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2011 National Child Restraint Usage Special Study User's Coding Manual

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The primary objective of the National Child Restraint Usage Special Study (NCRUSS) is to determine the level of child restraint use and misuse for children up to 8 years old riding in passenger vehicles. This manual is in support of this project.

16. Abstract

The NCRUSS provides data on the level of child restraint use and misuse for children up to 8 riding in passenger vehicles (i.e., automobiles, SUVs, vans, and light trucks). Data was collected from June 2011 to August 2011 in the 24 Primary Sampling Units (PSUs) in the National Automotive Sampling System Crashworthiness Data System (NASS CDS) at five different site types: day care centers, libraries, recreation centers, fast food stores, and "big box" stores/chains/retail stores for infant and toddler products (e.g., Babies R' Us). The data for each of the sampled children is weighted to represent children being transported in passenger vehicle. This user's coding manual is the primary documentation supporting the NCRUSS data file.

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Introduction

Over the years, studies have shown a high level of misuse of child restraints, even as NHTSA has taken actions to address this problem. In March 1999 NHTSA published a final rule establishing a uniform child restraint attachment system known as LATCH, Lower Anchors and Tethers for CHildren (Federal Motor Vehicles Safety Standard 213, Child Restraint Systems [CRS] and FMVSS 225, Child Restraint Anchorage Systems), in order to provide another, easier method of attaching a child restraint to the vehicle. Vehicles were required to be equipped with independent child restraint anchorage systems consisting of three anchorage points: two lower anchorages and one upper anchorage. Each lower anchorage was to consist of a bar located at the intersection of the vehicle seat cushion and seat back, in a location where passengers would not feel it. The upper anchorage was a top tether anchorage. By September 1, 2002, the rule required: (1) All new passenger cars to be equipped with tether anchors and lower anchors, and (2) All new child restraints to be equipped with a means of attaching to these anchorage systems. However, in the *Child Restraint Use Survey, LATCH Use and Misuse,* conducted in 2005 (Decina, Lococo, & Doyle; 2006), 39 percent of CRS were still found to be attached to the vehicle incorrectly. In addition, 61 percent of upper tether non-users and 55 percent of lower attachments non-users cited a lack of knowledge about tethers and lower attachments as their reason for not using them.

From June to August 2011, NHTSA conducted the National Child Restraint Use Special Study (NCRUSS), to collect information related to the effectiveness of FMVSS 225 and FMVSS 213, such as the levels of child restraint system use and misuse for children riding in passenger vehicles, and to examine whether the levels of use and/or misuse are related to any specific characteristics of the drivers, their passengers and/or their vehicles. This information will be used in assessing what additional actions NHTSA should take to improve child passenger safety.

NCRUSS is nationally representative, with data collected at 24 randomly selected geographic areas within the United States. The survey data includes inspections, conducted by certified child passenger safety technicians (CPSTs), of restrained and unrestrained child passengers up to age 8, located in any seating position (SP) in a passenger vehicle. In addition, interviews of the drivers of these passenger vehicles were conducted. In total, 4,167 complete cases (child restraint inspections with driver interviews) were gathered by the research staff. Additional details about the survey are provided in the following sections.

1. Data Collection Methodology

1.1 Sites

1.1.1 Sample Design

The 24 Primary Sampling Units (PSUs)[1] in the National Automotive Sampling System Crashworthiness Data System (NASS CDS) were used for this study. Within each of these PSUs, data was collected from June 2011 to August 2011 at five different site types: day care centers, libraries, recreation centers, fast food stores, and "big box" stores/chains/retail stores for infant and toddler products (e.g., Babies R' Us). These five types of sites were combined into three sampling strata as follows: (1) libraries and recreation centers; (2) fast food and big box stores; and (3) daycare centers. Data was collected in two 3-hour blocks per day with 18 days of collection or a total of 36 sites per PSU. At each PSU, data was collected from 9 sites in stratum 1, 9 sites in stratum 2, and 18 sites in stratum 3.

1.1.2 Site Cooperation

Cooperation of the site managers was established prior to the commencement of the study mostly via in-person visits by NASS researchers. At this time, a flyer, providing information about the intended data collection effort, was made available for posting at the sites and/or sending home with caregivers. On the day of data collection, the researchers supplied the managers of the participating sites with additional NCRUSS information, including a letter explaining the scope of the survey. If the researchers were unable to collect data at a pre-authorized site due to unexpected circumstances, the location listed as a "shadow" site was substituted as an alternate site. At the conclusion of the data collection for the day, managers of the site were thanked and given a copy of the informational hand-outs that had been provided to the participants. Later, a thank you letter was sent to the managers of the sites that participated in the study.

1.1.3 Site Participation Rates

Of the 1,665 sites in the sample, 848 gave permission for the survey to be conducted on their premises. Reasons given by the sites that expressly declined, as to why they were hesitant to participated, included: (1) solicitation of any sort was not permitted; (2) use of parking space for other than business reasons could cause a loss of business; and (3) injury, collisions, and other such negative incidents might result if the survey was conducted.

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[1] Additional information about the NASS CDS PSUs can be found in Appendix F of the 2014 NASS CDS Analytical User's Manual at http://www-nrd.nhtsa.dot.gov/Pubs/812198.pdf. Demographics data on the 24 PSUs have been included in Appendix F to give researchers supplementary information on the nature of the PSUs.

Site Type	Number of Sites in NCRUSS Probability Sample That for the 2011 NCRUSS Survey . . .				
	Participated in the Survey	*Expressly Declined Survey Participation*	*Were Ineligible for Survey Participation**	*Did Not Specifically Decline Survey Participation but Neither Granted Permission*	**Total**
Daycare Centers	435	114	287	78	914
Fast Food	155	118	45	53	371
Libraries	173	29	38	14	254
Recreation Centers	57	15	10	3	85
Big Box Stores	28	12	0	1	41
Total	848	288	380	149	1,665

*Reasons that these sites were found to be ineligible included that the establishment had gone out of business or had changed to another type of business.

1.1.4   Overall Site Scheduling Process for Data Collection

The data collectors planned which two sites were to be visited on any given day, using the list of sites in which the site manager had agreed to participate in the study. Typically, sites nearest to one another were selected in order to reduce unnecessary travel.

The process used to select the sites was as follows: The list of sites, which the data collectors received, was divided into six sub-lists, two for each stratum (libraries and recreation centers, fast food and big box stores, and daycares). The first list was the "sample" and these were the selected sites that were contacted to obtain permission for data collection. The second list was the "shadow sample" and these were sites that were selected in case a site in the sample refused to participate. When the site in the sample refused to participate, it was replaced with a site from the shadow sample (same number row in the two tables). If the shadow sample also refused to participate, it was noted and the team selected another site from the original sample list.

Some PSUs didn't have enough sites available to achieve a complete shadow sample and were forced to repeat sites; however, this was limited to two locations and was minimal. Collectors were persistent in securing participants from the sample sites. If collectors were aware of eligible sites that weren't in the sample or the shadow sample, they were permitted to add them to the shadow sample and randomly sort the list afterwards.

Data Collection Methodology

1.1.5 Daily Scheduling of Site Data Collection

Each day of data collection consisted of one daycare center (stratum 3) and one site from either stratum 1 or stratum 2. Collectors had the ability to schedule collection within the following framework:

- Daycare center collection hours should be morning drop-off hours (i.e., 7 to 10 a.m.).

- Sites from stratum 1 or 2 were visited from either 11 a.m. to 2 p.m. OR 12 to3 p.m. depending on collector convenience and the travel distance between the first and second sites.

The timeframes for data collection were specified in order to maximize traffic during data collection, but some sites did not have much traffic during data collection periods. While this was frustrating for data collectors, it was an important part of the process in that to attain nationally representative statistics meant including sampled sites even if they didn't yield much data. Even the absence of observations at a site provides information about the population.

1.2 Criteria for Participating

1.2.1 Child Passenger up to 8 Years Old

The primary population for observation was restrained and unrestrained child passengers up to 8 years old, who were riding in any seating position in a passenger vehicle. The Driver Interview-Vehicle Form was used to screen and confirm that a child younger than 9 was riding in the vehicle. If a qualified child was not in the vehicle, the driver was thanked and the interview was ended. If more than one qualified child was in the vehicle, the child passenger safety technician (CPST) randomly selected one child under 9 years old to observe (i.e., the "target" child). To achieve randomness, each collector was given a standard 6-sided die. The collector then numbered each child in the vehicle mentally and used the die to select the child. For example, if there were two children, the closest child to the inspector may have been designated by an even number and the furthest child by an odd number. If there were three children, then a 1 or 2 selected the first, a 3 or 4 selected the second, etc. If there were four to six children, each one may have had their own number on the die, although this may have required more than one "roll" (shakes in the hand) to get a number that worked (not a 5 or 6 if there were only four kids). This seems complicated, but it was the simplest solution to generate a truly random sample of children within the vehicle. If there were more than six eligible children in the vehicle, the collectors were encouraged to achieve randomness using a similar method.

Only one child per vehicle was observed. While this may seem inefficient, the reasons for doing so were twofold: The first was practical - the participant interview took nearly the same time to complete as the observation of a single child. Only observing one child, therefore, reduced the number of observations that needed to be aborted because the driver was no longer engaged. The second was statistical – the agency was interested in misuse and it was found to be highly correlative within vehicles. For example, if there were two children in a vehicle and one of them

was secured incorrectly in a CRS, it was likely that there would be misuse observed with the method used with the second child also. Because of this correlation, the data yield from observing the second child was minimal and estimates on how well the second child was restrained could be based on the first child.

1.2.2 Other Criteria

To be included in the study, the driver needed to agree to participate in the study, the vehicle's body type had to fall within one of four body types (i.e., passenger cars, utility vehicles, vans, and pickup trucks) and the data collection team needed to be available to begin a new interview (e.g., data collection with another case was completed). Some factors that did not affect whether a vehicle was selected for inclusion in the study were the number of passengers in the vehicle and whether the passengers were restrained in safety devises.

1.3 Data Collection

1.3.1 Data Collection Teams

Field data collection was conducted through the infrastructure of the NASS CDS. Each PSU had one to three staff people who participated in the study. At most of the PSUs, some additional staff people were hired to comprise the typical team of three members: an interviewer, a CPST, and a counter.

Each team brought required material and equipment to the data collection sites. This included the interview forms, hand-outs for the participants, large signs with information about the survey, DOT identification badges, the procedures manual, and miscellaneous items needed to obtain and record data such as clip boards, watches, measuring tapes, and digital cameras.

1.3.2 Overall Data Collection Schedule

Data collection began on June 1, 2011, and ended on July 29, 2011. All PSUs collected data for 5 of these weeks. During the week including the 4th of July, no data was collected, and during the last two weeks, PSUs collected data at individual sites, as necessary to complete data collection at all of the remaining sites in the sample.

Data was collected during week days, normally from 6:30 a.m. to 6 p.m., but some data collection started as early as 5:45 a.m. or ended as late as 8 p.m. The exact time that data collection was scheduled at a specific site or site type was based upon what was considered the best time to find vehicles with children at that location. Data was collected for three hours at each of two sites, with the rest of the day reserved for set-up, break-down, checking information on the completed survey forms, and travel.

1.3.3 Daily Data Collection Schedule

At the start of the day, the team would develop an overall strategy for collecting data at this site, including: setting up a "command center" where extra survey forms and material were kept, positioning the two 3-ft. by 5-ft. signs prominently so drivers were alerted to the fact that a child restraint study was being conducted that day, establishing the best place to position the counter, and selecting a safe pullover zone for the interviews/inspections. After 3 hours of data

collection, the team would pack up material and equipment. Later that day, the team would set up a command center at the second site for that day. A child care center normally would be the first site type scheduled, since early morning was a good time to find a concentrated pool of drivers dropping off children under 9 years old. The other four site types (i.e., fast food, big box stores, libraries, recreation centers) were combined into two other sampling strata (i.e., fast food/big box stores and libraries/recreation centers), and these other sites would normally be scheduled around lunch time (e.g., fast food restaurants) or in the afternoon (e.g., stores, libraries, recreation centers).

At each site type for the day, a researcher approached the vehicle as the driver came to a stop to drop passengers off at a facility, as the driver entered the parking lot, or as the driver parked at one of the site type locations. The researcher would give the driver a letter of introduction and ask the driver to participate in the study. Once a driver agreed to participate, one researcher interviewed the driver, recording information on the interview forms, while the second researcher inspected the vehicle and recorded data on the inspection forms. At some sites, Spanish-speaking interviewers were available for drivers who only spoke Spanish.

At the conclusion of each interview, the participant was given a Child Passenger Safety Resource Card. This card contained contact information (i.e., a NCRUSS study e-mail address, DOT hotline telephone number) so that the drivers could contact someone in case they had any further questions. Also included on the Courtesy Card were the Internet addresses for NHTSA's Facebook page and Twitter feed, as well as two web site addresses containing NHTSA child passenger safety information. Each driver was also given a hand-out listing locations nearby where child safety seats could be checked, a brochure with additional information about child passenger safety, and a coloring book with child passenger safety information.

1.4   Data Collection Forms and Variables

Data collected during the NCRUSS included information on the sites at which data were collected, the vehicles that stopped at these sites, and the drivers and child passengers up to age 8. This data was recorded on seven paper copy data collection forms (i.e., OMB Form Approval No. 2127-0642) and was collected via observation, inspection, and interview.

1.4.1   Observational Data

The observational data was collected on two forms: the **Daily Site Form-Tallies (NHTSA 1105)** and the **Observation Form-Non-Response (NHTSA 1109)**.

The **Daily Site Form-Tallies** did not require any interaction with the drivers of the vehicles. One form per site location was filled out by the "counter," who would count the number of eligible vehicles (i.e., passenger vehicles with one or more child passengers under 9 years old) that entered the collection site, as well as the number of children under who were riding in these vehicles. In addition, the area around the gas station was characterized by the observer as being urban, suburban or rural in nature. The purpose of this form was to collect site specific information and to collect data to be used to adjust estimates of eligible vehicles that were at

the site but did not participate in the survey. These estimates were used in vehicle non-selection bias adjustments.

The **Observation Form-Non-Response** was used by the CPSTs to collect observational data on the vehicle and its occupants for use in later adjustments for non-response bias—bias that is introduced by drivers who refuse to participate in the survey. This data was collected whether or not the driver agreed to cooperate in the study. When the Interviewer approached the driver to obtain the driver's cooperation, the CPST would observe the interaction and log information about it, the driver, the number of passengers in the vehicle, and the vehicle body type.

1.4.2 Inspection Data

The inspection data was collected on two forms: the **Inspection Form**-**Restraints (NHTSA 1110)** and **Inspection Form-Vehicle Restraints (NHTSA 1111)**. Both forms were completed by the CPST while the Interviewer conducted an in-person interview with the driver.

Once cooperation of the driver was obtained, the **Inspection Form-Restraints** was used to obtain information about one child under 9 old who was randomly selected to be the "target" child. Specifics were collected about the safety restraint in use (e.g., type, location in the vehicle), how the child was restrained in it, and how the safety restraint was installed in the vehicle.

The **Inspection Form-Restraints** was used to obtain information about the equipment (e.g., seat belts, lower anchors and tethers) and the safety restraint systems (e.g., infant child safety seats, booster seats) in each vehicle. Data was collected on: (1) the number and location of seating positions in the vehicle, (2) the seating positions that had someone sitting in them when the interviewer approached the vehicle, and (3) the vehicle equipment and safety restraints available, and in use, at each seating position.

1.4.3 Interview Data

Interview data was collected on three forms, the **Interview Form-Vehicle (NHTSA 1106)**, the **Interview Form-Children by SP (NHTSA 1107)**, and the **Interview Form-Restraints (NHTSA 1108)**. Drivers were asked the questions on the interview forms, while the CPSTs inspected the vehicles.

The **Interview Form-Vehicle** was used to obtain information regarding the driver's general knowledge and opinions about booster and child safety seats, from where the driver obtained this information, and whether this vehicle has tether and lower anchors.

The **Interview Form-Children by SP** was used to obtain information regarding the number and demographic characteristics of child passengers under 9 years old (i.e., age, gender, origin, race, height, weight, relationship to the driver). The standard categories of ethnicity and race as required by OMB were used.[2]

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[2] This standard was established by the Office of Management and Budget in the October 30, 1997, Federal Register Notice, Volume 62, Number 210, pages 58781-58790. Categories for ethnicity are Hispanic or Latino or neither Hispanic nor Latino. The

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The **Interview Form-Restraints** was used to obtain information regarding the driver's knowledge about and experience with the safety restraint system being used by the target child. In addition, driver profile data was recorded.

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minimum categories for race are: White, Black or African-American, Asian, Native Hawaiian or Other Pacific Islander, and American Indian or Alaska Native.

2. Quality Control Procedures

2.1 Development and Pilot Testing of Data Collection Forms

Data collection forms were developed in consultation with NHTSA subject matter specialists for child passenger safety and with input from others (i.e., Safe Kids). Initial testing of the survey forms was completed informally within the agency before additional testing was completed with a few volunteers at a September 22, 2010, child safety seat check event, which was held for DOT staff at the Headquarters Building, and, in October 2010, with additional volunteers at the DOT day care facility. Staff at each Zone Center conducted further testing of the survey forms and data collection protocols in May 2011.

2.2 Field Staff

Data collection was normally conducted with three-person teams. Each team consisted of one person who interviewed the driver (i.e., the interviewer), a CPST who inspected the vehicle and the target child's safety restraint system, and another person (i.e., the counter) who counted the number of passenger vehicles with children under 9 years old entering the site, as well as the number of children under 9 years old riding in these vehicles. At a few of the sites, the teams consisted of two people with both the Interviewer and the CPST assisting in the counts of vehicles and children entering the site.

Field data collection was conducted through the infrastructure of NASS CDS, which has teams of researchers located at PSUs throughout the United States. Each PSU had one or more staff people who participated in the study, normally as the Interviewer. In most PSUs, a person who was certified as a CPST was hired to conduct the inspections. In some PSUs, however, a researcher certified as a CPST conducted the inspections. Some counters were hired, while other counters were already on staff with NASS.

One of the researchers, normally the most experienced staff member at the PSU, served as the team leader, and was able to use prior experience to assist other staff members in their data collection. After the data collection on each participant was completed, the team leader was responsible for the survey forms being complete, accurate and legible. In addition, the team leaders were responsible for reviewing collected data against the digital images taken (e.g., the child safety restraint system, as installed in the vehicle).

2.3 Training and Pilot Testing of the Data Collection Protocols

A PowerPoint preview of the NCRUSS study was presented to the NASS Zone Centers and PSU staff at the NASS annual training in December 2010.

In May 2011, two days of training on the survey forms and data collection protocols were held. Staff from Zone Center 1 and its associated PSUs met at one geographic location, and staff from Zone Center 2 and its associated PSUs met at another geographic location. Both training groups received the same information about the survey forms and data collection protocols; however, having two groups resulted in: (1) a reduction in travel expenses, (2) smaller class size, and (3)

an opportunity to provide support to the existing organizational structure and to review more specific information related to administrative procedures used by the different companies.

The training began with classroom review of the survey forms, with explanations of what data was to be collected in each form. Samples of child safety seats were available for examination. Then the group divided into teams to practice collecting data with the team members with whom they would be working with. Finally, these teams practiced collecting data with volunteers. At the Zone Center 1 training, the volunteers came to the training site; at the Zone Center 2 training, the teams went to locations similar to those that would be used in the study. In addition, "hard" and/or electronic versions of the data collection procedures manual were distributed to team members and one copy of the 2011 Latch Manual was given to each PSU for reference.[3]

After the May training was completed, a pilot test of the NCRUSS survey forms and data collection protocols was conducted in each PSU. Revisions, as necessary, were made to survey forms and data collection protocols. Data obtained from these pilot tests was entered into a software program (i.e., the data entry application) that had been designed to convert and store the NCRUSS data in an electronic format.

2.4 Unannounced Site Visits

Zone Center staff paid unannounced site visits to monitor the quality of data collection in the PSUs.

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[3] Stewart, D. D., Donaldson, D., Lang, N. J., Rose, K., & White, L. (2011). *The LATCH manual. Using lower anchors and tether for child restraints*. Edmonds, WA: Safe Ride News Publications.

3. Data Entry, Editing, and Imputation

3.1 Data Entry

After checking the data collection forms for accuracy and completeness, staff at each of the PSUs sent the forms to their Zone Center. Staff in the two Zone Centers manually uploaded the images that had been taken and entered the data from the seven paper forms used in the survey into an application developed specially for the NCRUSS survey. This data entry application contained automated edit checks, skip patterns, and other features to help insure that the data was entered correctly. Some interpretation of what data had been entered on the survey forms was performed, as needed.

3.2 Data Editing

After the data was entered, checks were run by NHTSA staff to identify outliers, discrepancies between two similar variables, and other such inconsistencies via automated logic checks and data runs. While information about data elements that flagged these edit checks was sent to the Zone Centers to be reviewed and, if necessary, corrected, statistical editing was not performed to alter the recorded values of outliers.

After data reconciliation, a final file was translated into SAS data sets. In addition, database reconciliation of these final SAS data sets was conducted.

3.3 Imputation

Data imputation was not conducted for these files.

4. File Structure

4.1 Data Set Organization

A SAS database was developed consisting of six data sets: Site (SITE), Driver (DRIV), Occupant (OCC), Child Restraint System (CRS), Non-Response (NR), and Vehicle (VEH). The data sets were organized so each data set had related information, as further outlined in the tables below.

CRS dataset

Number of records	4167
One record for	Each sampled child and the restraint system used by this child
Data type	Interview and inspection data
Data included	Vehicle VIN and number of seating positions; Interview and inspection data for the sampled child and the restraint system used by this child.
Unique identifiers	SITEID OBS
Merging information	CRS may be merged with DRIV, NR, or VEH using SITEID and OBS; with OCC using SITEID, OBS, and SP_CRS_I. See table 'SITE dataset' for merging with SITE.
Sampling weight included	Yes (SAMPWGT)
Added information	The sampling weight applies to the sampled child in the vehicle; thus, CRS is the primary dataset for weighted estimation.

DRIV dataset

Number of records	4167
One record for	Each driver interviewed
Data type	Interview data
Data included	Number of occupants in vehicle; Interview data: driver demographics and driver's knowledge/opinions.
Unique identifiers	SITEID OBS
Merging information	DRIV may be merged with CRS, VEH, OCC or NR using SITEID and OBS. See table 'SITE dataset' for merging with SITE.
Sampling weight included	Yes (SAMPWGT)
Added information	The sampling weight is the same as in CRS and applies to the sampled child in the vehicle, not to the driver; so weighted estimation is meaningful only in conjunction with the CRS dataset.

File Structure

VEH dataset

Number of records	4167
One record for	Each sampled vehicle
Data type	Inspection data
Data included	Vehicle restraints available and in use by seating position (for all seating positions).
Unique identifiers	SITEID OBS
Merging information	VEH may be merged with CRS, DRIV, OCC and NR using SITEID and OBS. See table 'SITE dataset' for merging with SITE.
Sampling weight included	Yes (SAMPWGT)
Added information	The sampling weight is the same as in CRS and applies to the sampled child in the vehicle, not to the vehicle; so weighted estimation is meaningful only in conjunction with the CRS dataset.

OCC dataset

Number of records	5779
One record for	Each child <9 years in a sampled vehicle, whether child was sampled or not
Data type	Interview data
Data included	Demographic data for children under 9 years old (by seating position).
Unique identifiers	SITEID OBS SP_CRS_I
Merging information	OCC may be merged with CRS using SITEID, OBS, and SP_CRS_I; with DRIV, VEH, or NR using SITEID and OBS. See table 'SITE dataset' for merging with SITE.
Sampling weight included	Yes (SAMPWGT)
Added information	For sampled children, sampling weight matches those in CRS. For non-sampled children, sampling weight equals zero. Weighted analysis is only meaningful in the context of sampled children.

File Structure

SITE dataset

Number of records	976
One record for	Each data collection site (see 'added information' for one exception)
Data type	Observation data
Data included	Site data; tallies of vehicles and children.
Unique identifiers	SITEID (see 'added information' for one exception)
Merging information	To merge SITE with NR, VEH, DRIV, CRS, or OCC, it is recommended that the user delete the observation where SITEID=451103 and DATE1=0622, then merge by SITEID. See note under 'added information.'
Sampling weight included	No
Added information	One site, 451103, is the only site with two rows instead of one. It was started on one date (0622) but completed on a second date (0629). All the sampled cases from site 451103 were done on the 0629 date.
	Site 761206 has a possible error in DATE3, where DATE3 does not match DATE2 and DATE1.
	There were 117 sites that had no sampled cases, but are included in the SITE file for completeness.

NR dataset

Number of records	7473
One record for	Each vehicle approached
Data type	Observation data
Data included	Basic data about respondents and non-respondents
Unique identifiers	SITEID OBS
Merging information	NR may be merged with CRS, DRIV, VEH or OCC using SITEID and OBS. See table 'SITE dataset' for merging with SITE.
Sampling weight included	No
Added information	Respondent vehicles may be identified by the variable INTSTAT, where INTSTAT=2 (Agreed).

4.2 Data Not Included

Not all of the collected data was included in the data sets. Some of the data was used during data collection and/or later quality control procedures, but not included in the data sets (e.g., names of data collectors). Other data, which was collected on each survey forms (e.g., date of observation), was only included once in each data set, in order to avoid duplication. The table below shows the data that was collected, along with the data that was not included in the data sets.

Form Name	Form Number	Item Numbers	Data Sets	Items Not Included	Content Not Included
Daily Site Form—Tallies	1105	1-12	SITE	1-3, 8, 12	NASS Staff, ZIP Codes, Notes
Interview Form-Vehicle	1106	1-25	DRIV		
Interview Form--Children by SP	1107	5	DRIV		
Interview Form--Restraints	1108	43-53	DRIV		
Interview Form--Children by SP	1107	1-4, 6-16	OCC		
Observation Form--Non-Response	1109	1-12	NR		
Interview Form--Restraints	1108	1-42	CRS		
Inspection Form--Restraints	1110	1-78	CRS	1-4	PSU, Site Number, Observation Number, Observation Date
Inspection Form--Vehicle Restraints	1111	5-6	CRS		Last 5 digits of the 17-digit VIN
Inspection Form--Vehicle Restraints	1111	1-4, 11A-33B	VEH		

4.3 Missing Data

Data values were not always obtained for every variable for all respondents.

- For inspection items, the information might not be available or might not be visible (e.g., the model number of the CRS--if the label is missing or if the label is not visible because the label is on the back of the CRS, which is flush against the back of the vehicle seat).

- For interview items, the interviewer might skip an item that should be asked or the driver might decide to leave before the interview is completed.

- For observation items, the observer might be unable to look into the vehicle because of tinted glass, something else that obstructed the view, or the vehicle quickly leaving the parking area. A NASS researcher did not always record data on the Daily Site Form-Tallies for all variables for which data was being collected.

File Structure

Blanks for missing character data (e.g., time, additional information provided when asked to specify an "other" response) were replaced with several different types of entries, including "22:22" for time and "No Response" or "Not Recorded" for other items. Missing numerical data was assigned an SAS code, as shown in the following table.

SAS Code	Type of Missing Data	When Used
.E	Not collected	● Survey item missed by interviewer ● Driver stopped answering questions before end of interview
.N	Not applicable	● Equipment not on vehicle ● Items not asked due to skip pattern
.R	Refused	● Driver refused to answer a specific question
.S	Did not specify	● Driver did not specify after selecting "Other"
.U	Unknown	● Driver selected "Do Not Know" attribute listed on the survey form ● CPST unable to observe or determine
.X	Not Recorded	● Researchers did not record data

Daily Site Form – Tallies (1105)

Paperwork Reduction Act Burden Statement
A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB Control Number. The OMB Control Number for this information collection is 2127-0642. Since data will be collected on this form via observation, public reporting for this collection of information is estimated to be approximately 0 minutes per response, including the time for reviewing instructions, completing and reviewing the collection of information. All responses to this collection of information are voluntary. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to: Information Collection Clearance Officer, National Highway Traffic Safety Administration, 1200 New Jersey Ave, S.E., Washington, DC, 20590. NHTSA Form 1105

United States Department of Transportation
National Highway Traffic Safety Administration

DAILY SITE FORM TALLIES
(4/08/11)

Form Approved O.M.B. No. 2127-0642
Expiration Date: 3/31/14

National Automotive Sampling System
National Child Restraint Use – Special Study

1. Interviewer: _____

2. Observer: _____

3. Counter: _____

4. PSU #: ____ ____

5. Site ID: ____ ____ ____ ____ ____ ____

6. Area: 1. ⭕ Urban, 2. ⭕ Suburban, 3. ⭕ Rural

7. Spanish Speaker Available: 1. ⭕ No   2. ⭕ Yes, all day   3. ⭕ Yes, partial day

8. Zip Code ___ ___ ___ ___ ___

9. PERIODS	10. TALLIES OF LIGHT VEHICLES WITH CHILDREN <9 YEARS (By Hour)	11. TALLIES OF CHILDREN <9 YEARS INSIDE THE VEHICLES (By Hour)
a. Date: _____/_____/2011 b. Time: ____ ____ : ____ ____ c. Temperature: _____ d. Weather: 1. ☐ Clear 2. ☐ Cloudy, 3. ☐ Fog, 4. ☐ Rain 5. ☐ Sleet 6. ☐ Snow		
a. Date: _____/_____/2011 b. Time: ____ ____ : ____ ____ c. Temperature: _____ d. Weather: 1. ☐ Clear 2. ☐ Cloudy, 3. ☐ Fog, 4. ☐ Rain 5. ☐ Sleet 6. ☐ Snow		
a. Date: _____/_____/2011 b. Time: ____ ____ : ____ ____ c. Temperature: _____ d. Weather: 1. ☐ Clear 2. ☐ Cloudy, 3. ☐ Fog, 4. ☐ Rain 5. ☐ Sleet 6. ☐ Snow		

12. NOTES

The **Daily Site Form – Tallies** (DAST) provides data for each period of data collection. Each data collection session lasted 3 hours unless it had to be suspended prematurely due to a weather related reason or cooperation issues.

The top section (Questions 1 to 8) of this form was site/location-specific and provided general information on the following:

Interviewer: This was the team member who was responsible for interviewing participants.

Observer: This was the team member who was responsible for observing how the child restraint was placed within the vehicle and specifics regarding the installation of the CRS.

Counter: This was the team member who was responsible for tallying how many total applicable/eligible vehicles were driven through the site during the session. Note: This is the total number of vehicles that qualified to be inspected, not the actual number of vehicles inspected during the session.

PSU #:   This is the two-digit number of the PSU at which the session was conducted.

Site ID: This is the six-digit, statistically generated unique ID given to the site where the observations took place.

Area: This is the demographic type of area where the site was located, i.e., Urban, Suburban, Rural.

Spanish Speaker Available: This item documents whether the team had a Spanish-speaking individual present to interview those who spoke Spanish.

ZIP Code: This is the five-digit ZIP Code where the site is located.

The middle section of the form was broken into three separate one-hour data collection periods. Tallies were recorded with tic marks in the boxes under Questions 10 and 11, and this data was later hard coded into the database. Each hourly period required the following information to be recorded:

(Q9) The date, time, temperature, and weather conditions.

(Q10) The total number of eligible vehicles that entered the site with children under 9 years old.

(Q11) The total number of children under 9 years old that were inside the vehicles.

The last section (Q12) was an area for any notes or special instructions.

Question: 1 – Interviewer

Data Set: N/A

SAS Name: N/A

Label Name: N/A

Attribute Codes:

Range: [List of active researchers]

Remarks:

The name of the researcher who conducted the interview was recorded in this variable. This information was not included in the database.

Format Type: N/A

Field Length: N/A

Question: 2 – Observer

Data Set: N/A

SAS Name: N/A

Label Name: N/A

Attribute Codes:

Range: [List of active researchers]

Remarks:

The name of the researcher who did the observation was recorded in this variable. This information was not included in the database.

Format Type: N/A

Field Length: N/A

Question: 3 – Counter

Data Set: N/A

SAS Name: N/A

Label Name: N/A

Attribute Codes:

Range: [List of active researchers]

Remarks:

The name of the researcher who completed the Daily Site Form – Tallies was recorded in this variable. This information was not included in the database.

Format Type: N/A

Field Length: N/A

Question: 4 – Primary Sampling Unit number

Data Set: SITE

SAS Name: PSU

Label Name: Primary Sampling Unit

Attribute Codes:

Range: 02 - 82

Remarks:

NCRUSS used the Crashworthiness Data System sites for data collection. The CDS consists of 24 statistically representative PSUs located throughout the country.[4] The PSUs have been assigned two-digit identifying numbers that range from 02 to 82.

For more information on the CDS, refer to the 2014 CDS Analytical User's Manual (Report No. DOT HS 812 198) at http://www-nrd.nhtsa.dot.gov/Pubs/812198.pdf.

Format Type: Number

Field Length: 3

---

[4] Additional information about the NASS CDS PSUs can be found in Appendix F of the 2014 NASS CDS Analytical User's Manual at http://www-nrd.nhtsa.dot.gov/Pubs/812198. Demographic data on the 24 PSUs have been included in Appendix F to give researchers supplementary information on the nature of the PSUs.

Question: 5 – Site number

Data Set: SITE

SAS Name: SITEID

Label Name: Site Number

Attribute Codes:

Range: 021103 - 823223

Remarks:

This is a unique six-digit identification number that was generated during the sampling process by NHTSA for use during data collection. This number, using the format below, identifies the location where the data was collected and provides additional information about each of the sites. Data was collected at each of the sites for only one 3-hour data collection time period. In rare instances, the same site was collected a second time. This occurred mainly in rural areas that contained fewer potential sites.

The first two digits are the assigned PSU number.
The third digit is the stratum.
The fourth digit is an indicator, 1 for sample, 2 for shadow sample, and 3 for extension sample.
The fifth and sixth digits are the site number (a sequential count of sites visited within a PSU).

The following is an example of how the site number was constructed for site 082220:

PSU number (08) | stratum (2) | sample indicator (2) | site number (20)

For more information on this topic refer to the **Sampling Design** on page 2 of this manual.

Format Type: Number

Field Length: 6

Question: 6 – Area

Data Set: SITE

SAS Name: GEO_AREA

Label Name: Area

Attribute Codes:

SAS	Description
1	Urban
2	Suburban
3	Rural

Remarks:

The data collector recorded the geographic area in which the site was located. Data collectors used their best estimation of the surrounding area when coding this data element and did not consider the PSU's stratification. The categories were broken down as follows:

Urban: Areas defined as the entirety of a major city including its commercial and industrial sub-districts and neighborhoods.

Suburban: Areas defined as metropolitan area whose main role is residency for workers of the city and where land uses are auto-oriented. These areas are lower density that cities and include pre-World War II smaller towns and cities, as well as mixed-use activity centers.

Rural: Areas characterized as localities with large expanses of undeveloped or agricultural land, dotted by small towns, villages, or any other small activity clusters.

Format Type: Number

Field Length: 3

Question: 7 – Spanish speaker available

Data Set: SITE

SAS Name: SPAN_AVL

Label Name: Spanish speaker available

Attribute Codes:

SAS	Description
0	No
2	Yes, all day
3	Yes, partial day

Remarks:

The data collector recorded if a Spanish speaker was present during data collection, and if so, whether or not they were present for all three hours of the session.

Format Type: Number

Field Length: 3

Question: 8 – ZIP Code

Data Set: N/A

SAS Name: N/A

Label Name: N/A

Attribute Codes:

Range: [List of applicable ZIP Codes]

Remarks:

The ZIP Code of the site where data was collected was recorded but that data is not included in the database.

Format Type: N/A

Field Length: N/A

Question: 9a – Date

Data Set: SITE

SAS Name: DATE1, DATE 2, DATE 3

Label Name: Date: Period 1, Date: Period 2, Date: Period 3

Attribute Codes:

Range: .X, 0601 – 0729

Remarks:

Data on the above variables were collected for each of the three separate one-hour data collection periods.

The date variables identified the month and the day on which data collection was conducted; however, the year was not included in the date variable, since all data collection was completed in calendar year 2011.

Both the beginning and the ending dates for data collection are four-digit numbers with the first two digits representing the month and the last two digits the day.

.X = Not recorded.

Format Type: Text

Field Length: 10

Question: 9b – Time

Data Set: SITE

SAS Name: Time1, Time2, Time3

Label Name: Time: Period 1, Time: Period 2, Time: Period 3

Attribute Codes:

Range: .X, 05:45 – 19:00

Remarks:

Data on the above variables were collected for each of the three separate one-hour data collection periods.

The time was recorded in military units.

.X = Not recorded.

Format Type: Character

Field Length: 6

Question: 9c – Temperature

Data Set: SITE

SAS Name: TEMP1, TEMP2, TEMP3

Label Name: Temperature: Period 1, Temperature: Period 2, Temperature: Period 3

Attribute Codes:

Range: .X, .U, 41 – 110

Remarks:

Data on the above variables were collected for each of the three separate one-hour data collection periods.

The temperature is stored in degrees Fahrenheit.

