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# TRUNK ENTRAPMENT REPORT

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## TRUNK ENTRAPMENT REPORT

### INTRODUCTION

The National Highway **Traffic** Safety Administration (**NHTSA**) is the agency within the U.S. Department of Transportation responsible for Federal motor vehicle safety standards. NHTSA is charged with the responsibility of ensuring that the public is protected against unreasonable risk of death or injury through the use of a motor vehicle. In 1997, more than 6.7 million police reported motor vehicle crashes occurred on our highways – one every **5** seconds. On average, a person was injured in these crashes every 9 seconds, and someone was killed every 13 minutes. Consequently, NHTSA has centered its motor vehicle safety efforts on preventing crashes and mitigating the consequences of the crashes that do occur. NHTSA's data collection systems **also** have centered on collections of crash statistics to provide an overall measure of the highway safety of motor vehicles, to help identify **traffic** safety problems, to suggest solutions, and to help provide an objective basis on which to evaluate the effectiveness of motor vehicle safety standards and highway safety initiatives.

This report researches the issue of motor vehicle trunk entrapments with focus on examining available statistics on the number of individuals who have died as a result of inadvertently locking themselves in the trunk of a motor vehicle and on the number of incidents of individuals being intentionally locked in a motor vehicle trunk. Incidents of trunk entrapments, like other non-crash sources of motor vehicle injury (e.g., injuries from power window closings, hot radiators, carbon monoxide poisonings), are not collected in NHTSA's standard data sources because they are not connected to a crash. When NHTSA tries to quantify the safety problem associated with a **non-**crash situation, the agency must rely on data gathering efforts of others. For this report on trunk entrapments, NHTSA examined data **from** NHTSA's Fatality Analysis Reporting System (**FARS**), NHTSA's National Automotive Sampling System/General Estimates System (**NASS/GES**), NHTSA's Hotline Vehicle Complaint File, a report from the Centers for Disease Control and Prevention (CDC), data supplied by the American Automobile Manufacturers Association (**AAMA**), and information provided by the advocacy group Trunk Releases Urgently Needed Coalition (TRUNC). NHTSA also conferred with the U.S. Consumer Product Safety Commission (CPSC), the Federal Bureau of Investigation (FBI) and the National Center for Health Statistics (**NCHS**).

This report also describes a pilot project NHTSA has undertaken with NCHS to try to develop an actual five year count of deaths from trunk entrapment, as well as some other non-crash events. If this project is successful, it would substantially increase knowledge about the frequency and degree of harm associated with these non-crash events.

## **PREVIOUS AGENCY LOOKS AT TRUNK ENTRAPMENT**

The issue of motor vehicle trunk entrapment was initially raised in May of 1984 when NHTSA was petitioned to require that every new car be equipped with a trunk release lever that can be easily operated from inside a vehicle's trunk. The petitioner listed various possible circumstances of accidental and intentional entrapment in the trunk of a vehicle. The petitioner stated that persons such as alarm and stereo installers, mechanics, playful children, pranksters, and crime victims may be trapped in the trunk. The petitioner also believed that an elderly person might **fall** into the trunk and thereby become entrapped. After reviewing the petition and previous actions in this area, NHTSA published a notice of denial for rulemaking which concluded that the likelihood of an internal trunk lever ever being utilized was remote. NHTSA stated that it was not aware of any data indicating that there is much likelihood of occurrence of unintentional entrapment in a vehicle's trunk. **NHTSA's** rationale for its conclusion stated that trunk lids are spring-loaded in the open position and, therefore, not likely to close by themselves with someone inside. Because the lids are spring loaded, it is difficult to close the trunk from any position except standing behind the vehicle and pushing down on the outer surface of the trunk lid. From that position, a person has a full view of the trunk interior. The agency stated that it believed it would be extremely unlikely that a person would accidentally close the lid with someone inside. Concerning an elderly person falling into the trunk, the petitioner suggested that entrapment could occur if snow on the trunk closed the lid when the person fell. It was unclear to NHTSA how the trunk would entrap the person in this circumstance, since it is unlikely that the individual would fall in such a way that more than his or her upper torso is inside the trunk. Again, in this situation, NHTSA stated its belief that an internal trunk release lever would not likely need to be utilized.

The 1984 notice stated that NHTSA was aware that victims of crime or pranks are, on occasion, purposely locked in the trunk of a vehicle. However, the petitioner did not provide any data supporting the benefits of an internal release mechanism in these circumstances. The agency did not and still does not know, for example, how often a victim of a crime or prank who is purposely locked in a vehicle's trunk might also be secured so that an internal release mechanism could not be operated.

Between May 1984 and July 1998, NHTSA received less than a dozen letters expressing concern about trunk entrapments. In no case was data provided to the agency about the size of this safety problem.

## **EVENTS OF THE SUMMER OF 1998**

In June 1998, the U.S. Congress directed NHTSA to conduct a study of the benefits to the public of a regulation to require the installation in a motor vehicle of an interior device to release the trunk lid. NHTSA is required to submit a report on the results of the study to Congress by December 1999. Additionally, during a three-week period between July and August of 1998,

eleven children died in three separate incidents when they locked themselves in the trunk of an automobile. This series of events renewed demands that NHTSA and automakers take action to prevent such deaths in the future.

## **UNDERSTANDING THE PROBLEM**

In September 1998, NHTSA began to gather information on the issue of trunk entrapments, which is not a well defined or understood problem. In general, it appears that the victims of trunk entrapment include two distinct categories: people who are intentionally locked in a motor vehicle trunk by criminals and children who inadvertently lock themselves in the trunk. The problem solution requires some understanding of criminal and child behavior, the human factors problem of designing a mechanism that children and others will be able to operate quickly when frightened and in the dark, and other issues including location and possible power requirements. Considering the broad array of issues, NHTSA decided that instead of having the government develop a solution on its own, a more effective way of addressing and understanding the issue might be to bring business, government and civic leaders, medical and engineering researchers and a broad coalition of concerned organizations together to work to prevent trunk entrapments. To accomplish this, NHTSA decided to convene an independent panel of experts. The Expert Panel on Trunk Entrapment would consist of representatives from various industries, including vehicle manufacturers, law enforcement groups, experts in child psychology and behavior, child safety advocates, the medical community, other Federal government agencies, and others interested entities.

In November 1998, NHTSA asked Ms. Heather Paul of the National Safe Kids Campaign to chair an Expert Panel for the purpose of developing recommendations and strategies by mid-1999 for addressing the issue of deaths and injuries resulting from motor vehicle trunk entrapment. Among other things, the panel is expected to study a range of possible solutions, including interior trunk latches, and warnings or other means to prevent entrapments in the first place. The group is also expected to assess the need for education programs to alert parents and children to the risk of trunk entrapment.

