would be an ideal way to identify best practices and create a solid knowledge base on which to build. Yet despite the existence of several national associations and the presence of a designated State Director of Pupil Transportation in nearly every state, there exists no exhaustive list, let alone a comprehensive clearinghouse of school bus driver training materials. Rather, products are housed in desperate locations within school districts, private firms, not-for-profit entities, state offices and more, making the task of locating current training materials quite challenging.

In light of the difficulty inherent in identifying and obtaining training materials, therefore, this initial research report includes a small sample of what would presumably be accessible given more time and manpower. This is not to say, however, that the availability of such research aides would result in the identification of invaluable products that have thus far proved elusive. In discussions with association officials, state directors, and others with a broad understanding of the current state of the pupil transportation industry, New Mexico’s and New York’s training programs (both discussed here) were held up as exemplars of security and general preparedness, and everyone was in agreement that
age appropriate communications training was virtually non-existent, except perhaps that which is offered by the Head Start organization.⁵

**New Mexico:** Recognized as an industry leader in security training and awareness for school bus drivers, New Mexico was an early adopter and developer (i.e. pre-9/11) of curricula with this focus. The state’s three hour training consists of 15 modules, many of which contain generic terrorism-related material, ranging in focus from how to spot a potential terrorist, to how to shelter in place, to recognizing chemical weapons attacks.

Three modules, namely: “Module 12, Managing the Students and the Scene,” “Module 13, Handling Conflict and Acts of Violence on the Bus,” and “Module 14, Dealing with a Hostage Situation,” contain communications-specific information. Of these, Module 12 contains the most relevant material for the purpose of developing a crisis communications-focused training.

In the introduction to the training, six “Basic Security Management Steps” are enumerated, namely:

1. Keep calm and assess the situation
2. Contact the supervision and, if necessary, emergency responders
3. If required – evacuate, relocate or shelter in place
4. Protect self and protect and assist the students
5. Identify self to and cooperate with first responders if the situation dictates
6. Follow school procedures and complete documentation

⁵ Head Start materials are not currently standard among school bus driver trainings and were not reviewed in creating this report.
Instruction in six security management steps was also mentioned by the interviewee from First Student (FS). It is unclear whether they are the same six steps in both instances, as FS is very reluctant to share details of their training program. It is likely that they are at least similar, however, as FS is well aware of New Mexico’s security training and described their own curriculum as partly based on a review of best training practices nationwide.

The handling of suspicious packages, while not directly germane to the current endeavor, is also covered in New Mexico’s program, and provides some valuable insights into emergency response protocols. If a suspicious package is identified, drivers are instructed to (among other things) tell students to keep “a safe distance,” pull the bus over to a non-crowded but safe location and shut the vehicle down (including all ventilation systems), and passengers should be evacuated upwind of the vehicle at least 1,000 feet.

Evacuation procedures in the event of a suspected CBRNE event are also detailed in the training, and presented in the sidebar at right. Familiarity with these procedures may help shed light on potential all hazards responses that could be relevant to the proposed crisis communications course.

In the event of a CBRNE release, New Mexico school bus drivers are told:

- protect yourself, meaning:
  - don’t take risks
  - don’t assume anything
  - don’t forget about secondary devices
  - don’t taste, eat, smell or touch anything suspicious
- don’t become a victim

- notify appropriate authorities, and identify:
  - your exact location and condition
  - type of injuries and/or symptoms
  - victim locations and positions
  - indicators of activities and objects
  - wind direction and weather on scene
  - witness statements or observations
  - existing or potentially dangerous conditions

- protect students and others

- assist students and others

- quarantine victims (if chem/bio release is suspected)

- assist emergency responders
Drivers’ ability to effectively alert authorities that something is amiss aboard the bus without escalating the situation is also important. If a radio is used, trainees are told to use codes or predetermined “catch phrases.” Beyond radio contact, drivers should use their four way flashers or amber lights, use the horn, use the silent alarm button (if present), turn on high beams, and if it’s dark outside, to turn on the vehicle’s interior lights. All of these actions constitute inconspicuous mechanisms for alerting onlookers that something isn’t right aboard the bus, and increase the likelihood of assistance.

Violent acts on school buses, whether perpetrated by a student or someone who has boarded inappropriately, are a major concern. If and when they occur, drivers are to stop the bus immediately, preferably in a public, well-lit area, and open the doors, providing an easy escape for the aggressor. They are never to pursue an attacker or attempt to gain control of a weapon. Any actions taken by the driver, such as those related to operating the vehicle, should be narrated, so as to give the impression of full cooperation. Allowing students to exit the vehicle is a top priority, and drivers are told to ask permission for them to leave, and only after the bus is empty of children, to attempt leave themselves. If the violence is aimed at a student passenger, rather than the driver or bus as a whole, trainees are instructed to notify emergency response first, and only attempt to intervene if and when it appears safe to do so.

Bus hijackings are another potential threat, and drivers are instructed both in how to avoid such a situation, and in how to act when a hijacking is underway. If a driver notices something “very suspicious” at a scheduled stop, they are to drive away without picking up passengers and notify...
When communicating with students in an emergency, always remain calm, work at communicating clearly, continuously update them on the situation, keep them under control in a safe location and be mindful of their age.”

Instructions specific to communicating with students appear infrequently throughout the curriculum. The most general piece of advice they receive is: “When communicating with students in an emergency, always remain calm, work at communicating clearly, continuously update them on the situation, keep them under control in a safe location and be mindful of their age.” In particular, should a bomb go off, or a CBRNE incident be suspected, drivers are told to enlist the aid of responsible students to assist with evacuation and sheltering efforts.

**New York:** New York State is home to 50-55,000 school bus drivers, and between 10,000 and 15,000 attendants/monitors. Compared to the national rate of employee turnover, New York’s is relatively low at around 10% annually. This number represents publicly-employed drivers only, and it is...
possible that private drivers may leave more frequently, simply because private firms rarely offer benefits (unlike school districts), and often hire people with no background in transportation and pay for them to acquire a CDL.

In New York, the State Director, whose office has dwindled over the years from multiple staff to just one, is responsible for specifying annual curricular needs, and administers a $400,000 budget for course creation and dissemination. Once the focus for the year’s training has been identified, the task of designing the curriculum is put out to bid; however, just two not-for-profits in the state do this sort of work (Safety Rules and the Pupil Transportation Safety Institute), so competition is minimal at best. The Director then works together with the winning contractor to ensure the development of a quality product, which is disseminated state wide through train the trainer sessions with the New York’s 1,000 School Bus Driver Instructors. Instructors also receive supporting materials such as PowerPoint presentations and films to use in the classroom.

New York’s driver training regimen is among the most stringent and complex in the nation. Each driver begins their employment by participating in a three hour pre-service course, which familiarizes them with basic concepts, including loading and unloading the vehicle. Another “basic course requirement” must be satisfied within the first year of service, which consists of 30 hours of instruction. In it, drivers are introduced to the evacuation process; and the topic of communications is a major focus, as they must be prepared to direct students in equipment operation should they themselves become incapacitated as a result of an accident or other event. The issue of bullying is also addressed as part of the 30 hour training. Drivers are taught to encourage their passengers to report bullying to them, whether or not it occurs on the school bus, acting as a “safe haven” for their students.
Subsequent to the instruction they receive at the outset of their employment, drivers are required to participate in two trainings annually, one before the academic year begins, and another which generally takes place in January. The topics addressed in these one hour “refresher trainings” vary considerably from year to year, and although communications with students has been a topic on multiple occasions, in any given year it may or may not be addressed explicitly. The goal of these refreshers, as described by NY State Director Marrion Edick, is to present new material each time, and “…each piece of the training program fits together to boost the total value, so (the trainers) try to review the driver’s basic skills each year, and do it in a fresh way – and that’s difficult.” In addition to the refresher courses, drivers must complete a one hour training on “PJ’s Law,” that is designed to enhance their sensitivity to special needs students, and includes communications-specific material.

The first time antiterrorism training was offered as part of the refresher was 2003, making New York one of the early adopters of this type of program. This is hardly surprising given the state’s role in the events of September 11th, a day on which drivers statewide (without the benefit of formal training) chose to keep their students with them on the bus for extended periods as a way to ensure their safety, rather than dropping them at bus stops, unsure of the situation at hand. It is worth noting that although the State Director and participating non-profits are familiar with federal trainings on terrorism, and an estimated 30-50% of drivers statewide have participated in School Bus Watch or First Observer, they still choose to create their own terrorism-focused materials in-state. Interestingly, the safety trainings
developed many years ago were broken down according to the ages of the passengers; however, these are no longer in use and may not be available.

*Gun on a Bus:* Produced by the state of New York, this training product takes the form of a video interview of a driver from a rural upstate area who had a student pull a gun and fire on his bus in 1996. No one was hurt by initial shot, but the student then ran to front of the bus and pointed the weapon at the driver.

By his own account, the driver listened to the student’s demands and pulled the bus over, turned it off and took the keys. He was told to go to the back of the bus, and on his way, he turned to ask if the kindergartners in the front could get off the vehicle through the back door. The assailant agreed. The kids wanted to take their backpacks, but he told them to follow the procedures they’d practiced in the drill and they did, exiting the bus calmly without their things. The driver then asked if the remaining (older) riders could exit and the student agreed.

The driver then went to the back of the bus, at which time the student put the gun down and started talking about his problems (he had stopped believing in God and become an atheist). The student was hyperventilating and talking about how he’d tried to kill himself. The student then emptied the gun, left it on the seat, and exited the bus. The driver followed him, thanked him for letting the other students off the bus and hugged him.