.U = Unknown

.X = Not recorded

Format Type: Number

Field Length: 3

Question: 9d – Weather

Data Set: SITE

SAS Name: WEATHER1, WEATHER2, WEATHER3

Label Name: Weather: Period 1, Weather: Period 2, Weather: Period 3

Attribute Codes:

SAS	Description
1	Clear
2	Cloudy
3	Fog
4	Rain
5	Sleet
6	Snow
.X	Not recorded

Remarks:

Data on the above variables were collected for each of the three separate one-hour data collection periods.

Format Type: Number

Field Length: 3

Question: 10.1 – Tallies of light vehicles with children <9 years (by hour) – Period 1

Data Set: SITE

SAS Name: VEH1

Label Name: Vehicles with children <9 yrs: Period 1

Attribute Codes:

Range: .X, 0 – 87

Remarks:

.X = Not recorded

Format Type: Number

Field Length: 3

Question: 10.2 – Tallies of light vehicles with children <9 years (by hour) – Period 2

Data Set: SITE

SAS Name: VEH2

Label Name: Vehicles with children <9 yrs: Period 2

Attribute Codes:

Range: .X, 0 – 104

Remarks:

.X = Not recorded

Format Type: Number

Field Length: 3

Question: 10.3 – Tallies of light vehicles with children <9 years (by hour) – Period 3

Data Set: SITE

SAS Name: VEH3

Label Name: Vehicles with children <9 yrs: Period 3

Attribute Codes:

Range: .X, 0 – 45

Remarks:

.X = Not recorded

Format Type: Number

Field Length: 3

Question: 11.1 – Tallies of children <9 years inside the vehicles (by hour) – Period 1

Data Set: SITE

SAS Name: CHILD1

Label Name: Children <9 yrs: Period 1

Attribute Codes:

Range: .X, 0 – 124

Remarks:

.X = Not recorded

Format Type: Number

Field Length: 3

Question: 11.2 – Tallies of children <9 years inside the vehicles (by hour) – Period 2

Data Set: SITE

SAS Name: CHILD2

Label Name: Children <9 yrs: Period 2

Attribute Codes:

Range: .X, 0 – 168

Remarks:

.X = Not recorded

Format Type: Number

Field Length: 3

Question: 11.3 – Tallies of children <9 years inside the vehicles (by hour) – Period 3

Data Set: SITE

SAS Name: CHILD3

Label Name: Children <9 yrs: Period 3

Attribute Codes:

Range: .U, .X, 0 – 62

Remarks:

.U = Unknown

.X = Not recorded

Format Type: Number

Field Length: 3

Interview Form Vehicle (1106)

Paperwork Reduction Act Burden Statement

A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB Control Number. The OMB Control Number for this information collection is 2127-0642. Public reporting for this collection of information is estimated to be approximately 4 minutes per response, including the time for reviewing instructions, completing and reviewing the collection of information. All responses to this collection of information are voluntary. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to: Information Collection Clearance Officer, National Highway Traffic Safety Administration, 1200 New Jersey Ave, S.E., Washington, DC, 20590.   NHTSA Form 1106

INTERVIEW FORM VEHICLE
(4/22/11)

United States Department of Transportation
National Highway Traffic Safety Administration

Form Approved O.M.B. No. 2127-0642
Expiration Date: 3/31/14
National Automotive Sampling System
National Child Restraint Use – Special Study

(*Site Information*)

1. Primary Sampling Unit Number: ____ ____
2. Site Number: ____ ____ ____ ____ ____ ____
3. Observation Number: ____ ____
4. Date of Observation: _____/_____/2011

----

5. Do you have any passengers < 9 years of age?
   1) ◯ Yes   2) ◯ No or Don't Know *(End Interview)*

6. Interview Start Time: _____
7. Interview Conducted in:
   1) ◯ English 2) ◯ Spanish
8. Year: _____ ◯ DK
9. Make: _____ ◯ DK
10. Model: _____ ◯ DK
11. What is the total # of occupants in this vehicle:
    1) _____
    2) ◯ DK, Ref, or DA *(Circle one)*

----

12. Have you ever seen or heard of a "booster seat"?
    1) ◯ Yes
    2) ◯ No *(Skip to Q15)*
    3) ◯ DK, Ref, or DA *(Circle one) (Skip to Q15)*

13. What is the minimum age that a child should be to use a booster seat?
    1) Age *(Specify)* _____
    2) DK, Ref, or DA *(Circle one)*

14. Why is a booster seat used? *(Don't read options; Check all that apply.)*
    1) ☐ To make the safety belt fit the child better
    2) ☐ It is the law
    3) ☐ So the child can see out of the windows
    4) ☐ Safety
    5) ☐ DK, Ref, or DA *(Circle one)*
    6) ☐ Other: _____

----

15. When is it safe for your child to use a safety belt without either a booster seat or child safety seat? *(Don't read options; Check all that apply.)*
    1) ☐ Weight: _____
    2) ☐ Age: _____
    3) ☐ Height: _____
    4) ☐ Child's knees reach the edge of vehicle seat
    5) ☐ Child is tall enough that shoulder belt doesn't cut across the chin/neck
    6) ☐ Child can keep his/her feet flat on the floor
    7) ☐ DK, Ref, or DA *(Circle one)*
    8) ☐ Other: _____

16. Do you know about a way to install a child safety seat without a safety belt?
    1) ◯ Yes
    2) ◯ No *(Skip to Q18)*
    3) ◯ DK, Ref, or DA *(Circle one) (Skip to Q18)*

17. What is it called?
    1) ◯ LATCH *(Skip to Q19)*
    2) ◯ Tether
    3) ◯ ISOFIX
    4) ◯ DK, Ref, or DA *(Circle one)*
    5) ◯ Other

18. Have you heard of the term "LATCH" associated with child safety seats?
    1) ◯ Yes
    2) ◯ No
    3) ◯ DK, Ref, or DA *(Circle one)*

----

19. Does your vehicle have a place to connect or anchor the lower attachments for a child safety seat?
    1) ◯ Yes
    2) ◯ No *(Skip to Q21)*
    3) ◯ DK, Ref, or DA *(Circle one) (Skip to Q21)*

20. Can you see the lower anchors, or are they hidden between the seat cushions?
    1) ◯ Can see the lower anchors
    2) ◯ Hidden
    3) ◯ DK, Ref, or DA *(Circle one)*

----

21. Does your vehicle have a place to hook or anchor the top tether strap for a child safety seat?
    1) ◯ Yes
    2) ◯ No *(Skip to Q23)*
    3) ◯ DK, Ref, or DA *(Circle one) (Skip to Q23)*

22. Can you see the tether anchors, or are they hidden?
    1) ◯ Can see the tether anchors
    2) ◯ Hidden
    3) ◯ DK, Ref, or DA *(Circle one)*

----

23. In your opinion: How good are <u>child safety seats</u> at preventing injuries for children <2 years old, when compared to using only a seat belt? How about for 2-4 year olds? *(Read options; Mark as appropriate)*

	Not as good	The Same	Better Than SBs	DK, Ref, or DA *(Specify)*
< 2 Yrs				
2-4 Yrs				

24. Using the same options as in the last question, in your opinion, for children ages 4 to 8, how good are <u>booster seats</u> at preventing injuries, when compared to using only a seat belt?

	Not as good	The Same	Better Than SBs	DK, Ref, or DA *(Specify)*
4-8 Yrs				

25. Did you ever read or hear of any information or receive any advice about the need to use child safety seats from any of the following sources? *(Read options; Check all that apply)*
    1) ☐ A doctor, nurse, or hospital personnel
    2) ☐ A book, magazine, or article
    3) ☐ Store (e.g., Babies R Us)
    4) ☐ A daycare provider
    5) ☐ TV or radio
    6) ☐ A family member or friend
    7) ☐ A safety hotline
    8) ☐ The Internet
    9) ☐ Police or fire department
    10) ☐ Car class/car safety seat check station
    11) ☐ None
    12) ☐ DK, Ref, or DA *(Circle one)*
    13) ☐ Other *(Specify)* _____

The **Interview Form Vehicle** (NHTSA 1106) was for collecting the drivers' knowledge and opinions about CRS, from where the drivers obtain this information, and whether the vehicles have LATCH systems.

This form contained 25 questions, many of which required more than one answer.

Question: 1 – Primary Sampling Unit number

Data Set: DRIV

SAS Name: PSU

Label Name: Primary Sampling Unit

Attribute Codes:

Range: 02 - 82

Remarks:

NCRUSS used the CDS sites for data collection. The CDS consists of 24 statistically representative PSU's located throughout the country.[5] The PSUs have been assigned two-digit identifying numbers that range from 02 to 82.

For more information on the CDS, refer to the 2014 CDS Analytical User's Manual (Report No. DOT HS 812 198) at http://www-nrd.nhtsa.dot.gov/Pubs/812198.pdf.

Format Type: Number

Field Length: 3

---

[5] Additional information about the NASS CDS PSUs can be found in Appendix F of the 2014 NASS CDS Analytical User's Manual at http://www-nrd.nhtsa.dot.gov/Pubs/812198.pdf. Demographic data on the 24 PSUs have been included in Appendix F to give researchers supplementary information on the nature of the PSUs.

Question: 2 – Site number

Data Set: DRIV

SAS Name: SITEID

Label Name: Site Number

Attribute Codes:

Range: 021103 - 823223

Remarks:

This is a unique six-digit identification number that was generated during the sampling process by NHTSA for use during data collection. This number, using the format below, identifies the location where the data was collected and provides additional information about each of the sites. Data was collected at each of the sites for only one 3-hour data collection time period. In rare instances, the same site was collected a second time. This occurred mainly in rural areas that contained fewer potential sites.

The first two digits are the assigned PSU number. (Refer to the Background section beginning on page 1.)
The third digit is the stratum.
The fourth digit is an indicator, 1 for sample, 2 for shadow sample, and 3 for extension sample.
The fifth and sixth digits are the site number (a sequential count of sites visited within a PSU).

The following is an example of how the site number was constructed for site 082220:

PSU number (08) | stratum (2) | sample indicator (2) | site number (20)

For more information on this topic refer to the **Sampling Design** on page 2 of this manual.

Format Type: Number

Field Length: 7

Question: 3 – Observation number

Data Set: DRIV

SAS Name: OBS

Label Name: Observation Number

Attribute Codes:

Range: 01 - 34

Remarks:

An observation number is assigned for each vehicle that is approached regardless of whether the driver agrees to participate in the survey. Accordingly, numbers are assigned not only to vehicles from which a completed interview is obtained, but also to vehicles from which interviews are not conducted/completed (e.g., the drivers do not agree to participate and/or all occupants are older than 8).

At each data collection site, numbering begins at 01 and continues consecutively until all vehicles are given numbers. The highest number of observations recorded for any one session was 34.

Format Type: Text

Field Length: 3

Question: 4 – Date of observation

Data Set: DRIV

SAS Name: DATE

Label Name: Observation Date

Attribute Codes:

Range: 06/01/2011 – 07/29/2011

Remarks:

This is the date the observation was made.

Format Type: Text

Field Length: 10

Question: 5 – Do you have any passengers < 9 years of age?

Data Set: DRIV

SAS Name: ANYUNDR9

Label Name: Any passenger under 9?

Attribute Codes:

SAS	Description
0	No or Unknown (End interview)
1	Yes

Remarks:

This variable contains the driver's response to interview Question 5, "Do you have any passengers < 9 years of age?"

Question 5 was a "Yes/No" question with "No" encompassing all "No" and "Unknown" responses. If the driver replied "No" or "Unknown," the interviewer was directed to end the interview.

Format Type: Number

Field Length: 3

Question: 6 – Interview start time

Data Set: DRIV

SAS Name: START_I

Label Name: Interview start time

Range: 06:00 – 19:44

Remarks:

The data collector recorded when the interview began in military time. The resulting earliest and latest times recorded (0600 and 1944) make up the range.

Format Type: Text

Field Length: 4

Question: 7 – Interview conducted in?

Data Set: DRIV

SAS Name: LANG_I

Label Name: Language interview is in

Attribute Codes:

SAS	Description
1	English
2	Spanish

Remarks:

Interview Q7, "Interview conducted in?" was an observation made by the interviewer as to what language the interview was conducted.

Format Type: Number

Field Length: 3

Question: 8 – Year

Data Set: DRIV

SAS Name: YEAR

Label Name: Vehicle year

Attribute Codes:

SAS	Description
#	Model year of vehicle
.U	Don't know

Remarks:

This variable contains the model year of the vehicle. If the driver was uncertain, the interviewers were instructed to obtain that information from the side of the vehicle, the owner's manual, or another physical source if permission was granted.

Format Type: Number

Field Length: 4

Question: 9 – Make

Data Set: DRIV

SAS Name: MAKE_VEH

Label Name: Vehicle make

Attribute Codes:

SAS	Description
#	Make of vehicle – refer to Appendix A
.U	Don't know

Remarks:

This variable contains the vehicle's make. If the driver was uncertain, the interviewers were instructed obtain that information from the side of the vehicle, the owner's manual, or another physical source if permission was granted.

Format Type: Text

Field Length: 30

Question: 10 – Model

Data Set: DRIV

SAS Name: MOD_VEH

Label Name: Vehicle model

Attribute Codes:

SAS	Description
#	Model of vehicle – Refer to Appendix B
.U	Don't know

Remarks:

This variable contains the vehicle's model. If the driver was uncertain, the interviewers were instructed to obtain that information from the side of the vehicle, the owner's manual, or another physical source if permission was granted.

Format Type: Text

Field Length: 30

Question: 11 – What is the total # of occupants in the vehicle?

Data Set: DRIV

SAS Name: OCC_CT

Label Name: Total vehicle occupants

Attribute Codes:

#	Enter the total number of occupants
.U	Don't know
.E	Didn't ask
.R	Refused

Remarks:

The interviewer was instructed to enter, in the space on the survey form, the number that the driver provided. If the driver did not provide a number, the interviewer was to select among the attribute codes that were itemized on the survey form and that are listed above.

Format Type: Number

Field Length: 3

Question   12 – Have you ever seen or heard of a booster seat?

Data Set: DRIV

SAS Name: BSTR_HRD

Label Name   Have you heard of a booster seat

Attribute Codes:

SAS	Description
0	No (skip to Q15)
1	Yes
.U	Unknown
.E	Didn't ask
.R	Refused

Remarks:

This variable contains the driver's response to interview Question 12, "Have you ever heard of a booster seat?"

Question 12 was a "check only one answer" question. If the driver answered "No," or "Don't know/Didn't ask/Refused," the interviewer was instructed to skip to Question 15.

Format Type: Number

Field Length: 1

Question: 13 – What is the minimum age that a child should be to use a booster seat?

Data Set: DRIV

SAS Name: BSTR_AGE

Label Name: Minimum age for a booster – in months

Attribute Codes:

#	Enter age provided
.N	Not applicable
.U	Don't know
.E	Didn't ask
.R	Refused

Remarks:

The interviewer recorded the driver's answer in the units of measurement given by the driver (e.g., months, years). If the question was skipped or if the driver did not know, was not asked, or refused to answer, the above listed attribute codes were used. The interviewers were instructed to seek a specific age from the driver rather than an age range.

Year and month data was entered into the data entry application. The application converted and stored the data in months.

Format Type: Number

Field Length: 3

Question: 14 - Why is a booster seat used?

Data Set: DRIV

Remarks:

This variable contains the driver's response to interview Question 14, "Why is a booster seat used?"

Question 14 was a "Check all that apply" question. <u>Interviewers were instructed not to read the options provided</u>, but to record all of the answers provided by the drivers by: (1) checking all of the standard choices, as listed on the survey form, that were mentioned by the driver; and (2) specifying any non-standard responses. The next six pages of the manual provide detail on the specific attributes (questions 14.1 to 14.4, 14.6 to 14.6.1) that apply to this question.

The specific attributes (responses) are defined as follows:

14.1:   To make the safety belt fit the child better

14.2:   It is the law

14.3:   So the child can see out of the windows

14.4:   Safety

14.5:   Don't know, Didn't ask, Refused are captured within the other attributes within this question and are not outlined separately in this section

14.6:   Other

14.6.1: Other, _____

Response: **14.1 (To make the safety belt fit the child better)**

Data Set: DRIV

SAS Name: BSTR_FIT

Label Name   Booster Used For Fit

Attribute Codes:

SAS	Description
0	No
1	Yes
.N	Not applicable
.U	Don't know
.E	Didn't ask
.R	Refused

Remarks:

This attribute contains the driver's response to interview Question 14, "Why is a booster seat used?"/Attribute 14.1 "To make the safety belt fit the child better."

Question 14 was a "check all that apply" question. Interviewers were instructed to check all of the responses to this question that the driver provided.

Format Type: Number

Field Length: 3

Response: **14.2 (It is the law)**

Data Set: DRIV

SAS Name: BSTR_LAW

Label Name   Booster Used – is Law

Attribute Codes:

SAS	Description
0	No
1	Yes
.N	Not applicable
.U	Don't know
.E	Didn't ask
.R	Refused

Remarks:

This attribute contains the driver's response to interview Question 14, "Why is a booster seat used?"/Attribute 14.2 "It is the law."

Question 14 was a "check all that apply" question. Interviewers were instructed to check all of the responses to this question that the driver provided.

Format Type: Number

Field Length: 3

Response: **14.3 (So the child can see out of the windows)**

Data Set: DRIV

Range: 1 - 5

SAS Name: BSTR_SEE

Label Name   Booster Used To See

Attribute Codes:

SAS	Description
0	No
1	Yes
.N	Not applicable
.U	Don't know
.E	Didn't ask
.R	Refused

Remarks:

This attribute contains the driver's response to interview Question 14, "Why is a booster seat used?"/Attribute 14.3 "So the child can see out of the windows."

Question 14 was a "check all that apply" question. Interviewers were instructed to check all of the responses to this question that the driver provided.

Format Type: Number

Field Length: 3

Response: **14.4 (Safety)**

Data Set: DRIV

SAS Name: BSTR_SAF

Label Name   Booster Used For Safety

Attribute Codes:

SAS	Description
0	No
1	Yes
.N	Not applicable
.U	Don't know
.E	Didn't ask
.R	Refused

Remarks:

This attribute contains the driver's response to interview Question 14, "Why is a booster seat used?"/Attribute 14.4 "Safety."

Question 14 was a "check all that apply" question. Interviewers were instructed to check all of the responses to this question that the driver provided.

Format Type: Number

Field Length: 3

Response: **14.6 (Other)**

Data Set: DRIV

SAS Name: BSTR_O

Label Name   Booster Used – Other

Attribute Codes:

SAS	Description
0	No
1	Yes
.N	Not applicable
.U	Don't know
.E	Didn't ask
.R	Refused

Remarks:

This attribute contains the driver's response to interview Question 14, "Why is a booster seat used?"/Attribute 14.6 "Other."

Question 14 was a "check all that apply" question. Interviewers were instructed to check all of the responses to this question that the driver provided.

If the driver provided a response that was not captured by 14.1 – 14.4, the interviewer was instructed to select "Other."

Format Type: Number

Field Length: 3

Response: **14.6.1 (Other, _____)**

Data Set: DRIV

SAS Name: BSTR_OS

Label Name   Booster Used – Other Specify

Attribute Codes:

Remarks:

This attribute contains the driver's response to interview Question 14, "Why is a booster seat used?"/Attribute 14.6.1 "Other, _____."

Question 14 was a "check all that apply" question. Interviewers were instructed to check all of the responses to this question that the driver provided.

If the driver provided a response that was not captured by 14.1 – 14.4, the interviewer was instructed to select "Other" in 14.6 and enter the answer provided by the driver in the space on the survey form.

Format Type: Text

Field Length: 75

Question: 15 - When is it safe for your child to use a safety belt without either a booster seat or child safety seat?

Data Set: DRIV

Remarks:

The choices below identify the driver's response to interview Question 15, "When is it safe to use a safety belt without either a booster seat or child safety seat?"

Question 15 was a "Check all that apply" question. Interviewers were instructed not to read the options provided, but to record all of the answers provided by the drivers in the following manner: (1) checking all of the standard choices, as listed on the survey form, that were mentioned by the driver; and (2) specifying any non-standard responses.

Interviewers entered, on the survey forms, the units of measurement used by the drivers (e.g., pounds, ounces, inches, years), but data was later converted and stored in standard units in the data entry application and the SAS database, as identified in the following pages.

The next eight pages of the manual provide detail on the specific attributes (questions 15.1 – 15.4, 15.8 – 15.8.1) that apply to this question.

The specific attributes (responses) are defined as follows:

15.1: Weight

   15.1.1: Units in which weight was recorded

15.2: Age

   15.2.1: Units in which age was recorded

15.3: Height

   15.3.1: Units in which height was recorded

15.4: Child's knees reach the edge of vehicle seat

15.5: Child is tall enough that shoulder belt doesn't cut across the chin/neck

15.6: Child can keep his/her feet flat on the floor

15.8: Other

15.8.1: Other, _____

Response: **15.1 (Weight)**

Data Set: DRIV

SAS Name: SB_WGHT

Label Name: What weight is ok for belt

Range: 4 – 130

Attribute Codes:

SAS	Description
#	Recorded the weight
0	Weight not selected as a criteria
.E	Didn't ask
.R	Refused
.S	Did not specify
.U	Don't know

Remarks:

If the driver did not select the option of "Weight" as being one of the criteria for when it was safe to use a safety belt without a booster seat or CRS, the interviewer did not check "Weight" on the survey form and "0" was entered for variables "SB_WGHT" and "SB_WGT_U" in the SAS database.

If the driver did select the option of "Weight," the interviewer checked "Weight" on the survey form and recorded the driver's answer. If the driver replied "Weight" along with a weight range or without any numeric amount, the interviewer asked the driver to provide a specific numeric value. The attributes used in the SAS database for the "SB_WHGT" variable were:

1. "#" where the numeric value provided by the driver was entered into the database. (The recorded data was converted, if necessary, so it could be entered as pounds.)

2. ".S" for "Did not specify" if the driver did not provide a numerical value.

If the driver did not know, refused, or was not asked to answer the question, the interviewer circled the appropriate option on the survey form (DK, Ref, DA) and the attribute code for that option (U, Unknown; .R, Refused, .E, Did not ask) was used in the SAS database.

Format Type: Number

Field Length: 3

Response: **15.1.1**

Data Set: DRIV

SAS Name: SB_WGT_U

Label Name: Weight units

Attribute Codes:

SAS	Description
0	No measurement
5	Pounds
9	N/A
.E	Didn't ask
.R	Refused
.S	Did not specify
.U	Unknown

Remarks:

If the driver did not select the option of "Weight," the interviewer did not check "Weight" on the survey form and "0" was entered for variables "SB_WGHT" and "SB_WGT_U" in the SAS database.

If the driver did select the option of "Weight," the interviewer checked "Weight" on the survey form and recorded the numeric value and the units of measurement given by the driver. The attributes used in the SAS database for the "SB_WGT_U" variable were:

1. "5" for pounds if the driver provided a numeric value and a unit of measure. (The recorded data was converted, if necessary, and entered into the database as pounds.)

2. "9, for "N/A" if the driver did not provide a unit of measure for this numerical value, but did provide the numerical value.

3. ".S" for "Did not specify" if the driver did not provide a unit of measure or a numerical value.

If the driver did not know, refused, or was not asked to answer the question, the interviewer circled the appropriate option on the survey form (DK, Ref, DA) and the attribute code for that option (U, Unknown; .R, Refused, .E, Did not ask) was used in the SAS database.

Format Type: Number

Field Length: 3

Response: **15.2 (Age)**

Data Set: DRIV

SAS Name: SB_AGE

Label Name: What age is ok for belt

Range: 0.0 – 16.0

Attribute Codes:

SAS	Description
#	Recorded the age in years
0	Age not selected as a criteria
.U	Don't know
.E	Didn't ask
.R	Refused
.S	Did not specify

Remarks:

If the driver did not select the option of "Age," the interviewer did not check "Age" on the survey form and "0" was entered for variables "SB_AGE" and "SB_AGE_U" in the SAS database.

If the driver did select the option of "Age," the interviewer checked "Age" on the survey form and recorded the driver's answer. If the driver replied "Age" along with an age range or without any numeric amount, the interviewer asked the driver to provide a specific numeric value. The attributes used in the SAS database for the "SB_AGE" variable were:

1. "#" where the numeric value provided by the driver was entered into the database.

2. ".S" for "Did not specify" if the driver did not provide a numerical value.

If the driver did not know, refused, or was not asked to answer the question, the interviewer circled the appropriate option on the survey form (DK, Ref, DA) and the attribute code for that option (U, Unknown; .R, Refused, .E, Did not ask) was used in the SAS database.

Format Type: Number

Field Length: 3

Response: **15.2.1**
Data Set: DRIV

SAS Name: SB_AGE_U

Label Name: Age units

Attribute Codes:

SAS	Description
0	No measurement
1	Months
2	Years
9	N/A
.E	Didn't ask
.R	Refused
.U	Unknown
.S	Did not specify

Remarks:

If the driver did not select the option of "Age," the interviewer did not check "Age" on the survey form and "0" was entered for variables "SB_AGE" and "SB_AGE_U" in the SAS database.

If the driver did select the option of "Age" the interviewer checked "Age" on the survey form and recorded the numeric value and the units of measurement given by the driver (e.g., months, years). The attributes used in the SAS database for the "SB_AGE_U" variable were:

1. "1" for months or 2 for years, if the driver provided a numeric value and a unit of measure.

2. "9, for "N/A" if the driver did not provide a unit of measure for this numerical value, but did provide the numerical value.

3. ".S" for "Did not specify" if the driver did not provide a unit of measure or a numerical value.

If the driver did not know, refused, or was not asked to answer the question, the interviewer circled the appropriate option on the survey form (DK, Ref, DA) and the attribute code for that option (U, Unknown; .R, Refused, .E, Did not ask) was used in the SAS database.

Format Type: Number

Field Length: 3

Response: **15.3 (Height)**

Data Set: DRIV

SAS Name: SB_HGHT

Label Name: What height is ok for belt

Range: 0.0 – 69.0

Attribute Codes:

SAS	Description
#	Recorded the height in inches
0	Height not selected as a criteria
.U	Don't know
.E	Didn't ask
.R	Refused
.S	Did not specify

Remarks:

If the driver did not select the option of "Height," the interviewer did not check "Height" on the survey form and "0" was entered for variables "SB_HGHT" and "SB_HGT_U" in the SAS database.

If the driver did select the option of "Height," the interviewer checked "Height" on the survey form and recorded the driver's answer. If the driver replied "Height" along with a height range or without any numeric amount, the interviewer asked the driver to provide a specific numeric value. The attributes used in the SAS database for the "SB_HGHT" variable were:

1. "#" where the numeric value provided by the driver was entered into the database.

2. ".S" for "Did not specify" if the driver did not provide a numerical value.

If the driver did not know, refused, or was not asked to answer the question, the interviewer circled the appropriate option on the survey form (DK, Ref, DA) and the attribute code for that option (U, Unknown; .R, Refused, .E, Did not ask) was used in the SAS database.

Format Type: Number

Field Length: 3

Response: **15.3.1**
Data Set: DRIV

SAS Name: SB_HGT_U

Label Name: Height units

Attribute Codes:

SAS	Description
0	No measurement
3	Inches
4	Feet
9	N/A
.E	Didn't ask
.R	Refused
.U	Unknown
.S	Did not specify

Remarks:

If the driver did not select the option of "Height," the interviewer did not check "Height" on the survey form and "0" was entered for variables "SB_HGHT" and "SB_HGT_U" in the SAS database.

If the driver did select the option of "Height" the interviewer checked "Height" on the survey form and recorded the numeric value and the units of measurement given by the driver. The attributes used in the SAS database for the "SB_HGT_U" variable were:

1. "3" for inches and "4" for feet if the driver provided a numeric value and a unit of measure.

2. "9, for "N/A" if the driver did not provide a unit of measure for this numerical value, but did provide the numerical value.

3. ".S" for "Did not specify" if the driver did not provide a unit of measure or a numerical value.

If the driver did not know, refused, or was not asked to answer the question, the interviewer circled the appropriate option on the survey form (DK, Ref, DA) and the attribute code for that option (U, Unknown; .R, Refused, .E, Did not ask) was used in the SAS database.

Format Type: Number

Field Length: 3

Response: **15.4 (Child's knees reach the edge of vehicle seat)**

Data Set: DRIV

SAS Name: SB_KNEES

Label Name: Safe to use a belt - knees

Attribute Codes:

SAS	Description
0	No
1	Yes
.U	Don't know
.E	Didn't ask
.R	Refused

Remarks:

This attribute contains the driver's response to interview Question 15, "When is it safe to use a safety belt without either a booster seat or child safety seat?"/Attribute 15.4 "Child's knees reach the edge of vehicle seat."

Question 15 was a "check all that apply" question. Interviewers were instructed to check all of the responses that the driver provided for this question.

Format Type: Number

Field Length: 3

Response: 15.5 (Child is tall enough that shoulder belt doesn't cut across the chin or neck)

Data Set: DRIV

SAS Name: SB_NECK

Label Name: Safe to use a belt - neck

Attribute Codes:

SAS	Description
0	No
1	Yes
.U	Don't know
.E	Didn't ask
.R	Refused

Remarks:

This attribute contains the driver's response to interview Question 15, "When is it safe to use a safety belt without either a booster seat or child safety seat?"/Attribute 15.5 "Child is tall enough that shoulder belt doesn't cut across the chin or neck."

Question 15 was a "check all that apply" question. Interviewers were instructed to check all of the responses that the driver provided for this question.

Format Type: Number

Field Length: 3

Response:　　　**15.6 (Child can keep his/her feet flat on the floor)**

Data Set:　　　　　　DRIV

SAS Name:　　　　　SB_FEET

Label Name:　　　　Safe to use a belt - feet

Attribute Codes:

SAS	Description
0	No
1	Yes
.U	Don't know
.E	Didn't ask
.R	Refused

Remarks:

This attribute contains the driver's response to interview Question 15, "When is it safe to use a safety belt without either a booster seat or child safety seat?" \ Attribute 15.6 "Child can keep his/her feet flat on the floor."

Question 15 was a "check all that apply" question. Interviewers were instructed to check all of the responses that the driver provided for this question.

Format Type:　　　Number

Field Length:　　　3

Response: 15.7 (Other)

Data Set: DRIV

SAS Name: SB_OK_O

Label Name: Safe to use a belt - other

Attribute Codes:

SAS	Description
0	No
1	Yes
.U	Don't know
.E	Didn't ask
.R	Refused

Remarks:

This attribute contains the driver's response to interview Question 15, "When is it safe to use a safety belt without either a booster seat or child safety seat?" \ Attribute 15.7 "Other."

Question 15 was a "check all that apply" question. Interviewers were instructed to check all of the responses that the driver provided for this question.

If the driver provided a response that was not captured by 15.1 – 15.6, the interviewer was instructed to select "Other" in 15.7.

Format Type: Number

Field Length: 3

Response: 15.7.1 (Other, _____)

Data Set: DRIV

SAS Name: SB_OK_OS

Label Name: Safe to use a belt – other, _____

Attribute Codes:
Remarks:

This attribute contains the driver's response to interview Question 15, "When is it safe to use a safety belt without either a booster seat or child safety seat?" \ Attribute 15.7.1 "Other, _____."

Question 15 was a "check all that apply" question. Interviewers were instructed to check all of the responses that the driver provided for this question.

If the driver provided a response that was not captured by 15.1 – 15.6, the interviewer was instructed to select "Other" in 15.7 and enter the answer provided by the driver in the space on the survey form.

Format Type: Text

Field Length: 75

Question: 16 - Do you know about a way to install a child safety seat without a safety belt?

Data Set: DRIV

SAS Name: NOSB_ATT

Label Name: Do you know how to install seat without a belt

Attribute Codes:

SAS	Description
0	No (skip to Q18)
1	Yes
.U	Don't know
.E	Didn't ask
.R	Refused

Remarks:

This variable contains the driver's response to interview Question 16, "Do you know how to install a seat without as belt?"

Question 16 was a "check only one answer" question. If the driver answered "No," or "Don't know/Didn't ask/Refused," the interviewer was instructed to skip to Question 18.

Format Type: Number

Field Length: 3

Question: 17 - What is it called?

Data Set: DRIV

Remarks:

The choices below identify the driver's response to interview Question 17, "What is it called?" This is a follow-up question to Q16, which asked if the driver knew of a system to install the child safety seat without using the vehicle's safety belt.

Question 17 was a "Check only one answer" question. The next two pages of the manual provide detail on the specific attributes (17.1 – 17.2) that apply to this question.

If the driver responded in 17.1 (LATCH), the interviewer was instructed to skip to Question 19.

The specific attributes (responses) are defined as follows:

17.1:   LATCH
Tether
ISOFIX
17.2:   Other, _____

Response: **17.1 (LATCH, Tether, ISOFIX)**

Data Set: DRIV

SAS Name: BL_NAME

Label Name: What is beltless installation called

Attribute Codes:

SAS	Description
1	LATCH (skip to Q19)
2	Tether
3	ISOFIX
5	Other, specify
.N	Not applicable
.U	Don't know
.E	Didn't ask
.R	Refused

Remarks:

LATCH was selected when the driver indicated that they thought the system mentioned in Q16 was called LATCH. The LATCH system is comprised of both upper tethers and lower anchor connections. If LATCH was selected, the interviewer was instructed to skip to Q19.

Tether was selected when the driver indicated that they thought the system mentioned in Q16 was called tether.

ISOFIX was selected when the driver indicated that they thought the system mentioned in Q16 was called ISOFIX. The ISOFIX system is found in some foreign vehicles and generally consists of lower anchors but not top tethers. All vehicles sold in the United States post-September 2003 have to be equipped with both tethers and anchors. **Note**: Some Toyota models have a complete LATCH system in the second and third row outboard positions, but refer to the system as an ISOFIX system on their badging and in the owner's manual.

Format Type: Number

Field Length: 3

Response: 17.2 (Other, _____)

Data Set: DRIV

SAS Name: NAME_OS

Label Name: What is beltless installation called – other, _____

Attribute Codes:
Remarks:

If the driver provided a response that was not captured in 17.1 above, the interviewer was instructed to select "Other" in 17.1 and enter, in the space on survey form, the answer that was provided by the driver.

Other was used if the driver thought the system mentioned in Q16 was called something other than LATCH, tether, or ISOFIX.

Format Type: Text

Field Length: 75

Question: 18 - Have you heard the term LATCH associated with child safety seats?

Data Set: DRIV

SAS Name: KNOWLA

Label Name: Have you heard of LATCH

Attribute Codes:

SAS	Description
0	No
1	Yes
.N	Not applicable
.U	Don't know
.E	Didn't ask
.R	Refused

Remarks:

This variable contains the driver's response to interview Question 18, "Have you heard of the term LATCH associated with child safety seats?"

This was a "Check only one answer" question. Drivers were not asked this question if they correctly identified in Q17 the name of the system described in Q16.

Format Type: Number

Field Length: 3

Question: 19 – Does your vehicle have a place to connect or anchor the lower attachments for a child safety seat?

Data Set: DRIV

SAS Name: HAVELA

Label Name: Does your vehicle have lower anchors

Attribute Codes:

SAS	Description
0	No (skip to Q21)
1	Yes
.U	Don't know
.E	Didn't ask
.R	Refused

Remarks:

This variable contains the driver's response to interview Question 19, "Does your vehicle have a place to connect or anchor the lower attachments for a child safety seat?"

Question 19 was a "Check only one answer" question. If the driver responded "No" or they didn't know, weren't asked, or refused to answer, the interviewer was instructed to skip to Q21.

Format Type: Number

Field Length: 3

Question: 20 – Can you see the lower anchors, or are they hidden between the seat cushions?

Data Set: DRIV

SAS Name: SEE_LA

Label Name: Can you see the LA

Attribute Codes:

SAS	Description
1	Can see the lower anchors
2	Hidden
.N	Not applicable
.U	Don't know
.E	Didn't ask
.R	Refused

Remarks:

This variable contains the driver's response to interview Question 20, "Can you see the lower anchors, or are they hidden between the seat cushions?"

This question was only asked of drivers who stated in Q19 that they had lower anchors in their vehicle.

This was a "Check only one answer" question. If the driver responded "No" or they didn't know, weren't asked, or refused to answer Q20, the interviewer was instructed to skip this question.

Format Type: Number

Field Length: 3

Question: 21 – Does your vehicle have a place to hook or anchor the top tether strap for a child safety seat?

Data Set: DRIV

SAS Name: HAVETA

Label Name: Does your vehicle have the top tether anchors

Attribute Codes:

SAS	Description
0	No (skip to Q23)
1	Yes
.U	Don't know
.E	Didn't ask
.R	Refused

Remarks:

This variable contains the driver's response to interview Question 21, "Does your vehicle have a place to hook or anchor the top tether strap for a child safety seat?"

This was a "Check only one answer" question. If the driver responded "No" or they didn't know, weren't asked, or refused to answer, the interviewer was instructed to skip to Q23.

Format Type: Number

Field Length: 3

Question: 22 – Can you see the tether anchors, or are they hidden?

Data Set: DRIV

SAS Name: SEE_TA

Label Name: Can you see the top tether anchors

Attribute Codes:

SAS	Description
1	Can see the tether anchors
2	Hidden
.N	Not applicable
.U	Don't know
.E	Didn't ask
.R	Refused

Remarks:

This variable contains the driver's response to interview Question 22, "Can you see the top tether anchors, or are they hidden?"