## **PROBLEM SIZE RESEARCH**

In an attempt to determine the problem size and gather data on the annual number of incidents (including incidents of death and injury) involving individuals who are locked in the trunk of an automobile, NHTSA examined all of its motor vehicle related databases and collection systems, and contacted four other federal agencies.

### **NHTSA's Fatality Analysis Reporting System (FARS) and General Estimates System (GES)**

**NHTSA** has an extensive motor vehicle **traffic** data collection system which includes its Fatality Analysis Reporting System (**FARS**) and its National Automotive Sampling System/General Estimates System (GES). Both systems were designed and developed by NHTSA's National Center for Statistics and Analysis (**NCSA**) to provide an overall measure of highway safety, to help identify **traffic** safety problems, to suggest solutions, and to help provide an objective basis on which to evaluate the effectiveness of motor vehicle safety standards and highway safety initiatives. Data from these systems are used to answer requests for information from the international and national highway **traffic** safety communities, including state and local governments, the Congress, Federal agencies, research organizations, industry, the media, private citizens and the NHTSA engineering and management **staff**.

To be included in the FARS database a motor vehicle must be involved in a crash while traveling on a **trafficway** customarily open to the public, and must result in the death of an occupant of a vehicle or non-motorist within 30 days of the crash. To be eligible for the GES sampling data base, a police report must be completed for the crash, and the crash must involve at least one motor vehicle traveling on a **trafficway** and result in property damage, injury, or death.

Neither of these databases has any incidents of trunk entrapments.

Limitation of FARS and GES Data -- By restricting the attention of FARS and the GES to police-reports involving a crash on a **trafficway** customarily open to the public, these NHTSA data bases are not a surveillance system of motor vehicle trunk entrapments or any motor vehicle related hazard that is not a result of a collision on the publicway. Thus, it is not surprising that neither of these databases has any incidents of trunk entrapments.

### **NHTSA's Hotline Vehicle Complaint File**

The Hotline Vehicle Complaint data file consists of a descriptive listing of vehicle and equipment problems reported by consumers. The complaint database includes statements made by consumers in letters and/or vehicle owner questionnaires which were forwarded to the agency. This database was searched for complaints regarding the trunk lid and door assembly, and locks and latches. The period examined was **from** January 1989 to August 1998.

During that period NHTSA received 35 complaints regarding trunk lids failing to properly remain open or inadvertently closing. The file records contained one case involving two young children who died after apparently climbing into the trunk of a motor vehicle during

a hot day in July 1993. The children apparently closed the trunk lid and both children, ages 3 and 5, died as a result of entrapment. The vehicle was reported to be a 1986 Hyundai Excel. The doors to the vehicle were locked and the trunk was not locked.

Some type of injury was reported in 25 of the 35 complaints. The reported injury was to the head or some other body part as a result of the trunk lid failing to stay open and dropping to strike the victim. One non-fatality was reported where the trunk lid closed with a person inside the trunk. This individual was replacing a small spare tire in the rear of the trunk. His wife released him from the trunk after arriving home and searching for him.

The table below provides a summary of the trunk lid complaints reported to the agency during the period of examination (January 3, 1989 to August 1998). The report was generated by the NHTSA Office of Defects Investigation. Although the period of examination was **from** January 1989, the report includes one complaint from 1986. This is because, although the incident occurred in 1986, it was not reported to the agency until some time later, and was not added to the agency's database until 1990.

### **Office of Defects Investigation Complaint Report**

Incident Date	Year/Model	Complaint
<b>02/03/86</b>	1982 Cadillac Deville	Trunk plungers came down on person's head.
<b>04/01/89</b>	1984 Cadillac Seville	Trunk hinges failed to stay open, lid slammed shut, locking person inside who was replacing spare tire.
<b>07/30/90</b>	1990 Honda Accord	Trunk lid comes down unexpectedly, striking whoever is leaning inside.
<b>08/25/90</b>	1990 Honda Accord	Springs on trunk lid fatigue.
<b>08/27/90</b>	1990 Chevrolet Lumina	Hit behind the ear due to trunk not staying up.
<b>09/01/90</b>	1990 Honda Accord	Trunk lid struck individual on spine.
<b>09/20/90</b>	1990 Honda Accord	Trunk lid springs do not hold lid in open position.
<b>03/11/91</b>	1991 Honda Civic	A gust of wind closed the trunk.
<b>04/23/91</b>	1990 Honda Accord	Trunk lid will not remain up once lifted.
<b>05/17/91</b>	1991 Honda Accord	Open trunk lid fell off, caused by defective springs.

06/05/91	1990 Acura Legend	Trunk lid drops <b>free</b> , hit person, unable to cure.
06/20/91	1991 Honda Accord	Fin is too heavy for trunk causing it to fall on neck.
08/18/91	1986 Plymouth Reliant	Trunk lid supports weak, could drop and hit someone.
12/05/91	199 1 Honda Civic	Trunk lid will not stay up.
01/31/92	1985 Chrysler Lebaron	Trunk lid will not stay up, fell down/struck head several times.
10/01/92	1992 Toyota <b>Camry</b>	Lid falls if pulled all the way up.
12/18/92	199 1 Chevrolet Cavalier	Trunk lid failed to stay open, causing injury.
07/14/93	1986 Hyundai Excel	Trunk latch can be opened without key, trapping two children inside, resulting in death.
07/25/93	1992 Toyota Camry	Trunk lid fell and struck owner's head.
09/04/93	1992 Toyota Camry	Trunk lid will not stay open on inclines, causing injury.
01/07/94	1993 Toyota Camry	Trunk lid fell down, causing injuries.
04/16/94	1994 Dodge Intrepid	Wind blew trunk lid down on owner's head.
11/08/94	1994 Mazda 626	Trunk lid does not stay up, causing injuries.
12/12/94	1994 Dodge Intrepid	Wind blew trunk lid down, causing injury to arm.
12/27/94	1992 Toyota <b>Camry</b>	Defective trunk spring, causing trunk lid to fall down and cut person's face.
09/20/95	1992 Toyota Paseo	Trunk lid does not stay open, causing injury.
01/05/96	1987 Ford Taurus	Trunk stops rusted, causing lid to close further than designed, severing owner's finger.
03/06/96	1995 Dodge Intrepid	Trunk lid drops with heavy force, causing injury.
03/28/96	1995 Toyota Avalon	Trunk lid falls down, hitting people in the head.
05/10/96	1995 Toyota Avalon	Trunk lid falls when car is parked on an incline.
07/01/96	1996 Chrysler Cirrus	The trunk lid will not stay up and has caused several injuries.
07/16/96	1996 Chrysler Cirrus	Trunk lid failed and lacerated one person's head.
11/21/96	1996 Chrysler Cirrus	Trunk lid did not stay in the open position, passenger sustained head injuries.