They had pulled off the road near the next bus stop, so the driver felt the police had been called an onlooker. The student and driver then proceeded to walk about a mile on a deserted road and the
two discussed the student’s issues. The driver lectured the student that he had to take responsibility and couldn’t blame his parents, etc.

**First Student:**

First Student, which is responsible for getting 6 million students to and from school each day on some 60,000 school buses, is the nation’s largest private transportation contractor, and deserves special consideration on par with a state. Vehicles are outfitted with technologies, such as GPS, that are far from standard in the industry, which coupled with the company’s rigorous driver training program, help enhance the safety and security of their operations.

The company employs a “scientific approach” in its recruitment of drivers, which involves targeted advertising and recruiting efforts. They look for individuals who can meet the demands of the job, namely: remaining drug and alcohol free, working well with children, and being vigilant about safety issues. They prefer to train new drivers to get a CDL, rather than hire drivers already in possession of this license, as they find that poor driving practices that are already ingrained can be difficult to correct. If they do hire someone with a CDL, they typically make them participate in the driver training as if they did not already have one as a way to refresh their skills and possibly erase undesirable habits.

Drivers receive extensive training, much of which is delivered in “age appropriate” segments. Demographics the company believes require special skills of the driver include second grade and younger students, special needs riders, as well as middle school-aged children, as this latter group tends
Instructional needs and areas of focused are identified through continual evaluation of system-wide conditions and events; and all drivers receive the same training package, regardless their particular location or route conditions. The lack of variation within the company’s training repertoire is intentional, as it seeks to prepare its employees for all of the scenarios they may encounter in the course of their duties, and is aware that the same driver may drive numerous routes, with different aged students and changing environments, in the course of their career or even a single school day.

All of First Student’s training is custom made for the company through contract agreements, and all materials are copyrighted and closely guarded. Although they use First Observer with their motor coach operators, they opted to hire Pat Pitt to develop a security and terrorism-focused course specifically for their school bus drivers. The course takes into account, not only the threat of terrorism as defined by the FBI, which is considered low probability, but also those events which occur on a relatively regular basis.

National Associations
A number of national associations exist to serve the needs of the pupil transportation industry. While these groups do not appear to include individual drivers among their memberships, they do cater to public and private providers, and work to advance the industry as a whole through coordinated goal setting, lobbying, and networking.

**National Association of Pupil Transport (NAPT):**
NAPT is a 501 c (6) organization that is self-identified as the “big tent” of the pupil transport industry. It has the largest membership of any association, spanning the US, Canada, Asia, the Middle East and parts of Europe.

NAPT’s goals include bringing together other organizations in the field and working to present “one voice” to policymakers. The organization serves transportation service providers, and offers training on a variety of topics, including crisis communication and emergency planning and risk management.

**National Association of State Directors of Pupil Transportation Services (NASDPTS):** The Association’s membership includes state directors, suppliers, and public and private providers.
representatives of other pupil transportation associations, and other individuals with an interest in the industry. Of these, as the name implies, the activities of state directors, as well as state and federal level issues of concern to the industry are primary focus areas for this association.

Each state should have a single State Director of Pupil Transportation who coordinates, and acts as a point person for their jurisdiction; however, some, such as New Jersey, have more than one Director. The role of the state director varies considerably from one jurisdiction to another. Some oversee multiple staff, while others act as a one person operation, and still others occupy multiple roles in addition to the holding the directorship. Directors derive their authority from state-level statutes and rules, and the legislature can be expected to seek them out for advice regarding any decisions that could affect pupil transportation.

For the most part, the day to day operations of student bussing are handled at the level of the individual district, so although school district transportation directors are considered the main “client” of the state director, the person holding this position intervenes at the meta, rather than micro level. In general, State Directors’ dealings with school districts focus on guidance, regulation and oversight; and they can be the venue through which local level issues are relayed to decision makers at the state level.

**National School Transportation Association (NSTA):** NSTA is, in many ways, the private counterpart to NASDPTS, in that it serves private transportation service providers nationwide. Like NASDPTS it brings together industry leaders to identify common issues and push a common agenda.

**American School Bus Council (ASBS):** The ASBS was formed in 2006, and brings together the three national associations (NAPT, NASDPT, and NSTA), as well as the three largest school bus suppliers
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(Blue Bird Corp., IC Corp., and Thomas Built Buses) to identify industry-wide problems and advocate for national solutions, present positions to lawmakers, and educate parents, teachers and others on school bus-related issues. Among the Council’s major undertakings is the promotional campaign to stem the loss of ridership discussed previously in this report.

Project-Specific Recommendations

In the course of interviewing members of the pupil transportation industry, a number of specific suggestions were made regarding how best to realize the goals of the current undertaking. The list below enumerates these suggestions.

- Don’t rely solely on a train-the-trainer model. While it’s the industry standard, and therefore a must, individual trainers have the tendency to alter materials significantly according to their own opinions and experiences. While this may occasionally lead to a richer, more meaningful training experience, it more often yields the corruption of information and may foster a training environment in which drivers do not receive all relevant instruction, or worse, are taught misinformation.

- Provide products in addition to train-the-trainer style modules, such as movies, that can be incorporated into classroom instruction, made available over the World Wide Web, and in other ways delivered to bus drivers in an unaltered, possibly remotely accessible format. This suggestion relates to the first, but also underscores the need for materials that can be fit into existing curricula and are accessible to drivers through a variety of formats.

- Delivering materials in conjunction with the existing First Observer program may be an ideal way to reach industry members.
Be sure products address the varied conditions and circumstances a driver can expect to encounter in rural, urban and suburban settings. Multiple informants underscored the reality that the driving experience is greatly influenced by the built environment in which they operate.

“Oklahoma City-Style” terrorism training is not needed. A profusion of this type of instruction is available to the industry; what they really need is instruction on how to handle the kinds of crises they consider most likely to occur, namely: illegal bus boarding, bullying, fights, weapons, hijackings and bombs.

Create products that do not assume literacy, as many drivers have limited or no ability to read and write. If printed material, such as bulleted information or newspaper headlines, is featured in the training products it should be read aloud to ensure comprehension.

In some areas, drivers may speak little, or in rare cases, virtually no English. While English proficiency is considered an industry norm for drivers, multiple interviewees testified to the fact that it is not universal. It’s not immediately clear how to incorporate this knowledge into the course design, because by all accounts, the language spoken varies by area, but it is something to keep in mind as we move forward.

Hire/consult subject matter experts. Time and again, the idea of “wheels on the road” as a legitimizing factor was voiced by study participants. Some even went so far as to warn against taking too seriously the opinions of their peers within the associations’ leaderships, as they had been too many years out of the rank and file of pupil transport.
One suggested activity was the use of newspaper headlines (real or fictitious) regarding school bus accidents/incidents as talking points with trainees. Read the text to the class (for literacy reasons) and ask “How would you avoid being this headline?”

Don’t assume that drivers will naturally react in an appropriate manner under duress, be clear about what should be done under a given set of conditions and explain why such actions are needed.

Be conservative in how driver’s actions under crisis conditions are portrayed in movies and other training materials. While this idea wasn’t specifically suggested by informants, the fact that TSA’s STSA video (which depicted a driver engaging in risky behavior) was very polarizing and contributed significantly to its lack of use within the industry underscores its importance.

Keep in mind that many crises of concern to the pupil transportation industry are caused by student behaviors (i.e. bullying, fights, etc.), therefore, we should be sure to address such scenarios in the training, rather than focus exclusively on externally-derived event types (i.e. terrorism, traffic accidents, etc.).

Recognize that the pupil transportation industry is under duress due to loss of ridership and harbors the perception of receiving little in the way of federal attention. While these factors don’t impact directly upon the training content, they do color the atmosphere in which materials will be developed, as well as the expectations (and possibly reactions) of the intended audience.

Although artificial, the divide between school building and school bus is very real. Attempts should be made, therefore, to examine school-based communications, evacuation, and
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...crisis-focused plans and procedures to determine how they might affect the school bus environment, as well as whether any best practices or lessons learned in that arena could be borrowed for use in the current training.

Conclusion

This report provided an overview of a variety of topics pertinent to the creation of a course on age-appropriate crisis communications for school bus drivers. Based upon reviews of industry literature, as well as multiple in-depth telephone, in-person, and focus group interviews with pupil transportation leaders and practitioners, a sketch of the industry landscape, particularly as it relates to existing training and perceived needs, has been created, and a number of project specific recommendations enumerated. Interest in the proposed training was clearly voiced by all study participants, with many indicating a dearth of educational programs focused on schooling drivers in age-appropriate behaviors.