This was a "Check only one answer" question only asked of drivers who stated in Question 21 that they had top tether anchors in their vehicle.

Format Type: Number

Field Length: 1

Question: 23 – In your opinion, how good are child safety seats at preventing injuries for children < 2 years old, when compared to using only a seat belt? How about 2- to 4-year-olds?

Data Set: DRIV

Remarks:

The choices below identify the driver's response to interview Question 23, "In your opinion, how good are child safety seats at preventing injuries for children when compared to a seatbelt?"

Question 23 was a "Check one answer for each age range" question. The two age ranges were: (1) children <2 years old, and (2) children 2 to 4 years old.

Interviewers were instructed to read the options provided, and to mark the response that the driver provided for this question. The options provided were: (1) "Not as good," and (2) "Better than seat belts." The next two pages of the manual provide detail for the specific attributes (questions 23.1 – 23.2) that apply to this question.

The specific attributes (responses) are defined as follows:

23.1:   Children < 2 years old

23.2:   Children 2 – 4 years old

Response: **23.1 (< 2 years)**

Data Set: DRIV

SAS Name: CSS_SB2

Label Name: How good are CSS compared to belts for under 2

Attribute Codes:

SAS	Description
1	Not as good
2	The same
3	Better than seatbelts
.U	Don't know
.E	Didn't ask
.R	Refused

Format Type: Number

Field Length: 3

Response: **23.2 (2-4 years)**

Data Set: DRIV

SAS Name: CSS_SB4

Label Name: How good are CSS compared to belts for 2- to 4-year-olds

Attribute Codes:

SAS	Description
1	Not as good
2	The same
3	Better than seatbelts
.U	Don't know
.E	Didn't ask
.R	Refused

Format Type: Number

Field Length: 3

Question: 24 – Using the same options as in the last question, in your opinion, how good are booster seats at preventing injuries for children 4- to 8 years old when compared to using only seat belts?

Data Set: DRIV

SAS Name: BSTR_SB8

Label Name: How good are boosters compared to belts for 4 to 8

Attribute Codes:

SAS	Description
1	Not as good
2	The same
3	Better than seatbelts
.U	Don't know
.E	Didn't ask
.R	Refused

Remarks:

This question seeks the driver's response to the question, "In your opinion, how good are booster seats at preventing injuries, when compared to only a seat belt?" This question seeks their response for children 4- to 8 years old, and uses the same quality options as used in Q23.

Format Type: Number

Field Length: 3

Question: 25 – Did you ever read or hear of any information or receive any advice about the need to use child safety seats from any of the following sources?

Data Set: DRIV

Remarks:

This question contains the driver's response to interview Question 25, "Did you ever read or hear of any information or receive any advice about the need to use child safety seats from any of the following sources?"

Question 25 was a "Check all that apply" question. Interviewers were instructed to read the options provided, and to check all of the options the driver selected. The next 12 pages of the manual provide detail on the specific attributes (questions 25.1 – 25.10, 25.11 – 25.11.1) that apply to this question.

The specific attributes (responses) are defined as follows:

25.1:   A doctor, nurse, or hospital personnel

25.2:   A book, magazine, or article

25.3:   Store (e.g., Babies R' Us)

25.4:   A daycare provider

25.5:   TV or radio

25.6:   A family member or friend

25.7:   A safety hotline

25.8:   The Internet

25.9:   Police or fire department

25.10: Care class/car safety seat check station

25.11:   Other

25.11.1: Other, _____

None, Don't know, Didn't ask, Refused are captured within the other attributes within this question and are not outlined separately in this section

Response: **25.1 (A doctor, nurse, or hospital personnel)**

Data Set: DRIV

SAS Name: INF_DR

Label Name: Sources for info – DR, nurse, hospital

Attribute Codes:

SAS	Description
0	No
1	Yes
.U	Don't know
.E	Didn't ask
.R	Refused

Remarks:

This attribute contains the driver's response to interview Question 25, "Did you ever read or hear of any information or receive any advice about the need to use child safety seats from any of the following sources?"/Attribute 25.1 "A doctor, nurse, or hospital personnel."

Question 25 was a "Check all that apply" question. Interviewers were instructed to read the options provided, and to check all of the options the driver selected.

Format Type: Number

Field Length: 3

Response: **25.2 (A book, magazine, or article)**

Data Set: DRIV

SAS Name: INF_BOOK

Label Name: Sources for info – book, magazine, article

Attribute Codes:

SAS	Description
0	No
1	Yes
.U	Don't know
.E	Didn't ask
.R	Refused

Remarks:

This attribute contains the driver's response to interview Question 25, "Did you ever read or hear of any information or receive any advice about the need to use child safety seats from any of the following sources?"/Attribute 25.2 "A book, magazine, or article."

Question 25 was a "Check all that apply" question. Interviewers were instructed to read the options provided, and to check all of the options the driver selected.

Format Type: Number

Field Length: 3

Response: **25.3 [Store (e.g., Babies R' Us)]**

Data Set: DRIV

SAS Name: INF_SHOP

Label Name: Sources for info – store

Attribute Codes:

SAS	Description
0	No
1	Yes
.U	Don't know
.E	Didn't ask
.R	Refused

Remarks:

This attribute contains the driver's response to interview Question 25, "Did you ever read or hear of any information or receive any advice about the need to use child safety seats from any of the following sources?"/Attribute 25.3 "Store (e.g., Babies R' Us)."

Question 25 was a "Check all that apply" question. Interviewers were instructed to read the options provided, and to check all of the options the driver selected.

Format Type: Number

Field Length: 3

Response: **25.4 (A daycare provider)**

Data Set: DRIV

SAS Name: INF_DAYC

Label Name: Sources for info – daycare

Attribute Codes:

SAS	Description
0	No
1	Yes
.U	Don't know
.E	Didn't ask
.R	Refused

Remarks:

This attribute contains the driver's response to interview Question 25, "Did you ever read or hear of any information or receive any advice about the need to use child safety seats from any of the following sources?"/Attribute 25. 4 "A daycare provider."

Question 25 was a "Check all that apply" question. Interviewers were instructed to read the options provided, and to check all of the options the driver selected.

Format Type: Number

Field Length: 3

Response: **25.5 (TV or radio)**

Data Set: DRIV

SAS Name: INF_TV

Label Name: Sources for info – TV or radio

Attribute Codes:

SAS	Description
0	No
1	Yes
.U	Don't know
.E	Didn't ask
.R	Refused

Remarks:

This attribute contains the driver's response to interview Question 25, "Did you ever read or hear of any information or receive any advice about the need to use child safety seats from any of the following sources?"/Attribute 25. 5 "TV or radio."

Question 25 was a "Check all that apply" question. Interviewers were instructed to read the options provided, and to check all of the options the driver selected.

Format Type: Number

Field Length: 3

Response: **25.6 (A family member or friend)**

Data Set: DRIV

SAS Name: INF_FMLY

Label Name: Sources for info – family or friend

Attribute Codes:

SAS	Description
0	No
1	Yes
.U	Don't know
.E	Didn't ask
.R	Refused

Remarks:

This attribute contains the driver's response to interview Question 25, "Did you ever read or hear of any information or receive any advice about the need to use child safety seats from any of the following sources?"/Attribute 25. 6 "A family member or friend."

Question 25 was a "Check all that apply" question. Interviewers were instructed to read the options provided, and to check all of the options the driver selected.

Format Type: Number

Field Length: 3

Response: **25.7 (A safety hotline)**

Data Set: DRIV

SAS Name: INF_TEL

Label Name: Sources for info – hotline

Attribute Codes:

SAS	Description
0	No
1	Yes
.U	Don't know
.E	Didn't ask
.R	Refused

Remarks:

This attribute contains the driver's response to interview Question 25, "Did you ever read or hear of any information or receive any advice about the need to use child safety seats from any of the following sources?"/Attribute 25. 7 "A safety hotline."

Question 25 was a "Check all that apply" question. Interviewers were instructed to read the options provided, and to check all of the options the driver selected.

Format Type: Number

Field Length: 3

Response: **25.8 (The Internet)**

Data Set: DRIV

SAS Name: INF_WEB

Label Name: Sources for info – Internet

Attribute Codes:

SAS	Description
0	No
1	Yes
.U	Don't know
.E	Didn't ask
.R	Refused

Remarks:

This attribute contains the driver's response to interview Question 25, "Did you ever read or hear of any information or receive any advice about the need to use child safety seats from any of the following sources?"/Attribute 25. 8 "The Internet."

Question 25 was a "Check all that apply" question. Interviewers were instructed to read the options provided, and to check all of the options the driver selected.

Format Type: Number

Field Length: 3

Response: **25.9 (Police or fire department)**

Data Set: DRIV

SAS Name: INF_FIRE

Label Name: Sources for info – police or fire dept.

Attribute Codes:

SAS	Description
0	No
1	Yes
.U	Don't know
.E	Didn't ask
.R	Refused

Remarks:

This attribute contains the driver's response to interview Question 25, "Did you ever read or hear of any information or receive any advice about the need to use child safety seats from any of the following sources?"/Attribute 25. 9 "Police or fire department."

Question 25 was a "Check all that apply" question. Interviewers were instructed to read the options provided, and to check all of the options the driver selected.

Format Type: Number

Field Length: 3

Response: **25.10 (Car class/car safety seat check station)**

Data Set: DRIV

SAS Name: INF_CHCK

Label Name: Sources for info – Class or seat check

Attribute Codes:

SAS	Description
0	No
1	Yes
.U	Don't know
.E	Didn't ask
.R	Refused

Remarks:

This attribute contains the driver's response to interview Question 25, "Did you ever read or hear of any information or receive any advice about the need to use child safety seats from any of the following sources?"/Attribute 25. 10 "Car class/car safety seat check station."

Question 25 was a "Check all that apply" question. Interviewers were instructed to read the options provided, and to check all of the options the driver selected.

Format Type: Number

Field Length: 3

Response: **25.11 (Other)**

Data Set: DRIV

SAS Name: INF_O

Label Name   Sources for info - other

Attribute Codes:

SAS	Description
0	No
1	Yes
.U	Don't know
.E	Didn't ask
.R	Refused

Remarks:

This attribute contains the driver's response to interview Question 25, "Did you ever read or hear of any information or receive any advice about the need to use child safety seats from any of the following sources?"/Attribute 25. 11 "Other."

Question 25 was a "Check all that apply" question. Interviewers were instructed to read the options provided, and to check all of the options the driver selected.

If the driver provided a response that was not captured by 25.1 – 25.10, the interviewer was instructed to select "Other" in 25.11.

Format Type: Number

Field Length: 3

Response: **25.11.1 (Other, _____)**

Data Set: DRIV

SAS Name: INF_OS

Label Name   Sources for info – Other Specify

Attribute Codes:

Remarks:

This attribute contains the driver's response to interview Question 25, "Did you ever read or hear of any information or receive any advice about the need to use child safety seats from any of the following sources?"/Attribute 25. 11.1 "Other, _____."

Question 25 was a "Check all that apply" question. Interviewers were instructed to read the options provided, and to check all of the options the driver selected.

If the driver provided a response that was not captured by 25.1 – 25.10, the interviewer was instructed to select "Other" in 25.11 and enter the answer provided by the driver in the space on the survey form.

Format Type: Text

Field Length: 75

Question: **N/A (Sampling weight)**

Data Set: DRIV

SAS Name: SAMPWGT

Label Name   Sampling Weight

Range: 6.354 – 54873.984

Remarks:

This data element is not drawn from the data collection form, but is used to produce national estimates from the SAS dataset related to the form. See *Appendix E: Statistical Methods* for more information.

Format Type: Number

Field Length: 3

Question: **N/A (Primary Sampling Unit stratum)**

Data Set: DRIV

SAS Name: PSUSTRAT

Label Name   Primary Sampling Unit Stratum

Range: 1 – 12

Remarks:

This data element is not drawn from the data collection form, but is used to calculate standard errors of national estimates from the SAS dataset related to the form. See *Appendix E: Statistical Methods* for more information.

Format Type: Number

Field Length: 3

Interview Form – Children by SP (1107)

Paperwork Reduction Act Burden Statement

A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB Control Number. The OMB Control Number for this information collection is 2127-0642. Public reporting for this collection of information is estimated to be approximately 4 minutes per response, including the time for reviewing instructions, completing and reviewing the collection of information. All responses to this collection of information are voluntary. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to: Information Collection Clearance Officer, National Highway Traffic Safety Administration, 1200 New Jersey Ave, S.E., Washington, DC, 20590.

NHTSA Form 1107

United States Department of Transportation
National Highway Traffic Safety Administration

**INTERVIEW FORM
CHILDREN BY SP**
(5/18/11)

Form Approved O.M.B. No. 2127-0642
Expiration Date: 3/31/14

National Automotive Sampling System
National Child Restraint Use – Special Study

1. PSU # ___ ___   2. Site # ___ ___ ___ ___ ___ ___   3. Observation # ___ ___   4. Date of Observation ___/___/2011

5. How many passengers are <9 yrs. of age? _____   6. In what seats are they sitting? (Circle correct columns below)

Questions (Ask driver)	Attributes	12 Middle	13 Right	21 Left	22 Middle	23 Right	31 Left	32 Middle	33 Right	Other
7. What is your relationship to the child in SP _____? (Ask Questions #5 through #14 for the first child in the vehicle; repeat for each additional child <9 years)	Parent (P)	O P	O P	O P	O P	O P	O P	O P	O P	O P
	Grandparent (GP)	O GP	O GP	O GP	O GP	O GP	O GP	O GP	O GP	O GP
	Sibling (Si)	O S	O S	O S	O S	O S	O S	O S	O S	O S
	Aunt/Uncle (A/U)	O A/U	O A/U	O A/U	O A/U	O A/U	O A/U	O A/U	O A/U	O A/U
	OT Relative (Rel)	O Rel	O Rel	O Rel	O Rel	O Rel	O Rel	O Rel	O Rel	O Rel
	Non-Rel (Non)	O Non	O Non	O Non	O Non	O Non	O Non	O Non	O Non	O Non
	Don't Know (DK)	O DK	O DK	O DK	O DK	O DK	O DK	O DK	O DK	O DK
	Refused (Ref)	O Ref	O Ref	O Ref	O Ref	O Ref	O Ref	O Ref	O Ref	O Ref
	Didn't Ask (DA)	O DA	O DA	O DA	O DA	O DA	O DA	O DA	O DA	O DA
8. What is the gender of this child?	Male	O M	O M	O M	O M	O M	O M	O M	O M	O M
	Female	O F	O F	O F	O F	O F	O F	O F	O F	O F
9. Is this child of Hispanic or Latino origin?	Yes	O Yes	O Yes	O Yes	O Yes	O Yes	O Yes	O Yes	O Yes	O Yes
	No	O No	O No	O No	O No	O No	O No	O No	O No	O No
	Don't Know (DK)	O DK	O DK	O DK	O DK	O DK	O DK	O DK	O DK	O DK
	Refused (Ref)	O Ref	O Ref	O Ref	O Ref	O Ref	O Ref	O Ref	O Ref	O Ref
	Didn't Ask (DA)	O DA	O DA	O DA	O DA	O DA	O DA	O DA	O DA	O DA
10. Which of the following best describes this child's race? (All that apply)	—White (WH)	☐ WH	☐ WH	☐ WH	☐ WH	☐ WH	☐ WH	☐ WH	☐ WH	☐ WH
	—Black or African American (BA)	☐ BA	☐ BA	☐ BA	☐ BA	☐ BA	☐ BA	☐ BA	☐ BA	☐ BA
	—Asian (AS)	☐ AS	☐ AS	☐ AS	☐ AS	☐ AS	☐ AS	☐ AS	☐ AS	☐ AS
	—Am. Indian/ Alaska Native (AI)	☐ AI	☐ AI	☐ AI	☐ AI	☐ AI	☐ AI	☐ AI	☐ AI	☐ AI
	--Native Hawaiian/ Other Pacific Islander (NH)	☐ NH	☐ NH	☐ NH	☐ NH	☐ NH	☐ NH	☐ NH	☐ NH	☐ NH
	--Other (OT)	☐ OT	☐ OT	☐ OT	☐ OT	☐ OT	☐ OT	☐ OT	☐ OT	☐ OT
	--Don't Know (DK)	☐ DK	☐ DK	☐ DK	☐ DK	☐ DK	☐ DK	☐ DK	☐ DK	☐ DK
	--Refused (Ref)	☐ Ref	☐ Ref	☐ Ref	☐ Ref	☐ Ref	☐ Ref	☐ Ref	☐ Ref	☐ Ref
	--Didn't Ask (DA)	☐ DA	☐ DA	☐ DA	☐ DA	☐ DA	☐ DA	☐ DA	☐ DA	☐ DA
11 What is the age of the child?	1. Years (Yr.) 2. Months (M) 3. Day (D) 4. DK, Ref, or DA (Enter One)	Yr ____ M ____ D ____	Yr ____ M ____ D ____	Yr ____ M ____ D ____	Yr ____ M ____ D ____	Yr ____ M ____ D ____	Yr ____ M ____ D ____	Yr ____ M ____ D ____	Yr ____ M ____ D ____	Yr ____ M ____ D ____
12. (If DK), What is the age range?	1. Under 1 year 2. 1-3 years 3. 4-7 years 4. 8-9 years 5. DK, Ref, or DA (Enter one)	R ____	R ____	R ____	R ____	R ____	R ____	R ____	R ____	R ____
13. How much does this child weigh?	1. Lbs. (L) 2. Ounces (O) 3. DK, Ref, DA (Enter one)	L ____ O ____	L ____ O ____	L ____ O ____	L ____ O ____	L ____ O ____	L ____ O ____	L ____ O ____	L ____ O ____	L ____ O ____
14. (If DK), What is your best estimation? Does this child weigh	1. < 20 lbs 2. 20-29 lbs 3. 30-39 lbs 4. 40-60 lbs 5. > 60 lbs 6. DK, Ref, DA (Enter one)	R ____	R ____	R ____	R ____	R ____	R ____	R ____	R ____	R ____
15. How tall is this child?	1. Feet (Ft) 2. Inches (In) 3. DK, Ref, DA (Enter one)	Ft ____ In ____	Ft ____ In ____	Ft ____ In ____	Ft ____ In ____	Ft ____ In ____	Ft ____ In ____	Ft ____ In ____	Ft ____ In ____	Ft ____ In ____
16. (If DK), What is your best estimation? Is this child:	1. < 20" 2. 20-29" 3. 30-36" (2.5-3') 4. 37-49" (3-4') 5. 50-56" (4-4.75') 6. >56" 7. DK, Ref, DA (Enter one)	R ____	R ____	R ____	R ____	R ____	R ____	R ____	R ____	R ____

99

The Interview Form – Children by SP (INTC - NHTSA 1107) was for collecting information on the target child and all other children under 9 years old that were in the vehicle at the time of the inspection.

This 16-question form was used to obtain site/interview identification information about where the children were seated within the vehicle, their gender, race, age, weight, height, and relationship to the driver.

The survey form had columns representing the first three rows of seating positions within the vehicle. If the child was not seated within the first three rows, the interviewer used the far right column "Other." The option "Other" was also used if two children were sharing the same seat or if one or more children were in non-standard locations, such as the floor. If there was more than one child classified as seated in an "Other" seat, the interviewer was instructed to complete a second INTC 1107 survey form for those additional children.

Note: SP = Seating Position

Question: 1 – Primary Sampling Unit number

Data Set: OCC

SAS Name: PSU

Label Name: Primary Sampling Unit

Attribute Codes:

Range: 02 - 82

Remarks:

NCRUSS used the Crashworthiness Data System sites for data collection. The CDS consists of 24 statistically representative PSU's located throughout the country.[6] The PSUs have been assigned two-digit identifying numbers that range from 02 to 82.

For more information on the CDS, refer to the 2014 CDS Analytical User's Manual (Report No. DOT HS 812 198) at http://www-nrd.nhtsa.dot.gov/Pubs/812198.pdf.

Format Type: Number

Field Length: 3

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[6] Additional information about the NASS CDS PSUs can be found in Appendix F of the 2014 NASS CDS Analytical User's Manual at http://www-nrd.nhtsa.dot.gov/Pubs/812198.pdf. Demographics data on the 24 PSUs have been included in Appendix F to give researchers supplementary information on the nature of the PSUs.

Question: 2 – Site number

Data Set: OCC

SAS Name: SITEID

Label Name: Site Number

Attribute Codes:

Range: 021103 - 823223

Remarks:

This is a unique six-digit identification number that was generated during the sampling process by NHTSA for use during data collection. This number, using the format below, identifies the location where the data was collected and provides additional information about each of the sites. Data was collected at each of the sites for only one 3-hour data collection time period. In rare instances, the same site was collected a second time. This occurred mainly in rural areas that contained fewer potential sites.

The first two digits are the assigned PSU number (refer to the Background section beginning on page 1).
The third digit is the stratum.
The fourth digit is an indicator, 1 for sample, 2 for shadow sample, and 3 for extension sample.
The fifth and sixth digits are the site number (a sequential count of sites visited within a PSU).

The following is an example of how the site number was constructed for site 082220:

PSU number (08) | stratum (2) | sample indicator (2) | site number (20)

For more information on this topic refer to the **Sampling Design** on page 2 of this manual.

Format Type: Number

Field Length: 6

Question: 3 – Observation number

Data Set: OCC

SAS Name: OBS

Label Name: Observation Number

Attribute Codes:

Range: 01 - 34

Remarks:

An observation number is assigned for each vehicle that is approached regardless of whether the driver agrees to participate in the survey. Accordingly, numbers are assigned not only to vehicles from which a completed interview is obtained, but also to vehicles from which interviews are not conducted/completed (e.g., the drivers do not agree to participate and/or all occupants are older than 8).

At each data collection site, numbering begins at 01 and continues consecutively until all vehicles are given numbers. The highest number of observations recorded for any one session was 34.

Format Type: Number

Field Length: 3

Question: 4 – Date of observation

Data Set: OCC

SAS Name: DATE

Label Name: Observation Date

Attribute Codes:

Range: 06/01/2011 – 07/29/2011

Remarks:

This is the date the observation was made.

Format Type: Text

Field Length: 10

Question: 5 – How many passengers are <9 years of age?

Data Set: DRIV

SAS Name: UNDER9

Label Name: Number of children under 9 - Driver

Range: 1 – 6

Attribute Codes:

#	Enter the number of children < 9 years old in vehicle

Remarks:

This number is derived from the number of children for whom data was entered for Question 6:
In what seats are they sitting?

Format Type: Number

Field Length: 3

Question: 6 – In what seats are they sitting?

Data Set: OCC

SAS Names: SP_UN9

Label Name: Seating Position – Child, 3 Digit

Ranges: 130**,** 131, 132, 210, 211, 212, 221, 222, 230, 231, 232

Attribute Codes:

Data Sets: OCC , CRS

SAS Names: SP_CRS_I

Label Name: Seating Position – Child, 2/3 Digit

Ranges: 12, 13, 21-23, 31-33, 41, 131, 132, 211, 212, 221, 222, 231, 232

Attribute Codes:

Remarks:

The interviewer was instructed to circle the seating positions for which children under 9 years old were seated. Seating position variables are 2-character variables, except for SP_UN9, which is a 3-character variable and SP_CRS_I, which is a 2- or 3-character variable. The use of the third character in SP_UN9 and SP_CRS_I was needed in order to identify the exact locations of occupants who were seated in the same seating position in a vehicle[7]. Both variables are included, even though they contain the same data, to facilitate the matching of child's demographic data with the vehicle restraint information by seating position.

The first 2 digits in SP_UN9 and SP_CRS_I refer to the seating position in the vehicle as illustrated below. When there are multiple occupants residing in a seating position, the third digits in SP_UN9 and SP_CRS_I refer to the occupant's sequential number. When only one occupant is seating in a seating area, the third digit will be listed as a "0" in SP_UN9 and there

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[7] While there was more than one case of two occupants sitting in the same seating area in a vehicle, only one of these children was selected for the study. This child can be identified using the following information: PSU: 45, Site #: 453118, Observation #: 6, Date: 617, SP_CRS_I=211.

would not be a third digit for the variable SP_CRS_I. For example, if two occupants were sharing seat 21 the first occupant would be listed as seated in 211 and the second as seated in 212. However, if only one occupant was in seat 21, SP_UN9 would be 210 and SP_CRS_I would be 21.

The seating positions within the vehicle are broken down as follows.

Front Row   **Second Row**

11 Left side   21 Left side

12 Middle   22 Middle

13 Right side   23 Right side

Third Row   **Fourth Row**

31 Left side   41 Left Side

32 Middle   42 Middle

33 Right side   43 Right side

The survey form had columns for the first three rows of the vehicle. If the child was not seated in the first three rows, the interviewer was instructed to annotate their seating position in the far right column "Other." The option "Other" was also used if two children were sharing the same seat or if one or more children were in non-standard locations, such as the floor. If there was more than one child classified as seated in an "Other" seat, the interviewer was instructed to complete a second INTC 1107 survey form for those additional children.

Format Type: Number

Field Length: 3

Question   7 – What is your relationship to the child in seating position (SP) _____?

Data Set: OCC

SAS Name: REL

Label Name: Relationship

Attribute Codes:

SAS	Description
1	Parent
2	Grandparent
3	Sibling
4	Aunt/Uncle
5	Other relative
6	Non relative
.U	Don't know
.E	Didn't ask
.R	Refused

Remarks:

This variable contains the driver's response to interview Question 7, "What is your relationship to the child in SP _____?"

For each SP for which there is a child <9 years, the interviewers were instructed to ask this question.

Format Type: Number

Field Length: 3

Question   8 – What is the gender of the child?

Data Set: OCC

SAS Name: GENDER

Label Name   Gender

Attribute Codes:

SAS	Description
1	Male
2	Female
.E	Didn't ask

Remarks:

This variable contains the driver's response to interview Question 8, "What is the gender of the child?"

For each SP for which there is a child <9 years, the interviewers were instructed to ask this question.

Format Type: Number

Field Length: 3

Question: 9 – Is this child of Hispanic or Latino origin?

Data Set: OCC

SAS Name: HISP

Label Name   Hispanic origin

Attribute Codes:

SAS	Description
0	No
1	Yes
.U	Don't know
.E	Didn't ask
.R	Refused

Remarks:

This variable contains the driver's response to interview Question 9, "Is this child of Hispanic or Latino origin?" The standard categories of ethnicity, as required by the OMB, were used.

For each SP for which there is a child <9 years, the interviewers were instructed to ask this question.

Format Type: Number

Field Length: 3

Question:　10 – Which of the following best describes this child's race?

Data Set:　　　　OCC

Remarks:

This variable contains the driver's response to interview Question 10, "Which of the following best describes this child's race?"

For each SP for which there is a child <9 years, the interviewers were instructed to ask this question and to "Check all that apply."

The next six pages of the manual provide detail on the specific attributes (questions 10.1 – 10.6) that apply to this question.

The standard categories of ethnicity, as required by OMB, were used.

The specific attributes (responses) are defined as follows:

10.1:　White

10.2:　Black or African-American

10.3:　Asian

10.4:　Native Hawaiian/Other Pacific Islander

10.5:　American Indian/Alaska Native

10.6:　Other

Don't know, Didn't ask, Refused are captured within the other attributes in this question and are not outlined separately in this section.

Response: 10.1 (White)

Data Set: OCC

SAS Name: RACE_WH

Label Name: Race - White

Attribute Codes:

SAS	Description
0	No
1	Yes
.U	Don't know
.E	Didn't ask
.R	Refused

Remarks:

This variable contains the count of drivers who responded (10.1) "White" to interview Question 10, "Which of the following best describes this child's race?"

Question 10 was a "Check all that apply" question and interviewers were instructed to check all choices that the respondent selected.

Format Type: Number

Field Length: 3

Response: **10.2 (Black or African-American)**

Data Set: OCC

SAS Name: RACE_BA

Label Name: Race - Black

Attribute Codes:

SAS	Description
0	No
1	Yes
.U	Don't know
.E	Didn't ask
.R	Refused

Remarks:

This variable contains the count of drivers who responded (10.2) "Black or African-American" to interview Question 10, "Which of the following best describes this child's race?"

Question 10 was a "Check all that apply" question and interviewers were instructed to check all choices that the respondent selected.

Format Type: Number

Field Length: 3

Response: **10.3 (Asian)**

Data Set: OCC

SAS Name: RACE_AS

Label Name: Race - Asian

Attribute Codes:

SAS	Description
0	No
1	Yes
.U	Don't know
.E	Didn't ask
.R	Refused

Remarks:

This variable contains the count of drivers who responded (10.3) "Asian" to interview Question 10, "Which of the following best describes this child's race?"

Question 10 was a "Check all that apply" question and interviewers were instructed to check all choices that the respondent selected.

Format Type: Number

Field Length: 3

Response: **10.4 (Native Hawaiian/Pacific Islander)**

Data Set: OCC

SAS Name: RACE_NH

Label Name: Race – Native Hawaiian/other Pacific Islander

Attribute Codes:

SAS	Description
0	No
1	Yes
.U	Don't know
.E	Didn't ask
.R	Refused

Remarks:

This variable contains the count of drivers who responded (10.4) "Native Hawaiian/Pacific Islander" to interview Question 10, "Which of the following best describes this child's race?"

Question 10 was a "Check all that apply" question and interviewers were instructed to check all choices that the respondent selected.

Format Type: Number

Field Length: 3

Response: 10.5 (American Indian/Alaska Native)

Data Set: OCC

SAS Name: RACE_AL

Label Name: Race – Am Indian/Alaska Native

Attribute Codes:

SAS	Description
0	No
1	Yes
.U	Don't know
.E	Didn't ask
.R	Refused

Remarks:

This variable contains the count of drivers who responded (10.5) "American Indian/Alaska Native" to interview Question 10, "Which of the following best describes this child's race?"

Question 10 was a "Check all that apply" question and interviewers were instructed to check all choices that the respondent selected.

Format Type: Number

Field Length: 3

Response: 10.6 (Other)

Data Set: OCC

SAS Name: RACE_OT

Label Name: Race – other

Attribute Codes:

SAS	Description
0	No
1	Yes
.U	Don't know
.E	Didn't ask
.R	Refused

Remarks:

This variable contains the count of drivers who responded "Other" to interview Question 10, "Which of the following best describes this child's race?"

Question 10 was a "Check all that apply" question and interviewers were instructed to check all choices that the respondent selected.

If the driver indicated that they were another race that fell outside the provided attributes 10.1 – 10.5, it was captured here.

Format Type: Number

Field Length: 3

Question   11 – What is the age of the child?

Data Set: OCC

SAS Name: AGE

Label Name: Age

Range: 0 – 144 **Months**

Attribute Codes:

SAS	Description
#	Age of child provided by driver
.U	Don't know
.E	Didn't ask
.R	Refused

Remarks:

The interviewer recorded the age of each child <9 years old who was seated in the vehicle. If the driver was able to provide the age of the child, the interviewer was instructed to skip to Q13. If the driver did not know the age of the child, the interviewer was instructed to continue to Q12.

When providing the age of the children under 9 years old, drivers responded in a variety of ways, using number of days (e.g., 14 days old), number of months (e.g., 24 months old), or number of years (e.g., 2 years old). The interviewer was instructed to write both the numeric values and the units of measurement reported by the driver on the survey form. These values were converted and stored in months in the data entry application and the SAS database, with children less than 15 days old being entered as "0" months.

Format Type: Number

Field Length: 3

Question   12 – (If DK), what is the age range?

Data Set: OCC

SAS Name: AGECAT

Label Name   Age Range - Child

Attribute Codes:

SAS	Description
1	Under 1 year
2	1 – 3 years
3	4 – 7 years
4	8 – 9 years
5	Over 9 years
.N	Not applicable
.U	Don't know
.E	Didn't ask
.R	Refused

Remarks:

This variable contains the driver's response to interview Question 12, "(If DK), what is the age range?" In Q12, the driver was asked to pick an age range for the child if he/she was unable to provide the child's specific age in Q11.

Format Type: Number

Field Length: 3

Question　13 – How much does this child weigh?

Data Set:　　　　　　　OCC

SAS Name:　　　　　　WGTLBS, WGTOZS

Label Name:　　　　　Occupant weight in pounds/ounces

Range:　　　　　　　2 – 120 (pounds), 25 – 1,920 (ounces)

Attribute Codes:

SAS	Description
#	Weight of child provided by driver
.U	Don't know
.E	Didn't ask
.R	Refused

Remarks:

The interviewer recorded the weight of each child <9 years old who was seated in the vehicle. If the driver was able to provide the weight of the child, the interviewer was to skip to Q15. If the driver did not know the child's weight, the interviewer was instructed to continue to Q14.

On the survey form, the interviewers entered the child's weight, as well as the unit of measurement (e.g., pounds/ounces) that the driver provided. These values were converted to ounces in the data entry application, and stored in the SAS database in both pounds (i.e., WGTLBS) and ounces (i.e., WGTOZS).

Format Type:　　　　Number

Field Length:　　　　3

Question   14 – (If DK), what is your best estimation? Does this child weigh:

Data Set: OCC

SAS Name: WGTCAT

Label Name   Occupant weight category

Attribute Codes:

SAS	Description
1	< 20 pounds
2	20 – 29 pounds
3	30 – 39 pounds
4	40 – 60 pounds
5	> 60 pounds
.N	Not applicable
.U	Don't know
.E	Didn't ask
.R	Refused

Remarks:

This variable contains the driver's response to interview Question 14, "(If DK), what is your best estimate (weight)?" The driver was asked to pick a weight range for the child if he/she was unable to provide the child's specific weight in Q13.

Format Type: Number

Field Length: 3

Question   15 – How tall is this child?

Data Set: OCC

SAS Name: HGHTIN, HGHTFT

Label Name: Occupant height in inches/feet

Range: 12 – 64 (inches), 1-5 (feet)

Attribute Codes:

SAS	Description
#	Height of child provided by driver
.U	Don't know
.E	Didn't ask
.R	Refused

Remarks:

The interviewer recorded the height of each child <9 years old who was seated in the vehicle. If the driver was able to provide the height of the child, the interviewer was to skip Q16. If the driver did not know the child's height, the interviewer was instructed to continue to Q16.

Interviewers recorded the height in standard units of measurement (i.e., feet/inches). These values were stored in inches/feet within the data entry application, and stored in the SAS database in both inches (i.e., HGHTIN) and feet (i.e., HGHTFT). For HGHTFT, the value in feet was rounded to the nearest foot.

Format Type: Number

Field Length: 3

Question   16 – (If DK), what is your best estimation? Is this child:

Data Set: OCC

SAS Name: HGHTCA

Label Name   Occupant height category

Attribute Codes:

SAS	Description
1	< 20 inches
2	20 – 29 inches
3	30 – 36 inches
4	37 – 49 inches
5	50 – 56 inches
6	> 56 inches
.N	Not applicable
.U	Don't know
.E	Didn't ask
.R	Refused

Remarks:

This variable contains the driver's response to interview Question 16, "(If DK), what is your best estimate (height)?" The driver was asked to pick a height range for the child if he/she was unable to provide the child's specific height in Q15.

Format Type: Number

Field Length: 3

Question: N/A (Sampling weight)

Data Set: OCC

SAS Name: SAMPWGT

Label Name   Sampling Weight

Range: 0 – 54873.984

Remarks:

This data element is used to produce national estimates from the data. It is not from the data collection form but was derived from the statistical sample design.

See *Appendix E: Statistical Methods* for more information.

Format Type: Number

Field Length: 3

Question: N/A (**Primary Sampling Unit stratum**)

Data Set: OCC

SAS Name: PSUSTRAT

Label Name   Primary Sampling Unit Stratum

Range: 1 – 12

Remarks:

This data element is not drawn from the data collection form, but is used to calculate standard errors of national estimates from the SAS dataset related to the form. See *Appendix E: Statistical Methods* for more information.

Format Type: Number

Field Length: 3

Interview Form Restraints (1108)

Paperwork Reduction Act Burden Statement

A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB Control Number. The OMB Control Number for this information collection is 2127-0642. Public reporting for this collection of information is estimated to be approximately 7 minutes per response, including the time for reviewing instructions, completing and reviewing the collection of information. All responses to this collection of information are voluntary. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to: Information Collection Clearance Officer, National Highway Traffic Safety Administration, 1200 New Jersey Ave, S.E., Washington, DC, 20590.   NHTSA Form 1108

United States Department of Transportation
National Highway Traffic Safety Administration

INTERVIEW FORM RESTRAINTS
(5/23/11)

Form Approved O.M.B. No. 2127-0642
Expiration Date: 3/31/14
National Automotive Sampling System
National Child Restraint Use – Special Study

1. Primary Sampling Unit Number: _____ _____

2. Site Number: _____ ____ ____ ____ ____

3. Observation Number: _____ _____

4. Date of Observation: _____/_____/2011

5.1 (Circle for Only One Child--the child being observed)
- __ 12 13 (1st row: ___, middle, right)
- 21 22 23 (2nd row: left; middle, right)
- 31 32 33 (3rd row: left; middle, right)
- Other _____

5.2 On a scale from 1 to 5 w/1= Not Confident & 5= Very Confident, how confident are you that the child in this SP is in the correct type of child safety restraint for his/her age, wt & ht?
1 Scale: 1-------2-------3------4------5   2 ○ DK 3 ○ Refused 4 ○ DA
(Not Confident)   *(Very Confident)*

5.3 (By Observation) Child is in:
- 1 ○ CRS,
- 2 ○ Booster or Other Child Restraint,
- 3 ○ SB,
- 4 ○ Unrestrained (U)
(If 1-2, continue; if 3-4, skip to Q17.)