11/12/97 1994 Dodge Intrepid Trunk lid keeps falling down, causing injury.

04/16/98 1998 Ford Taurus Inoperative trunk lid fell and struck owner.

Limitation of Vehicle **Complaint Data** - The information in the NHTSA Complaint File is limited to those motor vehicle owners who take the time to call or write NHTSA and report motor vehicle problems. Additionally, search techniques using keywords may limit **findings**. NHTSA does not routinely investigate the accuracy of the complaint file database.

### Consumer Product Safety Commission (CPSC)

The Consumer Product Safety Commission has a number of data files that have been helpful to NHTSA over the years. The best data source for NHTSA has been **CPSC's** National Electronic Injury Surveillance System (NEISS). NEISS is a nationally representative sample of product-associated injuries treated in 91 of the Nation's 6,127 hospital emergency rooms. **NEISS** data have been used by NHTSA to help define the problem size for injuries from overheating radiators, golf carts, and other safety issues.

However, one shortcoming of the NEISS data for **NHTSA's** purposes is that NEISS does not routinely collect data about injuries associated with motor vehicles. When NEISS collects data about motor vehicle-related injuries, it is the result of an agreement between NHTSA and CPSC and limited to particular types of motor vehicle-related injuries. There was no such interagency agreement to gather data on injuries from trunk entrapment.

NEISS has no data regarding injuries from trunk entrapment.

Limitations of CPSC Data – CPSC sets up its databases to collect data about injuries **from** consumer products. CPSC's authorizing statute expressly states that motor vehicles and motor vehicle equipment are not consumer products for the purposes of CPSC oversight. Accordingly, CPSC does not routinely collect information about injuries from motor vehicles, but will do so under an agreement with NHTSA to gather information on a specific motor vehicle-related problem. NHTSA has not asked CPSC to gather data on trunk entrapment. Hence, the fact that CPSC has no information on trunk entrapment should not be interpreted to mean that trunk entrapments do not occur.



### **Federal Bureau of Investigation (FBI)**

NHTSA contacted the FBI's Criminal Justice Information Services (CJIS) Division, Clarksburg, West Virginia to obtain FBI statistical data concerning the number of incidents that occur annually involving individuals who are locked in the trunk of an automobile as a result of some type of criminal activity such as car-jacking, kidnaping, robbery, abduction, etc. NHTSA was told that a search of the FBI's Uniform Crime Reporting Program database did not reveal any statistical data regarding individuals being placed in the trunk of a motor vehicle as a result of some type of criminal activity. The FBI's Uniform Crime Reporting Program does not collect statistical information on motor vehicle trunk entrapments under the National Incident-Based Reporting System (**NIBRS**). NHTSA was advised that the FBI's database reporting system is not specific enough to link criminal activities such as car-jacking, kidnaping, abduction, etc., with events like motor vehicle trunk entrapments.

### **National Center for Health Statistics (NCHS)**

**After** learning that information on trunk entrapments was not available in any of the Federal databases NHTSA generally uses, NHTSA decided to explore the possibility of working jointly with the National Center for Health Statistics to gather data on the size of this problem.

Death certificates include information about the disease or condition directly leading to death, antecedent causes, and other significant conditions. The death certificate is then registered with the appropriate authority and a code is assigned for the underlying cause of death. Deaths are classified and coded on the basis of a World Health Organization standard. NCHS publishes annual reports of all deaths in the United States, with the deaths broken down according to the various codes.

NHTSA already has an agreement with NCHS that links **NHTSA's** FARS data with **NCHS's** multiple cause of death (**MCOD**) data file. NHTSA has proposed to undertake a cooperative pilot project with NCHS to get an accurate count of deaths involving trunk entrapment and other non-crash events involving a motor vehicle. The agencies are working to identify the relevant codes that might be assigned on death certificates that involved trunk entrapment. NHTSA has already searched the NCHS database using MCODE codes it believes are likely candidates to be recorded on the death certificates of those individuals who died as a result of trunk entrapment. The agencies are currently working to agree upon data filters to help select the NCHS records of interest. The agencies will then work to get access to further information on these death certificates.

NHTSA will then review each of the death certificates, and review the underlying medical examiner's or coroner's report, if necessary, to determine if the death involved a motor vehicle. NHTSA will then work with NCHS to try to report on the number of deaths involving trunk entrapment.

### **Centers for Disease Control and Prevention (CDC)**

On December 4, 1998, the CDC published a paper in the Morbidity and Mortality Weekly Report, titled, *Fatal Car Entrapment Involving Children -- United States, 1987 - 1998*. The source of information for the CDC paper was the LEXIS-NEXIS database. The CDC used the LEXIS-NEXIS database to search for media reports (newspapers, magazines, wire services, and broadcast transcripts) of motor vehicle trunk entrapments involving death(s) of children. The CDC reported that a total of 19 children six years of age or less died in nine incidents of motor vehicle entrapment **from** 1987 to 1998. The CDC reported that eight incidents occurred when outside ambient temperatures were at least 90 degrees F (32.2 C). It reported that the temperature was 85 degrees F (37.7 C) for the ninth incident and that most temperature increases inside cars occur during the first 15 minutes of being left in the sun. The CDC contacted medical examiner/coroner offices for information about death investigations and autopsy findings. The cause of death for all children was either hyperthermia (heat stroke) or a combination of hyperthermia and asphyxiation. See table below for selected characteristics of deaths associated with **trunk** entrapments among children, by year.

#### **Trunk Entrapment Deaths Among Children United States, 1987 - 1998**

<b>Year</b>	<b>No. Children</b>	<b>Age (Yrs)</b>	<b>Month</b>	<b>Cause of death</b>	<b>Outside temperature †</b>	<b>Time missing (Hrs)</b>
1987	1	4	July	§	101 F (38.3 C)	<b>8</b>
1987	1	3	August	Hyperthermia	91 F (32.7 C)	<b>2</b>
1989	1	5	June	§	106 F (41.1 C)	2%
1993	2	3,5	July	Asphyxiation <sup>7</sup>	<b>97 F (36.1 C)</b>	) <b>§</b>
1994	1	4	August	Hyperthermia	<b>101 F (38.3 C)</b>	1
1995	2	3,4	<b>May</b>	Asphyxiation <b>Hyperthermia/</b>	90 F (32.2 C)	2
1998	4	2,3,5,5	July	Asphyxiation	90 F (32.2 C)	2
1998	5	2,5	August	Hyperthermia	85 F (29.4 C)	5
1998	5	2,3,5,6,6	August	Hyperthermia	100 F (37.7 C)	2

† Outside temperature is approximate.