This production of this document marks the conclusion of the initial phase of a multi-tiered project scope, and as such, also helps to identify future research needs. As the project progresses, it will be necessary to continue to identify training “gold standards” in areas like age-appropriate communications, recognizing that they may not exist within the pupil transportation industry. Additional focus groups are also warranted, consisting (at least) of school bus driver instructors, as well as of the drivers themselves. In recruiting drivers, special efforts should be made to obtain a sample that includes those with both rural and urban routes, and if possible, drivers who carry loads of same age, as well as mixed (k-12) loads, as these factors have been found to present unique challenges.
Appendix A

Study Participants

The following list contains the names and affiliations of individual contacts, interviewees and focus group participants who provided information and opinions used in the creation of this report:

- Linda Bluth, President, NAPT
- Mike Martin, Executive Director, NAPT
- William Tousley, Director Region 3, NAPT
- Willie A. Tarleton, Secretary and Director Region 4, NAPT
- Keith Henry, Director at Large, NAPT
- Donnie Fowler, President, NASDPT, and President of Fowler Buses
- Charlie Hood, President, NASDPT, State Director of Florida
- Leon Langly, Regional Director East, NASDPTS, State Director of Maryland
- Derek Graham, State Director of North Carolina
- Marion Edick, State Director of New York
- Dot Shelmet, State Director of New Jersey
- Murrell Martin, State Director of Utah
- Gary Catapano, Senior Vice President of Safety for First Student, Chair of Safety and Security Committee for NSTA
- Tim Flood, Secretary/Treasurer and Chair of Association and Industry Development Committee, NSTA, and Executive Vice President of Transgroup
- James Rogan, NSTA
- Kathy Furneaux, Executive Director, Pupil Transportation Safety Institute
- Aaron Harris, Regional Sales Representative, BESI inc. and Tie Tech llc.
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- Leah Walton, Program Analyst, Pedestrian and Pupil Transportation Safety, US Department of Transportation
- Dwight Foster, Chief, Investigations Division, National Transportation Safety Board
- Bob Riley, Executive Director, American School Bus Council
- Steve Simmons, Director of Columbia City Schools
- Carlene Bussey, Operations Supervisor of Columbia City Schools
- Thomas McMahon, Executive Editor, School Bus Fleet
Appendix B

Focus Group Pictures

The photos below were taken by Mike Gallego during the focus group held at the NAPT Annual Conference in Portland Oregon on October 30th.
Appendix B
Crisis Communication with Children and Psychological Responses to Trauma:

Research to Inform the Development of School Bus Driver Training

Lauren Babcock-Dunning, M.P.H.

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Introduction

Most school-based crises are extremely short lived, for example, close to half of the violent incidents documented in the safe schools final report lasted less than 15 minutes, and a quarter lasted less than 5 minutes (Voskuil, Fein, Reddy, Borum, & Modzeleski, 2002). In the case of a school bus fire, the time available to evacuate may be two minutes or less (Finlayson-Schueler, 2005). Consequently, drivers must practice and be proficient in communicating appropriate crisis responses with children prior to an incident taking place. While existing trainings address appropriate emergency procedures, such as initiating an evacuation or sheltering in place, and some do offer some advice that drivers attempt to calm children during emergencies, it is evident that more specific guidance on what to say and how to say it is needed to ensure children’s safety. Additionally, children are uniquely vulnerable to natural and human-caused disasters because their developing bodies and minds are more susceptible to the physical and psychological impacts of all hazards events than are those of adults; therefore it is of particular importance that appropriate communications and responses occur.

This report begins by examining existing trainings and guidance aimed at school bus drivers and other school-based personnel responsible for children’s wellbeing during emergencies to determine which if any of these may serve as models to inform the development of the final product. It then examines the existing literature on crisis communication, children’s perceptions of risk, their cognitive and motor capacities as they relate to executing an effective response during an emergency, and children’s psychological responses to hazardous events such as disasters and terrorism in order to fill in gaps identified in existing trainings and begin to suggest areas that the final training may address.
Part 1: Existing Trainings and Guidance

Review of existing crisis-focused driver trainings

As noted in the complementary report documenting the training landscape, no comprehensive clearinghouse of pupil transportation training materials exists. As a consequence, the materials reviewed in this report do not constitute an exhaustive review of existing trainings which touch on communications with children during crises on school buses. Rather, they are a representative sampling selected by the researcher from among the many reviewed to give the reader a sense of what training exists and what gaps regarding crisis communication may need to be filled by the training presently under development.

State of New Mexico School Bus Driver Security Training Program:

As the complementary training landscape report states, the New Mexico training is a gold standard in safety and security training for the school bus industry, and is used as a model for response throughout the country. While it lists many procedural steps that drivers should take when faced with a variety of hazardous events, it offers little in the way of guidance on communicating with children to enable them to respond effectively to a crisis. While the training materials state that the driver should “keep calm and reassure the students”, they do not operationalize how this would be achieved. What would constitute a reassuring behavior on the part of the driver? For example what tone of voice would be used, and what kinds of words and body movements should the driver employ? Additionally, it would be helpful to know what specific strategies a driver could adopt to maintain his or her composure in order to calm the students.
California, New York, and New Jersey Commercial Driver License Handbooks:

All of these handbooks use similar language regarding finding a safe place following emergencies and emphasize the importance of preparing students to listen for instructions and behave appropriately prior to their occurrence. They also give similar guidance to identify student helpers, suggesting they be both responsible and older, but note realistically, that it may not always be possible to enlist the help of older students during an evacuation, and thus preparedness on the part of all students is essential. (California Department of Motor Vehicles; New York State Department of Motor Vehicles; State of New Jersey Motor Vehicle Commission, ). None of these handbooks contained any specific instructions on what a driver should say to students during an evacuation.

Illinois School Bus Driver Training manual:

The State of Illinois’ driver training manual (Illinois school bus driver training curriculum, 2009) is one of the most comprehensive found throughout the course of this review, and contains the most communication-focused material detected to date. Specifically, it has an extensive section on recognizing the signs of gang membership and on avoiding conflicts with students who may be gang
members, including ‘hot button’ words and behaviors to avoid. However, when addressing emergencies, it still succumbs to the boilerplate advice of counseling calm without offering specific direction: “As a driver, you lead by being calm, positive and sure of yourself.”

**Bus Drivers: Managing Emergencies (DVD)**

This 21-minute video, produced by Coastal Training Technologies Corporation, outlines the responses school bus drivers should take when faced with a wide range of situations, including among others a bus break down, a mass casualty event, student violence, illness, and suspicious individuals (*Bus drivers: Managing emergencies*. 2008). Although brief, it offers sound guidance to address these situations and does more to address students’ and drivers’ emotional and physiological responses to stressful events than other videos viewed while conducting this research.

Of note, this video states that following an incident everyone involved, especially the students will experience an adrenaline rush. It also notes the symptoms of shock (anxiousness, cold feeling, paleness, sweating, weak and rapid pulse) and describes this as a response to extreme stress. Throughout the DVD, the narrator reinforces the message that the driver must remain calm to be effective and must maintain calm among the students: “remain calm and inspire calm in the students”, “remain calm and attempt to calm others”, “remember, your confidence will inspire calmness in them (students)”, “keep students calm and reassure them that everything will be alright”, (in response to shock): “warm the student and remain calm”. Since children take their cues from caregivers during stressful events, a driver who appears calm may help to lessen their terror and long-term trauma (Yehuda & Hyman, 2005); therefore, this is certainly an important message to convey. However, this is another example of a training that does not offer drivers strategies to achieve calm. Effective training
needs to delve into greater detail, for example by suggesting that drivers take a moment to breathe deeply to counteract the shallow breathing and rapid heart rate brought on by an adrenaline surge. The training also fails to instruct drivers on how to convey confidence and calm. A more effective approach might entail advising them to speak slowly in a low tone of voice, use slow movements, and maintain eye contact with distressed students. Finally, although it is tempting to tell a child that “everything will be alright”, crisis communication research shows that this may not be the best approach. If a child’s world has been shattered by horror and terror it is unrealistic to say that everything will be alright, and saying so could cause the driver to lose credibility with the children in his or her care. A better approach may be to instruct the driver to say what he or she is doing the help the students and that everything possible is being done to keep them safe.

**Communicating Safety: Accommodations for Children with Disabilities**

This training, presented at the 2010 annual conference of the National Association for Pupil Transportation (NAPT) addresses how safety materials and drills can be modified to meet the needs of students with a variety of disabilities (Furneaux, 2010). Although this training is focused on emergency preparedness rather than response, it is the only training reviewed which specifically mentions developmentally appropriate communication strategies and which gives drivers guidance on tailoring their approaches to meet students’ needs, and thus it bears inclusion. Additionally, in addressing a number of barriers to communication that a child with a disability may experience, and outlining a range of adaptations the driver may make it raises important considerations for the development of the present training. The disabilities and related accommodations addressed in this course include:
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- **Limited reading abilities:** these may necessitate that the student learn through hands-on activities and be supplied with important vocabulary prior to the training

- **Visual impairment:** this may necessitate written materials be in large print or Braille, or that the driver narrate actions and non-verbal behaviors while conducting the training so that the visually impaired student can fully participate

- **Limited ability to comprehend oral material:** this impairment may necessitate similar accommodations to those made for students with limited reading abilities; however, these students may be more able to make use of written materials

- **Limited or no hearing:** this impairment necessitates that the driver face the student during safety training, it also suggests the use of visual aids, hands signals or ASL interpretation as appropriate

- **Impairments of attention:** students may need a summary of the key points of the training to be able to identify them. It may be necessary to break down emergency procedures into finite steps, and may also require the use of signals to unobtrusively obtain the students’ attention. Finally, training may need to take place in a distraction free environment instead of during routine evacuation training time

- **Time-related impairments:** students who have a poor understanding of time or an inability to manage it may not be able to complete evacuation procedures within the allotted time period and become paralyzed by the time pressure inherent in this type of training. These students may need to be the last child to evacuate so that others are not
waiting behind them or they may need to practice evacuation outside the usual training time.

- **Temporary or permanent mobility impairments:** Students may not be able to participate in the training or may need assistance to do so. In the case of a temporary impairment such as a broken leg, the student may need retraining on evacuation procedures at the time of their injury to ensure their continued ability to safely ride the bus.

- **Multiple disabilities:** Disabilities mentioned above may be comorbid and multiple accommodations may need to be made.

This training reemphasizes how important it is that drivers be trained prior to an emergency with specific guidance on communicating clearly with students so that they are not just improvising a response, particularly when a substantial proportion of the students being transported have pre-existing barriers to effective communication. Some of the content and suggestions from the training that may be relevant to the development of the present training include:

- Understanding the impacts of disabilities on communication. The final training may need to include guidance for drivers that they maintain a written or mental inventory of their students’ strengths and vulnerabilities and that they devise communication strategies to address these prior to an incident.