For the child restraint in SP ___:

6. What is the make of this seat?

1. ○ Baby Trend	10. ○ Graco	18. ○ Safety 1st
2. ○ Britax	11. ○ Maxi Cosi	19. ○ Safe Traffic Systems
3. ○ Chicco	12. ○ Learning Curve-1st Yrs.	20. ○ Summer
4. ○ Combi		21. ○ Sunshine Kids
5. ○ Cosco	13. ○ Magna/Clek	22. ○ DK
6. ○ Cybex	14. ○ Mia Moda	23. ○ Refused
7. ○ Dorel	15. ○ Orbit	24. ○ DA
8. ○ Eddie Bauer	16. ○ Peg Perego	25. ○ Other _____
9. ○ Evenflo	17. ○ Recaro	

7. What is the model?
1 _____   2 ○ DK 3 ○ Refused 4 ○ DA

8. How long have you had this seat?
1 Yrs _____ 2 Months _____   3 ○ DK 4○ Refused 5 ○ DA

9. Did you get it new or used?
1 ○ New 2 ○ Used 3 ○ DK 4 ○ Refused 5 ○ DA

10. Did you read the instructions for installing this SEAT that came......? *(Read, randomizing order of 1-4; Select all that apply)*
1. ☐ On the box for the car seat
2. ☐ On the label of the car seat
3. ☐ In the owner's manual for the car seat
4. ☐ In the owner's manual for the vehicle
5. ○ None above 6. ○ DK, Ref, or DA *(Circle one)*

11. Has this seat been checked or inspected at a seat check or by a certified passenger safety technician (CPST)?
(If "Yes" continue; otherwise, skip to Q14)
1 ○ Yes 2 ○ No 3 ○ DK 4 ○ Refused 5 ○ DA

12. How long ago was it (last) checked?
1 Yrs _____ 2 Months _____   3 ○ DK 4○ Refused 5 ○ DA

13. Has it been moved since it was (last) checked?
1 ○ Yes 2 ○ No 3 ○ DK 4 ○ Refused 5 ○ DA

14. On a scale from 1 to 5 with 1= Not Confident & 5= Very Confident, how confident are you that it is installed correctly?
1 Scale: 1-------2-------3------4------5   2 ○ DK 3 ○ Refused 4 ○ DA
(Not Confident)   *(Very Confident)*

15. Today, who put this child in his/her seat?
1 ○ Self 2 ○ Joint w/other 3 ○ Partner/spouse/significant other
4 ○ Parent or other family member 5 ○ Friend or neighbor
6 ○ Child 7 ○ CPST 8 ○ DK 9 ○ Refused 10 ○ DA
11 ○ Other _____

A

16. Some seats have a strap on the back of the seat near the top called a tether. Does your seat have a tether strap?
1 ○ Yes 2 ○ No 3 ○ DK 4 ○ Refused 5 ○ DA

17. For this SP, does your vehicle have a place to hook the seat top tether strap? *(If "yes" to both Q16 & Q17, continue; otherwise, skip to Q25; If U or SB, skip to Q26)*
1 ○ Yes 2 ○ No 3 ○ DK 4 ○ Refused 5 ○ DA

18. Are you using the tether? *(If "Yes", skip to Q20; If 3, 4 or 5-- skip to Q25)*
1 ○ Yes 2 ○ No 3 ○ DK 4 ○ Refused 5 ○ DA

19. *(If no)* What is the main reason that you are not using the tether?

(Skip to Q25)
1 ○ DK about it 2 ○ Didn't think it was important
3 ○ DK how to use it 4 ○ Too hard to use 5 ○ RF seat
6 ○ Over weight limit 7 ○ Can't find 8 ○ Refused
9 ○ DA 10 ○ Other: _____

20. *(If yes)* What is the main reason that you are using the tether?
1 ○ Law 2 ○ Safer 3 ○ Instructions 4 ○ DK
5 ○ Refused 6 ○ DA 7 ○ Other: _____

21. Who attached the tether?
(If 1 or 2, continue; otherwise, skip to Q23)
1 ○ Self 2 ○ Joint w/other 3 ○ Partner/spouse/significant other
4 ○ Parent or other family member 5 ○ Friend or neighbor
6 ○ CPST 7 ○ DK 8 ○ Refused 9 ○ DA
10 ○ Other: _____

22. On a scale from 1 to 5 with 1= Very Difficult & 5= Very Easy, how difficult or easy did you find it to:
1. Attach the tether?
2. Get a tight fit?
1--------2---------3---------4--------5
(Very Difficult)   *(Very Easy)*
1--1 Scale #: _____   2 ○ DK 3 ○ Refused 4 ○ DA
2--1 Scale #: _____   2 ○ DK 3 ○ Refused 4 ○ DA

23. Have you ever disconnected this tether?
(If "Yes" continue; otherwise, skip to Q25)
1 ○ Yes 2 ○ No 3 ○ DK 4 ○ Refused 5 ○ DA

24. On a scale from 1 to 5 with 1= Very Difficult & 5= Very Easy, how difficult or easy did you find it to disconnect the tether?
1 Scale #: _____   2 ○ DK 3 ○ Refused 4 ○ DA

TETHERS

PSU #_____　　Site #_____　____　　OBS #_____　____　　Date____/____/____　　NHTSA Form 1108

B	25. Some seats have 2 straps/attachments on the bottom called lower anchor straps/attachments. Does this seat have lower straps/attachments to connect or hook it to the vehicle?	1 ⬛ Yes　2 ◯ No　3 ◯ DK　4 ◯ Refused　5 ◯ DA
	26. For this SP, does your vehicle have lower anchors? *(If "yes" to both Q25 & Q26, continue; otherwise, skip to Q36; If U or SB, skip to Q43)*	1 ⬛ Yes　2 ◯ No　3 ◯ DK　4 ◯ Refused　5 ◯ DA
	27. Are you using the lower straps/attachments with the lower anchors? *(If "Yes", skip to Q29; If 3, 4 or 5-- skip to Q36)*	1 ◯ Yes　2 ◯ No　3 ◯ DK　4 ◯ Refused　5 ◯ DA
	28. *(If no)* What is the main reason that you are not using the lower straps/attachments with the lower anchors? *(Skip to Q36)*	1 ◯ DK about it　　2 ◯ Didn't think it was important　3 ◯ DK how to use it　4 ◯ Too hard to use　5 ◯ RF seat　6 ◯ Over weight limit　7 ◯ Can't find　8 ◯ Refused　9 ◯ DA　10 ◯ Other: _____
	29. *(If yes)* What is the main reason that you are using them?	1 ◯ Law　2 ◯ Safer　3 ◯ Instructions　4 ◯ DK　5 ◯ Refused 6 ◯ DA　7 ◯ Other: _____
	30. Who installed the seat with the lower anchors? *(If 1 or 2, continue; otherwise, skip to Q32)*	1 ⬛ Self 2 ◯ Joint w/other 3 ◯ Partner/spouse/significant other　4 ◯ Parent or other family member　5 ◯ Friend or neighbor　6 ◯ CPST　7 ◯ DK　8 ◯ Refused　9 ◯ DA　10 ◯ Other _____
	31. On a scale from 1 to 5 with 1= Very Difficult & 5= Very Easy, how difficult or easy did you find it to: 1. Install this seat using the lower anchors? 2. Get a tight fit?	1--------2---------3--------4--------5 *(Very Difficult)*　*(Very Easy)*　1--1 Scale #: _____　2 ◯ DK　3 ◯ Refused　4 ◯ DA　2--1 Scale #: _____　2 ◯ DK　3 ◯ Refused　4 ◯ DA
	32. Have you ever uninstalled this seat after it had been installed with lower anchors)? *(If "Yes" continue; otherwise, skip to Q34)*	1 ⬛ Yes　2 ◯ No　3 ◯ DK　4 ◯ Refused　5 ◯ DA
	33. On a scale from 1 to 5 with 1= Very Difficult & 5= Very Easy, how difficult or easy did you find it to uninstall the seat (when using the lower anchors)?	1 Scale #: _____　2 ◯ DK　3 ◯ Refused　4 ◯ DA
C	34. Are you also using the safety belt to attach the seat? *(If "Yes" continue; otherwise, skip to Q43)*	1 ⬛ Yes 2 ◯ No　3 ◯ DK　4 ◯ Refused　5 ◯ DA
	35. What is the main reason that you use both (i.e., SB and the lower anchors)? *(Skip to Q39)*	1 ◯ Extra secureness or safety　2 ◯ Believed it was necessary　3 ◯ DK　4 ◯ Refused　5 ◯ DA　6 ◯ Other: _____
D	36. Are you using the SB to attach the seat to the vehicle? *(If "Yes", skip to Q38; If 3, 4 or 5-- skip to Q43)*	1 ◯ Yes　2 ◯ No　3 ◯ DK　4 ◯ Refused　5 ◯ DA
	37. *(If no)* What is the main reason that you are not using the SB? *(Skip to Q43)*	1 ◯ DK about it　　2 ◯ Didn't think it was important　3 ◯ DK how to use it　4 ◯ Too hard to use　5 ◯ RF seat　6 ◯ Over weight limit　7 ◯ Can't find　8 ◯ Refused　9 ◯ DA　10 ◯ Other: _____
	38. *(If yes)* What is the main reason that you are using the SB?	1 ◯ Law　2 ◯ Safer　3 ◯ Instructions　4 ◯ DK　5 ◯ Refused　6 ◯ DA　7 ◯ Other: _____
	39. Who installed the seat with the SB? *(If 1 or 2, continue; otherwise, skip to Q41)*	1 ⬛ Self 2 ◯ Joint w/other 3 ◯ Partner/spouse/significant other　4 ◯ Parent or other family member　5 ◯ Friend or neighbor　6 ◯ CPST　7 ◯ DK　8 ◯ Refused　9 ◯ DA　10 ◯ Other _____
	40. On a scale from 1 to 5 with 1= Very Difficult & 5= Very Easy, how difficult or easy did you find it to: 1. Install this seat using the seat belt? 2. Get a tight fit?	1--------2---------3--------4--------5 *(Very Difficult)*　*(Very Easy)*　1--1 Scale #: _____　2 ◯ DK　3 ◯ Refused　4 ◯ DA　2--1 Scale #: _____　2 ◯ DK　3 ◯ Refused　4 ◯ DA
	41. Have you ever uninstalled this seat after it had been installed with the seat belt? *(If "Yes" continue; otherwise, skip to Q43)*	1 ⬛ Yes　2 ◯ No　3 ◯ DK　4 ◯ Refused　5 ◯ DA
	42. On a scale from 1 to 5 with 1= Very Difficult & 5= Very Easy, how difficult or easy did you find it to uninstall the seat when using the seat belt? :	1 Scale #: _____　2 ◯ DK　3 ◯ Refused　4 ◯ DA
E	43. Have you ever used any of the following with this or another child safety seat in this vehicle? *(IF "YES" To both Q43.2 & Q43.3, continue; otherwise, skip to Q46)*	1. Tether Anchor?　1 ◯ Yes 2 ◯ No　3 ◯ DK　4 ◯ Refused 5 ◯ DA　2. Lower Anchors (LA)? 1 ⬛ Yes 2 ◯ No　3 ◯ DK　4 ◯ Refused 5 ◯ DA　3. Seat Belt (SB)　1 ⬛ Yes 2 ◯ No　3 ◯ DK　4 ◯ Refused 5 ◯ DA
	44. Do you prefer using lower anchors or seat belts?	1 ◯ LA　2 ◯ SB　3 ◯ Both　4 ◯ DK　5 ◯ Refused　6 ◯ DA
	45. Is it easier to attach a seat to the vehicle with the lower anchors or vehicle safety belt?	1 ◯ LA　2 ◯ SB　3 ◯ Both　4 ◯ DK　5 ◯ Refused　6 ◯ DA
	46. If you have ever driven somewhere when a child in the vehicle was not secured in a child safety seat or booster, describe the primary reason	1 ◯ Never have　2 ◯ Short trip　3 ◯ Child unbuckled self　4 ◯ No seat/booster in vehicle　5 ◯ Forgot to check　6 ◯ Too many passengers in the vehicle　7 ◯ Child does not cooperate　8 ◯ Don't know　9 ◯ Refused　10 ◯ DA　11 ◯ Other _____
	47. Gender (Do by Observation)	1 ◯ Male　2 ◯ Female
	48. Are you of Hispanic or Latino origin?	1 ◯ Yes　2 ◯ No　3 ◯ DK　4 ◯ Refused　5 ◯ DA
	49. Which of the following best describes your race? (Select all that apply)	1 ◯ White　2 ◯ Black or African American　3 ◯ Asian　4 ◯ Native Hawaiian/Other Pacific Islander 5 ◯ American Indian/Alaska Native　6 ◯ Refused　7 ◯ DA　8 ◯ Other: _____
	50. Do you mind telling me your age?	1 Years: _____　　　2 ◯ Refused
	51. *(Skip if Q50 answered)* Would you prefer to point to your age range?	1 ◯ 13-19　3 ◯ 30-39　5 ◯ 50-59　7 ◯ 70-79　9 ◯ DK　10 ◯ Refused　2 ◯ 20-29　4 ◯ 40-49　6 ◯ 60-69　8 ◯ 80+　11 ◯ DA
	52. Interview completed: 1 ◯ Yes　　2 ◯ No	53. Time Completed: _____

Right margin vertical labels: LOWER STRAPS & ANCHORS, BOTH, SEAT BELT, PREFER

The Interview Form Restraints (NHTSA 1108) was designed to: (1) collect the driver's knowledge and opinions about the specific CRS and vehicle components that were being used to secure the target child in the vehicle, and (2) obtain information about the driver (e.g., demographic data, driver's experience with and preference for the installation of child seats with lower anchors and/or a seat belt).

This form contains 23 core questions and 30 additional questions broken into subcategories A - E. The 15 initial core questions (Q1 – 15) outline PSU specific information, the seating position of the child, CRS information, the location and type of CRS, and who installed the seat. The ending core questions (Q46 – 53) provide primarily demographic information about the driver.

The subcategories are sectioned in the following manner.

Information on upper tether availability and usage (Q16 – 24)
Information on lower straps and anchors availability and usage (Q25 – 33)
Information on dual system usage (i.e., both LATCH and seat belt usage) (Q34 – 35)
Information on CRS seat belt installation (Q36 – 42)
Information on the driver's CRS installation preference (Q43 – 45)

Refer to the letter designations on the previous two pages of this section (INTR 1108 Survey Form).

Questions 5.3, 11, 17, 18, 19, 21, 23, 26, 27, 28, 30, 32, 34, 35, 36, 37, 39, 41, 43, and 51 contain skip logic that directs the data collector to the proper subcategory based on the driver's responses. For example, if for Q17 the driver answered that a tether was not used, questions Q18 – 24 in subcategory **A** (Tethers) would be skipped. Details on the specific skip logic are further explained in this section.

Question: 1 – Primary Sampling Unit number

Data Set: CRS

SAS Name: PSU

Label Name: Primary Sampling Unit

Attribute Codes:

Range: 02 - 82

Remarks:

NCRUSS used the CDS sites for data collection. The CDS consists of 24 statistically representative PSU's located throughout the country.[8] The PSUs have been assigned two-digit identifying numbers that range from 02 to 82.

For more information on the CDS, refer to the 2014 CDS Analytical User's Manual (Report No. DOT HS 812 198) at http://www-nrd.nhtsa.dot.gov/Pubs/812198.pdf.

Format Type: Number

Field Length: 3

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[8] Additional information about the NASS CDS PSUs can be found in Appendix F of the 2014 NASS CDS Analytical User's Manual at http://www-nrd.nhtsa.dot.gov/Pubs/812198.pdf. Demographic data on the 24 PSUs have been included in Appendix F to give researchers supplementary information on the nature of the PSUs.

Question: 2 – Site Number

Data Set: CRS

SAS Name: SITEID

Label Name: Site Number

Attribute Codes:

Range: 021103 - 823223

Remarks:

This is a unique six-digit identification number that was generated during the sampling process by NHTSA for use during data collection. This number, using the format below, identifies the location where the data was collected and provides additional information about each of the sites. Data was collected at each of the sites for only one 3-hour data collection time period. In rare instances, the same site was collected a second time. This occurred mainly in rural areas that contained fewer potential sites.

The first two digits are the assigned PSU number (refer to the Background section beginning on page 1).
The third digit is the stratum.
The fourth digit is an indicator, 1 for sample, 2 for shadow sample, and 3 for extension sample.
The fifth and sixth digits are the site number (a sequential count of sites visited within a PSU).

The following is an example of how the site number was constructed for site 082220:

PSU number (08) | stratum (2) | sample indicator (2) | site number (20)

For more information on this topic refer to the **Sampling Design** on page 2 of this manual.

Format Type: Number

Field Length: 6

Question: 3 – Observation Number

Data Set: CRS

SAS Name: OBS

Label Name: Observation Number

Attribute Codes:

Range: 01 - 34

Remarks:

An observation number is assigned for each vehicle that is approached regardless of whether the driver agrees to participate in the survey. Accordingly, numbers are assigned not only to vehicles from which a completed interview is obtained, but also to vehicles from which interviews are not conducted/completed (e.g., the drivers do not agree to participate and/or all occupants are older than 8).

At each data collection site, numbering begins at 01 and continues consecutively until all vehicles are given numbers. The highest number of observations recorded for any one session was 34.

Format Type: Number

Field Length: 3

Question: 4 – Date of observation

Data Set: CRS

SAS Name: DATE

Label Name: Observation Date

Attribute Codes:

Range: 06/01/2011 – 07/29/2011

Remarks:

This is the date the observation was made.

Format Type: Text

Field Length: 10

Question: 5.1 – Seating position observed

Data Set: CRS

Range: 12 – 43

SAS Name: SEATINT

Label Name: Location of CRS - Interview, 2 Digit

Attribute Codes:

Remarks:

The data collector was instructed to indicate the seating position of the child being observed. The interviewer asked the driver questions about the placement of the child in this seating position and the safety equipment in use, while the observer recorded what was seen. The interviewer and the observer were instructed to observe the same child/seating position.[9]

If the child was seated in one of the first three rows, the data collector was to circle the seating position of the child. Otherwise, the child's seating position was to be recorded on the survey form in the space after "other." This information was entered into the application as a two-digit code in the following manner:

The seating area within the vehicle is broken down as follows.

Front Row   **Second Row**
11 Left side   21 Left side
12 Middle   22 Middle
13 Right side   23 Right side

Third Row   **Fourth Row**
31 Left side   41 Left Side
32 Middle   42 Middle
33 Right side   43 Right side

Format Type: Number

Field Length: 3

---

[9] In two cases, the children/seating positions that were observed were not the same as those for which questions were asked of the drivers. In these two cases, one child in the vehicle was observed and the driver was asked questions about another (different) child. These two cases can be found looking at the data collected at: 1) PSU: 45, Site #: 453101, Observation #: 3, Date: 609; and 2) PSU: 41, Site #: 413109, Observation #: 16, Date: 614.

Question   5.2 – On a scale from 1 to 5, with 1 = Not Confident and 5 = Very Confident, how confident are you that the child in this seating positions (SP) is in the correct type of child safety restraint for his/her age, weight, and height?

Data Set: CRS

SAS Name: CRS_OK

Label Name: Confidence that the CRS is correct

Attribute Codes:

SAS	Description
#	1 - 5
.U	Don't know
.E	Didn't ask
.R	Refused

Remarks:

This variable contains the driver's response to interview Question 5.2, "On a scale from 1 to 5, with 1 = Not Confident and 5 = Very Confident, how confident are you that the child in this SP is in the correct type of CRS for his/her age and weight?"

The interviewer was instructed to record the respondent's confidence level sequentially with 1 being not confident and 5 being very confident.

Format Type: Number

Field Length: 3

Question   5.3 – (By observation) child is in:

Data Set: CRS

SAS Name: OBS_CRS

Label Name: Child's safety restraint

Attribute Codes:

SAS	Description
1	CRS
2	Booster or other child restraint
3	SB (skip to Q17)
4	Unrestrained (skip to Q17)

Remarks:

The interviewer determined (by observation) what type of restraint, if any, in which the child was placed.

If it was determined that the child was either in a seat belt only or unrestrained, the interviewer was instructed to skip to Q17.

Format Type: Number

Field Length: 3

Question: 6 – What is the make of this seat?

Data Set: CRS

SAS Name: MAKEINT

Label Name: Child seat make

Attribute Codes:

SAS	Description
#	Make of seat – refer to Appendix C
.N	Not applicable
.U	Don't know
.E	Didn't ask
.R	Refused

Remarks:

This variable contains the driver's response to interview Question 6, "What is the make of this seat?" The number selected correlated to the complete list of makes in Appendix C.

This question was asked only for the seating position of the child selected for the study. The term "seat" in the question refers to the child restraint and not the vehicle's seat.

Format Type: Number

Field Length: 8

Response: **6.1 (Other, _____)**

Data Set: CRS

SAS Name: MAKINTOS

Label Name: Child seat make - specify

Attribute Codes:

Remarks:

This attribute contains the driver's response to interview Question 6, "What is the make of this seat - other, _____?" If the CRS make provided by the respondent was not listed in Appendix C, it was captured here.

Format Type: Text

Field Length: 50

Question: 7 – What is the model?

Data Set: CRS

SAS Name: MODELINT

Label Name: Child seat model

Attribute Codes:

SAS	Description
#	Model name – Refer to Appendix D
.N	Not applicable
.U	Don't know
.E	Didn't ask
.R	Refused

Remarks:

This variable contains the driver's response to interview Question 7, "What is the model," and referred to the model name of the CRS. The interviewer wrote the model name in the space provided.

When data was entered, the attributes in Appendix D were used, with 997 used for "Other Model" and 998 used for "Other."

Format Type: Number

Field Length: 3

Response: **7.1 (Other, _____)**

Data Set: CRS

SAS Name: MODINTOS

Label Name: Child seat model - specify

Attribute Codes:

Remarks:

This attribute contains the driver's response to interview Question 7, "What is the model of this seat - other, _____?" If the CRS make provided by the respondent was not listed in Appendix D, it was captured here.

Format Type: Text

Field Length: 75

Question: 8 – How long have you had this seat?

Data Set: CRS

SAS Name: CRS_AGE

Label Name: Months seat owned

Range: 0 - 228

Attribute Codes:

#	Enter the length of time in months that they have had the seat
.N	Not applicable
.U	Don't know
.E	Didn't ask
.R	Refused

Remarks:

This variable refers to the child seat in which the child being observed was sitting. The drivers responded in a variety of ways to report the length of time that they had had the child seat. They used number of days (e.g., 14 days), number of months (e.g., 11 months), or number of years (e.g., 2 years). The interviewer was instructed to write both the number and the length of time reported by the driver on the survey form. These values were converted and stored in months in the data entry application.

If the driver did not know, was not asked, or refused to answer, the above listed attribute codes were used.

Format Type: Number

Field Length: 3

Question   9 – Did you get it new or used?

Data Set: CRS

SAS Name: NEW

Label Name: Seat new or used

Attribute Codes:

SAS	Description
1	New
2	Used
.N	Not applicable
.U	Don't know
.E	Didn't ask
.R	Refused

Remarks:

This variable contains the driver's response to interview Question 9, "Did you get it new or used," and referred to the CRS.

Format Type: Number

Field Length: 3

Question   10 – Did you read the instructions for installing this seat that came…?

Remarks:

This variable contains the driver's response to interview Question 10, "Did you read the instructions for installing this seat that came…?"

Question 10 was a "Check all that apply" question. For each new driver, interviewers were instructed to read the options provided on the survey form, randomizing the order in which they read them. The interviewers were to select all of the responses that the drivers provided, by marking the boxes to the left of the options selected by the driver. If the drivers indicated that they did not read any of the instructions, the interviewers were to select "None above" by marking the circle to the left of it. If appropriate, the interviewers were instructed to select attribute 6, "Don't Know, Refused, or Didn't Ask" and circle the correct option. *None above, Don't know, Didn't ask, Refused are captured within the other attributes in this question and are not outlined separately in this section.*

The next four pages of the manual provide detail on the specific attributes (attributes 10.1 – 10.4) that apply to this question.

The specific attributes (responses) are defined as follows:

10.1:   On the box for the car seat

10.2:   On the label of the car seat

10.3:   In the owner's manual for the car seat

10.4:   In the owner's manual for the vehicle

None above, Don't know, Didn't ask, Refused are captured within the other attributes in this question and are not outlined separately in this section

Response: **10.1 (On the box for the car seat)**

Data Set: CRS

SAS Name: INST_BOX

Label Name   Read instructions on box

Attribute Codes:

SAS	Description
0	No
1	Yes
.N	Not applicable
.U	Don't know
.E	Didn't ask
.R	Refused

Remarks:

This attribute contains the driver's response to interview Question 10, "Did you read the instructions for installing this seat that came…?"

Question 10 was a "Check all that apply" question and interviewers were instructed to check all choices that the respondent selected.

Format Type: Number

Field Length: 3

Response: **10.2 (On the label of the car seat)**

Data Set: CRS

SAS Name: INST_LAB

Label Name   Read instructions on label

Attribute Codes:

SAS	Description
0	No
1	Yes
.N	Not applicable
.U	Don't know
.E	Didn't ask
.R	Refused

Remarks:

This attribute contains the driver's response to interview Question 10, "Did you read the instructions for installing this seat that came…?"

Question 10 was a "Check all that apply" question and interviewers were instructed to check all choices that the respondent selected.

Format Type: Number

Field Length: 3

Response: **10.3 (In the owner's manual for the car seat)**

Data Set: CRS

SAS Name: INST_SM

Label Name   Read instructions - seat manual

Attribute Codes:

SAS	Description
0	No
1	Yes
.N	Not applicable
.U	Don't know
.E	Didn't ask
.R	Refused

Remarks:

This attribute contains the driver's response to interview Question 10, "Did you read the instructions for installing this seat that came…?"

Question 10 was a "Check all that apply" question and interviewers were instructed to check all choices that the respondent selected.

Format Type: Number

Field Length: 3

Response: **10.4 (In the owner's manual for the vehicle)**

Data Set: CRS

SAS Name: INST_VM

Label Name   Read instructions - vehicle manual

Attribute Codes:

SAS	Description
0	No
1	Yes
.N	Not applicable
.U	Don't know
.E	Didn't ask
.R	Refused

Remarks:

This attribute contains the driver's response to interview Question 10, "Did you read the instructions for installing this seat that came…?"

Question 10 was a "Check all that apply" question and interviewers were instructed to check all choices that the respondent selected.

Format Type: Number

Field Length: 3

Question:　11 – Has this seat been checked or inspected at a seat check or by a certified passenger safety technician (CPST)?

Data Set:　　　　　CRS

SAS Name:　　　　SEATCHK

Label Name　　　　Has seat been checked

Attribute Codes:

SAS	Description
0	No (skip to Q14)
1	Yes
.N	Not applicable
.U	Don't know (skip to Q14)
.E	Didn't ask(skip to Q14)
.R	Refused (skip to Q14)

Remarks:

This attribute contains the driver's response to interview Question 11, "Has this seat been checked or inspected at a seat check or by a certified passenger safety technician?"

Question 11 was a "Check only one" question. If the driver replied "No" or they did not know, Didn't ask, or refused, the interviewer was instructed to skip to Q14.

Format Type:　　　Number

Field Length:　　　3

Question: 12 – How long ago was it (last) checked?

Data Set: CRS

SAS Name: LASTCHK

Label Name: Months since checked

Range: 1 – 120

Attribute Codes:

#	Enter the length of time in months since last checked
.N	Not applicable
.U	Don't know
.E	Didn't ask
.R	Refused

Remarks:

The drivers responded in a variety of ways to report the length of time since the child seat had last been checked. They used number of days (e.g., 14 days), number of months (e.g., 11 months), and/or number of years (e.g., 2 years). The interviewer was instructed to record the answer in years and/or months, rounding to the appropriate number of months, if the driver answered in number of days. These values were converted and stored in months in the data entry application.

If the driver did not know, didn't ask, or refused to answer, the above listed attribute codes were used.

Format Type: Number

Field Length: 3

Question: 13 – Has it been moved since it was (last) checked?

Data Set: CRS

SAS Name: MOVED

Label Name   If seat moved since check

Attribute Codes:

SAS	Description
0	No
1	Yes
.N	Not applicable
.U	Don't know
.E	Didn't ask
.R	Refused

Remarks:

This attribute contains the driver's response to interview Question 13, "Has the seat been moved since it was last checked?"

Question 13 was a "Check only one" question.

Format Type: Number

Field Length: 3

Question   14 – On a scale from 1 to 5, with 1 = Not Confident and 5 = Very Confident, how confident are you that it is installed correctly?

Data Set: CRS

SAS Name: INSTCONF

Label Name: Confidence seat is installed correctly 1 – 5

Attribute Codes:

SAS	Description
#	1 - 5
.N	Not applicable
.U	Don't know
.E	Didn't ask
.R	Refused

Remarks:

This variable contains the driver's response to interview Question 14, "On a scale from 1 to 5, with 1 = Not Confident and 5 = Very Confident, how confident are you it is installed correctly?"

The interviewer was instructed to record the respondent's confidence level sequentially with 1 being not confident and 5 being very confident.

Format Type: Number

Field Length: 3

Question: 15 – Today, who put this child in his/her seat?
Data Set: CRS

The choices below identify the driver's response to interview Question 15, "Today, who put this child in his/her seat?"

Question 15 was a "Check only one answer" question. The interviewers did not read the attributes listed below, but selected the attribute that matched the driver's answer. If the driver provided an answer that fell outside the attributes listed below, it was captured in 15.2, "Other, _____." The next two pages of the manual provide detail on the specific attributes (15.1 – 15.2) that apply to this question.

The specific attributes (responses) listed on the survey form were:

15.1:   Self
          Joint with other
          Partner/spouse/significant other
          Parent or other family members
          Friend or neighbor
          Child
          CPST
          Not applicable (skipped)
          Don't know
          Didn't ask
          Refused
15.2:   Other, _____

Response: **15.1 (Self…CPST)**

Data Set: CRS

SAS Name: CHLDBY

Label Name: Who put the child in this seat

Attribute Codes:

SAS	Description
1	Self
2	Joint with other
3	Partner/spouse, significant other
4	Parent or other family members
5	Friend or neighbor
6	Child
7	CPST
11	Other, specify
.N	Not applicable
.U	Don't know
.E	Didn't ask
.R	Refused

Remarks:

The choices above identify the driver's response to interview Question 15, "Today, who put this child in his/her seat?"

Format Type: Number

Field Length: 3

Response: **15.2 (Other, _____)**

Data Set: CRS

SAS Name: CHLDBYO

Label Name: Other, who put child in seat

Attribute Codes:

Remarks:

This attribute contains the driver's response to interview Question 15, "Today, who put this child in his/her seat?" Attribute 15.2 "Other, _____."

Format Type: Text

Field Length: 75

Question: 16 – Some seats have a strap on the back of the seat near the top called a tether. Does your seat have a tether strap?

Data Set: CRS

SAS Name: TSTRAP

Label Name   Does seat have a tether strap

Attribute Codes:

SAS	Description
0	No
1	Yes
.N	Not applicable
.U	Don't know
.E	Didn't ask
.R	Refused

Remarks:

This attribute contains the driver's response to interview Question 16, "Some seats have a strap on the back of the seat near the top called a tether. Does your seat have a tether strap?"

Question 16 was a "Check only one" question.

Format Type: Number

Field Length: 3

Question: 17 – For this seating position (SP), does your vehicle have a place to hook the seat top tether strap?

Data Set: CRS

SAS Name: TA_VEHSP

Label Name   If vehicle SP has upper anchor

Attribute Codes:

SAS	Description
0	No (skip to Q25)
1	Yes
.N	Not applicable
.U	Don't know (skip to Q26)
.E	Didn't ask
.R	Refused

Remarks:

This attribute contains the driver's response to interview Question 17, "For this seating position, does your vehicle have a place to hook the seat top tether strap?"

The following skip logic applies to the question:

- If Q16 was also answered, continue to Q18 if the driver answered "Yes" to both Q16 and 17.
- All other combinations of responses to Q16-17 (besides Yes to both questions), the interviewer was instructed to skip to Q25.
- If Q5.3 on page 122 was answered "seat belt (SB)" or "unrestrained," Q16 was already skipped and any response to Q17 directed the interviewer to Q26.

Question 17 was a "Check only one" question.

Format Type: Number

Field Length: 3

Question: 18 – Are you using the tether?

Data Set: CRS

SAS Name: TTHR_USE

Label Name   Are you using the tether

Attribute Codes:

SAS	Description
0	No
1	Yes (skip to 20)
.N	Not applicable
.U	Don't know (skip to Q25)
.E	Didn't ask(skip to Q25)
.R	Refused (skip to Q25)

Remarks:

This attribute contains the driver's response to interview Question 18, "Are you using the tether?"

The skip logic for this question is as follows:

If No:	Go to Q19
If Yes:	Go to Q20
If Don't know, Didn't ask, or Refused:	Go to Q25

Question 18 was a "Check only one" question.

Format Type: Number

Field Length: 3

Question: 19 – (If no), what is the main reason you are not using a tether?

Data Set: CRS

The choices below identify the driver's response to interview Question 19, "(If no), what is the main reason you are not using a tether?"

Question 19 was a "Check only one answer" question. **This question was answered only if the driver replied "No" to Question 18, "Are you using the tether?"** The interviewer did not read the attributes listed below, but selected the attribute that matched the driver's answer. If the driver provided an answer that fell outside the attributes listed below, it was captured in 19.2, "Other, _____." The next two pages of the manual provide detail on the specific attributes (19.1 – 19.2) that apply to this question.

After completing this question, the interviewer was instructed to skip to Q25.

The specific attributes (responses) listed on the survey form were:

19.1:   Didn't know about it
       Didn't think it was important
       Didn't know how to use it
       Too hard to use
       RF seat
       Over weight limit
       Can't find
       Don't know
       Didn't ask
       Refused
19.2:   Other, _____

Response: 19.1 (Didn't know about it…can't find)

Data Set: CRS

SAS Name: WHYNO_T

Label Name: Why not using the tether

Attribute Codes:

SAS	Description
1	Didn't know about it
2	Didn't think it was important
3	Didn't know how to use it
4	Too hard to use
5	RF seat
6	Over weight limit
7	Can't find
10	Other, specify
.N	Not applicable
.U	Don't know
.E	Didn't ask
.R	Refused

Remarks:

The choices above identify the driver's response to interview Question 19, "What is the main reason that you are not using the tether?"

If Q19 was answered, the interviewer was instructed to skip to Q25.

Note: Attribute 5 (RF seat) refers to a child being seated in a rear-facing seat; rear-facing seats were specifically identified because most rear-facing seats are not manufactured to use tethers. Attribute 7 (Can't find) means that the driver was aware of the tether strap but couldn't find it on the CRS or couldn't find a vehicle tether anchor inside the vehicle.

Format Type: Number

Field Length: 3

Response: 19.2 (Other, _____)

Data Set: CRS

SAS Name: WHYNO_TO

Label Name: Why not using the tether - other

Attribute Codes:
Remarks:

This attribute contains the driver's response to interview Question 19, "What is the main reason that you are not using the tether?" Attribute 19.2 "Other, _____."

If Q19 was answered, the interviewer was instructed to skip to Q25.

Format Type: Text

Field Length: 75

Question: 20 – (If yes), what is the main reason you are using a tether?
Data Set: CRS

The choices below identify the driver's response to interview Question 20, "(If yes), what is the main reason you are using a tether?"

Question 20 was a "Check only one answer" question. **This question was answered only if the driver replied "Yes" to Question 18, "Are you using the tether?"** The interviewer did not read the attributes listed below, but selected the attribute that matched the driver's answer. If the driver provided an answer that fell outside the attributes listed below, it was captured in 20.2, "Other, _____." The next two pages of the manual provide detail on the specific attributes (20.1 – 20.2) that apply to this question.

The specific attributes (responses) listed on the survey form were:

20.1:   Law
            Safer
            Instructions
            Don't know
            Didn't ask
            Refused
20.2:   Other, _____

Response: 20.1 (Law, safer, instructions)

Data Set: CRS

SAS Name: WHY_Y_T

Label Name: Why using the tether

Attribute Codes:

SAS	Description
1	Law
2	Safer
3	Instructions
7	Other, specify
.N	Not applicable
.U	Don't know
.E	Didn't ask
.R	Refused

Remarks:

The choices above identify the driver's response to interview Question 20, "What is the main reason that you are using the tether?"

Format Type: Number

Field Length: 3

Response: 20.2 (Other, _____)

Data Set: CRS

SAS Name: WHY_Y_TO

Label Name: Why using the tether - other

Attribute Codes:
Remarks:

This attribute contains the driver's response to interview Question 20, "What is the main reason that you are using the tether?" Attribute 20.2 "Other, _____."

Format Type: Text

Field Length: 75

Question: 21 – Who attached the tether?

Data Set: CRS

The choices below identify the driver's response to interview Question 21, "Who attached the tether?"