§ Data were not available.

¶ Information was available only for the 3 year-old.

The method of trunk entry varied, i.e., some used keys to open the trunk, others got into the trunk without using the key, and in one case the trunk was **left** open. The CDC recommended that the strategy to prevent deaths associated with trunk entrapment should include (1) preventing children's access to car keys; (2) keeping cars locked, with trunks closed, when cars are not in use; and (3) supervising young children closely when they are around cars.

The limitations of the CDC Paper - The paper may not be a comprehensive look at trunk entrapment because (1) it only examines deaths, not occurrences of trunk entrapment and only looks at child self-entrapment, and (2) the **LEXIS-NEXIS** data base is not inclusive of all newspapers in the country, especially in rural areas with minimal media coverage, and thus, may not reflect the actual number of cases.

### **American Automobile Manufacturers Association (AAMA)**

On October 16, 1998, the AAMA forwarded to NHTSA a letter on the subject of trunk entrapment that enclosed information on the following:

- an Internet query of all related stories over the past 8 years
- a summary of inquiries its member companies have received on trunk entrapment; and
- a list of vehicles which have means that allow egress **from** the trunk.

The AAMA Internet query information was divided into five sections: (1) **Child in Trunk - Self Entrapment**; (2) Intentional Entrapment of Children; (3) Intentional Entrapment of Adults; (4) Advocacy Efforts; and (5) Other information. All sections contained media stories on trunk entrapment. It should be noted that some incidents were reported in more than one article, some stories are included that are not pertinent to trunk entrapment, and some stories are ambiguous. Section 1 consisted of media stories on nine incidents of child self entrapment, i.e., a child or children locking themselves in the trunk of an automobile. The date of the earliest news story is July 1987 and the last, August 1998. A total of nine incidents are discussed in Section 1. Although in some cases the same entrapment incident was repeated in different media reports on different days, Section 1 appears to contained only nine child entrapment incidents that resulted in 18 deaths.

In one incident a mother discovered that two children were in the trunk and safely removed them **from** the trunk. Seven of the 9 incidents matched those reported in the CDC paper, mentioned earlier in this report. The CDC reported the deaths of 19 children in 9 incidents between July 1987 and August 1998. There was a one year age discrepancy with one of the children listed in the CDC paper. The CDC listed an August 1987 death and two deaths in July 1993 which were not found in the AAMA listing. The AAMA information also listed a June 1995 incident involving 3 year old twins not mentioned in the CDC paper. All children were six years of age or less. The method of trunk entry varied, i.e., pulling the rear seat forward and crawling into the trunk, using the trunk key, or manipulating the trunk handle. [A brief summary of the information in the media reports can be found below.]

#### Section 1 - Child in Trunk. Self Entrapment; Summary of Media Reports:

- 1) August 13, 1994; Riverside, CA; story in the Los Angeles Times regarding a 4 year-old who died and 3 year-old who survived a trunk self entrapment; previously played in trunk; 1987 Hyundai Excel
- 2) September 18, 1994; 15 year-old who at age 5 entered the trunk with a friend by release button in rear seat; released by mother; Chicago Tribune
- 3) July 27, 1987; 3 year-old died; means of entry unknown; Decatur, ILL; AP story
- 4) June 20, 1989; 5 year-old died; used keys to enter trunk; EL PASO, Texas; U.P.I.
- 5) May 27, 1995; 3 and 4 year-old died; Cherokee County, Woodstock, **GA**; Hyundai Excel; opened trunk before without key by twist knob trunk handle; Atlanta Constitution
- 6) June 13, 1995; Atlanta Journal referenced an incident that occurred a week earlier where 3 year-old twins in College Park, GA., locked themselves in the trunk of a 1993 Cutlass Supreme; 106 degrees; died
- 7) July 15, 1998; 6, **4**, **3** and 2 year-old died; Gallup, N.M.; trunk left open; Chicago Tribune
- 8) August 8, 1998; **6**, **6**, **5**, **3**, and 2 year-old died; West Valley City, Utah; police reported children may have used switch inside car to pop trunk; temp. in 90s; AP
- 9) August 6, 1998; 5 and 2 year-old died; unknown how they got in trunk

**Children in Trunk Self Entrapment  
(Deaths)**

Month/Year	State	Ages of fatalities
July 1987	Illinois	3
June 1989	Texas	5
August 1994	California	4
May 1995	Georgia	3,4
June 1995	Georgia	3,3
July 1998	New Mexico	2,3,4,6
August 1998	Pennsylvania	2,5
August 1998	Utah	2,3,5,6,6

Section 2 provided information on 12 incidents of intentional entrapment of children. In **58%** or 7 of the 12 incidents the reason for placing the child or children in the trunk was a matter of convenience or as punishment. There were no deaths in this group. In a third of the incidents (4 incidents), the child or children were victims of kidnaping. In this **group** there were 4 deaths in two separate incidents. In one of the two incidents involving death three teenagers were forced into the trunk, transported and shot; two died. In the other incident involving death, two young people [although the AAMA listed-these two individuals under Section 2, intentional entrapment of children, the story indicates the victims were ages 22 and **27**] were kidnaped, locked in the trunk, and the automobile was set afire. In the remaining two incidents involving kidnaping the victims were release **from** the trunk after making noise to alert a passerby. The remaining incident involved a baby girl found wrapped in two beach towels, stuffed into a garbage bag and hidden in the trunk of an automobile. The baby weighting 6 pounds 4 ounces, died of suffocation. [A brief summary of the information in the. media reports can be found below.]