- Providing students with terminology or summary of key point prior to the training.
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- narrating what is happening—this is a suggestion for visually impaired students or those with reading impairments, but may helpful to all students

Emergency Planning and Risk Management (NAPT 606):

The goals of this 8-hour training offered at the 2010 annual conference of the National Association for Pupil Transportation (Coughlin, 2004) were to enable pupil transportation management personnel to understand basic principles: (1) of risk management and loss control, (2) of emergency planning for a pupil transportation operation, and (3) of school bus security. The communication focused content in this training dealt with addressing parental and media concerns as well as maintaining contact with dispatch and the school bus district. Notably, this training did discuss the impact of trauma on mental health, and the need for aftercare following an accident or act of violence; however, only the needs of drivers were discussed. Perhaps because this training was aimed at pupil transportation managers and trainers rather than drivers themselves, there was little emphasis on communication with students. However, it would seem that planning for effective communication with students would be an essential component of emergency preparedness.

Materials for Educators

California Department of Public Health Tips for Educators:

This publication (Tips for communicating with students during an emergency) is based on material produced by the U.S. Department of Education and is representative of the guidance produced for educators by many states on communicating with students during emergencies. It purports to offer advice for teachers and principals on communicating with students during emergencies; however, the
focus is instead on understanding students’ responses following traumatic events. A lengthier and nationally disseminated training produced by the U.S. Department of Education’s Office of Safe and Drug-Free Schools (U.S. Department of Education, Office of Safe and Drug-Free Schools, 2003)\(^1\) also does no better, failing again to include any information on communicating with children while the crisis is ongoing. Another guidance document, produced by the National Education Association Health Information Network (NEAHIN), which is comprehensive in many aspects of emergency response and communication—going so far as to list which responses to undertake and audiences to address by the hour during a crisis—still fails to list communicating with students among the actions school systems should take (National Education Association Health Information Network (NEAHIN)).

**Child Trauma Toolkit for Educators:**

This toolkit for school personnel discusses the behaviors of pre-school, elementary, middle school, or high school aged children affected by trauma, for example by bearing witness to violence, suffering abuse, or experiencing a disaster (National Child Traumatic Stress Network Schools Committee, 2008). It lists common reactions that children may exhibit following a disaster and appropriate school personnel responses such as what to say and do to help children cope. Although several are relevant only to the classroom environment, many may also be applicable to the school bus. Detailed descriptions of common responses to trauma are included in Part 2 of this report, in the section entitled:

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\(^1\) As a side note, a recurring theme found when examining guidance for schools and in speaking with school bus drivers is that communications with drivers are somewhat of an after though, despite school districts’ reliance on bus drivers to execute their evacuation and relocation plans. The guidance produced by the U.S. Department of education evinces this perfectly; while it mentions giving bus drivers evacuation route cards, nowhere does it mention that schools should plan ahead to alert drivers regarding crises. Another guidance document produced by the Agency for Health Care Research and Quality, mentions the importance of coordinating with custodians and support staff, but again makes no mention of bus drivers (Chung, Danielson, & Shannon, 2008).
Children’s psychological outcomes following exposure to traumatic events and the factors that influence them, therefore this content is not summarized here to avoid duplication.

Part 2: Review of the literature to address training gaps

General Principles of Effective Crisis Communication

While extensive literature and training exist offering specific and actionable information on communicating with adults during disasters (Covello, 2003; Glik, 2007; Reynolds & Seeger, 2005; Reynolds, Galdo, & Sokler, 2008; Sandman, 2006), comparable materials focused on children were not found during the conduct of this phase of the research. The existing body of knowledge concerning communication with adults, as well as the specific training on crisis communication developed by CTSSR for transit workers, may serve to inform the development of the present training, although these would have to be adapted to meet the needs of children and also be vetted by experts skilled in developing developmentally appropriate communication.

The components of CTSSR’s crisis communication training that may hold particular relevance to communicating with children during school bus emergencies include the sections on fear responses, understanding panic, developing effective emergency messages, and non-verbal communication. The section of the training on fear responses outlines the body’s reaction to extreme stress such as that encountered during an emergency, as well as freeze, flight and fight responses. These responses are instinctual and not age dependent (Gray, 1987); therefore their inclusion would be informative for this audience. The section of the training which discusses panic emphasizes its rarity during emergencies and the importance of effective leadership and communication during a crisis and these principles should
also apply to crises that occur on a school bus. The final two sections mentioned above may be the most valuable to the development of the present training, as they operationalize the components of effective emergency messages as well as what a calm demeanor looks and sounds like so that drivers can communicate as effectively as possible.

**Children’s cognitive capacities by age**

An evident gap in existing trainings is the dearth of material addressing children’s cognitive capabilities. Given that drivers will be transporting a variety of school aged children (sometimes children of several different ages on the same bus) it will be particularly important for drivers to have an understanding of the cognitive characteristics that increase children’s vulnerability during an emergency and which influence their behavior. To begin, drivers will need to understand that most children (and even adolescents) do not possess the decision-making skills needed to respond appropriately to threats without rehearsal prior to an event and explicit instruction during it. Young children, such as those in Head Start programs or kindergarten, may lack the cognitive capacity to determine how to flee from hazards, or the motor skills needed to execute a flight response (The American Academy of Pediatrics (AAP) Disaster Preparedness Advisory Council, 2010). Extensive safety education notwithstanding, the importance of appropriate adult supervision cannot be overemphasized. For example, even when five year olds were given extensive training on road safety, and demonstrated knowledge acquisition regarding appropriate crossing locations, this still did not translate into their being able to execute appropriate road crossing behavior (Zeedyk, Wallace, Carcary, Jones, & Larter, 2001).
While adolescents are able to hold in mind more multidimensional concepts and are thus able to think more strategically than younger children, they are still developing their ‘executive’ or higher order mental functions (Blakemore & Choudhury, 2006). This type of functioning is responsible for impulse control, as well as deciphering meaning from subtle emotional cues and thus even adolescent children may not possess the deliberative skills needed to effectively assess the risks and subtle emotions present during a violent incident such as a terrorist attack and respond appropriately. Therefore, the ability to clearly and persuasively convey an appropriate course of action to a variety of school-aged children during a crisis is essential to ensuring their safety.

**Children’s understanding of risk**

In examining existing training, and speaking with drivers it also became evident that drivers may need to understand the factors that influence children’s risk perceptions, since this knowledge may help them to manage children’s responses during a crisis. Although there is not an extensive literature in this area, there are some consistent findings that may guide the training.

Children’s understanding of risk and their perception of dangerous objects or situations is predicated on their age, cognitive development, their attitudes and prior experience with sources of danger, and to a certain extent, their gender.
Children’s ages influence their cognitive development and thus their ability to reason abstractly about the relationships between cause and effect as well as their ability to take the perspective of others, and this in turn affects how they perceive danger. Between ages 4 and 5, children perceive objects themselves to be dangerous rather than the danger arising from how objects are used. At this age, children are able to identify hazardous situations and accidents, but are very unclear about the causes of accidents or about how they should avoid hazards. When they reach the ages of 6 and 7, children develop a much better understanding of how accidents are caused. They can identify a wider range of accidents, hazardous situations and protective measures than in the previous period. They also begin to understand their own role in the causation of accidents. Between the ages of 8 and 11, children’s understanding of the causes of accidents has broadened greatly. Children can perceive hazardous objects and situations in relation to their and others’ perspectives and they can distinguish between coping and avoidance strategies (Hargreaves & Davies, 1996).

While younger children have poorer understandings of the relationships between danger and harm, older children are more likely to engage in risk-taking behavior (B. A. Morrongiello et al., 2008). Morrongiello et al. (2008) also found that prior experience with injury did not result in risk avoidance, in fact, children with a history of injuries reporting taking more risks. The authors also found that children’s attitudes rather than their safety-related cognitions (appraisals of risk and knowledge of hazards) determined their risk taking behavior. In older children, possession of a defiant attitude overrode their
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Appraisals of risk, resulting in the use of fewer safety precautions. In a related study, (B. A. Morrongiello & Matheis, 2007) it was found that children who rated a risk-taking task as ‘exciting’ rather than ‘frightening’ were likely to take more risks (by walking across a higher balance beam).

A consistent finding in the research examining children’s perceptions of risk is that boys take more risks than girls (B. A. Morrongiello et al., 2008). Boys are more likely to attribute injuries to bad luck, as opposed to personal responsibility as are younger children. Boys are also more likely to give lower risk appraisal ratings and express optimistic bias (the tendency to view self as less likely to experience negative consequences than others). The tendency to express optimistic bias also increases with age (B. A. Morrongiello et al., 2008; B. A. Morrongiello & Rennie, 1998).

The authors conclude by recommending that interventions aiming to increase children’s safety should target children’s attitudes, not just their knowledge or safety cognitions (B. A. Morrongiello et al., 2008). What this literature may offer in the development of training for school bus drivers is guidance regarding which students are least able to understand the complexity of hazardous events, as well as possible insights regarding students who are most likely to take risks during dangerous situation (for example by trying to overpower an intruder or student in possession of a weapon) and thus may require additional supervision or direction during a crisis.