Question 21 was a "Check only one answer" question. The interviewer did not read the attributes listed below, but selected the attribute that matched the driver's answer. If the driver provided an answer that fell outside the attributes listed below, it was captured in 21.2, "Other, _____." The next two pages of the manual provide detail on the specific attributes (21.1 – 21.2) that apply to this question.

The specific attributes (responses) on the survey form were:

21.1:   Self
        Joint with others
        Partner/spouse/significant other
        Parent or other family member
        Friend or neighbor
        CPST
        Don't know
        Didn't ask
        Refused
21.2:   Other, _____

Response: **21.1 (Self...CPST)**

Data Set: CRS

SAS Name: ATT_T_W

Label Name: Who attached the tether

Attribute Codes:

SAS	Description
1	Self
2	Joint with others
3	Partner/spouse/significant other (skip to Q23)
4	Parent or other family member (skip to Q23)
5	Friend or neighbor (skip to Q23)
6	CPST (skip to Q23)
10	Other, specify
.N	Not applicable
.U	Don't know (skip to Q23)
.E	Didn't ask(skip to Q23)
.R	Refused (skip to Q23)

Remarks:

The choices above identify the driver's response to interview Question 21, "Who attached the tether?"

If attributes 1 – 2 were selected the interviewer was instructed to continue to Q22; if attributes 3 – 6 or .U, .E, .R were selected they were to skip to Q23.

Format Type: Number

Field Length: 3

Response: **21.2 (Other, _____)**

Data Set: CRS

SAS Name: ATT_T_WO

Label Name: Who attached the tether - other

Attribute Codes:
Remarks:

This attribute contains the driver's response to interview Question 21, "Who attached the tether?" Attribute 21.2 "Other, _____."

If Q21.2 was selected, the interviewer was instructed to skip to Q23.

Format Type: Text

Field Length: 75

Question: 22 – On a scale from 1 – 5 with 1 = very difficult and 5 = very easy, how difficult or easy did you find it to?

Data Set: CRS

Question 22 was broken into two parts asking how difficult or easy it was on a scale of 1 – 5 to do the following:

22.1   Attach the tether?

22.2   Get a tight fit?

The next two pages of the manual provide detail on the specific attributes (22.1 – 22.2) that apply to this question.

Response: 22.1 (Attach the tether)

Data Set: CRS

SAS Name: ATT_T_E

Label Name: How easy is it to attach tether

Attribute Codes:

SAS	Description
#	1 - 5
.N	Not applicable
.U	Don't know
.E	Didn't ask
.R	Refused

Remarks:

This variable contains the driver's response to interview Question 22, "On a scale from 1 – 5 with 1 = very difficult and 5 = very easy, how difficult or easy did you find it to (22.1) attach the tether?"

The interviewer was instructed to record the respondent's confidence level sequentially with 1 being very difficult and 5 being very easy.

Format Type: Number

Field Length: 3

Response: 22.2 (Get a tight fit)

Data Set: CRS

SAS Name: TIT_T_E

Label Name: How easy is it to tighten tether

Attribute Codes:

SAS	Description
#	1 - 5
.N	Not applicable
.U	Don't know
.E	Didn't ask
.R	Refused

Remarks:

This variable contains the driver's response to interview Question 22, "On a scale from 1 – 5 with 1 = very difficult and 5 = very easy, how difficult or easy did you find it to (22.2) get a tight fit?"

The interviewer was instructed to record the respondent's confidence level sequentially with 1 being very difficult and 5 being very easy.

Format Type: Number

Field Length: 3

Question: 23 – Have you ever disconnected this tether?

Data Set: CRS

SAS Name: DISC_T

Label Name   Have you ever disconnected this tether

Attribute Codes:

SAS	Description
0	No (skip to Q25)
1	Yes
.N	Not applicable
.U	Don't know (skip to Q25)
.E	Didn't ask(skip to Q25)
.R	Refused (skip to Q25)

Remarks:

This attribute contains the driver's response to interview Question 23, "Have you ever disconnected this tether?"

If the driver answered "Yes" the interviewer was instructed to continue to Q24. If they said they haven't disconnected the tether, they didn't know, refused, or the question wasn't asked, the interviewer was instructed to skip to Q25.

Question 23 was a "Check only one" question.

Format Type: Number

Field Length: 3

Question: 24 – On a scale from 1 – 5 with 1 = very difficult and 5 = very easy, how difficult or easy did you find it to disconnect the tether?

Data Set: CRS

SAS Name: DISC_T_E

Label Name   Ease of disconnecting tether

Attribute Codes:

SAS	Description
#	1 - 5
.N	Not applicable
.U	Don't know
.E	Didn't ask
.R	Refused

Remarks:

This variable contains the driver's response to interview Question 24, "On a scale from 1 – 5 with 1 = very difficult and 5 = very easy, how difficult or easy did you find it to disconnect the tether?"

The interviewer was instructed to record the respondent's confidence level sequentially with 1 being very difficult and 5 being very easy.

Format Type: Number

Field Length: 3

Question: 25 – Some seats have 2 straps/attachments on the bottom called lower anchor straps/attachments. Does this seat have lower straps/attachments to connect or hook it to the vehicle?

Data Set: CRS

SAS Name: LSTRAPS

Label Name   If CRS has lower anchor straps

Attribute Codes:

SAS	Description
0	No
1	Yes
.N	Not applicable
.U	Don't know
.E	Didn't ask
.R	Refused

Remarks:

This attribute contains the driver's response to interview Question 25, "Some seats have 2 straps/attachments on the bottom called lower anchor straps/attachments. Does this seat have lower straps/attachments to connect or hook it to the vehicle?"

Question 25 was a "Check only one" question.

Format Type: Number

Field Length: 3

Question: 26 – For this seating position (SP), does your vehicle have lower anchors?

Data Set: CRS

SAS Name: LA_VEHSP

Label Name   If vehicle SP has lower anchors

Attribute Codes:

SAS	Description
0	No
1	Yes
.N	Not applicable
.U	Don't know
.E	Didn't ask
.R	Refused

Remarks:

This attribute contains the driver's response to interview Question 26, "For this seating position, does your vehicle have lower anchors?"

The following skip logic applies to this question:

If the driver answered "Yes" to both Q25 and 26, continue to Q27. For all other combinations of responses for Q25-26, the interviewer was instructed to skip to Q36.
If Q5.3 was answered "safety belt (SB)" or "unrestrained," Q25 was already skipped and any response to Q26 directed the interviewer to skip to Q43.
Question 26 was a "Check only one" question.

Format Type: Number

Field Length: 3

Question: 27 – Are you using the lower anchor straps/attachments with the lower anchors?

Data Set: CRS

SAS Name: LA_USE_I

Label Name   Are you using straps and LAS

Attribute Codes:

SAS	Description
0	No
1	Yes (skip to Q29)
.N	Not applicable
.U	Don't know (skip to Q36)
.E	Didn't ask(skip to Q36)
.R	Refused (skip to Q36)

Remarks:

This attribute contains the driver's response to interview Question 27, "Are you using the lower anchor straps/attachments with the lower anchors?"

The skip logic for this question is as follows:

If No:	Go to Q28
If Yes:	Go to Q29
If Don't know, Didn't ask, or Refused:	Go to Q36

Question 27 was a "Check only one" question.

Format Type: Number

Field Length: 3

Question: 28 – (If no), what is the main reason you are not using the lower straps/attachments with the lower anchors?

Data Set: CRS

The choices below identify the driver's response to interview Question 28, "(If no), what is the main reason you are not using the lower straps/attachments with the lower anchors?"

Question 28 was a "Check only one answer" question. **This question was answered only if the driver replied "No" to Question 27, "Are you using the lower straps/attachments with the lower anchors?"** The interviewer did not read the attributes listed below, but selected the attribute that matched the driver's answer. If the driver provided an answer that fell outside the attributes listed below, it was captured in 28.2, "Other, _____." The next two pages of the manual provide detail on the specific attributes (28.1 – 28.2) that apply to this question.

After completing this question, the interviewer was instructed to skip to Q36.

The specific attributes (responses) on the survey for were:

28.1:   Didn't know about it
         Didn't think it was important
         Didn't know how to use it
         Too hard to use
         RF seat
         Over weight limit
         Can't find
         Other, specify
         Don't know
         Didn't ask
         Refused
28.2:   Other, _____

Interview Form Restraints (1108)   (**If No**) what is the main reason for not using lower straps?

Response: **28.1 (Didn't know about it…can't find)**
Data Set: CRS

SAS Name: WHYNO_L

Label Name: Why not using straps/LAS

Attribute Codes:

SAS	Description
1	Didn't know about it
2	Didn't think it was important
3	Didn't know how to use it
4	Too hard to use
5	RF seat
6	Over weight limit
7	Can't find
10	Other, specify
.N	Not applicable
.U	Don't know
.E	Didn't ask
.R	Refused

Remarks:

The choices above identify the driver's response to interview Question 28, "What is the main reason you are not using the lower straps/attachments with the lower anchors?"

If Q28 was answered, the interviewer was instructed to skip to Q36.

Note: Attribute 5 (RF seat) refers to a child being seated in a rear-facing seat; rear-facing seats were specifically identified because most rear-facing seats are not manufactured to use tethers. Attribute 7 (Can't find) means that the driver was aware of the tether strap but couldn't find it on the CRS or couldn't find a vehicle tether anchor inside the vehicle.

Format Type: Number

Field Length: 3

(**If No**) what is the main reason for not using lower straps?

Response: 28.2 (Other, _____)

Data Set: CRS

SAS Name: WHYNO_LO

Label Name: Why not using the straps/LAS - other

Attribute Codes:
Remarks:

This attribute contains the driver's response to interview Question 28, "What is the main reason you are not using the lower straps/attachments with the lower anchors?" Attribute 28.2 "Other, _____."

If Q28 was answered, the interviewer was instructed to skip to Q36.

Format Type: Text

Field Length: 75

Question: 29 – (If yes), what is the main reason you are using them?
Data Set: CRS

The choices below identify the driver's response to interview Question 29, "(If yes), what is the main reason you are not using them?"

Question 29 was a "Check only one answer" question. **This question was answered only if the driver replied "Yes" to Question 27, "Are you using the lower anchor straps/attachments with the lower anchors?"** The interviewer did not read the attributes listed below, but selected the attribute that matched the driver's answer. If the driver provided an answer that fell outside the attributes listed below, it was captured in 29.2, "Other, _____." The next two pages of the manual provide detail on the specific attributes (29.1 – 29.2) that apply to this question.

The specific attributes (responses) on the survey for were:

29.1:   Law
       Safer
       Instructions
       Other, specify
       Don't know
       Didn't ask
       Refused
29.2:   Other, _____

(**If Yes**) what is the main reason for using them?

Response: **29.1 (Law, safer, instructions)**

Data Set: CRS

SAS Name: WHY_Y_L

Label Name: Reason using straps & LAS

Attribute Codes:

SAS	Description
1	Law
2	Safer
3	Instructions
7	Other, specify
.N	Not applicable
.U	Don't know
.E	Didn't ask
.R	Refused

Remarks:

The choices above identify the driver's response to interview Question 29, "What is the main reason that you are using them?"

Format Type: Number

Field Length: 3

Interview Form Restraints (1108)   (**If Yes**) what is the main reason for using them?

Response: **29.2 (Other, _____)**

Data Set: CRS

SAS Name: WHY_Y_LO

Label Name: Reason using straps & LAS - other

Attribute Codes:
Remarks:

This attribute contains the driver's response to interview Question 29, "What is the main reason that you are using them?" Attribute 29.2, "Other, _____."

Format Type: Text

Field Length: 75

Question: 30 – Who installed the seat with the lower anchors?

Data Set: CRS

The choices below identify the driver's response to interview Question 30, "Who installed the seat with the lower anchors?"

Question 30 was a "Check only one answer" question. The interviewer did not read the attributes listed below, but selected the attribute that matched the driver's answer. If the driver provided an answer that fell outside the attributes listed below, it was captured in 30.2, "Other, _____." The next two pages of the manual provide detail on the specific attributes (30.1 – 30.2) that apply to this question.

The specific attributes (responses) on the survey form were:

30.1:   Self
            Joint with others
            Partner/spouse/significant other
            Parent or other family member
            Friend or neighbor
            CPST
            Other, specify
            Don't know
            Didn't ask
            Refused
30.2:   Other, _____

Response: 30.1 (Self…CPST)

Data Set: CRS

SAS Name: ATT_L_W

Label Name: Who installed CRS with LAS

Attribute Codes:

SAS	Description
1	Self
2	Joint with others
3	Partner/spouse/significant other (skip to Q32)
4	Parent or other family member (skip to Q32)
5	Friend or neighbor (skip to Q32)
6	CPST (skip to Q32)
10	Other, specify
.N	Not applicable
.U	Don't know (skip to Q32)
.E	Didn't ask(skip to Q32)
.R	Refused (skip to Q32)

Remarks:

The choices above identify the driver's response to interview Question 30, "Who installed the seat with the lower anchors?"

If attributes 1 – 2 were selected, the interviewer was instructed to continue to Q31; if attributes 3 – 6 or .U, .E, .R were selected they were to skip to Q32.

Format Type: Number

Field Length: 3

Response: 30.2 (Other, _____)
Data Set: CRS

SAS Name: ATT_L_WO

Label Name: Who installed CRS with LAS - other

Attribute Codes:
Remarks:

This attribute contains the driver's response to interview Question 30, "Who installed the seat with the lower anchors?" Attribute 30.2, "Other, _____."

If 30.2, "Other, _____" was selected, the interviewer was instructed to skip to Q32.

Format Type: Text

Field Length: 75

Question: 31 – On a scale from 1 – 5 with 1 = very difficult and 5 = very easy, how difficult or easy did you find it to?

Data Set: CRS

Question 31 was broken into two parts asking how difficult or easy it was on a scale of 1 – 5 to do the following:

31.1   Install this seat using the lower anchors?

31.2   Get a tight fit?

The next two pages of the manual provide detail on the specific attributes (31.1 – 31.2) that apply to this question.

Response: 31.1 (Install this seat using lower anchors)

Data Set: CRS

SAS Name: ATT_L_E

Label Name: How easy is it to install CRS with LAS

Attribute Codes:

SAS	Description
#	1 - 5
.N	Not applicable
.U	Don't know
.E	Didn't ask
.R	Refused

Remarks:

This variable contains the driver's response to interview Question 31, "On a scale from 1 – 5 with 1 = very difficult and 5 = very easy, how difficult or easy did you find it to (31.1) install the seat using lower anchors?"

The interviewer was instructed to record the respondent's confidence level sequentially with 1 being very difficult and 5 being very easy.

Format Type: Number

Field Length: 3

Response: **31.2 (Get a tight fit)**

Data Set: CRS

SAS Name: TIT_L_E

Label Name: How easy is it to get a tight fit with LAS

Attribute Codes:

SAS	Description
#	1 - 5
.N	Not applicable
.U	Don't know
.E	Didn't ask
.R	Refused

Remarks:

This variable contains the driver's response to interview Question 31, "On a scale from 1 – 5 with 1 = very difficult and 5 = very easy, how difficult or easy did you find it to (31.2) get a tight fit?"

The interviewer was instructed to record the respondent's confidence level sequentially with 1 being very difficult and 5 being very easy.

Format Type: Number

Field Length: 3

Question: 32 – Have you ever uninstalled this seat after it had been installed with lower anchors?

Data Set: CRS

SAS Name: DISC_L

Label Name   Have you ever uninstalled CRS with LAS

Attribute Codes:

SAS	Description
0	No (skip to Q34)
1	Yes
.N	Not applicable
.U	Don't know (skip to Q34)
.E	Didn't ask(skip to Q34)
.R	Refused (skip to Q34)

Remarks:

This attribute contains the driver's response to interview Question 32, "Have you ever uninstalled this seat after it had been installed with lower anchors?"

If the driver answered "Yes" the interviewer was instructed to continue to Q33. If they said they haven't disconnected the lower anchors, they didn't know, they refused, or the question wasn't asked, the interviewer was instructed to skip to Q34.

Question 32 was a "Check only one" question.

Format Type: Number

Field Length: 3

Question: 33 – On a scale from 1 – 5 with 1 = very difficult and 5 = very easy, how difficult or easy did you find it to uninstall the seat (when using the lower anchors)?

Data Set: CRS

SAS Name: DISC_L_E

Label Name   Ease of disconnecting CRS with LAS

Attribute Codes:

SAS	Description
#	1 - 5
.N	Not applicable
.U	Don't know
.E	Didn't ask
.R	Refused

Remarks:

This variable contains the driver's response to interview Question 33, "On a scale from 1 – 5 with 1 = very difficult and 5 = very easy, how difficult or easy did you find it to uninstall the seat (when using the lower anchors)?"

The interviewer was instructed to record the respondent's confidence level sequentially with 1 being very difficult and 5 being very easy.

Format Type: Number

Field Length: 3

Question: 34 – Are you also using the safety belt to attach the seat?

Data Set: CRS

SAS Name: SB_ANDLA

Label Name   Are you also using the seat belt

Attribute Codes:

SAS	Description
0	No (skip to Q43)
1	Yes
.N	Not applicable
.U	Don't know (skip to Q43)
.E	Didn't ask(skip to Q43)
.R	Refused (skip to Q43)

Remarks:

This attribute contains the driver's response to interview Question 34, "Are you also using the safety belt to attach the seat?"

If the driver answered "Yes" the interviewer was instructed to continue to Q35. If they said they haven't disconnected the tether, they didn't know, they refused, or the question wasn't asked, the interviewer was instructed to skip to Q43.

Question 34 was a "Check only one" question.

Format Type: Number

Field Length: 3

Question: 35 – What is the main reason that you use both (i.e., SB and the lower anchors)?

Data Set: CRS

The choices below identify the driver's response to interview Question 35, "What is the main reason that you use both (i.e., SB and the lower anchors)?"

Question 35 was a "Check only one answer" question. The interviewer did not read the attributes listed below, but selected the attribute that matched the driver's answer. If the driver provided an answer that fell outside the attributes listed below, it was captured in 35.2, "Other, _____." The next two pages of the manual provide detail on the specific attributes (35.1 – 35.2) that apply to this question.

The specific attributes (responses) on the survey form were:

35.1:   Extra secureness or safety
            Believed it was necessary
            Other, specify
            Don't know
            Didn't ask
            Refused
35.2:   Other, _____

Response: 35.1 (Extra safety, believed it was necessary)

Data Set: CRS

SAS Name: WHYBTH

Label Name: Reason also using the seat belt

Attribute Codes:

SAS	Description
1	Extra secureness or safety (skip to Q39)
2	Believed it was necessary (skip to Q39)
6	Other, specify
.N	Not applicable
.U	Don't know (skip to Q39)
.E	Didn't ask(skip to Q39)
.R	Refused (skip to Q39)

Remarks:

The choices above identify the driver's response to interview Question 35, "What is the main reason that you use both (i.e., SB and the lower anchors)?"

The interviewer was instructed to skip to Q39 regardless of which attribute was selected for this question, because Q36 – Q38 were asked of those drivers that were only using seat belts to install the CRS in the vehicle (i.e., and not a seat belt and lower anchors).

Format Type: Number

Field Length: 3

Response: 35.2 (Other, _____)

Data Set: CRS

SAS Name: WHYBTH_O

Label Name: Reason also using the seat belt - other

Attribute Codes:

Remarks:

This attribute contains the driver's response to interview Question 35, "What is the main reason that you use both (i.e., SB and the lower anchors)?" Attribute 35.2 "Other, _____."

After specifying the driver's response, the interviewer was instructed to skip to Q39.

Format Type: Text

Field Length: 75

Question: 36 – Are you using the SB to attach the seat to the vehicle?

Data Set: CRS

SAS Name: SB_TOATT

Label Name   Are you using the SB to attach the CRS

Attribute Codes:

SAS	Description
0	No
1	Yes (skip to Q38)
.N	Not applicable
.U	Don't know (skip to Q43)
.E	Didn't ask(skip to Q43)
.R	Refused (skip to Q43)

Remarks:

This attribute contains the driver's response to interview Question 36, "Are you using the safety belt to attach the seat to the vehicle?"

If the driver answered "No" (i.e., not using the seat belt), the interviewer was instructed to continue to Q37. If the driver answered "Yes" the interviewer was instructed to skip to Q38. If the driver said they didn't know, refused, or the question wasn't asked, the interviewer was instructed to skip to Q43.

Question 36 was a "Check only one" question.

Format Type: Number

Field Length: 3

Question: 37 – (If no), what is the main reason you are not using the SB?

Data Set: CRS

The choices below identify the driver's response to interview Question 37, "(If no), what is the main reason you are not using the safety belt?"

Question 37 was a "Check only one answer" question. The interviewer did not read the attributes listed below, but selected the attribute that matched the driver's answer. **This question was answered only if the driver replied "No" to Question 36, "Are you using the safety belt to attach the seat to the vehicle."** If the driver provided an answer that fell outside the attributes listed below, it was captured in 37.2, "Other, _____." The next two pages of the manual provide detail on the specific attributes (37.1 – 37.2) that apply to this question.

After completing this question, the interviewer was instructed to skip to Q43.

The specific attributes (responses) on the survey form were:

37.1:   Didn't know about it
         Didn't think it was important
         Didn't know how to use it
         Too hard to use
         RF seat
         Over weight limit
         Can't find
         Other, specify
         Don't know
         Didn't ask
         Refused
37.2:   Other, _____

Response: **37.1 (Didn't know about it…can't find)**

Data Set: CRS

SAS Name: WHYNO_B

Label Name: Why aren't you using the SB

Attribute Codes:

SAS	Description
1	Didn't know about it (skip to Q43)
2	Didn't think it was important (skip to Q43)
3	Didn't know how to use it (skip to Q43)
4	Too hard to use (skip to Q43)
5	RF seat (skip to Q43)
6	Over weight limit (skip to Q43)
7	Can't find (skip to Q43)
8	Not applicable
10	Other, specify
.U	Don't know (skip to Q43)
.E	Didn't ask(skip to Q43)
.R	Refused (skip to Q43)

Remarks:

The choices above identify the driver's response to interview Question 37, "What is the main reason you are not using the safety belt?"

If Q37 was answered, the interviewer was instructed to skip to Q43.

Note: Attribute 5 (RF seat) refers to the child being seated in a rear-facing CRS, and Attribute 7 (Can't find) means that the driver was aware of the safety belt system but couldn't find it inside the vehicle.

Format Type: Number

Field Length: 3

Response:　　**37.2 (Other, _____)**

Data Set:　　　　　　CRS

SAS Name:　　　　　　WHYNO_BO

Label Name:　　　　　Why aren't you using the SB - other

Attribute Codes:

Remarks:

This attribute contains the driver's response to interview Question 37, "What is the main reason you are not using the safety belt?" Attribute 37.2 "Other, _____."

If Q37 was answered, the interviewer was instructed to skip to Q43.

Format Type:　　　Text

Field Length:　　　75

Question: 38 – (If yes), what is the main reason you are using the SB?
Data Set: CRS

The choices below identify the driver's response to interview Question 38, "(If yes), what is the main reason you are not using the safety belt?"

Question 38 was a "Check only one answer" question. The interviewer did not read the attributes listed below, but selected the attribute that matched the driver's answer. **This question was answered only if the driver replied "Yes" to Question 36, "Are you using the safety belt to attach the seat to the vehicle?"** If the driver provided an answer that fell outside the attributes listed below, it was captured in 38.2, "Other, _____." The next two pages of the manual provide detail on the specific attributes (38.1 – 38.2) that apply to this question.

The specific attributes (responses) on the survey form were:

38.1:   Law
         Safer
         Instructions
         Other, specify
         Don't know
         Didn't ask
         Refused
38.2:   Other, _____

Interview Form Restraints (1108)   (If **Yes**), what is the main that you are using the SB?

Response: **38.1 (Law, safer, instructions)**

Data Set: CRS

SAS Name: WHY_Y_SB

Label Name: Why are you using the belt

Attribute Codes:

SAS	Description
1	Law
2	Safer
3	Instructions
7	Other, specify
.N	Not applicable
.U	Don't know
.E	Didn't ask
.R	Refused

Remarks:

The choices above identify the driver's response to interview Question 38, "What is the main reason that you are using the safety belt?"

Format Type: Number

Field Length: 3

(If **Yes**), what is the main that you are using the SB?

Response: **38.2 (Other, _____)**

Data Set: CRS

SAS Name: WHY_Y_BO

Label Name: Why are you using the belt – other specify

Attribute Codes:
Remarks:

This attribute contains the driver's response to interview Question 38, "What is the main reason that you are using the safety belt?" Attribute 38.2 "Other, _____."

Format Type: Text

Field Length: 75

Question: 39 – Who installed the seat with the SB?

Data Set: CRS

The choices below identify the driver's response to interview Question 39, "Who installed the seat with the safety belt?"

Question 39 was a "Check only one answer" question. The interviewer did not read the attributes listed below, but selected the attribute that matched the driver's answer. If the driver provided an answer that fell outside the attributes listed below, it was captured in 39.2, "Other, _____." The next two pages of the manual provide detail on the specific attributes (39.1 – 39.2) that apply to this question.

The specific attributes (responses) on the survey form were:

39.1:   Self
           Joint with others
           Partner/spouse/significant other
           Parent or other family member
           Friend or neighbor
           CPST
           Other, specify
           Don't know
           Didn't ask
           Refused
39.2:   Other, _____

Response: 39.1 (Self…CPST)

Data Set: CRS

SAS Name: ATT_B_W

Label Name: Who installed CRS with SB

Attribute Codes:

SAS	Description
1	Self
2	Joint with others
3	Partner/spouse/significant other (skip to Q41)
4	Parent or other family member (skip to Q41)
5	Friend or neighbor (skip to Q41)
6	CPST (skip to Q41)
10	Other, specify
.N	Not applicable
.U	Don't know (skip to Q41)
.E	Didn't ask(skip to Q41)
.R	Refused (skip to Q41)

Remarks:

The choices above identify the driver's response to interview Question 39, "Who installed the seat with the safety belt?"

If attributes 1 – 2 were selected the interviewer was instructed to continue to Q40; if attributes 3 – 6 or .U, .E, .R were selected they were to skip to Q41.

Format Type: Number

Field Length: 3

Response: **39.2 (Other, _____)**

Data Set: CRS

SAS Name: ATT_B_WO

Label Name: Who installed CRS with SB - other

Attribute Codes:
Remarks:

This attribute contains the driver's response to interview Question 39, "Who installed the seat with the safety belt?" Attribute 39.2 "Other, _____."

If Q39 was answered the interview was instructed to skip to Q41.

Format Type: Text

Field Length: 75

Question: 40 – On a scale from 1 – 5 with 1 = very difficult and 5 = very easy, how difficult or easy did you find it to:

Data Set: CRS

Question 40 was broken into two parts asking how difficult or easy it was on a scale of 1 – 5 to do the following:

40.1   Install this seat using the seat belt?

40.2   Get a tight fit?

The next two pages of the manual provide detail on the specific attributes (40.1 – 40.2) that apply to this question.

Response: 40.1 (Install this seat using the seat belt)

Data Set: CRS

SAS Name: ATT_B_E

Label Name: Ease of installing with SB

Attribute Codes:

SAS	Description
#	1 – 5
.N	Not applicable
.U	Don't know
.E	Didn't ask
.R	Refused

Remarks:

This variable contains the driver's response to interview Question 40, "On a scale from 1 – 5 with 1 = very difficult and 5 = very easy, how difficult or easy did you find it to (40.1) install the seat using the safety belt?"

The interviewer was instructed to record the respondent's confidence level sequentially with 1 being very difficult and 5 being very easy.

Format Type: Number

Field Length: 3

Response: **40.2 (Get a tight fit)**

Data Set: CRS

SAS Name: TIT_B_E

Label Name: Ease of getting tight fit with SB

Attribute Codes:

SAS	Description
#	1 - 5
.N	Not applicable
.U	Don't know
.E	Didn't ask
.R	Refused

Remarks:

This variable contains the driver's response to interview Question 40, "On a scale from 1 – 5 with 1 = very difficult and 5 = very easy, how difficult or easy did you find it to (40.2) get a tight fit?"

The interviewer was instructed to record the respondent's confidence level sequentially with 1 being very difficult and 5 being very easy.

Format Type: Number

Field Length: 3

Question: 41 – Have you ever uninstalled this seat after it had been installed with the seat belt?

Data Set: CRS

SAS Name: DISC_B

Label Name   Have you ever uninstalled CRS with SB

Attribute Codes:

SAS	Description
0	No (skip to Q43)
1	Yes
.N	Not applicable
.U	Don't know (skip to Q43)
.E	Didn't ask(skip to Q43)
.R	Refused (skip to Q43)

Remarks:

This attribute contains the driver's response to interview Question 41, "Have you ever uninstalled this seat after it had been installed with the safety belt?"

If the driver answered "Yes" the interviewer was instructed to continue to Q42. If they said they haven't disconnected the CRS that had been installed with the safety belt, they didn't know, they refused, or the question wasn't asked, the interviewer was instructed to skip to Q43.

Question 41 was a "Check only one" question.

Format Type: Number

Field Length: 3

Question: 42 – On a scale from 1 – 5 with 1 = very difficult and 5 = very easy, how difficult or easy did you find it to uninstall the seat when using the seat belt?

Data Set: CRS

SAS Name: DISC_B_E

Label Name   Ease of uninstalling CRS with SB

Attribute Codes:

SAS	Description
#	1 - 5
.N	Not applicable
.U	Don't know
.E	Didn't ask
.R	Refused

Remarks:

This variable contains the driver's response to interview Question 42, "On a scale from 1 – 5 with 1 = very difficult and 5 = very easy, how difficult or easy did you find it to uninstall the seat when using a safety belt?"

The interviewer was instructed to record the respondent's confidence level sequentially with 1 being very difficult and 5 being very easy.

Format Type: Number

Field Length: 3

Question: 43 – Have you ever used any of the following with this or another child safety seat in this vehicle?

Data Set: DRIV

Question 43 was broken into three parts asking if the driver had ever used any of the following child restraint devices in his/her vehicle:

43.1   Tether anchor?

43.2   Lower anchors?

43.3   Seat belt?

The next three pages of the manual provide detail on the specific attributes (43.1 – 43.3) that apply to this question.

Response: **43.1 (Tether anchor)**

Data Set: DRIV

SAS Name: EVER_Y_T

Label Name: Used with any CRS in this vehicle – tether anchor

Attribute Codes:

SAS	Description
0	No
1	Yes
.U	Don't know
.E	Didn't ask
.R	Refused

Remarks:

This variable contains the driver's response to interview Question 43, "Have you ever used any of the following with this or another CRS in this vehicle?" (43.1) "Tether anchor?"

Format Type: Number

Field Length: 3

Response: 43.2 (Lower anchors)

Data Set: DRIV

SAS Name: EVER_Y_L

Label Name: Used with any CRS in this vehicle – LA

Attribute Codes:

SAS	Description
0	No
1	Yes
.U	Don't know
.E	Didn't ask
.R	Refused

Remarks:

This variable contains the driver's response to interview Question 43, "Have you ever used any of the following with this or another CRS in this vehicle?" (43.2) "Lower anchors?"

If the driver responded "Yes" to both Q43.2 and 43.3 the interviewer was instructed to continue to Q44; otherwise, they were instructed to skip to Q46.

Format Type: Number

Field Length: 3

Response:　　　**43.3 (Seat belt)**

Data Set:　　　　　　DRIV

SAS Name:　　　　　　EVER_Y_B

Label Name:　　　　　Used with any CRS in this vehicle – SB

Attribute Codes:

SAS	Description
0	No
1	Yes
.U	Don't know
.E	Didn't ask
.R	Refused

Remarks:

This variable contains the driver's response to interview Question 43, "Have you ever used any of the following with this or another CRS in this vehicle?" (43.3) "Safety belt?"

If the driver responded "Yes" to both Q43.2 and 43.3 the interviewer was instructed to continue to Q44; otherwise, they were instructed to skip to Q46.

Format Type:　　　　Number

Field Length:　　　　3

Question: 44 – Do you prefer using lower anchors or seat belts?

Data Set: DRIV

SAS Name: LA_SB_LK

Label Name   Do you prefer LA or SB

Attribute Codes:

SAS	Description
1	Lower anchors
2	Safety belts
3	Both
.N	Not applicable
.U	Don't know
.E	Didn't ask
.R	Refused

Remarks:

This attribute contains the driver's response to interview Question 44, "Do you prefer using lower anchors of safety belts?"

Question 44 was a "Check only one" question.

Format Type: Number

Field Length: 3

Question: 45 – Is it easier to attach a seat to the vehicle with the lower anchors or vehicle safety belt?

Data Set: DRIV

SAS Name: LA_SB_E

Label Name   Is it easier to use the LA or SB

Attribute Codes:

SAS	Description
1	Lower anchors
2	Safety belts
3	Both
.N	Not applicable
.U	Don't know
.E	Didn't ask
.R	Refused

Remarks:

This attribute contains the driver's response to interview Question 45, "Is it easier to attach a seat to the vehicle with the lower anchors or vehicle safety belt?"

Question 45 was a "Check only one" question.

Format Type: Number

Field Length: 3

Question: 46 – If you have ever driven somewhere when a child in the vehicle was not secured in a child safety seat or booster, describe the primary reason

Data Set: DRIV

The choices below identify the driver's response to interview Question 46, "If you have ever driven somewhere when a child was unrestrained in a CRS, describe the primary reason."

Question 46 was a "Check only one answer" question. The interviewer did not read the attributes listed below, but selected the attribute that matched the driver's answer. If the driver provided an answer that fell outside the attributes listed below, it was captured in 46.2, "Other, _____." The next two pages of the manual provide detail on the specific attributes (46.1 – 46.2) that apply to this question.

The specific attributes (responses) on the survey form were:

46.1:   Never have
          Short trip
          Child unbuckled self
          No seat/booster in the vehicle
          Forgot to check
          Too many passengers in the vehicle
          Child does not cooperate
          Other, specify
          Don't know
          Didn't ask
          Refused
46.2:   Other, _____

Response: 46.1 (Never have…Child does not cooperate)

Data Set: DRIV

SAS Name: WHY_NO

Label Name: Reason drove with unsecured child

Attribute Codes:

SAS	Description
1	Never have
2	Short trip
3	Child unbuckled self
4	No seat/booster in vehicle
5	Forgot to check
6	Too many passengers in the vehicle
7	Child does not cooperate
11	Other, specify
.U	Don't know
.E	Didn't ask
.R	Refused

Remarks:

The choices above identify the driver's response to interview Question 46, "If you have ever driven somewhere when a child was unrestrained in a CRS, describe the primary reason."

Format Type: Number

Field Length: 3

Response: 46.2 (Other, _____)

Data Set: DRIV

SAS Name: WHY_NO_O

Label Name: Reason drove with unsecured child - other

Attribute Codes:
Remarks:

This attribute contains the driver's response to interview Question 46, "If you have ever driven somewhere when a child was unrestrained in a CRS, describe the primary reason." Attribute 46.2 "Other, _____."

Format Type: Text

Field Length: 75

Question   47 – Gender (Do by observation)

Data Set: DRIV

SAS Name: GNDR_OBS

Label Name: Gender of driver

Attribute Codes:

SAS	Description
1	Male
2	Female

Remarks:

The interviewer determined (by observation) the gender of the driver.

Format Type: Number

Field Length: 3

Question: 48 – Are you of Hispanic or Latino origin?

Data Set: DRIV

SAS Name: HISP_DR

Label Name   Hispanic origin of driver

Attribute Codes:

SAS	Description
0	No
1	Yes
.U	Don't know
.E	Didn't ask
.R	Refused

Remarks:

This attribute contains the driver's response to interview Question 48, "Are you of Hispanic or Latino origin?"

Format Type: Number

Field Length: 3

Question: 49 – Which of the following best describes your race?

Data Set: DRIV

Remarks:

This variable contains the driver's response to interview Question 49, "Which of the following best describes your race?"

Question 49 was a "Check all that apply" question. Interviewers were instructed to read the options provided, and to check all the choices the respondent selected. The next seven pages of the manual provide detail on the specific attributes (questions 49.1 – 49.7) that apply to this question.

The specific attributes (responses) are defined as follows:

49.1:   White

49.2:   Black or African-American

49.3:   Asian

49.4:   Native Hawaiian/Other Pacific Islander

49.5:   American Indian/Alaska Native

49.6:   Other

49.7:   Other, _____

Don't know, Didn't ask, and Refused are captured within the other attributes within this question and are not outlined separately in this section

Response: 49.1 (White)

Data Set: DRIV

SAS Name: RACE_DWH

Label Name: Drivers race - White

Attribute Codes:

SAS	Description
0	No
1	Yes
.U	Don't know
.E	Didn't ask
.R	Refused

Remarks:

This variable contains the driver's response to interview Question 49, "Which of the following best describes your race?" (49.1) "White."

Question 49 was a "Check all that apply" question and interviewers were instructed to check all of the attributes that the respondent mentioned in reply to this question.

Format Type: Number

Field Length: 3

Response: 49.2 (Black or African-American)

Data Set: DRIV

SAS Name: RACE_DBA

Label Name: Drivers race - Black

Attribute Codes:

SAS	Description
0	No
1	Yes
.U	Don't know
.E	Didn't ask
.R	Refused

Remarks:

This variable contains the driver's response to interview Question 49, "Which of the following best describes your race?" (49.2) "Black or African-American."