Section 2 - Intentional **Entrapment** of Children: Summary of Media **Reports**:

- 1) October 19, 1997 story of a 1987 incident of two young people who were kidnaped, locked in an automobile trunk and the vehicle set afire; both died
- 2) November 11, 1990 story of a child locked in a trunk as a matter of convenience
- 3) February 10, 1992 story of a kidnaping in which three teen-age boys were locked in the trunk of an automobile; two were killed
- 4) September 30, 1993 story of a kidnaping victim who was locked in the trunk; survived

- 5) September 13, 1994 story of the intentional locking of a 7 and 8 year-old in the trunk for misbehaving
- 6) April 29, 1996 story of the intentional locking of an 11 and 15 year-old in the trunk as punishment
- 6) July 19, 1996 story of the kidnaping of a teen-ager who was locked in the trunk; escaped
- 7) February 5, 1997 story of baby girl stuffed into a garbage bag and hidden in the trunk, weighing 6 pounds, 4 ounces, baby died
- 8) July 30, 1997 story of a 7 year-old mentally disabled girl intentionally locked in the trunk of a car by her mother, survived
- 9) September 24, 1997 story of the intentionally locking of a 9 year-old in the trunk as punishment
- 10) February 14, 1998 story of a working mother intentionally locking a 2 year-old in the trunk for convenience
- 11) June 1998 story of mother intentionally locking a 2 ½ year-old in the trunk as a convenience.

AAMA stated that the material in Section 3 contained Internet stories involving the intentional entrapment of adults. This section provided information on 29 separate incidents. One of the 29 news reports stated that the police, “found the trunk lock removed and two people inside.” This was likely a news story on a stolen vehicle, not a case of trunk entrapment; the two people were in the occupant compartment of the vehicle, not the trunk. Twenty-eight cases involved adults being kidnaped and forced into the trunk of an automobile. Motives included kidnaping for ransom, robbery, and sexual assault. In 86% or 24 cases victims survived by escaping **from** the trunk themselves or were released by police or other individuals passing by and hearing noise from the trunk. In this group there was one incident where one individual survived and a second victim was killed. A death occurred in 18% or five cases. In two of these five incidents the news article simply stated the victim died of suffocation. There was one case where the victim died when the car was set afire. In the remaining two cases the victim was shot to death. [A brief summary of the information in the media reports can be found below.]

### Section 3 - Intentional Entrapment of Adults: Summary of Media Reports:

- 1) March 12, 1988 story of a 73 year-old woman who was kidnaped and placed in the trunk of a car; survived: police opened trunk
- 2) December 21, 1988 story of a kidnaping and ransom; wife and child locked in trunk; survived: husband opened trunk after paying ransom
- 3) May 3, 1991 story of a kidnaping and trunk entrapment; suffocated
- 4) June 10, 1992 story of a kidnaping and trunk entrapment; survived: police opened trunk

- 5) August 13, 1992 story of a kidnaping and trunk entrapment; ~~one killed; one survived~~
- 6) February 9, 1993 story of a kidnaping, trunk entrapment; ~~victim escaped after removal from trunk by criminals~~
- 7) November 25, 1993 story of a kidnaping and trunk entrapment; ~~survived~~
- 8) January 18, 1994 story of a kidnaping and trunk entrapment; ~~escaped~~
- 9) July 14, 1994 story of a stolen vehicle; ~~it is not clear but the involved individuals were probably in the occupant compartment of the vehicle~~
- 10) November 1994 story of a kidnaping and trunk entrapment; ~~survived; police opened trunk~~
- 11) December 2, 1994 story of a kidnaping and trunk entrapment; ~~survived; police opened trunk~~
- 12) May 2, 1995 story of a kidnaping and trunk entrapment; ~~survived; passer-by opened trunk~~
- 13) July 28, 1995 story of a kidnaping and trunk entrapment; ~~victim shot to death~~
- 14) October 30, 1995 story of a kidnaping and trunk entrapment; ~~survived; opened trunk with a screwdriver~~
- 15) November 8, 1995 story of a kidnaping and trunk entrapment; ~~survived; firefighters opened trunk~~
- 16) October 9, 1996 story of a kidnaping and trunk entrapment; ~~survived; victim had a handgun in the trunk and shot the kidnaper when he re-opened the trunk~~
- 17) October 14, 1996 story of a kidnaping and trunk entrapment; ~~survived; passer-by heard cries for help~~
- 18) October 18, 1996 story of a ~~sexual assault, kidnaping,~~ and trunk entrapment; ~~survived; victim used a fire iron to pry open the back seat of her car and escape~~
- 19) December 18, 1996 story of a kidnaping and trunk entrapment; ~~survived; police opened trunk~~
- 20) March 6, 1997 story of a kidnaping and trunk entrapment; ~~survived~~
- 21) March 27, 1997 story of a kidnaping and trunk entrapment; ~~victim died when car was set afire~~
- 22) July 6, 1997 story of a kidnaping and trunk entrapment; ~~victim survived~~
- 23) August 25, 1997 story of a kidnaping and trunk entrapment; ~~victim survived~~
- 24) October 13, 1997 story of a kidnaping and trunk entrapment; ~~victim suffocated~~
- 25) October 16, 1997 story of a kidnaping and trunk entrapment; ~~escaped~~
- 26) January 6, 1998 story of a ~~sexual assault, kidnaping,~~ and trunk entrapment; ~~survived;~~
- 27) January 8, 1998 story of a kidnaping and trunk entrapment; ~~survived; released by kidnapers~~
- 28) May 13, 1998 story of a kidnaping, stabbing, and trunk entrapment; ~~survived; victim freed herself from burning car~~
- 29) August 4, 1998 story of a kidnaping and trunk entrapment; ~~survived; police opened trunk~~

Sections 4 and 5, respectively, consist of news reports regarding advocacy efforts for trunk latches, and other articles and transcripts of media programs regarding people locked in trunks. NHTSA has no comments on these sections.

The remaining information provided by the AAMA includes a summary of the consumer inquiries AAMA member companies have received on the subject of trunk entrapment and a list of vehicles that have means that allow egress **from** the trunk. Concerning the consumer inquiries, AAMA reported that Chrysler, Ford, and General Motors have each received about 10 letters per year. For example, it was reported that Chrysler indicated that its Outside Suggestion Office has received 71 letters related to vehicle entrapment between 1991 and 1997, all of which involve adults and criminal activity. Similar quantities of letters were reported to have been received by Ford and General Motors.

AAMA reported that since the recent trunk entrapment tragedies in the summer of 1998, the number of inquiries has increased, although only slightly, and the subject is more frequently child entrapment. Chrysler reported receiving four letters in 1998, Ford about 10 since August, and General Motors's Saturn division reported receiving approximately 20 the summer of 1998.

Regarding vehicles with the means of egress from the trunk, AAMA identified the following vehicles:

- 1) Model year 1995 through 1997 Chrysler Cirrus, Dodge Stratus, and Plymouth Breeze
- 2) Model year 1998 Mercury Cougar, and Ford Contour
- 3) Model year 1998 Chevrolet Malibu, Corvette, and Prizm; Pontiac Grand Am; Oldsmobile Cutlass Intrigue, Alero; and Cadillac **Catera**.