Children’s motor capabilities and physical vulnerabilities

There may also be value in providing bus drivers with information on the physical vulnerabilities particular to children so that they can respond appropriately to a variety of hazards. For example, it could serve drivers well to know that due to their elevated respiratory rates, proximity to the ground
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(where agents that are heavier than air may accumulate), and larger skin surface to body mass ratios, children are much more vulnerable to many of the biological and chemical agents that may be used in terror attacks (The American Academy of Pediatrics (AAP) Disaster Preparedness Advisory Council, 2010). Additionally, because they have smaller stores of body fluids, children are more susceptible to death and injury during incidents that cause vomiting or diarrhea (American academy of pediatrics. pediatric terrorism and disaster preparedness: A resource for pediatricians, 2006). Children have also been found to be at an elevated risk of injury or death during terrorist attacks involving explosions (Jaffe, Peleg, & the Israel Trauma Group, 2010). This knowledge may allow drivers to make more informed decisions when administering first aid in a crisis, or in evacuating the bus.

Additionally, although drivers may already know this intuitively, including data emphasizing that young children lack the strength to operate emergency exits may be important. For example, it may be instructive for drivers to know that five year-old children possess less than a quarter of the strength of eighteen year-old males and less than half the strength of eighteen year old females (Newman et al., 1984). Additionally, younger children lack the fine motor skills to extricate themselves from child passenger restraints, which are used onboard school buses in several states. Therefore it may be important for the training to suggest that drivers devise strategies to address these potential vulnerabilities (for example by pairing younger students with older “evacuation buddies”) prior to an emergency.
Children’s psychological outcomes following exposure to traumatic events and the factors that influence them

The psychological impact of trauma is cumulative, and generally a dose response effect exists, meaning that the greater the exposure to traumatic stimuli, the greater the psychological consequences (Lubit, Rovine, Defrancisci, & Eth, 2003; Vogel & Vernberg, 1993). Additionally, once traumatized, a child is much more likely to suffer future trauma than a never traumatized child.

Creating awareness among school bus drivers regarding the short and long-term impacts of psychological trauma is important for several reasons. First, understanding the long-term impacts of trauma exposure on a child’s subsequent development may help to motivate drivers to learn the most appropriate way to communicate with students so that they can minimize this exposure whenever possible. Second, drivers may already have students in their care.
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who have been exposed to trauma; and an understanding of trauma’s impacts can enable the driver to tailor communications and the responsibilities they assign to these especially vulnerable students. For example, drivers may avoid assigning previously traumatized students responsibilities during a crisis, as this might caused unneeded stress, and drivers may also strive to minimize their exposure to frightening scenes. The inclusion of information on trauma responses may also serve as an additional selling point of the training, given the prevalence of these exposures among the population and their resulting negative impacts on student behavior. Finally, following a crisis, drivers may encounter greater numbers of students who have been exposed to traumatic events. Having an understanding of the short and long term behavioral impacts of these exposures may help the driver to better manage students who are responding within a “normal” response range and allow them to focus instead on the students who are not coping effectively. Finally, as an integral part of the students’ academic day (the bus driver is their first contact with the school system in the morning and last at the end of the day), the driver can observe students following a crisis for signs of poor coping. He or she can then work in conjunction with school administrators to connect poorly coping students with additional services they might need.

Children who experience the most maladaptive coping following a disaster tend to be those who (Lubit et al., 2003; Vogel & Vernberg, 1993):

- directly witnessed the event, or saw horrifying scenes such as dead bodies
- were injured or became ill because of the event
- experienced the death or severe injury of a parent, relative or friend
- were displaced from their home or schools

2 In a study examining the epidemiology of trauma among youth, Lubit et al. (2003) estimate that millions of American children are either victims of violence or witnesses to violence each year, which can result in enduring developmental and behavioral consequences
• were trapped or experienced delayed evacuation
• heard unanswered cries for help
• have existing emotional problems
• have a history of trauma, either as a loss of a loved one, victim or as a witness to violence or abuse, difficulty at home, etc.
• have an adult in their lives who is having difficulty with their emotions

While almost all children exposed to trauma experience behavioral changes afterward, there are certain changes that children may display following trauma that may alert drivers that they are having difficulty coping, particularly if these persist for several months. The inclusion of these behavioral signs in the training may help drivers to better understand and manage children and enable them to connect distressed children with needed support services (school counselors, etc). Behavioral changes consistently observed following trauma that may indicate persistent distress include:

• *Generalized fear and anxiety:* In young children this may take the form of clinginess, or new fears. This may also include separation anxiety (for example an unwillingness to be separated from parents to board the bus), or panic attacks
• *Attention and learning problems:* May take the form of an inability to focus on instructions given by the driver or teachers
• *Social withdrawal or personality changes:* a formerly cheerful child no longer interacting with friends or greeting the driver, or a child becoming increasingly aggressive or irritable
Crisis Communication with Children and Psychological Responses to Trauma: Research to Inform the Development of School Bus Driver Training

By: Lauren Babcock-Dunning, M.P.H

- **Regressive behavior:** young children may lose previously accomplished developmental milestones, for example by having a decreased vocabulary or newly occurring toileting accidents

- **Hypervigilance or reactivity:** the child may always be ‘on edge’ looking for the next threat or this response may be observable in an exaggerated response to physical contact, loud noises, sirens, etc.

- **Fixation on the traumatic event:** In young children this may take the form of repeated trauma-related play, in older children they may become obsessed with the details of the event and preparedness for future events

- **Somatic complaints:** younger children may not express their distress verbally, but may instead complain of more frequently of an upset stomach or headaches; they may also overreact to bumps and bruises

**Conclusion**

To summarize, the only guidance available on communicating with children during a crisis containing any specificity regarding children’s behavior and appropriate responses to it is designed to deal with the aftermaths of a crisis. The guidance that does focus on the acute phase of crisis response is woefully vague as it concerns

The guidance that does focus on the acute phase of crisis response is woefully vague as it concerns communication with children, consisting mostly of unhelpful statements such as “keep calm” and “be reassuring”, without offering any insight into how to do so under pressure.
communication with children, consisting mostly of unhelpful statements such as “keep calm” and “be reassuring”, without offering any insight into how to do so under pressure. Based on key informant interviews conducted to date as well as the researcher’s interactions with pupil transportation personnel, it is fair to say that this is an industry that cares deeply about the wellbeing of children. The training proposal has been received enthusiastically by all those in this industry it has been discussed with; therefore, an opportunity exists to make a difference in the lives of children when it matters most—while they’re scared, in danger, and looking to their bus driver for guidance on what to do next.
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doi:10.1111/j.1469-7610.2006.01611.x


California Department of Motor Vehicles.*California commercial driver license handbook, section 10:*


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http://www.neahin.org/crisisguide/index.html


http://www.nydmv.state.ny.us/broch/cdl/cdl10sec10.pdf
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Disease Control and Prevention.

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_Tips for communicating with students during an emergency_ Retrieved 4/12/2010, 2010, from 
[http://bepreparedcalifornia.ca.gov/EPO/BePrepared/Schools/Emergencies/Tips+for+Communicating+with+Students+During+an+Emergency.htm](http://bepreparedcalifornia.ca.gov/EPO/BePrepared/Schools/Emergencies/Tips+for+Communicating+with+Students+During+an+Emergency.htm)
Crisis Communication with Children and Psychological Responses to Trauma: Research to Inform the Development of School Bus Driver Training

By: Lauren Babcock-Dunning, M.P.H


All-Hazards Communication Training
for School Bus Drivers:
A Review of School Safety Programs

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Senior Research Associate

November 15, 2010

The Center for Transportation Safety, Security and Risk

Rutgers, the State University of New Jersey
A National Transportation Security Center of Excellence
All-Hazards Communication Training for School Bus Drivers:

A Review of School Safety Programs

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All Hazards Crisis Communication Training for School Bus Drivers
A Review of School Safety Programs
Judith Auer Shaw, Ph.D.

Cover:
Photo courtesy of SCHOOL BUS FLEET magazine.
Photo by Karen Gullett, Montgomery County (Ky.) Public Schools
Background

School districts across the United States have put together plans to deal with the possibility of emergencies ranging from fire and weather to bombings, and yet few address the critical elements beyond their front doors; their school transportation systems. Handling an eighteen ton vehicle outside of the normal school environment, and responsible for up to sixty children or more, bus drivers are particularly vulnerability of multiple hazardous situations. This alone substantiates training bus drivers as a critical component of school safety and security, but it also goes much deeper. Schools must also cope with multiple distresses within the student body, and problems that may cause students to create high risk scenarios on schools grounds (including on the bus). While school buses are among the safest modes of transportation nationally, the potential for disaster exists from many situations. An estimated 453,600 drivers transport 25 million children, yet few of the 14,000 districts have training on hazard management for bus drivers.\(^1\)\(^2\)\(^3\) According to the 2007 US Department of Homeland Security Infrastructure Report, there are few security training program designed specifically for the transportation community. The absence of training needs to be addressed to secure the operators, passengers, and the public in general.\(^4\)

This research, conducted by the Center for Transportation Safety, Security and Risk (CTSSR) for the US Department of Homeland Security (DHS) and with advice of the Transportation Security Administration (TSA), looked across the spectrum of training from that offered by school systems, for bus drivers in particular, and age-appropriate crisis communication with children. This research focused on four areas: current bus operator training, the current state of all hazard communication with children, lessons from school safety training and emergency response programs, and a review of all incidents involving school buses. This component of that overall research focuses on the lessons from school safety training and emergency response programs.

The vulnerability of the drivers and of the children in their charge, makes all-hazards training a critical component of overall school safety and security. As the front line of our school systems, the capacity of bus drivers to handle crisis situations forms the basis for public confidence our institutions and ultimately in our government. It is in the interest of both DHS and the TSA to bring this network of key public servants into closer alignment with federal security and safety

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2 There are 450,000 operating school buses according to School Transportation News, [http://stnonline.com/faq](http://stnonline.com/faq)
goals to enhance our overall national preparedness.