Question 49 was a "Check all that apply" question and interviewers were instructed to check all of the attributes that the respondent mentioned in reply to this question.

Format Type: Number

Field Length: 3

Response:　49.3 (Asian)

Data Set:　　　　DRIV

SAS Name:　　　　RACE_DAS

Label Name:　　　　Drivers race – Asian

Attribute Codes:

SAS	Description
0	No
1	Yes
.U	Don't know
.E	Didn't ask
.R	Refused

Remarks:

This variable contains the driver's response to interview Question 49, "Which of the following best describes your race?" (49.3) "Asian."

Question 49 was a "Check all that apply" question and interviewers were instructed to check all of the attributes that the respondent mentioned in reply to this question.

Format Type:　　　　Number

Field Length:　　　　3

Response: **49.4 (Native Hawaiian/Pacific Islander)**

Data Set: DRIV

SAS Name: RACE_DNH

Label Name: Drivers race – Native Hawaiian/Other Pacific Islander

Attribute Codes:

SAS	Description
0	No
1	Yes
.U	Don't know
.E	Didn't ask
.R	Refused

Remarks:

This variable contains the driver's response to interview Question 49, "Which of the following best describes your race?" (49.4) "Native Hawaiian/Other Pacific Islander."

Question 49 was a "Check all that apply" question and interviewers were instructed to check all of the attributes that the respondent mentioned in reply to this question.

Format Type: Number

Field Length: 3

Response: **49.5 (American Indian/Alaska Native)**

Data Set: DRIV

SAS Name: RACE_DAL

Label Name: Drivers race – American Indian/Alaska Native

Attribute Codes:

SAS	Description
0	No
1	Yes
.U	Don't know
.E	Didn't ask
.R	Refused

Remarks:

This variable contains the driver's response to interview Question 49, "Which of the following best describes your race?" (49.5) "American Indian/Alaska Native."

Question 49 was a "Check all that apply" question and interviewers were instructed to check all of the attributes that the respondent mentioned in reply to this question.

Format Type: Number

Field Length: 3

Response:　　**49.6 (Other)**

Data Set:　　　　　　DRIV

SAS Name:　　　　　　RACE_DO

Label Name:　　　　　Drivers race – other

Attribute Codes:

SAS	Description
0	No
1	Yes
.U	Don't know
.E	Didn't ask
.R	Refused

Remarks:

This variable contains the driver's response to interview Question 49, "Which of the following best describes your race?" (49.6) "Other."

Question 49 was a "Check all that apply" question and interviewers were instructed to check all of the attributes that the respondent mentioned in reply to this question.

If the driver indicated that they were another race that fell outside the provided attributes 49.1 – 49.5, the interviewer was instructed to check "Other."

Format Type:　　　Number

Field Length:　　　3

Response: **49.6.1 (Other, _____)**

Data Set: DRIV

SAS Name: RACE_DOS

Label Name: Drivers race – other, _____

Remarks:

This variable contains the driver's response to interview Question 49, "Which of the following best describes your race?" (49.6.1) "Other, _____."

Question 49 was a "Check all that apply" question and interviewers were instructed to check all of the attributes that the respondent mentioned in reply to this question.

Race was captured for those drivers who indicated that they were another race that fell outside the provided attributes 49.1 – 49.5, and who specified their race.

Format Type: Text

Field Length: 75

Question   50 – Do you mind telling me your age?

Data Set: DRIV

SAS Name: AGE_DR

Label Name: Age of driver

Range: 16 – 82

Attribute Codes:

SAS	Description
#	Age provided by driver
.E	Didn't ask
.R	Refused

Remarks:

The interviewer recorded the age of the driver.

Format Type: Number

Field Length: 3

Question   51 – Would you prefer to point to your age range?

Data Set: DRIV

SAS Name: AGEGRP_D

Label Name: Age Range - Driver

Attribute Codes:

SAS	Description
1	13 – 19
2	20 – 29
3	30 – 39
4	40 – 49
5	50 – 59
6	60 – 69
7	70 – 79
8	80+
.N	Not applicable
.U	Don't know
.E	Didn't ask
.R	Refused

Remarks:

The choices above identify the driver's response to interview Question 51, "Would you prefer to point to your age range?"

This question was completed if the driver refused to reveal their age in Q50; otherwise, it was skipped.

Format Type: Number

Field Length: 3

Question   52 – Interview completed

Data Set: DRIV

SAS Name: INT_COMP

Label Name: Interview completed

Attribute Codes:

SAS	Description
0	No
1	Yes

Remarks:

The interviewer recorded whether the interview was completed.

Format Type: Number

Field Length: 3

Question: 53 – Time completed

Data Set: DRIV

SAS Name: END_I

Label Name: Interview end time

Attribute Codes:

Range: 06:09 – 19:50, 22:22

Remarks:

The interviewer recorded the time the interview was completed in military time.

22:22 = Not recorded

Format Type: Number

Field Length: 4

Question: N/A (Sampling weight)

Data Set: CRS

SAS Name: SAMPWGT

Label Name   Sampling Weight

Range: 6.354 – 54873.984

Remarks:

This data element is not drawn from the data collection form, but is used to produce national estimates from the SAS dataset related to the form. See Appendix E: Statistical Methods for more information.

Format Type: Number

Field Length: 3

Question: **N/A (**Primary Sampling Unit stratum)

Data Set: CRS

SAS Name: PSUSTRAT

Label Name   Primary Sampling Unit Stratum

Range: 1 – 12

Remarks:

This data element is not drawn from the data collection form, but is used to calculate standard errors of national estimates from the SAS dataset related to the form. See *Appendix E: Statistical Methods* for more information.

Format Type: Number

Field Length: 3

Observation Form (1109) – Non Response

NHTSA Form 1109
Form Approved O.M.B. No. 2127-0642
Expiration Date: 3/31/14

**OBSERVATION FORM
NON-RESPONSE**
(4/08/11)

United States Department of Transportation
National Highway Traffic Safety Administration

National Automotive Sampling System
National Child Restraint Use – Special Study

(Site Information)

1. Primary Sampling Unit Number: _____ _____

2. Site Number: _____ _____ _____ _____ _____ _____

3. Observation Number: _____ _____

4. Date of Observation: _____ / _____ /2011

FOLLOWING ITEMS ARE **ONLY OBTAINED BY OBSERVATION** – *DO NOT CHANGE IF RECEIVE ADDITIONAL DATA*

----

5. Contact Characteristics
  1) Start Time: _____
  2) Driver Replies in:
    a ○ English
    b ○ Spanish
    c ○ Other
  3) Contact Status:
    a ○ Refused
    b ○ Agreed
    c ○ No child < 9 Years
    d ○ Language Problem

OBSERVATION INFORMATION (Select one answer for each of the following items)

6. Driver Age
  1) ○ Young Adult (16-24 years)
  2) ○ Adult (25-69 years)
  3) ○ Senior (70+ years)
  4) ○ Unknown

7. Driver Gender
  1) ○ Male
  2) ○ Female
  3) ○ Unknown

8. Driver Restraint Use
  1) ○ L-S
  2) ○ L
  3) ○ S
  4) ○ None
  5) ○ Unknown

9. # < 9 Yrs. in Vehicle: _____

10. # < 9 Yrs. Unrestrained: _____ ○ DK

11. # 9 Yrs. & over/Vehicle: _____ ○ DK
(Including the driver)

12. Vehicle Type
  1) ○ Auto
  2) ○ Minivan or van
  3) ○ SUV
  4) ○ Pick-up truck
  5) ○ Unknown

The Observation Form Non-Response (OBSN - NHTSA 1109) was for collecting general data on the participants who agreed to take part in the NCRUSS as well as those who refused. This form was completed by observation only. The interviewers were instructed not to change any of their observations after learning more during the subsequent interview process.

This form contained 12 questions (observations) limited to general information such as the driver's demographic data, the language in which the driver spoke, whether he/she agreed to the study or refused, if he/she was restrained, how many additional occupants were in the vehicle, if they were restrained, and the type of vehicle they were in at the time of the observation.

Note: *The Observation Form-Non-Response was used by the CPSTs to collect observational data on the vehicles and their occupants for use in later adjustments for non-response bias—bias that is introduced by drivers who refuse to participate in the survey. This data was collected whether or not the drivers agreed to cooperate in the study. When an Interviewer approached a driver to obtain the driver's cooperation, the CPST would observe the interaction and log information about it, the driver, the number of passengers in the vehicle, and the vehicle body type.*

Question: 1 – Primary Sampling Unit number

Data Set: NR

SAS Name: PSU

Label Name: Primary Sampling Unit

Attribute Codes:

Range: 02 - 82

Remarks:

NCRUSS used the CDS sites for data collection. The CDS consists of 24 statistically representative PSU's located throughout the country.[10] The PSUs have been assigned two-digit identifying numbers that range from 02 to 82.

For more information on the CDS, refer to the 2014 CDS Analytical User's Manual (Report No. DOT HS 812 198) at http://www-nrd.nhtsa.dot.gov/Pubs/812198.pdf.

Format Type: Number

Field Length: 3

---

[10] Additional information about the NASS CDS PSUs can be found in Appendix F of the 2014 NASS CDS Analytical User's Manual at http://www-nrd.nhtsa.dot.gov/Pubs/812198.pdf. Demographic data on the 24 PSUs have been included in Appendix F to give researchers supplementary information on the nature of the PSUs.

Question: 2 – Site Number

Data Set: NR

SAS Name: SITEID

Label Name: Site Number

Attribute Codes:

Range: 021103 - 823223

Remarks:

This is a unique six-digit identification number that was generated during the sampling process by NHTSA for use during data collection. This number, using the format below, identifies the location where the data was collected and provides additional information about each of the sites. Data was collected at each of the sites for only one 3-hour data collection time period. In rare instances, the same site was collected a second time. This occurred mainly in rural areas that contained fewer potential sites.

The first two digits are the assigned PSU number (refer to the Background section beginning on page 1).
The third digit is the stratum.
The fourth digit is an indicator, 1 for sample, 2 for shadow sample, and 3 for extension sample.
The fifth and sixth digits are the site number (a sequential count of sites visited within a PSU).

The following is an example of how the site number was constructed for site 082220:

PSU number (08) | stratum (2) | sample indicator (2) | site number (20)

For more information on this topic refer to the **Sampling Design** on page 2 of this manual.

Format Type: Number

Field Length: 6

Question: 3 – Observation Number

Data Set: NR

SAS Name: OBS

Label Name: Observation Number

Attribute Codes:

Range: 01 - 34

Remarks:

An observation number is assigned for each vehicle that is approached regardless of whether the driver agrees to participate in the survey. Accordingly, numbers are assigned not only to vehicles from which a completed interview is obtained, but also to vehicles from which interviews are not conducted/completed (e.g., the drivers do not agree to participate and/or all occupants are older than 8).

At each data collection site, numbering begins at 01 and continues consecutively until all vehicles are given numbers. The highest number of observations recorded for any one session was 34.

Format Type: Number

Field Length: 3

Question:　4 – Date of observation

Data Set:　　　　　　NR

SAS Name:　　　　　DATE

Label Name:　　　　Observation Date

Attribute Codes:

Range:　　　　　　06/01/2011 – 07/29/2011

Remarks:

This is the date the observation was made.

Format Type:　　　Text

Field Length:　10

Question   5 – Contact characteristics
Remarks:

This question identifies the non-response observations of Question 5, "Contact characteristics"

Question 5 was broken into the following three parts:

       5.1:   Start time

       5.2:   Driver replied in

       5.3:   Contact status

The next three pages of the manual provide detail on the specific attributes (attributes 5.1 – 5.3) that apply to this question.

Response: **5.1 (Start time)**

Data Set: NR

SAS Name: START_O

Label Name   Time Start

Attribute Codes:

Range: 05:45 – 19:45, 22:22

Remarks:

The time the observation was made (in military time).

22:22 = Not recorded

Format Type: Text

Field Length: 6

Response: **5.2 (Driver replies in)**

Data Set: NR

SAS Name: LANG_O

Label Name   Interview language (Non-Response)

Attribute Codes:

SAS	Description
1	English
2	Spanish
3	Other

Remarks:

This identifies the non-response observation of Q5, "Contact characteristics" Attribute 5.2 "Driver replies in."

Format Type: Number

Field Length: 3

Response: **5.3 (Contact status)**

Data Set: NR

SAS Name: INTSTAT

Label Name   Interview status

Attribute Codes:

SAS	Description
1	Refused
2	Agreed
3	No child < 9 years
4	Language problem

Remarks:

This identifies the non-response observation of Q5, "Contact characteristics" Attribute 5.3 "Contact status."

Format Type: Number

Field Length: 3

Question   6 – Driver age

Data Set: NR

SAS Name: DRIVAGE

Label Name   Driver age

Attribute Codes:

SAS	Description
1	Young adult (16 to 24 years old)
2	Adult (25to 69 years old)
3	Senior (70+ years old)
.U	Unknown

Remarks:

This question identifies the non-response observation of Q6, "Driver age."

Format Type: Number

Field Length: 3

Question   7 – Driver gender

Data Set: NR

SAS Name: DRIVGEN

Label Name   Driver gender

Attribute Codes:

SAS	Description
1	Male
2	Female
.U	Unknown

Remarks:

This question identifies the non-response observation of Q7, "Driver gender."

Format Type: Number

Field Length: 3

Question   8 – Driver restraint use

Data Set: NR

SAS Name: DRIVREST

Label Name   Driver restraint use

Attribute Codes:

SAS	Description
0	None
1	L-S
2	L
3	S
.E	Did not ask
.N	Not applicable
.R	Refused
.U	Unknown

Remarks:

This question identifies the non-response observation of Q8, "Driver restraint use."

L-S = Lap and shoulder belt

L = Lap belt

S = Shoulder belt

Format Type: Number

Field Length: 3

Question: 9 – # < 9 years in vehicle?

Data Set: NR

SAS Name: NUMCHILD

Label Name: Number Of Children - NR

Range: 0 – 6

Attribute Codes:

#	Enter the number of children < 9 years
.U	Unknown

Remarks:

Enter the number of children **under** 9 years old in the vehicle.

Format Type: Number

Field Length: 3

Question: 10 – # < 9 years unrestrained?

Data Set: NR

SAS Name: UNREST

Label Name: Number unrestrained children

Range: 0 – 9

Attribute Codes:

#	Enter the number of children < 9 years unrestrained
.U	Unknown

Remarks:

Enter the number of children **under** 9 years old in the vehicle who were unrestrained.

Format Type: Number

Field Length: 3

Question: 11 – # 9 years & over/vehicle?

Data Set: NR

SAS Name: NUMADULT

Label Name: Number adults/teens

Range: 0 – 7

Attribute Codes:

#	Enter the number of adults/teens in vehicle
.U	Unknown

Remarks:

Enter the number of occupants 9 years old and older in the vehicle, including the driver.

Format Type: Number

Field Length: 3

Question   12 – Vehicle type

Data Set: NR

SAS Name: VEHTYPE

Label Name   Vehicle type

Attribute Codes:

SAS	Description
1	Auto
2	Minivan or van
3	SUV
4	Pickup truck
.U	Unknown

Remarks:

This question identifies the non-response observation of Q12, "Vehicle type"

Format Type: Number

Field Length: 3

Inspection Form – Restraints (1110)

Paperwork Reduction Act Burden Statement

A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB Control Number. The OMB Control Number for this information collection is 2127-0642. Public reporting for this collection of information is estimated to be approximately 15 minutes per response, including the time for reviewing instructions, completing and reviewing the collection of information. All responses to this collection of information are voluntary. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to: Information Collection Clearance Officer, National Highway Traffic Safety Administration, 1200 New Jersey Ave, S.E., Washington, DC, 20590.   NHTSA Form 1110

United States Department of Transportation
National Highway Traffic Safety Administration

Inspection Form
Restraints
(5/19/11)

Form Approved O.M.B. No. 2127-0642
Expiration Date: 3/31/14

National Automotive Sampling System
National Child Restraint Use – Special Study

1. Primary Sampling Unit Number: ____ ____	2. Site Number: ____ ____ ____ ____ ____
3. Observation Number: ____ ____	4. Date of Observation: ____/____/2011

Specific Seating Position – *Randomly select one child <9 to observe*

5. Seating position observed? *(circle)*	Front Seating Positions Only (i.e., 12, 13)
12 13 21 22 23 31 32 33 Other _____	6. Right frontal airbag? 1 O Yes 2 O No *(Skip to Q8)* 7. Air bag switch? 1 O On 2 O Off 3 O Not available

8. Location of child (or CRS, if used)	1 O Vehicle seat 2 O Floor 3 O Lap of occupant 4 O Other
9. Restraint type used?	1 O CRS/device 2 O Seat belt only *(Skip to Q13)* 3 O None *(Skip to vehicle form)*
10. CRS type/mode used?	1 O Infant seat with base 6 O Backless BP booster 2 O Infant seat with no base 7 O Shield booster 3 O RF convertible/all-in-one 8 O Car bed 4 O FF with harness/shield 9 O Vest 5 O Highback BP booster (no harness) 10 O Other device
11. Does the CRS have a harness? *(If Car Bed, Vest or Other, go to next form.)*	1 O Yes *(Skip to Q22)* 3 O No *(If RF CRS, skip to Q35)* 2 O No *(If booster, complete following section)*

Booster Seats or Adult Seat Belts – *While Child Restrained*

A

12. Booster: Is the seat belt routed through the belt-positioning guides/channels?	1 O Yes 2 O No 3 O NA/No booster 4 O Unknown
13. Is the seat belt buckled?	1 O Yes 2 O No 3 O Unknown
14. Is the child's head supported?	1 O Yes, CRS supports head 3 O No, head is above vehicle seat back 2 O Yes, vehicle supports head 4 O Unknown
15. Is the child sitting against seat back?	1 O Yes, against CRS 3 O No, child leaning forward/slouching 2 O Yes, against vehicle seat back 4 O Unknown
16. Is the shoulder belt loose/slack?	1 O Yes 2 O No 3 O NA/no shoulder belt 4 O Unknown
17. Shoulder belt position	1 O Over body--centered on shoulder 5 O Behind arm or back 2 O Over body--touching shoulder 6 O NA/no shoulder belt 3 O Over body--below shoulder/around arm 7 O Unknown 4 O Over body--above shoulder at neck/face
18. Adjustable D-ring on shoulder belt?	1 O Yes 2 O No 3 O NA/no shoulder belt 4 O Unknown
19. Is the lap belt loose/slack?	1 O Yes 2 O No 3 O NA/no shoulder belt 4 O Unknown
20. Lap belt position	1 O Across hips/thighs 3 O NA/lap belt not used 2 O Across abdomen/ribcage 4 O Unknown
21. Booster: Does the booster have a lower anchor connector? *(If SB, go to next form)*	1 O Yes *(Skip to Q61)* 3 O NA/no booster *(Skip to Q68)* 2 O No *(Skip to Q68)* 4 O Unknown *(Skip to Q68)*

All RF and FF harnessed CRSs – Harness Type and Use – *While Child Restrained*

B

22. Harness/shield type on CRS	1 O 3-point/V type 3 O T-shield 2 O 5-point 4 O Tray-shield
23. Is the harness or shield *in use*?	1 O Yes 2 O No 3 O Unknown
24. Is the harness strap buckled?	1 O Yes 2 O No, 1 or more unbuckled 3 O Unknown
25. Retainer/chest clip *available*?	1 O Yes 2 O No *(Skip to Q27)*
26. Is the harness retainer/chest clip *used*?	1 O Used, chest/armpit 4 O Not used 2 O Used, abdomen 5 O Unknown 3 O Used, neck level
27. Position of the harness straps	1 O Both straps over shoulders/body 3 O Unknown 2 O 1 or more straps behind arm/back/leg
28. Snugness of harness straps	1 Amount of slack when pinched _____ inch(es) *(Enter 0 if no slack)*
29. Twisted harness strap(s)	1 O Yes 2 O No
30. Type of harness slots?	1 O Sliding adjustment – no slots 4 O Slots – lowest used 2 O Slots – uppermost used 5 O Slots – different levels used 3 O Slots – middle used
31. Where is the harness slot in relation to the child's left shoulder?	1 O At the left shoulder 3 O Below the left shoulder:____ inch(es) 2 O Above the left shoulder: _____ inch(es) 4 O Unknown
32. … right shoulder?	1 O At the right shoulder 3 O Below the right shoulder:___ inch(es) 2 O Above the right shoulder: _____ inch(es) 4 O Unknown
33. Where is the top of the child's head in relation to the top of the CRS?	1 O At the top 3 O Below the top: _____ inch(es) 2 O Above the top: _____ inch(es) 4 O Unknown
34. Top of ears above the shell of the CRS?	1 O Yes 2 O No 3 O Unknown

All RF and FF harnessed seats – *Installation*

C

35. Direction of CRS	1 O Rear-facing 4 O Side-facing 2 O Forward-facing 5 O Other 3 O Supine (facing up)
36. Does CRS base footprint hang over the vehicle seat?	1 O Yes *(Take measurements)* 2 O No Length of CRS base (front to back) _____ inch(es) Length of CRS base that is off the vehicle seat _____ inch(es)
37. What is the lower attachment of the CRS to the vehicle?	1 O Lower anchor strap(s) 4 O Other method of attachment 2 O Seat belt for this seating position 5 O Integrated 3 O Both LA & SB for this seating position 6 O Not attached
38. How much does CRS move laterally when pushed or pulled at the belt path?	1 Amount of movement at base _____ inch(es) *(Note: do not move CRS more than 3 inches)*
39. FF only: Is the CRS against the vehicle seat back? *(All that apply)*	1 ☐ Yes, most of CRS contacts vehicle seat 4 ☐ NA/RF seat 2 ☐ No, seat back contour 5 ☐ No, other _____ 3 ☐ No, head restraint interference

249

PSU #_____ ____   Site # _____ _____   OBS # _____ _____   Date____/____/____   NHTSA Form 1110

40. RF only: Is the back of the CRS touching the front seat?	1 ○ Yes 2 ○ No	3 ○ NA/FF seat
41. RF only: Amount of recline in child seat?	1 ○ upright – not reclined 2 ○ up to 30 degrees 3 ○ between 30-45	4 ○ approx 45 degrees 5 ○ more than 45 degrees
42. RF only: Method used to adjust angle?	1 ☐ None or not reclined 2 ☐ Rolled towel(s) 3 ☐ CR's angle adjustor	4 ☐ Noodle(s) 5 ☐ Other method (not part of CRS) _____

All RF and FF harnessed seats – CRS hardware and tether use

D

43. Lower attachment type available on the CRS	1 ○ Flexible strap 2 ○ Rigid	3 ○ Unknown 4 ○ None (Skip to Q46)
44. Lower connector type	1 ○ Hook-on 2 ○ Push-on	3 ○ Unknown 4 ○ None
45. Lower connector adjustment	1 ○ Latchplate 2 ○ Button-release	3 ○ Automatic (e.g., SureLATCH) 4 ○ Unknown
46. Top tether adjustment	1 ○ Latchplate 2 ○ Button-release 3 ○ Unknown 4 ○ No Tether (Skip to Q52)	
47. Top tether in use?	1 ○ Yes 2 ○ No, Stowed 3 ○ No, Hangs Loose 4 ○ Dk (If No or DK, Skip to Q52)	
48. Top tether tightness	1 Amount of slack in tether when pinched _____ inch(es) (Enter 0 if none)	
49. What is the tether attached to?	1 ○ Tether anchor for this seating position 4 ○ Locked seat belt in back 2 ○ Tether anchor for another SP 5 ○ Cannot tell 3 ○ Secure location in front (Swedish) 6 ○ Other attachment_____	
50. How is the top tether strap routed?	1 ○ Over integral/no head restraint 4 ○ Under adjustable head restraint 2 ○ Over raised adjustable head restraint 5 ○ Around headrest 3 ○ Over down adjustable head restraint 6 ○ Other routing _____	
51. Top tether strap twisted?	1 ○ Yes 2 ○ No	

All Seat Belt Installed CRSs

E

52. Seat belt used to install?	1 ○ Yes (Complete this section)	2 ○ No (Skip to Q61)
53. Seat belt routing	1 ○ Forward-facing slots/channels 2 ○ Rear-facing slots/channels	3 ○ Other unconventional routing 4 ○ Unknown
54. Is the seat belt twisted?	1 ○ Yes 2 ○ No	3 ○ Unknown
55. Is the seat belt buckled?	1 ○ Yes 2 ○ No	3 ○ Unknown
56. Latch plate type on seat belt	1 ○ Sliding 2 ○ Switchable-locked 3 ○ Switchable-not locked	4 ○ Locking or lightweight locking 5 ○ Sewn-on 6 ○ Unknown
57. Use of locking clip	1 ○ None present 2 ○ Used on lap/shoulder, within 1 in 3 ○ Used on lap/shoulder, > 1 in	4 ○ Used only on lap 5 ○ Used only on shoulder 6 ○ Other use _____
58. Seat belt retractor	1 ○ Locked (ALR mode) 2 ○ Not locked (ELR mode) 3 ○ Unknown 4 ○ None	
59. CRS lockoff available?	1 ○ Yes 2 ○ No (Skip to Q61) 3 ○ Unknown (Skip to Q61)	
60. CRS lockoff in use?	1 ○ Yes 2 ○ No 3 ○ Unknown	

All LATCH Installed CRSs

F

61. Lower anchor(s) used to install?	1 ○ Yes (Complete this section)	2 ○ No (Skip to 68)
62. Lower anchor strap routing	1 ○ Forward-facing slots/channels 2 ○ Rear-facing slots/channels 3 ○ Other unconventional routing	4 ○ Unknown 5 ○ NA – rigid with no strap
63. Is the lower anchor strap twisted?	1 ○ Yes, one or more upside-down 2 ○ No	3 ○ Unknown 4 ○ NA – rigid with no strap
64. Left connector attached to?	1 ○ Left lower anchor for SP 2 ○ Other lower anchor	3 ○ Something other than LA 4 ○ Not attached to anything
65. Right connector attached to?	1 ○ Right lower anchor for SP 2 ○ Other lower anchor	3 ○ Something other than LA 4 ○ Not attached to anything
66. Are the connectors attached with the top side up?	1 ○ Top side up (both) 2 ○ Upside-down (both) 3 ○ Edge side up (both)	4 ○ Mixed 5 ○ No, not attached 6 ○ Unknown
67. Are there multiple CRS attached to the lower anchors?	1 ○ Yes 2 ○ No 3 ○ Unknown	

All RF seat, FF seat, or booster - CRS Labels and Other Issues

G

68. Is the child sitting in any type of CRS (harnessed or booster)?	1 ○ Yes (Complete this section)	2 ○ No (Skip to vehicle form)
69. Does the CRS have a label?	1 ○ Yes, visible (Complete this section)	2 ○ No or not visible (Skip to Q77)
70. CRS Make or Manufacturer	1 _____	2 ☐ Not able to observe or missing
71. CRS Model	1 _____	2 ☐ Not able to observe or missing
72. CRS Model #	1 _____	2 ☐ Not able to observe or missing
73. Rear-facing limits	1 Lower height: _____ inches 2 Upper height: _____ inches	3 Lower weight: _____ pounds 4 Upper weight: _____ pounds
74. Forward-facing limits	1 Lower height: _____ inches 2 Upper height: _____ inches	3 Lower weight: _____ pounds 4 Upper weight: _____ pounds
75. Highback booster limits	1 Lower height: _____ inches 2 Upper height: _____ inches	3 Lower weight: _____ pounds 4 Upper weight: _____ pounds
76. Backless booster limits	1 Lower height: _____ inches 2 Upper height: _____ inches	3 Lower weight: _____ pounds 4 Upper weight: _____ pounds
77. Is there visible damage to the restraint? (All that apply)	1 ☐ Cracked/broken shell 2 ☐ Torn padding 3 ☐ Broken/frayed harness	4 ☐ No visible damage 5 ☐ Other visible damage _____
78. Are there any aftermarket products used with the CRS? (All that apply)	1 ☐ Belt tightener/Mighty Tite 2 ☐ Padding between child and CRS 3 ☐ Padding between CRS and vehicle seat (other than noodles/rolled towels)	4 ☐ Aftermarket seat cover 5 ☐ Toys/items attached to CRS 6 ☐ No aftermarket device 7 ☐ Other aftermarket device _____

The Inspection Form Restraints (NHTSA INSR - 1110) was designed for a CPST to collect information about the specific CRS and vehicle components, if any, that were being used to secure the target child in the vehicle (see the Background section beginning on page 1 for more information about how the target child was selected). The CPSTs determined what type of CRS was used and how the seat was installed in the vehicle. An inspection of the CRS installation included the detailed examination of any LATCH, Tether Only, or ISOFIX systems that were used along with the seat belts, and if they were used solely or in conjunction with another system to secure the child seat.

This form contained 11 core questions and 68 subsequent questions. The 11 core questions (Q's 1 – 11) outline PSU specific information, the seating position of the child, air bag information, the location and type of CRS, and whether it had a harness. The 68 subsequent questions (Q12-78) are broken into subcategories A – G in the following manner:

Booster Seat or Adult Seat Belts – While Child restrained (Q12 – 21)
All RF and FF Harnessed CRSs – Harness Type and Use – While Child Restrained (Q22 – 34)
All RF and FF harnessed seats – Installation (Q35 – 42)
All RF and FF Harnessed Seats – CRS Hardware and Tether Use (Q43 – 51)
All Seat Belt Installed CRSs (Q52 – 60)
All LATCH Installed CRSs (Q61 – 67)
All RF Seat, FF Seat, or Booster – CRS Labels and Other Issues (Q68 – 78)
Refer to the letter designations on the previous two pages of this section (INSR 1110 Survey Form) to navigate this section of the manual.

Questions 11, 21, 25, 43, 46, 47, 52, 59, 61, 68, and 69 contain skip logic that directs the data collector to the proper subcategory based on their observations. For example, if for Q11 the answer was **Yes** (CRS has an internal harness), the subcategory **Booster Seats**… (Q12 – 21) would be skipped. Details on the specific skip logic are further explained within the pages of this section.

Question: 1 – Primary Sampling Unit number

Data Set: CRS

SAS Name: PSU

Label Name: Primary Sampling Unit

Attribute Codes:

Range: 02 - 82

Remarks:

NCRUSS used the CDS sites for data collection. The CDS consists of 24 statistically representative PSU's located throughout the country.[11] The PSUs have been assigned two-digit identifying numbers that range from 02 to 82.

For more information on the CDS, refer to the 2014 CDS Analytical User's Manual (Report No. DOT HS 812 198) at http://www-nrd.nhtsa.dot.gov/Pubs/812198.pdf.

Format Type: Number

Field Length: 3

---

[11] Additional information about the NASS CDS PSUs can be found in Appendix F of the 2014 NASS CDS Analytical User's Manual at http://www-nrd.nhtsa.dot.gov/Pubs/812198.pdf. Demographic data on the 24 PSUs have been included in Appendix F to give researchers supplementary information on the nature of the PSUs.

Question: 2 – Site Number

Data Set: CRS

SAS Name: SITEID

Label Name: Site Number

Attribute Codes:

Range: 021103 - 823223

Remarks:

This is a unique six-digit identification number that was generated during the sampling process by NHTSA for use during data collection. This number, using the format below, identifies the location where the data was collected and provides additional information about each of the sites. Data was collected at each of the sites for only one 3-hour data collection time period. In rare instances, the same site was collected a second time. This occurred mainly in rural areas that contained fewer potential sites.

The first two digits are the assigned PSU number (refer to the Background section beginning on page 1).
The third digit is the stratum.
The fourth digit is an indicator, 1 for sample, 2 for shadow sample, and 3 for extension sample.
The fifth and sixth digits are the site number (a sequential count of sites visited within a PSU).

The following is an example of how the site number was constructed for site 082220:

PSU number (08) | stratum (2) | sample indicator (2) | site number (20)

For more information on this topic refer to the **Sampling Design** on page 32of this manual.

Format Type: Number

Field Length: 6

Question: 3 – Observation Number

Data Set: CRS

SAS Name: OBS

Label Name: Observation Number

Attribute Codes:

Range: 01 - 34

Remarks:

An observation number is assigned for each vehicle that is approached regardless of whether the driver agrees to participate in the survey. Accordingly, numbers are assigned not only to vehicles from which completed interviews are obtained, but also to vehicles from which interviews are not conducted/completed (e.g., the drivers do not agree to participate and/or all occupants are older than 8).

At each data collection site, numbering begins at 01 and continues consecutively until all vehicles are given numbers. The highest number of observations recorded for any one session was 34.

Format Type: Number

Field Length: 3

Question: 4 – Date of observation

Data Set: CRS

SAS Name: DATE

Label Name: Observation Date

Attribute Codes:

Range: 06/01/2011 – 07/29/2011

Remarks:

This is the date the observation was made.

Format Type: Text

Field Length: 10

Question: 5 – Seating position observed

Data Set: CRS

Range: 12 – 43

SAS Name: SEATINSP

Label Name: Location of CRS – Inspection, 2 Digit

Remarks:

The data collector was instructed to indicate the seating position of the child being observed. The interviewer asked the driver questions about the placement of the child in this seating position and the safety equipment in use, while the observer recorded what was seen. The interviewer and the observer were instructed to observe the same child/seating position.[12]

If the child was seated in one of the first four rows, the data collector was to circle the seating position of the child. Otherwise, the child's seating position was to be recorded on the survey form in the space after "other." This information was entered into the application as a two-digit code in the following manner.

Front Row   **Second Row**
11 Left side   21 Left side
12 Middle   22 Middle
13 Right side   23 Right side

Third Row
31 Left side   41 Left side
32 Middle   42 Middle
33 Right side   43 Right side

Format Type: Number

Field Length: 3

---

[12] In two cases, the children/seating positions that were observed were not the same as those for which questions were asked of the drivers. In these two cases, one child in the vehicle was observed and the driver was asked questions about another (different) child. These two cases can be found looking at the data collected at: 1) PSU: 45, Site #: 453101, Observation #: 3, Date: 609; and 2) PSU: 41, Site #: 413109, Observation #: 16, Date: 614.

Question: 6 – Right frontal air bag?

Data Set: CRS

SAS Name: AIRBAG

Label Name: Right front passenger

Attribute Codes:

SAS	Description
0	No (skip to Q8)
1	Yes
.N	Not applicable
.U	Unknown

Remarks:

The data collector recorded if the vehicle had a front right air bag. If there was no air bag, the data collector was instructed to skip to Q8.

Format Type: Number

Field Length: 3

Question: 7 – Air bag switch?

Data Set: CRS

SAS Name: AIRSWTCH

Label Name: Air bag switch

Attribute Codes:

SAS	Description
1	On
2	Off
3	Not available
.N	Not applicable

Remarks:

The data collector recorded if the vehicle had a manual air bag switch.

Note: An air bag switch is designed to suppress the air bag if a child is seated in the front right position. Air bag switches were found mostly in 1996 – 2005 pickup trucks that contained only one row of seats.

Format Type: Number

Field Length: 3

Question: 8 – Location of child (or CRS if used)

Data Set: CRS

SAS Name: KIDLOC

Label Name: Location of child

Attribute Codes:

SAS	Description
1	Vehicle seat
2	Floor
3	Lap of occupant
4	Other
.U	Unknown

Remarks:

The data collector recorded where the child and/or CRS were placed in the vehicle.

Format Type: Number

Field Length: 3

Question: 9 – Restraint type used?

Data Set: CRS

SAS Name: RESTTYPE

Label Name: Restraint type used

Attribute Codes:

SAS	Description
0	None
1	CRS/device
2	Seat belt only (skip to Q13)
.N	Not applicable
.U	Unknown

Remarks:

If a CRS or other type of device[13] was used, the data collector recorded what type of restraint was used by the child and proceeded to the next variable. If only a seat belt was used, the data collector skipped to Q13. If no restraint was used, the data collector did not complete the remainder of the form (Q 10 – 78) and proceeded to the final survey form (INSV 1111).

Format Type: Number

Field Length: 3

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[13] "Other type of device" is a category that contains non-standard child restraint systems, such as Special Needs (e.g., car beds, harness/safety vests), lap top car seats, vehicle manufacturer's integrated child safety seats, and foreign and other non-regulated child restraint systems.

Question: 10 – CRS type/model used?

Data Set: CRS

SAS Name: CRSTYPE

Label Name: CRS type used - inspection

Attribute Codes:

SAS	Description
1	Infant seat with base
2	Infant seat with no base
3	RF convertible/all-in-one
4	FF with harness/shield
5	High-back BP booster (no harness)
6	Backless BP booster
7	Shield booster
8	Car bed
9	Vest
10	Other device
.N	Not applicable
.U	Unknown

Remarks:

The data collector recorded the type of CRS in which the child was placed.

Note the following acronyms:

RF = Rear facing
FF = Forward facing
BP = Belt positioning

Format Type: Number

Field Length: 3

Question: 11 – Does the CRS have a harness?

Data Set: CRS

SAS Name: HRNS

Label Name: Does the CRS have a harness

Attribute Codes:

SAS	Description
1	Yes (skip to Q22)
2	No (if booster, complete the following section)
3	No (If RF CRS, skip to Q35)
.N	Not applicable
.U	Unknown

Remarks:

The data collector recorded if the CRS had a harness. Based on the answer to this question, the data collector followed the skip logic detailed below:

No, and it was determined that the type of CRS was a booster, the data collector continued in sequential order to the next section. The next section **Booster Seats or Adult Seat Belts – While Child Restrained** (Q's 12 – 21) contains question about booster seats only.