AAMA indicated that while several of the current and recent models listed above have devices inside the trunk compartment which allow the rear seats to be folded downward, into the rear occupant space, with the exception of the Cadillac **Catera** and Chevrolet Corvette, these are usually knobs which release the latching mechanism to allow long objects to be loaded through the trunk. The Cadillac **Catera** and Chevrolet Corvette have means within the trunk to allow the trunk lid to be opened. AAMA stated that these two models, as with the other vehicles cited above, the releases were not installed for the purpose of emergency egress.



### The limitations of the AAMA Information

The AAMA information on trunk entrapment may not be comprehensive because it is based upon an Internet search of media stories or broadcast transcripts. Search techniques may have limited the findings. The integrity of the information contained in the media reports was not investigated by NHTSA.

### Trunk Releases Urgently Needed Coalition (TRUNC)

On December 15, 1998, NHTSA received a spreadsheet and a brief documentation file **from** TRUNC. TRUNC is an organization whose mission is to make it mandatory for all automobile **manufacturers** to install a trunk release device inside the trunk of their vehicles. That TRUNC file included 703 records, reports of trunk entrapments in the United States and Canada, restricted to cases of victims who were alive when they entered the trunk. The spreadsheet includes four subfiles: three versions of the 703-case file (each sorted by a different combination of date, state, city, or the names **and/or** descriptions of those involved in the incident) and an **83-case subfile**.

NHTSA read the data into a Statistical Analysis System (SAS) file to **simplify** data handling and presentation. The distribution of reported incidents is described in the following tables in terms of year (Table 1), month (Table 2), and state (Table 3) of occurrence. Half the cases are reported to have occurred since 1990 (that is, during the years 1991 through **1998**), and there is a fairly even spread across the months of the year. Seventeen percent (120) of the cases are reported to have occurred in California. There are seven cases reported for Canada (state abbreviation "CN") and one case reported for Guam (state abbreviation "GM").

NHTSA classified each of the 703 cases into one of four occurrence types based on our understanding of the narrative description. The four types of occurrences are: (1) accidental - **28** incidents (including young children playing in the trunk and older people working in the trunk), (2) criminal - **640** incidents (including kidnaping), (3) parental discipline - **6** incidents (including children locked in trunks as punishment or in lieu of supervised day care), and (4) unknown - **29** incidents (where the mechanism is not reported in the narrative). [See Table 4.]

### Incidents Reported as Fatal

The number of deaths in each reported incident is shown as Table 5. Twenty-two percent of the cases (155) had at least one reported death, and the largest number reported was five in one case. The 155 cases with at least one death are summarized in Table 6 through

9 in terms of the year (Table 6), month (Table 7), and state (Table 8). Half the fatal cases are reported to have occurred during the years 1991 through 1998 (the same percentage as for all 703 reported cases), and there is a fairly even spread across the months of the year (through there is more variability in the fatal cases than among all cases because of the smaller number of cases).

Twelve percent (19) of the fatal cases are reported to have occurred in California. Fifty-eight percent (90) of the fatal cases in this file are reported to have occurred in just eight states: California (19), Florida (17), Ohio (12), Pennsylvania (10), Texas (10), Georgia (8), Minnesota (7), and North Carolina (7). It is not clear to what extent this reflects the nationwide distribution of fatal trunk entrapment cases and to what extent it reflects the reporting process itself

The distribution of the occurrence type for the fatal cases is shown as Table 9. There were 137 fatal incidents involving criminal activity. Note that the 94 percent of the reported fatal cases appear to have occurred as a crime (just a little higher than the 91 percent shown for all cases, which is reported in Table 4).

#### Victims in Reported Incidents

The records in the spreadsheets are incident-level summaries, and it is useful to translate these into person-level descriptions of the age, sex, and outcome for each person involved. However, it is sometimes difficult to determine exactly what happened (who was in the trunk or who was killed) from the brief description given, especially for criminal cases with more than one person involved as a victim or with a series of violent actions. The following assumptions were made in ambiguous cases:

- 1) everyone listed in the name field is assumed to have entered the trunk alive (no matter what the comment field may appear to say),
- 2) if there is more than one person involved and only one of them died, the age and name given are assumed to apply to the fatality, all else being equal, and
- 3) if the sex is not obvious to us from the given (first) names, then the husband is assumed to be listed before the wife when they share a family (last) name, all else being equal.

Using these assumptions, NHTSA was able to identify 826 involved people from the information in the narratives of the name and circumstance fields. This includes 351 females and 375 males, which is a 48:52 split for females versus males. The sex could not be determined from the information provided to us for 100 involved people. The results are shown as Table 10.

The age is not reported for 40 percent (332) of the people, but the description sometimes reports that this is a child or an elderly person. Of those for whom age is reported, 55 percent are between 15 and 34 years of age. The detailed results are shown as Table 11. It is not clear for nine people whether they survived the incident. Twenty-one percent of those involved (175 people) are reported to have been killed (Table 12).

Tables 13 and 14 show the sex and age distribution for the 175 specific fatalities identified **from** the reports. There were 75 females and 78 males, which is a **49:51** split for female versus male fatalities (essentially the same as the split for all reported involvements); sex is not reported for 22 people. The age is not reported for 29 percent (51) of the fatalities. Of those for whom age is reported, 55 percent are between 15 and 34 years of age; this is the same percentage as reported for all people (regardless of fatality outcome).

Table 1: Year of Occurrence  
(Incidents from the Trunk Entrapment Spreadsheet)

YEAR	Frequency	Percent	YEAR	Frequency	Percent
40	1	0.1	85	24	3.4
55	1	0.1	86	28	4.0
66	1	0.1	87	22	3.1
70	1	0.1	88	30	4.3
71	3	0.4	89	21	3.0
72	2	0.3	90	34	4.8
73	2	0.3	91	34	4.8
74	2	0.3	92	33	4.7
75	2	0.3	93	43	6.1
76	9	1.3	94	55	7.8
77	17	2.4	95	59	8.4
78	11	1.6	96	56	8.0
79	9	1.3	97	50	7.1
80	12	1.7	98	20	2.8
81	24	3.4	Unknown	28	4.0
82	19	2.7			
83	29	4.1	Total	703	100.0
84	21	3.0			

Table 2: Month of Occurrence  
(Incidents from the Trunk Entrapment Spreadsheet)