Federal Response

Crisis planning began in earnest in US public schools with the No Child Left Behind Act of 2001 which required school systems receiving federal funding under Title IV, Part A, Safe and Drug-Free Schools and Communities institute management plans to respond to crises and emergencies on school grounds, focusing on drug and violence prevention. As a result of this, 95% of schools have some type of plan in place, but they are far from comprehensive.\(^5\)

In the wake of the terrorist attacks of September 11, 2001, and again after the 2007 shootings at Virginia Tech, members of Congress attempted to pass a series of bills designed to improve school safety and law enforcement.\(^6\) These bills continue to come up; Congressman Steve Rothman (NJ) reintroduced his bill, the School Safety Enhancements Act in July 2010. This bill addresses a wide array of school safety issues, including a joint directive to the Director of the Bureau of Justice Assistance and the Secretary of Education to establish an interagency task force to develop and promulgate advisory school safety guidelines. Despite the fact that none of these bills have been enacted, there has been a major response from federal agencies.

There are at least four major programs at the federal level that play a role in developing security-enhancing training for bus drivers; the Department of Homeland Security, the Transportation Security Administration, the Department of Education, and the Department of Health and Human Services. Remarkably, each adds a major element to effective school safety programs, but, as in many other cases where a structured response is critical to effective intervention, few of these seem to be coordinated.

The Department of Homeland Security (DHS)

The DHS has a mandate to ensure the safety to the American public in all areas ranging from strong interest in immigration and borders to transportation to cybersecurity. In the DHS area of Preparedness, Response and Recover, a key element in the area of school security and safety is the School Safety Program and the National Infrastructure Protection Plan, which in 2007 highlighted the role of school transportation personnel in security and safety response and the


need for additional training beyond the existing programs TSA.\(^7\)

A second major DHS program of importance to security and safety training development for bus drivers is the Federal Emergency Management Agency (FEMA) initiative on school emergency planning.

In 2003, FEMA published the “Safe School Projects” and tracked threat/hazard for nominal high school risks according to potential hazards from hazards such as stationary vehicle bombs or attack by small arms. This report clearly support the value to training school bus drivers in the area of all-hazards crisis management.

The expected categories of student/faculty and designated safe havens ranked at the top for asset values and threat rating (10). When looking at the vulnerability for transportation, both vulnerability to bombs and attack by small arms, it ranked equal to that of the vulnerabilities of students, faculty and staff, as shown in the chart below.

<table>
<thead>
<tr>
<th>Category</th>
<th>Act</th>
<th>Armed Attack</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Stationary Vehicle Bomb</td>
<td>Attack by Small Arms</td>
</tr>
<tr>
<td>Students/Faculty/Staff</td>
<td>200</td>
<td>360</td>
</tr>
<tr>
<td>Asset Value Rating</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Threat Rating</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Vulnerability Rating</td>
<td>10</td>
<td>9</td>
</tr>
<tr>
<td>Designated Shelter (safe haven)</td>
<td>180</td>
<td>120</td>
</tr>
<tr>
<td>Asset Value Rating</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Threat Rating</td>
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<td>4</td>
</tr>
<tr>
<td>Vulnerability Rating</td>
<td>9</td>
<td>3</td>
</tr>
<tr>
<td>Main School Building</td>
<td>180</td>
<td>144</td>
</tr>
<tr>
<td>Asset Value Rating</td>
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<td>9</td>
</tr>
<tr>
<td>Threat Rating</td>
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<td>4</td>
</tr>
<tr>
<td>Vulnerability Rating</td>
<td>10</td>
<td>4</td>
</tr>
<tr>
<td>IT/Communications Systems</td>
<td>160</td>
<td>160</td>
</tr>
<tr>
<td>Asset Value Rating</td>
<td>8</td>
<td>8</td>
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<tr>
<td>Threat Rating</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Vulnerability Rating</td>
<td>10</td>
<td>5</td>
</tr>
<tr>
<td>Transportation (buses and parking)</td>
<td>140</td>
<td>252</td>
</tr>
<tr>
<td>Asset Value Rating</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Threat Rating</td>
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<td>4</td>
</tr>
<tr>
<td>Vulnerability Rating</td>
<td>10</td>
<td>9</td>
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</tbody>
</table>

Figure 1. `Threat/Hazard Matrix for High Schools`\(^8\)

In response to this vulnerability, FEMA offers a training program on Multi-Hazard Emergency

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Planning for Schools (E361), for school districts. In order to qualify for the intensive four-day training, they must bring a team of first responders and school district officials, drawn from the list below:

**First Responders:** 1 person: School Resource Officer (SRO)/Law Enforcement, 1 person: Fire, 1 person: Emergency Management or Public Health

**School District Officials: Up to 6 people:** Superintendent or Assistant Superintendent or Risk Manager, Public Information Officer, Elected Official or School Board Member, School Security Official or School Safety Coordinator or School Safety Team Member, Transportation Coordinator, Principal or Vice Principal, Facility Manager or Building Engineer, Counselor or Psychologist, Food Service Coordinator, Nurse or Counselor or Psychologist.  

FEMA course director, Dawn Warehime, indicated that the training is done for small groups (four districts at a time). They bring their emergency plans and use them throughout the course. FEMA also works very closely with the National Clearinghouse for Educational Facilities (a division of the National Institute of Building Sciences), who conduct the research on which the course is developed along with other school-related programs. Of interest to this research is the focus. In this case, the course does not focus on students *per se*, but rather on the building itself, the integrity of the building and the sheltering in-place/evacuation continuum. The course curriculum involves the plan, assessment of the situation, developing an EOP (Emergency Operations Plan), identification of annexes (places to which students could evacuate) and understanding the NIMS system (National Integrated Management System, which is the singular focus of any ‘communications’ in training – the clear lines of communication with the emergency responders.

If the district buses students, they are encouraged to bring their transportation coordinator, or, if it’s a private company, a bus company representative. Another interesting note germane to this particular research, was the note that the advent of whole day kindergarten has made this easier for planners, which could have interesting repercussions for training bus drivers on communicating with younger children; a reminder of the need not only to address how to effectively engage the transportation staff, but also the need to focus on the need to effectively communicate with the children in crisis situations.

**Transportation Security Administration (TSA)**

TSA has two programs that focus on school bus safety. First Observer evolved from the School Bus Watch program. In the late 1990s, the US Department of Transportation funded a project to address safety awareness on the nation’s highways which became Highway Watch. After

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2001, the School Bus Watch initiative emerged and would later become First Observer. The National School Transportation Association (NSTA) had issued a list of key security agenda items for its members and they were eager to get a program in place; provision of security training for drivers and other employees was a top issue. The lack of training was cited by school districts and bus operators as a key failing within the student transportation system in the United States. TSA created School Bus Watch in 2004 with guidance from NSTA, along with the National Association of State Directors of Pupil Transportation Services (NASDPTS) and the National Association of Pupil Transportation (NAPT). When that program evolved into First Observer, it added a focus on promoting and expanding security awareness. That program is now online and available at no charge for qualified individuals.

The second TSA program, the School Transportation Security Awareness (STSA) Program was created, again in cooperation with NSTA, NASDPTS and NAPT, in 2005. This program offers security awareness training and information to school transportation professionals with a focus on terrorism and criminal threats to school buses, passengers and any facility related to that transportation. It emphasizes identifying and reporting perceived threats to security (vulnerability and mitigation) and how to handle the situation in the event it is necessary.

The STSA program actually was designed to complement the First Observer program, adding in-depth of focus on prevention. There are some who critique it for not offering a clear mechanism to ensure coordination within the overall transportation community; just as school districts do not necessarily bring their transportation professionals into their school planning process, neither does it seem the schools work as effectively as they might with their local counterparts. These elements of the crisis response team were still training independently, as of 2009, which raised concerns about how cohesive the operation would be in a time of crisis. The scope of the training was also seen as too focused on a hostage/hijacking scenario. Some felt this was an opportunity to develop a broader focus – and integrate multiple positive elements in a broader-reaching future training, including training on age-appropriate communication with students.

**Department of Education (DOE)**

The DOE implements the No Child Left Behind Act of 2001, specifically compliance with the mandate to have crisis and emergency planning for any school receiving funding through Title 4, Part A, Safe and Drug-Free Schools initiative that could interface more strongly with overall planning. It also directed the creation of the National Center for School and Youth Safety to act as a clearinghouse for information on best practices to prevent school violence, provide

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10 This was necessitated when the Inspector General found the outreach by the previous contractor was too limited and recommended that the project be put out for bid, which it was in 2008. Per Truckinginfo.com in an article entitled Eyes on the Road: First Observer Takes Over for Highway Watch by Oliver B. Patton, Washington Editor. Accessed: October 2010: http://www.truckinginfo.com/operations/news-detail.asp?news_id=67463&news_category_id=71
intervention and crisis management, and track model school safety programs. The Center is also directed to work with local governments, school officials, parents, students, and law enforcement to enhance school safety and prevent school crime. This is the Readiness and Emergency Management for Schools (REMS) Technical Assistance Center.¹¹

A 2007 OSDRS report, *Practical Information on Crisis Planning*, highlights the importance of another crisis plans to the needs of the individual school:

In fact, a plan should not be one document. It should be a series of documents targeted to various audiences. For example, a school could use detailed response guides for planners, flipcharts for teachers, a crisis response toolbox for administrators, and wallet cards containing evacuation routes for bus drivers. Plans should be age appropriate. Elementary school children will behave much differently in a crisis than high school students.¹²

The 2008 OSDRS report, *A Guide to School Vulnerability Assessments: Key Principles for Safe Schools*, is germane to this research.¹³ This report focuses on school bus behavior and underscores the importance of involving bus drivers in emergency planning practices; knowing how to best communicate with high school students is as challenging as communicating with very young children, but for very different reasons (it also points out the key role of bus drivers in intercepting potential behavior problems before they erupt in school). The REMS Newsletter (April 2008) reported that 285 bus drivers in Hanover County Virginia trained with the county emergency management team to prepare for emergencies based on encounters with an intruder on the bus. This type of training is primarily focused on communication and National Incident Management System (NIMS) but also covers response and overall planning.¹⁴ REMS also advocates for after-action reports for training exercises to capture lessons learned from sessions.¹⁵

In a cooperative effort with the DOE, the US Secret Service published a report in 2002 called *Threat Assessment in Schools: A Guide to Managing Threatening Situations and to Creating Safe School Climates*.¹⁶ This report is of key interest in that it focuses on communication between

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high school aged students and school personnel to defuse behavioral tendencies that could lead to crisis situations. Approaches like *Fostering a Climate of Respect* emphasize the role of all adults, including bus drivers, in encouraging communication with students about concerns and problems. The report continually emphasizes the attention to communication as a factor in school crises; the importance of listening to students concerns, and ensuring that every student in the school has a trusted adult they can talk to about their problems.  