No, and it was determined that the type of CRS was rear facing, the data collector skipped to Q35, which is the first question within the section **All RF and FF Harnessed Seats - Installation** (Q's 35 – 42) - RF and FF harnessed seats.

Yes. The data collector skipped to the section **All RF and FF Harnessed CRSs – Harness Type and Use – While Child Restrained** (Q's 22 – 34).

If the child was observed within a car bed, vest, or other type of object, the data collector ended the inspection of the child restraint system and skipped to the next form (INSV 1111).

Questions skipped based upon the skip logic above were given the attribute code of (.N).

Format Type: Number

Field Length: 3

Question: 12 – Booster: Is the seat belt routed through the belt-positioning guides/channels?

Data Set: CRS

SAS Name: SB_GUIDE

Label Name: Is the belt routed through the guide channels

Attribute Codes:

SAS	Description
0	No
1	Yes
3	Not applicable/no booster
.N	Not applicable
.U	Unknown

Remarks:

The data collector recorded if the belt was routed through the belt guide/channels on the booster seat.

Format Type: Number

Field Length: 3

Question: 13 – Is the seat belt buckled?

Data Set: CRS

SAS Name: SB_BCK_B

Label Name: Is the seat belt buckled (SB or booster)

Attribute Codes:

SAS	Description
0	No
1	Yes
.N	Not applicable
.U	Unknown

Remarks:

The data collector recorded whether the seat belt was buckled.

Format Type: Number

Field Length: 3

Question: 14 – Is the child's head supported?

Data Set: CRS

SAS Name: HEADSPRT

Label Name: Is the head supported

Attribute Codes:

SAS	Description
0	No, head is above vehicle seatback
1	Yes, CRS supports head
2	Yes, vehicle supports head
.N	Not applicable
.U	Unknown

Remarks:

The data collector recorded if the child's head was supported by either the high-back aspect of the CRS or the vehicle's seatback.

Format Type: Number

Field Length: 3

Question: 15 – Is the child sitting against the seat back?

Data Set: CRS

SAS Name: SEATBCK

Label Name: Is the child against the seatback

Attribute Codes:

SAS	Description
0	No, child leaning forward/slouching
1	Yes, CRS against CRS
2	Yes, against vehicle seatback
.N	Not applicable
.U	Unknown

Remarks:

The data collector recorded if the child was sitting against either the high-back aspect of the CRS or the vehicle's seatback.

Format Type: Number

Field Length: 3

Question: 16 – Is the shoulder belt loose/slack?

Data Set: CRS

SAS Name: SH_B_LAX

Label Name: Is the shoulder belt loose

Attribute Codes:

SAS	Description
0	No
1	Yes
3	Not applicable/no shoulder belt
.N	Not applicable
.U	Unknown

Remarks:

The data collector recorded if the shoulder belt was loose around the child.

Note: The internal harness should be as tight as possible and no more than two fingers should fit between the child's body and the internal harness.

Format Type: Number

Field Length: 3

Question: 17 – Shoulder belt position

Data Set: CRS

SAS Name: SHLDRPOS

Label Name: Shoulder belt position

Attribute Codes:

SAS	Description
1	Over body – centered on shoulder
2	Over body – touching shoulder
3	Over body – below shoulder/around arm
4	Over body – above shoulder at neck/face
5	Behind arm or back
6	Not applicable – no shoulder belt
.N	Not applicable
.U	Unknown

Remarks:

The data collector recorded where the shoulder belt was in relation to the child.

Format Type: Number

Field Length: 3

Question: 18 – Adjustable D-ring on shoulder belt?

Data Set: CRS

SAS Name: D_RING

Label Name: Adjustable D-ring on belt

Attribute Codes:

SAS	Description
0	No
1	Yes
3	Not applicable/no shoulder belt
.N	Not applicable
.U	Unknown

Remarks:

The data collector recorded if the seat belt had an adjustable D-ring for the shoulder belt.

D-Ring: The D-ring is defined as the D-shaped component of a seat belt system that is normally positioned above the shoulder of the occupant on a pillar of the vehicle. It is used to adjust the direction of the belt webbing traveling upward from the retractor and downward to the occupant.

Format Type: Number

Field Length: 3

Question: 19 – Is the lap belt loose/slack?

Data Set: CRS

SAS Name: LAP_LAX

Label Name: Is the lap belt loose

Attribute Codes:

SAS	Description
0	No
1	Yes
3	Not applicable/no lap belt
.N	Not applicable
.U	Unknown

Remarks:

The data collector recorded if the lap belt was loose around the child.

Note: The internal harness should be as tight as possible and no more than two fingers should fit between the child's body and the internal harness.

Format Type: Number

Field Length: 3

Question: 20 – Lap belt position

Data Set: CRS

SAS Name: LAP_POS

Label Name: Lap belt position

Attribute Codes:

SAS	Description
1	Across hips/thighs
2	Across abdomen/rib cage
3	Not applicable/lap belt not used
.N	Not applicable
.U	Unknown

Remarks:

The data collector recorded where the lap belt was in relation to the child.

Format Type: Number

Field Length: 3

Question: 21 – Booster: Does the booster have a lower anchor connector?

Data Set: CRS

SAS Name: BSTR_LS

Label Name: Does the booster have a lower anchor strap

Attribute Codes:

SAS	Description
0	No (skip to Q68)
1	Yes (skip to Q61)
3	Not applicable/no booster (skip to Q68)
.N	Not applicable
.U	Unknown (skip to Q68)

Remarks:

The data collector recorded if the booster seat had a lower anchor strap. Based on the answer to this question, the data collector followed the skip logic detailed below:

No: If the booster did not have a lower anchor strap, the data collector skipped to section **ALL RF Seat, FF Seat, or Booster – CRS Labels and Other Issues** (Q's 68 – 78).

Yes: If the booster had a lower anchor strap, the data collector skipped to section **All LATCH Installed CRSs** (Q's 61 – 67).

Not applicable/No Booster:
If the child was not in a booster seat the data collector skipped to section **ALL RF Seat, FF Seat, or Booster – CRS Labels and Other Issues** (Q's 68 – 78).

Unknown:
If it could not be determined if the booster has a lower anchor strap, the data collector skipped to section **ALL RF Seat, FF Seat, or Booster – CRS Labels and Other Issues** (Q's 68 – 78).

Format Type: Number

Field Length: 3

Question: 22 – Harness/shield type on CRS

Data Set: CRS

SAS Name: HRNSTYPE

Label Name: Harness/shield type on CRS

Attribute Codes:

SAS	Description
1	3-point harness/V type
2	5-point harness
3	T-shield
4	Tray shield
.N	Not applicable
.U	Unknown

Remarks:

The data collector recorded what type of harness/shield was present on the CRS.

3-Point Harness/V Type: A restraint system with three attachment points, two at the shoulder and one between the legs.

5-Point Harness: A child restraint harness with five attachment points, two at the shoulder, two at the hips, one between the legs.

T-Shield: Part of a restraint system in a child safety seat; a roughly triangular or "T" shaped pad that is attached to the shoulder harness straps, fits over the child's abdomen and hips and buckles between the legs.

Tray Shield: Part of a restraint system in a child safety seat; a wide, padded surface that swings down in front of the child's body, attached to shoulder straps and crotch buckle. Looks like a padded armrest, but is an integral part of the harness system.

Format Type: Number

Field Length: 3

Question: 23 – Is the harness or shield *in use*?

Data Set: CRS

SAS Name: HRNS_USE

Label Name: Is the harness/shield in use

Attribute Codes:

SAS	Description
0	No
1	Yes
.N	Not applicable
.U	Unknown

Remarks:

The data collector recorded if the harness and/or shield were in use.

Format Type: Number

Field Length: 3

Question: 24 – Is the harness strap buckled?

Data Set: CRS

SAS Name: STRPBUCK

Label Name: Is the harness strap buckled

Attribute Codes:

SAS	Description
0	No (1 or more unbuckled)
1	Yes
.N	Not applicable
.U	Unknown

Remarks:

The data collector recorded if the harness strap was buckled.

Format Type: Number

Field Length: 3

Question: 25 – Retainer/chest clip *available*?

Data Set: CRS

SAS Name: CCLIP

Label Name: Retainer/chest clip available

Attribute Codes:

SAS	Description
0	No (Skip to Q27)
1	Yes
.N	Not applicable
.U	Unknown

Remarks:

The data collector recorded whether a retainer/chest clip was available. If one was not, the data collector was directed to skip to Q27.

Format Type: Number

Field Length: 3

Question: 26 – Is the harness retainer/chest clip *used*?

Data Set: CRS

SAS Name: CCLIPPOS

Label Name: If harness clip used, where is it used

Attribute Codes:

SAS	Description
1	Used, chest/armpit
2	Used, abdomen
3	Used, neck level
4	Not used
.N	Not applicable
.U	Unknown

Remarks:

The data collector recorded whether a retainer/chest clip was used, and if used, where it was positioned on the child.

Harness Retainer Clip: A plastic tie or clasp that holds the two shoulder straps close together over the child's chest at armpit level; intended to keep harness straps in position on the shoulders. Used for pre-crash positioning.

Format Type: Number

Field Length: 3

Question: 27 – Position of the harness straps

Data Set: CRS

SAS Name: STRPPOS

Label Name: Position of the harness straps

Attribute Codes:

SAS	Description
1	Both straps over shoulders/body
2	One or more straps behind arm/back/leg
.N	Not applicable
.U	Unknown

Remarks:

The data collector recorded how the retainer/chest clip was positioned on the child.

Format Type: Number

Field Length: 3

Question: 28 – Snugness of harness straps

Data Set: CRS

SAS Name: HRNSSNUG

Label Name: Snugness of harness straps

Range: 0.00 – 12.00 inches

Attribute Codes:

SAS	Description
#	Enter slack in inches
.N	Not applicable
.U	Unknown

Remarks:

The data collector recorded how much slack, if any, there was in the harness straps when they were pinched. Zero was coded if there was not any slack in the harness straps.

Format Type: Number

Field Length: 3

Question: 29 – Twisted harness strap

Data Set: CRS

SAS Name: STRPTWST

Label Name: Is the harness strap twisted

Attribute Codes:

SAS	Description
0	No
1	Yes
.N	Not applicable
.U	Unknown

Remarks:

The data collector recorded whether one or more harness straps were twisted.

Format Type: Number

Field Length: 3

Question: 30 – Type of harness slots?

Data Set: CRS

SAS Name: HRNSSLOT

Label Name: Type of harness slots

Attribute Codes:

SAS	Description
1	Sliding adjustment – no slots
2	Slots – uppermost used
3	Slots – middle used
4	Slots – lowest used
5	Slots – different levels used
.N	Not applicable
.U	Unknown

Remarks:

The data collector noted the type and position of the harness slots that were being used.

Format Type: Number

Field Length: 3

Question: 31 – Where is harness slot in relation to the child's <u>left</u> shoulder?
Data Set: CRS

Remarks:

The data collector recorded where the harness slot was in relation to the child's left shoulder by selecting one of the four possible responses available. For two of the responses, additional quantitative information was also requested.

The next two pages of the manual provide detail on the specific attributes (31.1 – 31.2) that apply to this question.

Response: 31.1 – Where is harness slot in relation to the child's left shoulder?

Data Set: CRS

SAS Name: HRNS_L

Label Name: Harness opening to child's left shoulder

Attribute Codes:

SAS	Description
1	At the left shoulder
2	Above the left shoulder: _____ inch(es)
3	Below the left shoulder: _____ inch(es)
.N	Not applicable
.U	Unknown

Remarks:

The data collector recorded where the harness slot was in relation to the child's left shoulder. If they recorded response 2 or 3 (i.e., above or below the left shoulder), they recorded, in the space provided to the right of response, the distance in inches.

This is further detailed in the next page of the manual under Response 31.2.

Format Type: Number

Field Length: 3

Response: **31.2 – Where is harness slot in relation to the child's left shoulder?**

Data Set: CRS

SAS Name: HRNS_LI

Label Name: Harness opening to child's left shoulder - inches

Range: 0.10 – 9.10 inches

Attribute Codes:

SAS	Description
#	Enter the distance in inches
.N	Not applicable
.U	Unknown

Remarks:

The data collector recorded the distance (rounded to the nearest inch) between where the harness slot was in relation to the child's left shoulder.

Format Type: Number

Field Length: 4

Question: 32 – Where is harness slot in relation to the child's right shoulder?

Data Set: CRS

Remarks:

The data collector recorded where the harness slot was in relation to the child's right shoulder by selecting one of the four possible responses available. For two of the responses, additional quantitative information was also available.

The next two pages of the manual provide detail on the specific attributes (32.1 – 32.2) that apply to this question.

Response: 32.1 – Where is harness slot in relation to the child's right shoulder?

Data Set: CRS

SAS Name: HRNS_R

Label Name: Harness opening to child's right shoulder

Attribute Codes:

SAS	Description
1	At the right shoulder
2	Above the right shoulder: _____ inch(es)
3	Below the right shoulder: _____ inch(es)
.N	Not applicable
.U	Unknown

Remarks:

The data collector recorded where the harness slot was in relation to the child's right shoulder by selecting one of the attributes above.

If they recorded response 2 or 3 (i.e., above or below the left shoulder), they recorded, in the space provided to the right of response, the distance in inches. This is further detailed in the next page of the manual under Response 32.2.

Format Type: Number

Field Length: 3

Response: 32.2 – Where is harness slot in relation to the child's right shoulder?

Data Set: CRS

SAS Name: HRNS_RI

Label Name: Harness opening to child's right shoulder - inches

Range: 0.10 – 9.00 inches

Attribute Codes:

SAS	Description
#	Enter the distance in inches
.N	Not applicable
.U	Unknown

Remarks:

The data collector recorded the distance (rounded to the nearest inch) between where the harness slot was in relation to the child's right shoulder.

Format Type: Number

Field Length: 4

Question: 33 – Where is the top of the child's head in relation to the top of the CRS?

Data Set: CRS

Remarks:

The data collector recorded where the top of the child's head was in relation to the top of the CRS by selecting one of the four possible responses available. For two of the responses, additional quantitative information was also available.

The next two pages of the manual provide detail on the specific attributes (33.1 – 33.2) that apply to this question.

Response: 33.1 – Where is the top of the child's head in relation to the top of the CRS?

Data Set: CRS

SAS Name: CRSHEAD

Label Name: Top of the child's head to top of CRS

Attribute Codes:

SAS	Description
1	At the top
2	Above the top: _____ inch(es)
3	Below the top: _____ inch(es)
.N	Not applicable
.U	Unknown

Remarks:

The data collector recorded where the child's head was positioned in relation to the top of the CRS. If they recorded response 2 or 3 (i.e., above or below the left shoulder), they recorded, in the space provided to the right of response, the distance in inches.

This is further detailed in the next page of the manual under Response 33.2.

Format Type: Number

Field Length: 3

Response: 33.2 – Where is the child's head in relation to the top of the CRS?

Data Set: CRS

SAS Name: CRSHEADI

Label Name: Top of the child's head to top of CRS - inches

Range: 0.0 – 24.0 inches

Attribute Codes:

SAS	Description
#	Enter the distance in inches
.N	Not applicable
.U	Unknown

Remarks:

The data collector recorded the distance (rounded to the nearest inch) where the child's head was positioned in relation to the top of the CRS.

Format Type: Number

Field Length: 4

Question: 34 – Top of ears above the shell of the CRS?

Data Set: CRS

SAS Name: CRS_EARS

Label Name: Top of the ears above the CRS shell

Attribute Codes:

SAS	Description
0	No
1	Yes
.N	Not applicable
.U	Unknown

Remarks:

The data collector recorded if the child's ears were positioned above the top of the CRS shell.

Format Type: Number

Field Length: 3

Question: 35 – Direction of CRS

Data Set: CRS

SAS Name: CRS_DIR

Label Name: Direction of CRS

Attribute Codes:

SAS	Description
1	Rear facing
2	Forward facing
3	Supine (facing up)
4	Side facing
5	Other
.N	Not applicable
.U	Unknown

Remarks:

The data collector recorded in which direction the CRS was facing.

Format Type: Number

Field Length: 3

Question: 36 – Does CRS base footprint hang over vehicle seat?
Data Set: CRS

Remarks:

The data collector recorded if any portion of the CRS base hung over the edge of the vehicle's seat.

This was a Yes/No question but the data collector was to provide additional information if the answer was "Yes." The next three pages of the manual provide detail on the specific attributes (36.1 – 36.3) that apply to this question.

Response: 36.1 – Does CRS base footprint hang over vehicle seat?

Data Set: CRS

SAS Name: CRSOFF

Label Name: Does the CRS base hang over vehicle seat

Attribute Codes:

SAS	Description
0	No
1	Yes
.N	Not applicable
.U	Unknown

Remarks:

The data collector noted whether the CRS base footprint hung over the edge of the vehicle's seat. If the answer was "Yes," they recorded the length of the CRS base front to back as well as the length of the CRS that hung over the vehicle's seat. Both of these values were entered in inches.

This is further detailed in the next page of the manual under Response 36.2.

Format Type: Number

Field Length: 3

Response: **36.2 – Length of CRS base (front to back)**

Data Set: CRS

SAS Name: CRSBASEI

Label Name: Length of CRS base

Range: 0 – 48 inches

Attribute Codes:

SAS	Description
#	Enter the length in inches
.N	Not applicable
.U	Unknown

Remarks:

The data collector recorded the length of the CRS from front to back. The data collectors were instructed to round the answer to the nearest inch.

Format Type: Number

Field Length: 3

Response:　　　**36.3 – Length of CRS base that is off the vehicle seat**

Data Set:　　　　　　CRS

SAS Name:　　　　　　CRSOFF_I

Label Name:　　　　　Inches CRS base if off vehicle seat

Range:　　　　　　**1**.0 – 8.0 inches

Attribute Codes:

SAS	Description
#	Enter the length in inches
.N	Not applicable
.U	Unknown

Remarks:

The data collector recorded the length of the CRS that was off the edge of the vehicle's seat. The data collectors were instructed to round the answer to the nearest inch

Format Type:　　　　Number

Field Length:　4

Question: 37 – What is the lower attachment of the CRS to the vehicle seat?

Data Set: CRS

SAS Name: CRS_LA

Label Name: CRS lower attachment to vehicle

Attribute Codes:

SAS	Description
1	Lower anchor strap
2	Seat belt for this seating position
3	Both LA and SB for this seating position
4	Other method of attachment
5	Integrated
6	Not attached
.N	Not applicable
.U	Unknown

Remarks:

The data collector recorded which lower attachment method was used to secure the CRS to the vehicle's seat.

LA = Lower anchor straps

SB = Seat belt

Format Type: Number

Field Length: 3

Question: 38 – How much does CRS move laterally when pushed or pulled at the belt path?

Data Set: CRS

SAS Name: CRS_MOVE

Label Name: Inches CRS moves laterally

Range: 0.0 – 3.0 inches

Attribute Codes:

SAS	Description
#	Enter the lateral movement in inches
.N	Not applicable
.U	Unknown

Remarks:

The data collector recorded how much the CRS moved laterally when pushed or pulled at the belt path. The data collectors were instructed not to move the CRS more than 3 inches.

Format Type: Number

Field Length: 2

Question: 39 – (FF only) Is the CRS against the vehicle seat back?

Data Set: CRS

In this question, the data collectors recorded if the CRS was placed against the vehicle's seat back at the time of the observation. This variable was recorded for forward-facing child restraints only.

This was a "Check all that apply" question. The next six pages of the manual provide detail on the specific elements (Responses 39.1 – 39.6) that apply to this question.

The specific elements (responses) are defined as follows:

39.1   Yes, most of the CRS contacts vehicle seat

39.2   No, seat back contour

39.3   No, head restraint interference

39.4   NA/RF seat

39.5   No, other

39.6   Other, _____

Response: **39.1 – Yes, most of the CRS contacts the vehicle seat**

Data Set: CRS

SAS Name: CRSBACK

Label Name: CRS against vehicle seat back

Attribute Codes:

SAS	Description
0	No
1	Yes
.N	Not applicable
.U	Unknown

Remarks:

The data collector recorded whether the back of the CRS was mostly in contact with the vehicle's seat back. This is one of six potential responses to Question 39, "Is the CRS against the vehicle seat back?"

Format Type: Number

Field Length: 3

Response: **39.2 – No, seat back contour**

Data Set: CRS

SAS Name: SP_CURVE

Label Name: CRS not against seat back – vehicle seat contour

Attribute Codes:

SAS	Description
0	No
1	Yes
.N	Not applicable
.U	Unknown

Remarks:

The data collector recorded whether the contour of the vehicle's seat back prevented the CRS from being placed against the seat back. This is one of six potential responses to Question 39, "Is the CRS against the vehicle seat back?"

Format Type: Number

Field Length: 3

Response: **39.3 – No, head restraint interference**

Data Set: CRS

SAS Name: SP_HEADR

Label Name: CRS not against seat back – head restraint

Attribute Codes:

SAS	Description
0	No
1	Yes
.N	Not applicable
.U	Unknown

Remarks:

The data collector recorded whether the head restraint prevented the CRS from being placed against the seat back. This is one of six potential responses to Question 39, "Is the CRS against the vehicle seat back?"

Format Type: Number

Field Length: 3

Response: **39.4 – NA/RF Seat**

Data Set: CRS

SAS Name: SP_NO_RF

Label Name: CRS not against seat back – NA/RF seat

Attribute Codes:

SAS	Description
0	No
1	Yes
.N	Not applicable
.U	Unknown

Remarks:

The data collector recorded whether the CRS was a rear-facing CRS and would not be able to be placed against the vehicle's seat back. This is one of six potential responses to Question 39, "Is the CRS against the vehicle seat back?"

Format Type: Number

Field Length: 3

Response: **39.5 – No, other**

Data Set: CRS

SAS Name: SP_NO_O

Label Name: CRS not against seat back – other

Attribute Codes:

SAS	Description
0	No
1	Yes
.N	Not applicable
.U	Unknown

Remarks:

The data collector recorded if the CRS was not positioned against the vehicle's seat back for other reasons. This was selected if the CRS was not positioned against the seat back for other reasons and the data collector ***did not*** specify the reason. This is one of six potential responses to Question 39, "Is the CRS against the vehicle seat back?"

Format Type: Number

Field Length: 3

Response: **39.6 – No, other**

Data Set: CRS

SAS Name: SP_NO_OS

Label Name: CRS not against seat back – other specify

Attribute Codes:

Remarks:

The data collector recorded that the CRS was not positioned against the vehicle's seat back for other reasons and *did* specify the reason in the space provided. This is one of six potential responses to Question 39, "Is the CRS against the vehicle seat back?"

Format Type: Text

Field Length: 75

Question: 40 – RF only: Is the back of the CRS touching the front seat?

Data Set: CRS

SAS Name: CRS_FRNT

Label Name: Is back of CRS touching vehicle front seat

Attribute Codes:

SAS	Description
0	No
1	Yes
3	NA/FF seat
.N	Not applicable
.U	Unknown

Remarks:

The data collector recorded if the back of the CRS was touching the front seat. This variable was only collected for rear-facing child restraints.

Format Type: Number

Field Length: 3

Question: 41 – <u>RF only</u>: Amount of recline in child seat?

Data Set: CRS

SAS Name: RECLIN

Label Name: Amount of recline in CRS

Attribute Codes:

SAS	Description
1	Upright – not reclined
2	Up to 30 degrees
3	Between 30 – 45 degrees
4	Approximately 45 degrees
5	More than 45 degrees
.N	Not applicable
.U	Unknown

Remarks:

The data collector recorded the amount of recline of the CRS using an inclinometer to determine the angle. This variable was only collected for rear-facing child restraints.

Format Type: Number

Field Length: 3

Question: 42 – <u>RF only:</u> Method used to adjust angle?
Data Set: CRS

In this question, the data collectors reported the method, if any, the driver used to adjust the angle of the CRS. This variable was recorded for rear-facing child restraints only.

If the method used differed from the four choices supplied on the survey form, the data collector could capture it by choosing "other, _____." The next two pages of the manual provide detail on the specific attributes (42.1 – 42.2) that apply to this question.

Note: Can choose up to two methods.

The specific attributes (responses) are defined as follows:

42.1   None or not reclined
Rolled towel
CR's angle adjustor
Noodle
Other method (not part of CRS)

42.2   Stores the specific information provided when 42.1 = "Other method (not part of CRS)."

Response: 42.1 – None or not reclined; Rolled towel; CR's angle adjustor; Noodle; Other method (not part of CRS)

Data Set: CRS

SAS Name: ADJST_A1, ADJST_A2

Label Name: Method to adjust angle

Attribute Codes:

SAS	Description
1	None or not reclined
2	Rolled towel
3	CR's angle adjustor
4	Noodle
5	Other method (not part of CRS)
.N	Not applicable
.U	Unknown

Remarks:

The data collector recorded the method the driver used to adjust the angle of the CRS. If the driver did not adjust the angle, the data collector selected attribute 1 (i.e., none or not reclined); if the driver used a method outside the choices provided above, the data collector selected attribute 5 and specified, in the blank space on the survey form, the method used.

This variable was only collected for rear-facing child restraints.

Format Type: Number379

Field Length: 3

Response: **42.2 – Other, _____**

Data Set: CRS

SAS Name: ADJST_AS1, ADJST_AS2

Label Name: Method to adjust angle – other, _____

Attribute Codes:

Remarks:

This attribute was used to specify in text the method the driver used to adjust the angle of the CRS.

This variable was only collected for rear-facing child restraints.

Format Type: Text

Field Length: 75

Question: 43 – Lower attachment type *available* on the CRS

Data Set: CRS

SAS Name: CRS_LS

Label Name: Lower straps/attachment on CRS

Attribute Codes:

SAS	Description
0	None (skip to Q46)
1	Flexible strap
2	Rigid
.N	Not applicable
.U	Unknown

Remarks:

The data collector recorded the lower attachment type, if any, that was available on the CRS. Based on the answer to this question, the data collector followed the skip logic detailed below:

If attributes 1, 2, or .U were selected the data collector proceeded to the Question 44. If attribute 3 was selected the data collector skipped to Question 46.

A **Flexible strap** attachment uses a hook attached to a length of belt webbing that is tightened like a seat belt after being hooked to one of the vehicle lower anchors. A **Rigid** attachment is a metal bar or rod that clamps on one of the vehicle lower anchors.

Format Type: Number

Field Length: 3

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Question: 44 – Lower connector type

Data Set: CRS

SAS Name: LC_TYP

Label Name: Lower connector type

Attribute Codes:

SAS	Description
0	None
1	Hook-on
2	Push-on
.N	Not applicable
.U	Unknown

Remarks:

The data collector recorded the lower connector type, if any, that was available on the CRS.

A **Hook-on** connector is a metal clip that hooks around the vehicle's lower anchor bar that is located within the vehicle's seat bight. A **Push-on** connector is a spring-loaded latch that automatically locks around the LATCH anchor bar when the connector is pushed directly onto the bar. This type of connector may be on a rigid or flexible attachment.

Format Type: Number

Field Length: 3

Question: 45 – Lower connector adjustment

Data Set: CRS

SAS Name: LC_ADJ

Label Name: Lower connector adjustment

Attribute Codes:

SAS	Description
1	Latch plate
2	Button release
3	Automatic (e.g., SureLATCH)
.N	Not applicable
.U	Unknown

Remarks:

The data collector recorded the lower connector adjustment that was available on the CRS.

A **Latch plate** is a seat belt routing mechanism that allows the belt webbing to spool through the plate a prescribed distance.

Button release is a mechanism that requires the user to depress a button to adjust the seat belt webbing.

Automatic/SureLATCH technology automatically retracts the belt webbing when the CRS is sat on or pushed down. It is designed to maintain a snug fit by using the vehicle's LATCH system webbing.

Format Type: Number

Field Length: 3

Question: 46 – Top tether adjustment

Data Set: CRS

SAS Name: TT_ADJ

Label Name: Top tether adjustment

Attribute Codes:

SAS	Description
0	No tether (skip to Q52)
1	Latch plate
2	Button release
.N	Not applicable
.U	Unknown

Remarks:

The data collector recorded the top tether adjustment that was available on the CRS.

If attributes **1, 2**, or **.U** were selected the data collector proceeded to the Question 47. If attribute **0** was selected the data collector skipped to Question 52.

A **Latch plate** is a tether routing mechanism that allows the tether webbing to spool through the plate for a prescribed distance.

Button release is a mechanism that requires the user to depress a button to adjust the tether webbing.

Format Type: Number

Field Length: 3

Question: 47 – Top tether *in use*?

Data Set: CRS

SAS Name: TT_USE

Label Name: Top tether used

Attribute Codes:

SAS	Description
1	Yes
2	No, stowed (skip to Q52)
3	No, hangs loose (skip to Q52)
.N	Not applicable
.U	Unknown (skip to Q52)

Remarks:

The data collector recorded if the top tether was used.

If attributes **2, 3, or .U** were selected the data collector skipped to the Question 52.

Format Type: Number

Field Length: 3

Question: 48 – Top tether tightness

Data Set: CRS

SAS Name: TT_TGHT

Label Name: Top tether tightness

Range: 0 – 10 **inches**

Attribute Codes:

SAS	Description
#	Enter the slack in inches
.N	Not applicable
.U	Unknown (skip to Q52)

Remarks:

The data collector recorded the amount of slack in the tether when pinched. If there was no slack they recorded 0. The value was recorded in inches.

Format Type: Number

Field Length: 3

Question: 49 – What is the top tether attached to?

Data Set: CRS

In this question, the data collectors reported to what the top tether was attached.

Question 49 was a "Choose only one answer" question. If the method used differed from the five choices supplied on the survey form, the data collector could capture it by choosing "other, _____." The next two pages of the manual provide detail on the specific attributes (49.1 – 49.2) that apply to this question.

The specific attributes (responses) are defined as follows:

49.1   Tether anchor for this seating position
Tether anchor for another seating position
Secure location in front (Swedish)
Locked seat belt in back
Cannot tell
Other attachment

49.2   Other, _____

Response: **49.1 – What is tether attached to?**

Data Set: CRS

SAS Name: TT_ATT

Label Name: Top tether strap attached to

Attribute Codes:

SAS	Description
1	Tether anchor for this seating position
2	Tether anchor for another seating position
3	Secure location in front (Swedish)
4	Locked seat belt in back
5	Cannot tell
6	Other attachment
.N	Not applicable
.U	Unknown

Remarks:

The data collector recorded to what object the tether strap was attached.

If the driver used an attachment not listed above, the data collector selected attribute 6 and specified, in the blank space on the survey form, the other type of attachment used.

Format Type: Number

Field Length: 3

Response: **49.2 – Other, _____**

Data Set: CRS

SAS Name: TT_ATTO

Label Name: Top tether attached to – other, _____

Attribute Codes:

Remarks:

This attribute itemizes the types of objects to which the top tethers were attached when they were not attached to one of the four choices supplied on the survey form.

Format Type: Text

Field Length: 75

Question: 50 – How is the top tether strap routed?

Data Set: CRS

In this question, the data collectors reported how the top tether strap was routed.

Question 50 was a "Choose only one answer" question. If the method used differed from the five choices supplied on the survey form, the data collector could capture it by choosing "other, _____." The next two pages of the manual provide detail on the specific attributes (50.1 – 50.2) that apply to this question.

The specific attributes (responses) are defined as follows:

50.1   Over integral/no head restraint
            Over raised adjustable head restraint
            Over down adjustable head restrain
            Under adjustable head restraint
            Around headrest
            Other routing

50.2   Other, _____

Response: **50.1 – How is the top tether strap routed?**

Data Set: CRS

SAS Name: TT_RTE

Label Name: Method top tether strap routed

Attribute Codes:

SAS	Description
1	Over integral/no head restraint
2	Over raised adjustable head restraint
3	Over down head restraint
4	Under adjustable head restraint
5	Around headrest
6	Other routing
.N	Not applicable
.U	Unknown

Remarks:

The data collector recorded how the tether strap was routed to the tether anchor.

If the driver used a method of routing not listed above, the data collector selected attribute 6 and specified, in the blank space on the survey form, the other attachment used.

Integral refers to head restraints that are part of the same mold of the vehicle seat and are not adjustable. **Adjustable** refers to head restraints that allow the users to adjust the head restraint up and down.

Format Type: Number

Field Length: 3

Response: **50.2 – Other, _____**

Data Set: CRS

SAS Name: TT_RTEO

Label Name: Method top tether strap routed – other, _____

Attribute Codes:

Remarks:

This attribute was used to specify in text other routing methods of the tether straps that were used, if they were routed in a manner not included in the five choices provided on the survey form.

Format Type: Text

Field Length: 75

Question: 51 – Top tether strap twisted?

Data Set: CRS

SAS Name: TT_TWST

Label Name: Is the top tether strap twisted

Attribute Codes:

SAS	Description
0	No
1	Yes
.N	Not applicable
.U	Unknown

Remarks:

The data collector reported if the top tether strap was twisted.

Format Type: Number

Field Length: 3

Question: 52 – Seat belt used to install?

Data Set: CRS

SAS Name: SB_USE

Label Name: Installed with seat belt

Attribute Codes:

SAS	Description
0	No (skip to Q61)
1	Yes
.N	Not applicable
.U	Unknown

Remarks:

The data collector reported whether a seat belt was used to install the CRS in the vehicle.

If a seat belt was not used, the data collector skipped to Question 61.

Format Type: Number

Field Length: 3

Question: 53 – Seat belt routing

Data Set: CRS

SAS Name: SB_RTE

Label Name: Seat belt routing

Attribute Codes:

SAS	Description
1	Forward-facing slots/channels
2	Rear-facing slots/channels
3	Other unconventional routing
.N	Not applicable
.U	Unknown

Remarks:

The data collector reported how the seat belt was routed through the slots/channels on the CRS.

Format Type: Number

Field Length: 3

Question: 54 – Is the seat belt twisted?

Data Set: CRS

SAS Name: SB_TWST

Label Name: Is the seat belt twisted

Attribute Codes:

SAS	Description
0	No
1	Yes
.N	Not applicable
.U	Unknown

Remarks:

The data collector recorded whether the seat belt webbing was twisted.

Format Type: Number

Field Length: 3

Question: 55 – Is the seat belt buckled?

Data Set: CRS

SAS Name: SB_BCK_C

Label Name: Is the seat belt buckled (with CRS)

Attribute Codes:

SAS	Description
0	No
1	Yes
.N	Not applicable
.U	Unknown

Remarks:

The data collector recorded whether the seat belt used to install the CRS was buckled.

Format Type: Number

Field Length: 3

Question: 56 – Latch plate type on seat belt

Data Set: CRS

SAS Name: SB_LOCK

Label Name: Latch plate type on seat belt

Attribute Codes:

SAS	Description
1	Sliding
2	Switchable – locked
3	Switchable – not locked
4	Locking or lightweight locking
5	Sewn-on
.N	Not applicable
.U	Unknown

Remarks:

The data collector recorded the type of latch plate found on the seat belt used to install the CRS.

A **seat belt** consists of 2 sections of webbing, a latch plate and buckle. The one section of the webbing connects the vehicle to the buckle, and the other section connects the vehicle to the latch plate. The latch plate slides into the buckle, in order to lock the two sections of the webbing together.

The **latch plate** is used to either lock the seat belt length in place or allow the seat belt length to change. When the latch plate is unlocked, the seat belt length can be changed to adjust to the size of the person or safety restraint located in the vehicle seat. A locked latch plate is used to insure that the seat belt length stays the same length so the seat belt is able restrain a person or CRS, in case of an accident or a sudden stop.

Format Type: Number

Field Length: 3

Question: 57 – Use of locking clip

Data Set: CRS

In this question, the data collector reported if a locking clip was used to lock the belt webbing.

A locking clip is a flat, H-shaped metal object used to clip the lap and shoulder belt webbing together in order to secure or "lock" the seat belt within the CRS belt path. If a vehicle has locking seat belts (e.g., locking seat belt retractors and/or locking buckles), a locking clip is normally not necessary.

Question 57 was a "Choose only one answer" question, in which five attributes were offered. If the method used differed from the five choices supplied on the survey form, the data collector could capture it by choosing "Other, _____." The next two pages of the manual provide detail on the specific attributes (57.1 – 57.2) that apply to this question.

The specific attributes (responses) are defined as follows:

57.1   None present
Used on lap/shoulder belt, within 1 inch
Used on lap/shoulder, >1 inch
Used only on lap
Used only on shoulder
Other use

57.2   Other, _____

Response: 57.1 – None present; Used on lap/shoulder, within 1 inch; Used on lap/shoulder, >1 inch; Used only on lap; Used only on shoulder; Other use

Data Set: CRS

SAS Name: LCK_CLP

Label Name: Use of locking clip

Attribute Codes:

SAS	Description
1	None present
2	Used on lap/shoulder, within 1 inch
3	Used on lap/shoulder, >1 inch
4	Used only on lap
5	Used only shoulder
6	Other use
.N	Not applicable
.U	Unknown

Remarks:

The data collector recorded if the locking clip was used to lock the belt webbing. If the driver used a method outside of the five choices provided above, the data collector selected attribute 6 and specified, in the blank space on the survey form, the method used.