MONTH	Frequency	Percent
January	73	10.4
February	50	7.1
March	64	9.1
April	41	5.8
<b>May</b>	58	8.3
June	48	6.8
July	59	8.4
August	65	9.2
September	71	10.1
October	58	8.3
November	39	5.5
December	50	7.1
Unknown	27	3.8
Total	703	100.0

Table 3: State of Occurrence  
(Incidents from the Trunk Entrapment Spreadsheet)

STATE	Frequency	Percent	STATE	Frequency	Percent
AL	14	2.0	MS	5	0.7
AR	10	1.4	NC	30	4.3
AZ	11	1.6	NE	1	0.1
CA	120	17.1	NJ	5	0.7
CN	7	1.0	NM	4	0.6
co	4	0.6	NV	3	0.4
CT	11	1.6	NY	30	4.3
DC	4	0.6	OH	36	5.1
DE	1	0.1	OK	2	0.3
FL	75	10.7	OR	1	0.1
GA	23	3.3	PA	37	5.3
<b>GM</b>	1	0.1	RI	1	0.1
HI	1	0.1	SC	4	0.6
IA	1	0.1	SD	1	0.1
ID	2	0.3	TN	23	3.3
IL	30	4.3	TX	31	4.4
IN	12	1.7	UT	3	0.4
KS	<b>a</b>	1.1	VA	13	1.8
KY	14	2.0	VT	1	0.1
LA	14	2.0	WA	6	0.9
MA	11	1.6	WI	10	1.4
MD	11	1.6	<b>WV</b>	3	0.4
<b>ME</b>	1	0.1	Unknown	7	1.0
MI	26	3.7			
MN	14	2.0			
<b>MO</b>	20	2.8	Total	703	100.0

Table 4: Type of Occurrence  
(Incidents from the Trunk Entrapment Spreadsheet)

CAUSE	Frequency	Percent
Accidental	28	4.0
Criminal	640	91.0
Parental	6	0.9
Unknown	29	4.1
Total	703	100.0

Table 5: Number of Fatalities  
(Incidents from the Trunk Entrapment Spreadsheet)

DEATHS	Frequency	Percent
<b>0</b>	548	78.0
1	140	19.9
2	12	1.7
3	1	0.1
4	1	0.1
5	1	0.1
<b>Total</b>	703	100.0

Table 6: Year of Occurrence  
(Fatal Incidents from the Trunk Entrapment Spreadsheet)

YEAR	Frequency	Percent	YEAR	Frequency	Percent
70	1	0.6	88	7	4.5
71	2	1.3	89	4	2.6
73	1	0.6	90	5	3.2
76	4	2.6	91	6	3.9
77	9	5.8	92	13	8.4
<b>78</b>	3	1.9	93	a	5.2
79	4	2.6	94	6	3.9
80	4	2.6	95	13	8.4
81	4	2.6	96	10	6.5
82	4	2.6	97	9	5.8
83	2	1.3	98	11	7.1
84	3	1.9	Unknown	3	1.9
85	9	5.8	<b>Total</b>	155	100.0
86	4	2.6			
87	6	3.9			

Table 7: Month of Occurrence  
(Fatal Incidents from the Trunk Entrapment Spreadsheet)

MONTH	Frequency	Percent
<b>January</b>	20	12.9
<b>February</b>	10	6.5
<b>March</b>	16	10.3
April	5	3.2
<b>May</b>	12	7.7
June	11	7.1
July	19	12.3
August	16	10.3
September	17	11.0
October	7	4.5
November	7	4.5
December	10	6.5
Unknown	5	3.2
Total	155	100.0

Table 8: State of Occurrence  
(Fatal Incidents from the Trunk Entrapment Spreadsheet)

STATE	Frequency	Percent	STATE	Frequency	Percent
<b>AL</b>	4	2.6	<b>MO</b>	1	0.6
<b>AR</b>	3	1.9	<b>MS</b>	1	0.6
<b>AZ</b>	3	1.9	<b>NC</b>	7	4.5
CA	19	12.3	<b>NM</b>	2	1.3
CO	2	1.3	<b>NV</b>	1	0.6
CT	2	1.3	<b>NY</b>	5	-3.2
DC	2	1.3	<b>OH</b>	12	7.7
FL	17	11.0	<b>OK</b>	2	1.3
GA	a	5.2	<b>OR</b>	1	0.6
HI	1	0.6	<b>PA</b>	10	6.5
ID	2	1.3	<b>RI</b>	1	0.6
IL	5	3.2	<b>TN</b>	3	1.9
IN	3	1.9	<b>TX</b>	10	6.5
KS	2	1.3	<b>UT</b>	1	0.6
KY	2	1.3	<b>VA</b>	3	1.9
LA	2	1.3	<b>WA</b>	2	1.3
MA	1	0.6	<b>WI</b>	2	1.3
MD	3	1.9	<b>WV</b>	1	0.6
MI	7	4.5			
MN	2	1.3	Total	155	100.0

Table 9: Type of Occurrence  
(Fatal Incidents from the Trunk Entrapment Spreadsheet)

CAUSE	Frequency	Percent
Accidental	9	5.8
<b>Criminal</b>	137	88.4
Unknown	9	5.8
Total	155	100.0

Table 10: Sex of Involved Person  
(Incidents from the Trunk Entrapment Spreadsheet)

SEX	Frequency	Percent
Female	351	42.5
Male	335	45.4
Unknown	100	12.1
Total	826	100.0



Table 11: Age of Involved Person  
(Incidents from the Trunk Entrapment Spreadsheet)

AGE	Frequency	Percent		AGE	Frequency	Percent
0	3	0.4		43	4	0.5
1	2	0.2		45	6	0.7
2	5	0.6		46	3	0.4
3	6	0.7		47	5	0.6
4	6	0.7		48	4	0.5
5	8	1.0		49	3	0.4
6	6	0.7		50	4	0.5
7	3	0.4		51	3	0.4
8	3	0.4		52	4	0.5
9	2	0.2		53	1	0.1
10	3	0	4	54	3	0.4
11	6	0.7		55	4	0.5
12	2	0.2		57	5	0.6
13	4	0.5		58	2	0.2
14	4	0.5		59	1	0.1
15	11	1.3		60	3	0.4
16	14	1.7		61	2	0.2
17	21	2.5		62	4	0.5
18	13	1.6		63	1	0.1
19	21	2.5		64	5	0.6
20	17	2.1		65	2	0.2
21	16	1.9		68	4	0.5
22	15	1.8		69	2	0.2
23	12	1.5		70	3	0.4
24	10	1.2		71	2	0.2
25	15	1.8		72	3	0.4
26	18	2.2		73	2	0.2
27	11	1.3		74	3	0.4
28	13	1.6		75	1	0.1
29	11	1.3		76	3	0.4
30	11	1.3		77	7	0.8
31	12	1.5		78	1	0.1
32	10	1.2		80	2	0.2
33	8	1.0		81	1	0.1
34	13	1.6		82	2	0.2
35	6	0.7		84	1	0.1
36	9	1.1		85	1	0.1
37	7	0.8		90	1	0.1
38	6	0.7		95	1	0.1
39	4	0.5		Unknown	332	40.2
40	4	0.5				
41	7	0.8		Total	826	100.0
42	7	0.8				