**Department of Health and Human Services**

Within the Department of Health and Human Services, the Agency for Healthcare Research and Quality (AHRQ) focuses on public health emergency preparedness, and in 2006, found a significant increase in emergency response but with little attention to the needs of children. They subsequently studied school emergency preparedness and issued a national analysis and recommended protocol in 2008. AHRQ analysis did look at a number of school plans form 2004, finding inadequacies of interest to this research; a complete absence of references to training for bus driver; and a paucity of emergency plans for athletic events, which would clearly include transportation personnel. They did discuss transportation in the context of evacuation relocation strategies for districts where a high percentage of students were transported either by parents or bus, expressing the need for a means to rapidly mobilize the school bus fleet and to have a fleet of sufficient size to transport all students at the same time. These were presented without any elaboration as to how this might be planned in advance or implemented effectively.

With its’ emphasis on the needs of children, it was anticipated that this assessment would lend some insight in the area of communication, but, like many others investigated for this report (see discussion on state programs), this limited its direction to the physical aspects; walkie-talkies, public address systems and cell phone use. The need for guidance on how to effectively communicate using age-appropriate strategies, is not part of the AHRQ report.

In looking at the AHRQ response, it is clear that the research being done by CTSSR will be a

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17 Ibid, pp. 69, 80.
national model, and therefore has a responsibility to provide superior guidance. In developing a protocol for training school bus drivers on the fundamentals of age-appropriate communication during all-hazard events, it is clear that the training must be developed in the context of the overall security and safety response planning of a district, which in turn needs to be coordinated with the local emergency response planning units; effective implementation depends on familiarity with both procedures and with the rest of the response team.

State Emergency Operation Planning Actions

Absent a uniform federal requirement, many states enacted legislation to protect the security of children in their public and private educational facilities. A recent report from Save the Children(2009), The Disaster Decade, published a report card on state disaster preparedness for children. They found thirty-seven states had laws requiring a multi-hazard plan for disaster response. The report recommends federal action on several fronts, first of which is to establish a National Disater Preparedness Standards for Childcare Centers and Schools and to establish an Office of Children’s’ Advocacy at FEMA.  

In looking at the state program, a number of efforts stand out for this research inquiry as they have elements that either address all-hazard, security and safety training for transportation personnel, or they address communication issues of interest.

As part of their overall program, the Kentucky Center for Safe Schools (KCSS), in conjunction with Texas Engineering Extension Service (TEEX), offers training for emergency response managers, administrators, community leaders, and others from the broader community on threat and risk assessment for terrorism and all-hazards incidents. Drills are part of the Fayette County Public Schools. Every school conducts lockdown, fire and severe weather and earthquake drills annually. It was interesting to note that the lockdown required classrooms to leave the lights on – that any room with the lights off indicated trouble.

The Kentucky Center for School Safety publishes quarterly reports that covered training for bus drivers over the course of 2008. Among other notes, “The data revealed a need in school

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22 Kentucky Department of Health, training flyer. Accessed: October 2010: [https://ky.train.org/DesktopModules/eLearning/CourseDetails/CourseDetailsForm.aspx?tabid=62&CourseID=1022360&backURL=LORlc2t0b3BcG5kb2Z0d2FkbGVuc2ZveW1iZG5lciB0cmFuc2l0ZQ==](https://ky.train.org/DesktopModules/eLearning/CourseDetails/CourseDetailsForm.aspx?tabid=62&CourseID=1022360&backURL=LORlc2t0b3BcG5kb2Z0d2FkbGVuc2ZveW1iZG5lciB0cmFuc2l0ZQ==)
districts for more training on bus driver behavior management skills.”

Bus Behavior Management Trainings, 161 participants (3 workshops)
Bus Driver/Student Communication, 25 participants
Behavior Management and Bullying for Bus Drivers (165)
School Bus Discipline and Management, 362 participants (5 workshops)²⁴

In their outline of responsibilities for the emergency management team, the KCSS spells out the role for bus drivers:
1. Supervise the care of students if an emergency occurs while children are on the bus.
2. Transfer students to new location when directed by the dispatcher or authorized regulatory agency.
3. Follow procedures as directed by your transportation policy for emergency situations.
4. Assist as directed by the principal/incident commander.²⁵

Georgia has a very active training program for bus drivers that includes a section on emergency evacuation that is particularly instructive for its discussion of “helpers.”²⁶

Another active state is Texas, which has Unified School Safety Standards. None of these address school bus operators, but did speak to plans and structured communications through an adaptation of the National Incident Management System and Incident Command Systems.²⁷

While the state legislation did not call for drills, the Texas School Safety Center does have a section on drills, but there is no reference to drills involving school buses. The section on School Drills has an expansive discussion of learning objectives that could be useful in developing courses for school bus drills.²⁸ The accompanying PowerPoint recommends that “students be taught each type of emergency drill and the reasons and conditions that would activate the drill, in an age-appropriate manner.”²⁹ The PowerPoint also suggests that all school personnel be involved in drills, including bus drivers. The PowerPoint illustrated the importance of communication with the students, including:

- Drills should be named and announced using plain language instead of code words in accordance with Incident Command Systems and NIMS
- NO MORE CODES! -- the accompanying explanation quoted a high school student following a drill that announced a “code white” -- and neither the students nor the

teacher knew what it meant.

- Drill should be taught to students before they are practiced including an explanation of why they are important
- Parents should always be notified in advance - this was illustrated by a case in Michigan where a district conducted a surprise drill with middle and high school students who were taken out of their classrooms and frisked by police officers in full riot gear carrying weapons.\footnote{Ibid.}

Students in the \textbf{Minnesota} Public Schools have five mandatory lockdown drills annually. In \textbf{Kansas}, some districts have five required annual hazard drills, including bus evacuation (the others are fire, tornado, severe weather and lockdown)\footnote{US Department of Education: Practical Information on Crisis Planning: A Guide For Schools And Communities \url{http://www2.ed.gov/admins/lead/safety/emergencyplan/crisisplanning.pdf}, p. 6-14 (internet page 63)} The State provides an extensive series of training videos for bus drivers on evacuation and also on behavior issues and communicating with young children.\footnote{Kansas State Department of Education: School Bus Videos. Accessed: October 2010. \url{http://www.ksde.org/Default.aspx?tabid=1783}}

The \textbf{Missouri} School Board Association sponsored a conference on Risk in July, 2010. Brett A. Sokolow, Managing Partner, NCHERM (National Center for Higher Education Risk Management), spoke about safety on campus. He highlighted many significant lessons for our training: understanding violence, with an emphasis on early detection and engagement, and the role of all professionals in threat assessment through behavioral intervention.\footnote{Sokolow, Brett A. 2010. \textit{Campus Safety and Violence Prevention in the College and University Setting} (PowerPoint). National Center for Higher Education Risk Management (NCHERM). Accessed: October 2010. \url{http://www.educationsafetyconference.org/presentations/MOSafetyConference_Keynote-Sokolow.pdf}} Among the references Sokolow provides, is the QPR Institute for Suicide Prevention.\footnote{QPR Institute. Accessed: October 2010. \url{http://www.qprinstitute.com/}} While not directly related to our research focus, the message has interesting parallels. QPR represents three concepts: question, persuade and refer, which are fundamental to training for bus drivers when dealing with complex behavior problems on school buses.

A 2005 series of workshops sponsored by the State of \textbf{Pennsylvania} Department of Education, the Center for Schools & Communities and the Center for School Safety drew a crowd of over 600 participants to a series of workshops on security issues. Of particular interest was one on \textbf{Crisis Response and County Coordination of Emergency Planning / Procedures}, presented by Kathy Monko, ARIN Intermediate Unit 28 and Danny Sacco, Director of Safety and Security, Indiana Regional Medical Center, Indiana, PA; and Randy Brozenick, EMA Director, Emergency Management Agency and William Hamilton, EMS/Safety Coordinator, Armstrong County Memorial Hospital, Kittanning, PA. The panel discussed the history of their School Safety Committee and the role of the committee in the adoption of the Incident Command system amongst all school districts in Indiana and Armstrong County as a procedure for their school
safety plans.  

**Other School Security Training Efforts**

A website called School Safety News (http://www.schoolsafetynews.com) has a number of interesting elements for our research. One is a map of incidents across the country, many of which involve bus accidents. A second is a series of articles that raise issues which we might want to consider in developing our training. One is about a shooter incident and the concept of fighting back. This topic and the safety factor versus the self-preservation factor could be of interest to the professionals we interview. The compelling element is that training often now encourages fighting back despite the logic of protecting oneself, but in fact, when students in a Springfield, Oregon, high school did fight back, they prevented untold deaths.  