Table 12: Outcome for Involved Person  
(Incidents from the Trunk Entrapment Spreadsheet)

OUTCOME	Frequency	Percent
Alive	642	<b>77.7</b>
Dead	<b>175</b>	21.2
Unknown	9	1.1
Total	826	100.0

Table 13: Sex **of** Fatality  
(Fatal Incidents from the Trunk Entrapment Spreadsheet)

SEX	Frequency	Percent
Female	75	42.9
Male	78	44.6
Unknown	22	12.6
Total	175	100.0

Table 14: Age of Fatality  
(Fatal Incidents from the Trunk Entrapment Spreadsheet)

AGE	Frequency	Percent	AGE	Frequency	Percent
0	1	0.6	34	3	1.7
2	3	<b>1.7</b>	37	1	0.6
3	4	2.3	38	2	1.1
4	3	1.7	40	1	0.6
5	5	2.9	41	1	0.6
6	2	1.1	42	1	0.6
10	2	1.1	45	3	1.7
11	1	0.6	46	1	0.6
12	1	0.6	<b>47</b>	3	1.7
13	2	1.1	50	1	0.6
14	1	0.6	52	1	0.6
15	1	0.6	53	1	0.6
16	6	3.4	55	1	0.6
17	4	2.3	62	2	1.1
18	3	1.7	63	1	0.6
19	7	4.0	64	2	1.1
20	11	6.3	72	1	0.6
21	6	3.4	74	1	0.6
22	3	1.7	76	1	0.6
23	3	1.7	77	3	1.7
24	5	2.9	81	1	0.6
25	3	1.7	90	1	0.6
26	2	1.1	95	1	0.6
<b>27</b>	3	1.7	Unknown	51	29.1
28	2	1.1			
29	2	1.1	Total	175	100.0
32	2	1.1			
33	2	1.1			

The spreadsheets indicate a total of 826 people were at some point entrapped in the trunk of a motor vehicle. Table 15 identifies the cause of the entrapment and the resulting outcome. Of the 19 deaths listed as accidental, 17 were children 6 years of age or less who died in 7 incidents. The seven incidents occurred between 1992 and 1998. See Table 16. Both of the two remaining deaths (from the 19 accidental) are reported to have occurred in Phoenix, Arizona on September 28 and 29, 1997, and involved individuals installing speakers in the trunk of a vehicle. We suspect they are duplicate cases.

Table 15  
TABLE OF CAUSE BY OUTCOME

CAUSE	OUTCOME			Total
	Alive	Dead	Unknown	
Frequency				
Accidental	22	19	0	41
Criminal	594	147	5	746
Parental	8	0	0	8
Unknown	18	9	4	31
Total	642	175	9	826

Table 16  
Children Killed in Unintentional Trunk Entrapment

Month/Year	State	Ages of fatalities
August 1992	Texas	5
July 1993	Texas	3,5
August 1994	California	4
May 1995	Georgia	3,4
July 1998	New Mexico	2,3,5,6
August 1998	Pennsylvania	2,5
August 1998	Utah	5 children; no ages

### Limitations of the TRUNC Information

The TRUNC information appears to be an accumulation of media stories, and cases obtained through media and other solicitation efforts. The search and accumulation technique may have limited the findings and it may not be inclusive of all sources, thus, the TRUNC file may be under-representative of the size of the problem. The information presented in the spreadsheets was not investigated by NHTSA for accuracy. While the information can serve to help define the problem and its size it could not be a definitive national database because of its source and in some cases ambiguity.

## CONCLUSIONS

### Unintentional or Inadvertent Trunk Entrapment

With respect to the total number of unintentional trunk entrapments, the available data documents 22 deaths in **11** incidents. All incidents involved children. **The CDC** documented **19** fatalities in **9** incidents. The AAMA documented **18** fatalities in **9** incidents and TRUNC documented 17 fatalities in 7 incidents. Each of the three sources includes one incident not reported by the other and TRUNC did not include two incidents reported by the other two. These deaths occurred between July 1987 and August 1998. The ages of these individuals ranged **from 2** to 6 years of age (See Table below). The data for this composite total **include information from** the CDC, **AAMA**, NHTSA Hotline Vehicle Complaint File, and TRUNC. Media stories including broadcast transcripts from the **internet** and solicitation of information by TRUNC through the media represent the primary data sources for trunk entrapment totals.

Children Killed in Unintentional Trunk Entrapment

Month/Year	State	Ages of fatalities	Disagreements in ages	Source
<b>July 1987</b>	<b>IL</b>	<b>4</b>	<b>AAMA: 3</b>	CDC, AAMA
August 1987		<b>3</b>		CDC
June 1989	TX	5		CDC, <b>AAMA</b>
August 1992	TX	5		TRUNC
July 1993	TX	<b>3,5</b>		CDC, TRUNC, <b>NHTSA's HOTLINE</b>

August 1994	CA	4		CDC, AAMA, TRUNC
May 1995	GA	3,4		CDC, AAMA, TRUNC
June 1995	GA	3,3		AAMA
July 1998	NM	2,3,5,5	AAMA 2,3,4,6 TRUNC: 2,3,5,6	CDC, AAMA, TRUNC
August 1998	PA	2,5		CDC, AAAM, TRUNC
August 1998	UT	2,3,5,6,6	TRUNC: no ages	CDC, AAMA, TRUNC

### **Intentional Trunk Entrapments Involving Criminal Activity**

The largest available database on intentional trunk entrapment involving criminal activity resides with TRUNC. The TRUNC spreadsheets show 137 fatal incidents of criminal trunk entrapment. (See Table 9). The spreadsheets also show a total of 147 deaths associated with criminal trunk entrapment (See Table 15). Half of all fatal cases are reported to have occurred during the years 1991 through 1998. The information was not investigated by NHTSA for accuracy.

TRUNC indicated at the January 21, 1999 meeting of the “Expert Panel on Trunk Entrapment,” that it plans to update and publish a revised version of its trunk entrapment spreadsheet.