A second effort, offered through Keep Schools Safe (www.keepschoolssafe.org) has a number of resources, including one for bus drivers on defusing aggressive behavior.  

**Resources**


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National Association of Attorneys General and National School Boards Association www.keepschoolssafe.org


National School Safety Center, www.nssc1.org


http://www.ovc.gov/publications/bulletins/schoolcrisis/welcome.html

http://www.ovc.gov/publications/bulletins/schoolcrisis/pg8.html; produced by Yale University Child Study Center, National Center for Children Exposed to Violence


Appendix D
Research to Inform the Development of School Bus Driver Training: Case Study Development Investigation

A Review Of Incident Data For Collisions, Crime And Terrorism

Robert J. Stokes, Ph.D.

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Rutgers University
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Introduction

There are a number of different types of hazards facing school-based transportation operators. These hazards can be organized into four broad categories: including motor vehicle collisions, extreme weather events (including tornados, hurricanes, earthquakes, and blizzards), crime and acts of violence, and terrorism events.

For this project, data sets that reported the type and frequency of bus collisions, crime and terrorism incidents were sought. It was hoped that these datasets would offer a larger picture of the relative rate and level of seriousness of each of these hazard categories. While some data were discovered, none offered a suitable statistical overview of the larger problem of school bus hazards. Reputable sources discovered in this research covered accidents and crime issues on school buses, while other reports dealt with terror incidents against surface transportation targets (with a vast majority of incidents occurring on non-school-based transit systems).

In addition to statistical data, more in-depth case descriptions of school bus incidents were also sought. It was hoped that these would include descriptions of the circumstances of the incident as well as the reaction of the school bus driver, public security personnel and bus passengers. The following section offers a description of each data sources by type of hazard, along with a short summary of relevant data and incident trends in the area of school bus safety.

Bus accidents and collisions

Each year in the US, 475,000 school buses travel almost 5 billion miles and transport just over 25 million children to school and school related activities. (Transit Security Administration, 2010). In 2008, the National Highway Transportation Safety Administration (NHTSA) issued a report (DOT HS 811165) on school transportation-related crashes over the 11-year period from 1998 to 2008. The NHTSA reported
414,399 fatal motor vehicle crashes on US roads. Of this total, only 0.34 percent (1,409) was classified as school transportation-related. Over the study time frame, 1,564 people died in school transportation incidents involving school buses (an average of 142 fatalities a year). Nearly three fourths of victims (72%) were passengers in cars that collided with school transportation vehicles. On average, there were 11 bus occupant deaths a year, with a slight majority (6) being students, with the remaining 5 deaths being bus drivers. An additional 20 deaths per year were the result of a pedestrian being struck by a school bus. The rate of fatality for school buses was 0.23 fatalities per 100 million vehicle miles travelled (VMT), compared to 0.92 per 100 million for passenger cars (NHTSA, 2009). ¹

While school buses are one of the safest forms of travel in the US, the circumstances surrounding school bus collisions are an important consideration for the design of training programs for injury prevention and post collision damage mitigation. An examination of collision reports from the National Transportation Safety Board (NTSB) published over the past decade reveals a pattern of factors that contribute to bus collisions. Similar to explanations for accident trends involving cars and light trucks, driver distraction is the primary cause of bus accidents.² Typical distractions chronicled in the literature include: 1) actions of other drivers, 2) use of mobile technology devices, and 3) eating or drinking while driving. A fatal school bus accident in New Mexico was caused by a bus driver trying to catch a falling snack that had been left on the dashboard by a chaperone. The bus ran off the road, the driver overcorrected, which led to the bus turning over (NTSB/HAB-02/05, 2002).

A distraction that is largely idiosyncratic to bus operation, however, results from the disorderly behavior of students. Indeed, bus policies that reduce on board driver distractions be they behavior

¹ This equates to less than one fatality per 100 million miles traveled; there are far fewer school bus deaths, but also far fewer miles driven by school buses compared to passenger cars.
² The number of actual cases was limited to general statistics; our review found only one collision report.
rules, seat belt rules or the use of electronic surveillance technology to enforce bus rules have become key components to bus operational management.

In addition to driver distraction, environmental factors also play a role in bus collisions and accidents. Compromised visibility due to darkness, smoke, or bad weather such as fog and heavy rain contributes to bus collisions. Also, uneven or sporadic traffic patterns due to road maintenance or construction can be deadly. In the summer of 2010, two school buses filled with school band members on a trip to an amusement park in Missouri crashed into the back of tractor trailer, killing 2 and injured 53 as the buses failed to stop for stalled road traffic (Robbins, 2010).

Another variable contributing to bus collisions is the lack of route of awareness by bus drivers. Drivers that get lost or do not have a good sense of their route or end location are prone to making bad driving decisions. In one case, a 79-year-old driver taking elementary school aged children on a trip to a pumpkin patch got lost and failed to stop at stop sign. His bus was broadsided by a dump truck, seriously injuring 7 children. The NTSB found that non-regular routes, such as those for school trips or sporting events offer a higher risk to school transportation operators (NTSB/HAR-00/02, 2000).

Crime and disorder on school buses

It is difficult to discern the true extent to which crime and disorderly behavior occur on school buses. Federal agencies, such the National Center for Education Statistics, collect data on school crime and safety through a national survey. This survey, however, does not break out incidents that occur on school buses or bus stops. Despite this lack of a definitive data set on crime and safety, there are some sources that shed some light on this problem. The National School Safety Center issued a report in March of 2010 that chronicled each violent death that had occurred on or around school property from the 1992 school year to the present. This report relies on a non-scientific sample of news clippings from
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US press sources. While the data is not exhaustive, it does offer an interesting level of detail on each incident. It also details the location of violent deaths (including shootings, stabbings, beatings and suicides) on school buses and at bus stops. A total of 27 violent deaths occurred on schools buses or bus stops in the US over the past 18 years (National School Safety Center, 2010). Many of these deaths were occurred at bus stops or on municipal transit carriers, rather than traditional school buses, as many urban-based school students rely on public transit organizations for their school transportation needs.

One of the more disconcerting cases of a school bus-related crime involved a disturbed 42-year-old waiter from Miami, Florida, Nick Sang. On November 2, 1995, Sang commandeered a bus with 13 disabled students on board. Reportedly upset with the IRS, he forced two children and adult women on the bus while holding a canister he claimed was an explosive device. He forced the female bus driver to drive to Miami Beach, stopping twice, once to obtain a cell phone from the police, and again to drop off the children and woman he had forced onto the bus earlier. The hijacker was shot and killed by the police after refusing orders to get off the bus. The children were all safe, as was the bus driver who was hailed as a hero for maintaining her composure throughout the ordeal (National School Safety Center, 2010).³

Terror Related Incidents

While the actions of Mr. Sang can be considered a criminal act perpetrated by a deranged individual, the hijacking of school buses is a real fear for school transit planners. Both the National Association of State Directors of Pupil Transportation Services (2004), and the Transit Security Administration (2009) have published training guides for terror prevention on school buses. Stressing proper management, hiring and supervision policies, frequent facilities and bus inspections, along with

³ There were no interviews found on this case.
driver security vigilance and open lines of communication with public safety operatives, these guides offer practical guidance for school transit managers to prevent terror events. Stressing vigilance is pragmatic, as the rate of past terror events involving school buses is quite low, even in countries where surface transportation attacks are frequent.

An examination of surface transit-related international terror events collected and reported by the Mineta Transportation Institute for the 10-year period (1990-2000) captured 630 terror events perpetrated against surface transit internationally. Researchers found the targeting of surface transit to be particularly damaging, as 20% of all terror events lead to fatalities, while 43% of recent terror plots against surface transit resulted in death, with an increasing result being multiple deaths per incident.

Particularly salient in this analysis was the finding of a growing trend in the targeting of buses, which grew from 29% to 41% of targets in the late 1990s (1997-2000) (Mineta, 2001). Of the 200 incidents found in the time period from 1997-2000, 55% utilized a bomb as the weapon of choice (these data exclude bomb threats). The case descriptions of attacks on buses reveal political terror as well as simple crime (i.e. bus hijackers robbing bus passengers). The lone case of a school bus terror incident from 1997 to 2000 occurred in Israel in 1998, as a Hamas-linked suicide-bomber rammed an army jeep that was accompanying a school bus to school (a standard security precaution in parts of Israel) in an apparent attempt to blow up the bus. Two died and six others were injured in the attack (Mineta, 2001).

Conclusions

Bus drivers face a myriad of challenges as they transport children to and from school, as well as on class trips and sporting events. Accidents and collisions are by far the most frequent occurrence. While the rate of fatality is low among school bus riders, the fact that about half of all deaths in bus
collisions and roll-overs were the bus driver raises the issue that students themselves need training in post-collision emergency procedures. Clearly, maintaining order on the bus, minimizing distractions, and route awareness are key training issues for drivers in order to reduce collision events.

Crime and disorder are also problems on US school buses. While data located for this study fails to fully capture the incidence rate of bus disorder, anecdotal evidence found from multiple media sources reveals that order maintenance and violence on school buses is an issue.

The rate of terror events perpetrated against school buses is low around the globe, and is virtually non-existent in the US. That notwithstanding, the need for vigilance and awareness training is very important. The fact that school buses are highly symbolic terror targets, with fear associated with terror events potentially interrupting the daily workings of our nation’s educational system, makes the importance of training paramount in the future.
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