Format Type: Number

Field Length: 3

Response: 57.2 – Other, _____

Data Set: CRS

SAS Name: LCK_CLPO

Label Name: Use of locking clip – other specify

Attribute Codes:

Remarks:

This attribute was used to specify in text the method the driver used to install the locking clip, if the method used was not included in the five choices supplied on the survey form.

Format Type: Text

Field Length: 30

Question: 58 – Seat belt retractor

Data Set: CRS

SAS Name: SB_RTRCT

Label Name: Seat belt retractor

Attribute Codes:

SAS	Description
0	None
1	Locked (ALR mode)
2	Not Locked (ELR mode)
.N	Not applicable
.U	Unknown

Remarks:

The data collector recorded what mode the seat belt retractor was in at the time of the inspection. If there was no retractor, the data collector indicated so by choosing attribute 3.

ALR = Automatic locking retractor

ELR = Emergency locking retractor

Automatic-locking retractors (and switchable-locking retractors in the automatic mode) are best for securing child-safety seats if seat belts must be used. Vehicles without automatic-locking retractors require the use of a seat belt locking clip, which introduces another opportunity for user error.[14]

Emergency-locking retractors are designed to lock and hold the belt when they sense that the vehicle is stopping rapidly, as in a head-on collision. Typically, the retractors are not locked until some force is applied to activate them. The user can usually lean forward and back easily. In a fast or panic stop, however, the shoulder belt locks and restricts their forward movement. This is emergency locking in action.

Format Type: Number

Field Length: 3

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[14] *Paraphrased from the glossary on Cars.com/Joe Wiesenfelder.*

Question: 59 – CRS lock-off *available*?

Data Set: CRS

SAS Name: LOCK_AVL

Label Name: CRS lockoff available

Attribute Codes:

SAS	Description
0	No (skip to Q61)
1	Yes
.N	Not applicable
.U	Unknown (skip to Q61)

Remarks:

The data collector recorded whether a CRS lock-off was available. If the answer to this question was either "No" or "Unknown," the data collector was instructed to skip to Q61.

[A CRS lock-off is an attachment] to the CR that is affixed to the vehicle belt to perform one or more of the following functions: (1) prevent movement of the belt relative to the latch plate (2) maintain an applied tension on the belt from the floor anchorage through the latch plate to the lock-off, and (3) prevent movement of the CR relative to the belt webbing. If performing function (1), the lock-off replaces a locking clip. If performing function (2), it does not replace a locking clip but eliminates the need for one. It is still useful to lock the switchable retractor, if this feature is available. Function (3) is intended to improve ride-down and pre-crash stability by keeping the CR from sliding relative to the lap portion of the belt, but this lock-off usage does not fix the lap belt length or maintain belt tension. Function (3) does not replace a locking clip or the lockability feature of the vehicle belt.

Lock-offs were developed as a device that "locks and prevents movement of one section of the webbing of an adult safety-belt relative to another section of the webbing of the same belt." Thus they must perform functions (1) and/or (2), largely eliminating the need for locking clips, and some versions also perform function (3), if the lock-off is rigidly attached to the CR.[15]

Format Type: Number

Field Length: 3

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[15] *www.carseat.org* *www.carseat.org/Technical/tech_update.htm#Lock-off*

Question: 60 – CRS lock-off *in use*?

Data Set: CRS

SAS Name: LOCK_USE

Label Name: CRS lockoff used

Attribute Codes:

SAS	Description
0	No
1	Yes
.N	Not applicable
.U	Unknown

Remarks:

The data collector recorded whether the CRS lock-off was in use.

Format Type: Number

Field Length: 3

Question: 61 – Lower anchors used to install?

Data Set: CRS

SAS Name: LA_USE_O

Label Name: Installed with lower anchors (inspection)

Attribute Codes:

SAS	Description
0	No (skip to Q68)
1	Yes
.N	Not applicable
.U	Unknown

Remarks:

The data collector recorded whether the CRS was installed using the lower anchors. If it was not, the data collector was instructed to skip to Q68.

Format Type: Number

Field Length: 3

Question: 62 – Lower anchor strap routing

Data Set: CRS

SAS Name: LS_RTE

Label Name: LA strap routing

Attribute Codes:

SAS	Description
1	Forward-facing slots/channels
2	Rear-facing slots/channels
3	Other unconventional routing
5	NA – rigid with no strap
.N	Not applicable
.U	Unknown

Remarks:

The data collector recorded how the lower anchors straps were routed through the CRS.

Format Type: Number

Field Length: 3

Question: 63 – Is the lower anchor strap twisted?

Data Set: CRS

SAS Name: LS_TWST

Label Name: Is the LA strap twisted

Attribute Codes:

SAS	Description
0	No
1	Yes, one or more upside-down
4	NA/rigid with no strap
.N	Not applicable
.U	Unknown

Remarks:

The data collector recorded if one or more of the lower anchors straps were twisted.

Format Type: Number

Field Length: 3

Question: 64 – *Left* connector attached to?

Data Set: CRS

SAS Name: LC_L

Label Name: Left connector attached to

Attribute Codes:

SAS	Description
0	Not attached to anything
1	Left lower anchor for SP
2	Other lower anchor
3	Something other than LA
.N	Not applicable
.U	Unknown

Remarks:

The data collector recorded to what the left connector was attached.

Connector: Hardware at the end of a CRS lower anchor strap that is used to connect the strap to one of the vehicle's lower anchors.

SP = Seating position

Format Type: Number

Field Length: 3

Question: 65 – *Right* connector attached to?

Data Set: CRS

SAS Name: LC_R

Label Name: Right connector attached to

Attribute Codes:

SAS	Description
0	Not attached to anything
1	Right lower anchor for SP
2	Other lower anchor
3	Something other than LA
.N	Not applicable
.U	Unknown

Remarks:

The data collector recorded to what the right connector was attached.

Connector: Hardware at the end of a CRS lower anchor strap that is used to connect the strap to one of the vehicle's lower anchors.

SP = Seating position

Format Type: Number

Field Length: 3

Question: 66 – Are the connectors attached with the top side up?

Data Set: CRS

SAS Name: LC_UP

Label Name: Are the connectors top side up

Attribute Codes:

SAS	Description
0	No, not attached
1	Top side up (both)
2	Upside-down (both)
3	Edge side up (both)
4	Mixed
.N	Not applicable
.U	Unknown

Remarks:

The data collector recorded if the connectors were attached to the vehicle's lower anchors, and what were the orientations of the connectors if they were attached.

Format Type: Number

Field Length: 3

Question: 67 – Are there multiple CRS attached to the lower anchors?

Data Set: CRS

SAS Name: MANY_CRS

Label Name: Multiple CRS attached to lower anchors

Attribute Codes:

SAS	Description
0	No
1	Yes
.N	Not applicable
.U	Unknown

Remarks:

The data collector recorded if either of the vehicle's lower anchors (for the SP in which the CRS was located) had multiple lower straps attached to it.

Format Type: Number

Field Length: 3

Question: 68 – Is the child sitting in any type of CRS (harnessed or booster)?

Data Set: CRS

SAS Name: CRS

Label Name: Child in a CRS

Attribute Codes:

SAS	Description
0	No (skip to next form)
1	Yes
.N	Not applicable
.U	Unknown

Remarks:

The data collector recorded whether a child was sitting in a CRS. If the child was not, the data collector was instructed to cease data collection on this form and go to the next survey form.

Format Type: Number

Field Length: 3

Question: 69 – Does the CRS have a label?

Data Set: CRS

SAS Name: CRS_LABL

Label Name: CRS has a label

Attribute Codes:

SAS	Description
0	No (skip to Q77)
1	Yes
.N	Not applicable
.U	Unknown

Remarks:

The data collector recorded whether the CRS had a label. If the CRS did not have a label, the data collector was instructed to skip to Q77.

Format Type: Number

Field Length: 3

Question: 70 –CRS make or manufacturer

Data Set: CRS

SAS Name: MAKEINS

Label Name: CRS make or manufacturer

Attribute Codes:

SAS	Description
#	Make of CRS – refer to Appendix C
.N	Not applicable
.U	Unknown

Remarks:

The data collector recorded the make or manufacturer of the CRS. If the data collectors were unsure they were instructed to obtain this information from the driver, the CRS owner's manual, or any other relevant source present during the physical inspection.

Format Type: Number

Field Length: 8

Question: 71 –CRS model

Data Set: CRS

SAS Name: MODELINS

Label Name: CRS model

Attribute Codes:

SAS	Description
#	Model of CRS – refer to Appendix D
.N	Not applicable
.U	Unknown

Remarks:

The data collector recorded the model of the CRS. If the data collectors were unsure they were instructed to obtain this information from the driver, the CRS owner's manual, or any other relevant source present during the physical inspection.

Format Type: Number

Field Length: 3

Question: 72 –CRS model

Data Set: CRS

SAS Name: CRSMOD_N

Label Name: CRS model number

Attribute Codes:

SAS	Description
# (coded model #)	Insert model number
Not able to observe or missing	

Remarks:

The data collector recorded the model number of the CRS. This number was taken from the labeling on the CRS or from the CRS owner's manual.

Format Type: Text

Field Length: 30

Questions: 73-76 – CRS height and weight limits

Data Set: CRS

SAS Name: CRS_TYPE

Label Name: Type of child restraint for which limits provided

In Questions 73 to 76, "CRS height and weight limits," the data collector recorded the upper and lower height and weight limits for the specific CRS they were inspecting. The four types of CRS include:

      73.1 – 73.4:   Rear-facing limits,

      74.1 – 74.4:   Forward facing limits,

      75.1 – 75.4:   High back booster limits, and

      76.1 – 76.4:   Backless booster limits.

If, for example, the CRS being examined was a high-back booster, only the attributes within 75.1 – 75.4 would be completed. The attributes for Q73, 74, and 76 would be coded "Not applicable."

The four height/weight limits that were recorded per CRS were:

      Lower height,

      Upper height,

      Lower weight,

      Upper weight.

All of these measurements were recorded in standard (inches/pounds) values.

Response: **73.1 – Lower height**

Data Set: CRS

SAS Name: RFLIM_LH

Label Name: Rear-Facing Limit, Lower Height

Range: 0 – 34 inches

Attribute Codes:

SAS	Description
#	Enter the height limit in inches
.N	Not applicable
.U	Unknown (skip to Q52)

Remarks:

The data collector recorded the lower height limit of the rear-facing CRS.

Format Type: Number

Field Length: 3

Response: 73.2 – Upper height

Data Set: CRS

SAS Name: RFLIM_UH

Label Name: Rear-Facing Limit, Upper Height

Range: 5 – 54 inches

Attribute Codes:

SAS	Description
#	Enter the height limit in inches
.N	Not applicable
.U	Unknown (skip to Q52)

Remarks:

The data collector recorded the upper height limit of the rear-facing CRS.

Format Type: Number

Field Length: 3

Response: **73.3 – Lower weight**

Data Set: CRS

SAS Name: RFLIM_LW

Label Name: Rear-Facing Limit, Lower Weight

Range: 0 – 50 pounds

Attribute Codes:

SAS	Description
#	Enter the weight limit in pounds
.N	Not applicable
.U	Unknown (skip to Q52)

Remarks:

The data collector recorded the lower weight limit of the rear-facing CRS.

Format Type: Number

Field Length: 3

Response: 73.4 – Upper weight

Data Set: CRS

SAS Name: RFLIM_UW

Label Name: Rear-Facing Limit, Upper Weight

Range: 20 – 65 pounds

Attribute Codes:

SAS	Description
#	Enter the weight limit in pounds
.N	Not applicable
.U	Unknown (skip to Q52)

Remarks:

The data collector recorded the upper weight limit of the rear-facing CRS.

Format Type: Number

Field Length: 3

Response: 74.1 – Lower height

Data Set: CRS

SAS Name: FFLIM_LH

Label Name: Front-Facing Limit, Lower Height

Range: 0 – 48 inches

Attribute Codes:

SAS	Description
#	Enter the height limit in inches
.N	Not applicable
.U	Unknown (skip to Q52)

Remarks:

The data collector recorded the lower height limit of the forward-facing CRS.

Format Type: Number

Field Length: 3

Response: 74.2 – Upper height

Data Set: CRS

SAS Name: FFLIM_UH

Label Name: Front-Facing Limit, Upper Height

Range: 20 - 100 inches

Attribute Codes:

SAS	Description
#	Enter the height limit in inches
.N	Not applicable
.U	Unknown (skip to Q52)

Remarks:

The data collector recorded the upper height limit of the forward-facing CRS.

Format Type: Number

Field Length: 3

Response: **74.3 – Lower weight**

Data Set: CRS

SAS Name: FFLIM_LW

Label Name: Front-facing limit, lower weight

Range: 5 – 65 pounds

Attribute Codes:

SAS	Description
#	Enter the weight limit in pounds
.N	Not applicable
.U	Unknown (skip to Q52)

Remarks:

The data collector recorded the lower weight limit of the forward-facing CRS.

Format Type: Number

Field Length: 3

Response: 74.4 – Upper weight

Data Set: CRS

SAS Name: FFLIM_UW

Label Name: Front-Facing Limit, Upper Weight

Range: 9 – 110 pounds

Attribute Codes:

SAS	Description
#	Enter the weight limit in pounds
.N	Not applicable
.U	Unknown (skip to Q52)

Remarks:

The data collector recorded the upper weight limit of the forward-facing CRS.

Format Type: Number

Field Length: 3

Response: **75.1 – Lower height**

Data Set: CRS

SAS Name: HBLIM_LH

Label Name: High-Back Booster Limit, Lower Height

Range: 27 – 96 inches

Attribute Codes:

SAS	Description
#	Enter the height limit in inches
.N	Not applicable
.U	Unknown (skip to Q52)

Remarks:

The data collector recorded the lower height limit of the high-back booster seat.

Format Type: Number

Field Length: 3

Response: 75.2 – Upper height

Data Set: CRS

SAS Name: HBLIM_UH

Label Name: High-Back Booster Limit, Upper Height

Range: 30 – 145 inches

Attribute Codes:

SAS	Description
#	Enter the height limit in inches
.N	Not applicable
.U	Unknown (skip to Q52)

Remarks:

The data collector recorded the upper height limit of the high-back booster seat.

Format Type: Number

Field Length: 3

Response: **75.3 – Lower weight**

Data Set: CRS

SAS Name: HBLIM_LW

Label Name: High-back booster Limit, Lower Weight

Range: 20 – 100 pounds

Attribute Codes:

SAS	Description
#	Enter the weight limit in pounds
.N	Not applicable
.U	Unknown (skip to Q52)

Remarks:

The data collector recorded the lower weight limit of the high-back booster seat.

Format Type: Number

Field Length: 3

Response: 75.4 – Upper weight

Data Set: CRS

SAS Name: HBLIM_UW

Label Name: High-Back Booster Limit, Upper Weight

Range: 9 – 140 pounds

Attribute Codes:

SAS	Description
#	Enter the weight limit in pounds
.N	Not applicable
.U	Unknown (skip to Q52)

Remarks:

The data collector recorded the upper weight limit of the high-back booster seat.

Format Type: Number

Field Length: 3

Response:　　　**76.1 – Lower height**

Data Set:　　　　　　CRS

SAS Name:　　　　　　BBLIM_LH

Label Name:　　　　　Backless-Back Booster Limit, Lower Height

Range:　　　　　　　27 – 101 inches

Attribute Codes:

SAS	Description
#	Enter the height limit in inches
.N	Not applicable
.U	Unknown (skip to Q52)

Remarks:

The data collector recorded the lower height limit of the backless booster seat.

Format Type:　　　　Number

Field Length:　3

Response: 76.2 – Upper height

Data Set: CRS

SAS Name: BBLIM_UH

Label Name: Backless-Back Booster Limit, Upper Height

Range: 37 – 145 inches

Attribute Codes:

SAS	Description
#	Enter the height limit in inches
.N	Not applicable
.U	Unknown (skip to Q52)

Remarks:

The data collector recorded the upper height limit of the backless booster seat.

Format Type: Number

Field Length: 3

Response: 76.3 – Lower weight

Data Set: CRS

SAS Name: BBLIM_LW

Label Name: Backless-Back Booster Limit, Lower Weight

Range: 25 – 50 pounds

Attribute Codes:

SAS	Description
#	Enter the weight limit in pounds
.N	Not applicable
.U	Unknown (skip to Q52)

Remarks:

The data collector recorded the lower weight limit of the backless booster seat.

Format Type: Number

Field Length: 3

Response: **76.4 – Upper weight**

Data Set: CRS

SAS Name: BBLIM_UW

Label Name: Backless-Back Booster Limit, Upper Weight

Range: 9 – 160 pounds

Attribute Codes:

SAS	Description
#	Enter the weight limit in pounds
.N	Not applicable
.U	Unknown (skip to Q52)

Remarks:

The data collector recorded the upper weight limit of the backless booster seat.

Format Type: Number

Field Length: 3

Question: 77 –Is there visible damage to the restraint?

Data Set: CRS

Attribute Codes:

Remarks:

The data collector identified any damage that was present on the CRS.

Question 77 was a "Check all that apply" question and the data collectors were instructed pick as many choices as were appropriate for this question. The next five pages of the manual provide further detail. There was an additional attribute for this question "No visible damage." If this was selected the remaining attributes would be set to "0"

The specific attributes (choices 77.1 – 77.5.) are defined as follows:

77.1:   Cracked/broken shell

77.2:   Torn padding

77.3:   Broken/frayed harness

77.4:   Other visible damage

77.5:   Other, _____

Response: 77.1 – Cracked/broken shell

Data Set: CRS

SAS Name: DAM_SHEL

Label Name: CRS visible damage - shell

Attribute Codes:

SAS	Description
0	No
1	Yes
.N	Not applicable
.U	Unknown

Remarks:

The data collector noted if there was damage in the form of cracking/braking of the CRS shell. This was one of 5 possible choices for Question 77, "Is there any visible damage to the restraint?"/Attribute 77.1 "Cracked/broken shell."

Question 77 was a "Check all that apply" question and the data collectors were instructed to check all choices available to describe the damage to the CRS.

Format Type: Number

Field Length: 3

Response: 77.2 – Torn padding

Data Set: CRS

SAS Name: DAM_PAD

Label Name: CRS visible damage - padding

Attribute Codes:

SAS	Description
0	No
1	Yes
.N	Not applicable
.U	Unknown

Remarks:

The data collector noted if there was damage in the form of ripped or missing padding. This was one of 5 possible choices for Question 77, "Is there any visible damage to the restraint?"/Attribute 77.2 "Torn padding."

Question 77 was a "Check all that apply" question and the data collectors were instructed to check all choices available to describe the damage to the CRS.

Format Type: Number

Field Length: 3

Response: 77.3 – Broken/frayed harness

Data Set: CRS

SAS Name: DAM_HRNS

Label Name: CRS visible damage - harness

Attribute Codes:

SAS	Description
0	No
1	Yes
.N	Not applicable
.U	Unknown

Remarks:

The data collector noted whether there was damage in the form of a broken or frayed harness. This was one of 5 possible choices for Question 77, "Is there any visible damage to the restraint?"/Attribute 77.3 "Broken/frayed harness."

Question 77 was a "Check all that apply" question and the data collectors were instructed to check all choices available to describe the damage to the CRS.

Format Type: Number

Field Length: 3

Response: 77.4 – Other visible damage

Data Set: CRS

SAS Name: DAM_O

Label Name: CRS visible damage – other

Attribute Codes:

SAS	Description
0	No
1	Yes
.N	Not applicable
.U	Unknown

Remarks:

The data collector noted whether there was damage in the form of other damage not specified in the other attributes for this question, but they ***did not*** specify what type of damage. This was one of 5 possible choices for Question 77, "Is there any visible damage to the restraint?"/Attribute 77.4 "Other visible damage."

Question 77 was a "Check all that apply" question and the data collectors were instructed to check all choices available to describe the damage to the CRS.

Format Type: Number

Field Length: 3

Response: **77.5 – Other, _____**

Data Set: CRS

SAS Name: DAM_OS

Label Name: CRS visible damage – other specify

Attribute Codes:

Remarks:

The data collector noted if there was damage in the form of other damage, and they **_did_** specify the damage on the space provided on the survey form. This was one of 5 possible choices for Question 77, "Is there any visible damage to the restraint?"/Attribute 77.5 "Other visible damage, other specify."

Question 77 was a "Check all that apply" question and the data collectors were instructed to check all choices available to describe the damage to the CRS.

Format Type: Text

Field Length: 75

Question: 78 –Are there any aftermarket products used with the CRS?

Data Set: CRS

Attribute Codes:

Remarks:

The data collector identified if there were any aftermarket products used with the CRS.

Question 78 was a "Check all that apply" question and the data collectors were instructed to pick as many choices as were appropriate for this question. The next seven pages of the manual provide further detail. There was an additional attribute for this question "No aftermarket device." If this was selected the remaining attributes would be set at "0"

The specific attributes (choices 78.1 – 78.7.) are defined as follows:

> **78.1:**   Belt tightener/mighty tite
>
> **78.2:**   Padding between the child and CRS
>
> **78.3:**   Padding between CRS and vehicle seat (other than noodles and rolled towels)
>
> **78.4:**   Aftermarket seat cover
>
> **78.5:**   Toys/items attached to CRS

78.6:   Other aftermarket device

78.7:   Other, _____

Response: **78.1 – Belt tightener/mighty tite**

Data Set: CRS

SAS Name: MRKT_SB

Label Name: Aftermarket products used with CRS – belt tightener

Attribute Codes:

SAS	Description
0	No
1	Yes
.N	Not applicable
.U	Unknown

Remarks:

The data collector noted whether a belt tightening aftermarket device was used with the CRS. This was one of 7 possible choices for Question 78, "Are there any aftermarket products used with the CRS?"/Attribute 78.1 "Belt tightener/mighty tite."

Question 78 was a "Check all that apply" question and the data collectors were instructed to check all choices available to describe the damage to the CRS.

Format Type: Number

Field Length: 3

Response: 78.2 – Padding between the child and CRS

Data Set: CRS

SAS Name: MRKT_CRS

Label Name: Aftermarket products used with CRS – padding between child/CRS

Attribute Codes:

SAS	Description
0	No
1	Yes
.N	Not applicable
.U	Unknown

Remarks:

The data collector noted whether padding between the child and CRS was used with the CRS. This was one of 7 possible choices for Question 78, "Are there any aftermarket products used with the CRS?"/Attribute 78.2 "Padding between the child and CRS."

Question 78 was a "Check all that apply" question and the data collectors were instructed to check all choices available to describe the damage to the CRS.

Format Type: Number

Field Length: 3

Response: **78.3 – Padding between the CRS and vehicle seat (other than noodles/rolled towels)**

Data Set: CRS

SAS Name: MRKT_VEH

Label Name: Aftermarket products used with CRS – padding between CRS/vehicle seat

Attribute Codes:

SAS	Description
0	No
1	Yes
.N	Not applicable
.U	Unknown

Remarks:

The data collector noted if padding between the CRS and vehicle seat (other than noodles/rolled towels) was used with the CRS. This was one of 7 possible choices for Question 78, "Are there any aftermarket products used with the CRS?"/Attribute 78.3 "Padding between the CRS and vehicle seat (other than noodles/rolled towels)."

Question 78 was a "Check all that apply" question and the data collectors were instructed to check all choices available to describe the damage to the CRS.

Format Type: Number

Field Length: 3

Response: **78.4 – Aftermarket seat cover**

Data Set: CRS

SAS Name: MRKT_CVR

Label Name: Aftermarket products used with CRS – seat cover

Attribute Codes:

SAS	Description
0	No
1	Yes
.N	Not applicable
.U	Unknown

Remarks:

The data collector noted if an aftermarket seat cover was used with the CRS. This was one of 7 possible choices for Question 78, "Are there any aftermarket products used with the CRS?"/Attribute 78.4 "Aftermarket seat cover."

Question 78 was a "Check all that apply" question and the data collectors were instructed to check all choices available to describe the damage to the CRS.

Format Type: Number

Field Length: 3

Response: **78.5 – Toys/items attached to CRS**

Data Set: CRS

SAS Name: MRKT_TOY

Label Name: Aftermarket products used with CRS – toys

Attribute Codes:

SAS	Description
0	No
1	Yes
.N	Not applicable
.U	Unknown

Remarks:

The data collector noted if toys or other items were used with the CRS. This was one of 7 possible choices for Question 78, "Are there any aftermarket products used with the CRS?"/Attribute 78.5 "Toys/items attached to CRS."

Question 78 was a "Check all that apply" question and the data collectors were instructed to check all choices available to describe the damage to the CRS.

Format Type: Number

Field Length: 3

Response: 78.6 – Other aftermarket device

Data Set: CRS

SAS Name: MRKT_O

Label Name: Aftermarket products used with CRS – other

Attribute Codes:

SAS	Description
0	No
1	Yes
.N	Not applicable
.U	Unknown

Remarks:

The data collector noted if another aftermarket device was used with the CRS, but they ***did not*** specify what type of device. This was one of 7 possible choices for Question 78, "Are there any aftermarket products used with the CRS?"/Attribute 78.6 "Other aftermarket device."

Question 78 was a "Check all that apply" question and the data collectors were instructed to check all choices available to describe the damage to the CRS.

Format Type: Number

Field Length: 3

Response: **78.7 – Other, _____**

Data Set: CRS

SAS Name: MRKT_OS

Label Name: Aftermarket products used with CRS – other specify

Attribute Codes:

Remarks:

The data collector noted if another aftermarket device was used with the CRS, and they **did** specify what type of device. This was one of 7 possible choices for Question 78, "Are there any aftermarket products used with the CRS?"/Attribute 78.7 "Other, _____."

Question 78 was a "Check all that apply" question and the data collectors were instructed to check all choices available to describe the damage to the CRS.

Format Type: Text

Field Length: 75

Question: **N/A (Sampling weight)**

Data Set: CRS

SAS Name: SAMPWGT

Label Name   Sampling Weight

Range: 6.354 – 54873.984

Remarks:

This data element is not drawn from the data collection form, but is used to produce national estimates from the SAS dataset related to the form. See *Appendix E: Statistical Methods* for more information.

Format Type: Number

Field Length: 3

Question: **N/A (Primary Sampling Unit stratum)**

Data Set: CRS

SAS Name: PSUSTRAT

Label Name   Primary Sampling Unit Stratum

Range: 1 – 12

Remarks:

This data element is not drawn from the data collection form, but is used to calculate standard errors of national estimates from the SAS dataset related to the form. See *Appendix E: Statistical Methods* for more information.

Format Type: Number

Field Length: 3

Inspection Form Vehicle Restraints (1111)

Paperwork Reduction Act Burden Statement

A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB Control Number. The OMB Control Number for this information collection is 2127-0642. Public reporting for this collection of information is estimated to be approximately 0 minutes per response, including the time for reviewing instructions, completing and reviewing the collection of information. All responses to this collection of information are voluntary. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to: Information Collection Clearance Officer, National Highway Traffic Safety Administration, 1200 New Jersey Ave, S.E., Washington, DC, 20590.

NHTSA Form 1111

United States Department of Transportation
National Highway Traffic Safety Administration

**Inspection Form
Vehicle Restraints**
(04/22/11)

Form Approved O.M.B. No. 2127-0642
Expiration Date: 3/31/14
National Automotive Sampling System
National Child Restraint Use – Special Study

1. Primary Sampling Unit Number: ____ ____

2. Site Number: ____ ____ ____ ____ ____

3. Observation Number: ____ ____

4. Date of Observation: ____/____/ 2011

5. Vehicle Identification Number (VIN) *[Left justify; Slash zeros and letter Z; If Unknown, Code all nines]*

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17

6. Number of vehicle seating positions: _____

Observe the Availability & Use of Restraints for Each of the Seating Positions

1. For each seating position: **Scribble over or** make an **"X"** for the following:
   1. "Available" and "Used" Boxes. If the seating position is **not available** in the vehicle
   2. "Used" Boxes: if **no one is sitting** in an available seating position
2. Abbreviations:
   1. 1st line: **L/S** *(Lap-Shoulder)*, **L** *(Lap)*, or **S** *(Shoulder) Belt*; **DK** *(Don't Know)*, **U** *(Unrestrained)*, **(INT)** *Integrated CRS*
   2. 2nd line: **T-S** *(Tether Anchor-Shelf)*, **T-O** *(Tether Anchor-Other Location)*
   3. 3rd Line: **LA-L/R** *(Both Lower Anchors)*, **LA-L** *(Lower Anchor-Left)*, **LA-R** *(Lower Anchor-Right)*
   4. 4th & 5th Lines: **I-w/B** *(Infant w/base)*, **I-w/o** *(Infant w/o Base)*, **RFC** *(RF Convertible/all-in-one)*, **FFC** *(FF Convertible or Combination w/harness/shield)*, **HB-BPB** *(HB BP booster-no harness)*, **BL-BPB** *(Backless BP booster)*, **S** *(Shield Booster)*, **C** *(Car bed)*, **V** *(Vest)*, **O** *(Other)*

Front of Vehicle *(By Inspection Only; Do Not Change Based upon Driver's Answers)*

A

11A Available	12A Available	13A Available
L/S L S None DK	L/S L S None DK	L/S L S None DK
	T-S T-O None DK	T-S T-O None DK
	LA-L/R LA-L LA-R None DK	LA-L/R LA-L LA-R None DK

B

11B Used	12B Used	13B Used
L/S L S DK U	L/S L S DK U	L/S L S DK U
	T-S T-O DK	T-S T-O DK
	LA-L/R LA-L LA-R DK	LA-L/R LA-L LA-R DK
	I-w/B I-w/o RFC FFC	I-w/B I-w/o RFC FFC
	HB-BPB BL-BPB S C V O	HB-BPB BL-BPB S C V O

A

21A Available	22A Available	23A Available
L/S L S None DK INT	L/S L S None DK INT	L/S L S None DK INT
T-S T-O None DK	T-S T-O None DK	T-S T-O None DK
LA-L/R LA-L LA-R None DK	LA-L/R LA-L LA-R None DK	LA-L/R LA-L LA-R None DK

B

21B Used	22B Used	23B Used
L/S L S DK INT U	L/S L S DK INT U	L/S L S DK INT U
T-S T-O DK	T-S T-O DK	T-S T-O DK
LA-L/R LA-L LA-R DK	LA-L/R LA-L LA-R DK	LA-L/R LA-L LA-R DK
I-w/B I-w/o RFC FFC	I-w/B I-w/o RFC FFC	I-w/B I-w/o RFC FFC
HB-BPB BL-BPB S C V O	HB-BPB BL-BPB S C V O	HB-BPB BL-BPB S C V O

A

31A Available	32A Available	33A Available
L/S L S None DK INT	L/S L S None DK INT	L/S L S None DK INT
T-S T-O None DK	T-S T-O None DK	T-S T-O None DK
LA-L/R LA-L LA-R None DK	LA-L/R LA-L LA-R None DK	LA-L/R LA-L LA-R None DK

B

31B Used	32B Used	33B Used
L/S L S DK INT U	L/S L S DK INT U	L/S L S DK INT U
T-S T-O DK	T-S T-O DK	T-S T-O DK
LA-L/R LA-L LA-R DK	LA-L/R LA-L LA-R DK	LA-L/R LA-L LA-R DK
I-w/B I-w/o RFC FFC	I-w/B I-w/o RFC FFC	I-w/B I-w/o RFC FFC
HB-BPB BL-BPB S C V O	HB-BPB BL-BPB S C V O	HB-BPB BL-BPB S C V O

The Inspection Form - Vehicle Restraints (NHTSA INSR - 1111) was for collecting information on the availability and usage of the vehicle's safety systems observed directly from the vehicle. The data collectors documented what safety systems were available for each seating position and determined what systems were being used by the vehicle's occupants. **Note:** This data was collected for all occupants regardless of their age.

This form contained 6 core observations as well as a diagram for each seating position. Each seating position was broken into two parts: (**A)** what safety systems were available; and (**B)** what safety systems were used. The seats were numbered using a schema where the first digit represented the row and the second digit represented the seat within that row. For example, for the driver's seat the seating position was **Row 1** and **Seat 1** or **11**; for the second row middle occupant the position was **Row 2** and **Seat 2** or **22**. The vehicle's seats were designated along the following parameters.

Seating position **11A** and **11B**:   Driver's seat
Seating position **12A** and **12B**:   Front middle seat
Seating position **13A** and **13B**:   Front right seat

Seating potion **21A** and **21B**:   Second row left seat
Seating potion **22A** and **22B**:   Second row middle seat
Seating potion **23A** and **23B**:   Second row right seat

Seating position **31A** and **31B**:   Third row left seat
Seating position **32A** and **32B**:   Third row middle seat
Seating position **33A** and **33B**:   Third row right seat

If there were additional rows of seats (e.g., fourth and fifth rows), the data collector was instructed to use a second INSV 1111 survey form and change 11, 12, and 13 to 41, 42, and 43 for the fourth row and 21, 22, and 23 to 51, 52, and 53 for the fifth row.

Refer to the survey form (1111) on the previous page for a breakdown of acronyms associated with the seating diagram.

Question: 1 – Primary Sampling Unit number

Data Set: VEH

SAS Name: PSU

Label Name: Primary Sampling Unit

Attribute Codes:

Range: 02 - 82

Remarks:

NCRUSS used the CDS sites for data collection. The CDS consists of 24 statistically representative PSUs located throughout the country.[16] The PSUs have been assigned two-digit identifying numbers that range from 02 to 82.

For more information on the CDS, refer to the 2014 CDS Analytical User's Manual (Report No. DOT HS 812 198) at http://www-nrd.nhtsa.dot.gov/Pubs/812198.pdf.

Format Type: Number

Field Length: 3

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[16] Additional information about the NASS CDS PSUs can be found in Appendix F of the 2014 NASS CDS Analytical User's Manual at http://www-nrd.nhtsa.dot.gov/Pubs/812198.pdf. Demographic data on the 24 PSUs have been included in Appendix F to give researchers supplementary information on the nature of the PSUs.

Question: 2 – Site Number

Data Set: VEH

SAS Name: SITEID

Label Name: Site Number

Attribute Codes:

Range: 021103 - 823223

Remarks:

This is a unique six-digit identification number that was generated during the sampling process by NHTSA for use during data collection. This number, using the format below, identifies the location where the data was collected and provides additional information about each of the sites. Data was collected at each of the sites for only one 3-hour data collection time period. In rare instances, the same site was collected a second time. This occurred mainly in rural areas that contained fewer potential sites.

The first two digits are the assigned PSU number (refer to the Background section beginning on page 1).
The third digit is the stratum.
The fourth digit is an indicator, 1 for sample, 2 for shadow sample, and 3 for extension sample.
The fifth and sixth digits are the site number (a sequential count of sites visited within a PSU).

The following is an example of how the site number was constructed for site 082220:

PSU number (08) | stratum (2) | sample indicator (2) | site number (20)

For more information on this topic refer to the **Sampling Design** on page 2 of this manual.

Format Type: Number

Field Length: 6

Question: 3 – Observation Number

Data Set: VEH

SAS Name: OBS

Label Name: Observation Number

Attribute Codes:

Range: 01 - 34

Remarks:

An observation number is assigned for each vehicle that is approached regardless of whether the driver agrees to participate in the survey. Accordingly, numbers are assigned not only to vehicles from which a completed interview is obtained, but also to vehicles from which interviews are not conducted/completed (e.g., the drivers do not agree to participate and/or all occupants are older than 8).

At each data collection site, numbering begins at 01 and continues consecutively until all vehicles are given numbers. The highest number of observations recorded for any one session was 34.

Format Type: Number

Field Length: 3

Question: 4 – Date of observation

Data Set: VEH

SAS Name: DATE

Label Name: Observation Date

Attribute Codes:

Range: 06/01/2011 – 07/29/2011

Remarks:

This is the date the observation was made.

Format Type: Text

Field Length: 10

Question: 5 – Vehicle identification number

Data Set: CRS

SAS Name: VIN

Label Name: Vehicle identification number (VIN)

Attribute Codes:

#	Enter the vehicle identification number
999999999999	Unknown

Remarks:

The data collector recorded the 17-digit VIN found on the vehicle, but only the first 12 characters of the VIN are included in the file.

Format Type: Character

Field Length: 12

Question: 6 – Number of vehicle seating positions

Data Set: CRS

SAS Name: VEH_SPS

Label Name: Number of vehicle SPs

Attribute Codes:

Range: **2** – 11

Remarks:

The data collector recorded the number of vehicle seating positions available inside the vehicle.

[17] *Designated seating position* means any plane view location capable of accommodating a person at least as large as a 5th percentile adult female, if the overall seat configuration and design and vehicle design is such that the position is likely to be used as a seating position while the vehicle is in motion, except for auxiliary seating accommodations such as temporary or folding jump seats. Any bench or split-bench seat in a passenger car, truck or multipurpose passenger vehicle with a GVWR under 4,536 kilograms (10,000 pounds), having greater than 127 centimeters (50 inches) of hip room measured in accordance with SAE Standard J1100(a) shall have not less than three designated seating positions, unless the seat design or vehicle design is such that the center position cannot be used for seating.

Format Type: Number

Field Length: 3

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[17] **49 CFR 571**, **Federal Motor Vehicle Safety Standards; Designated Seating Positions**. Pp. **68185 - 68190.** Available at **https://federalregister.gov/a/E9-30440**

Question: 7 – Seat belt availability – all seating positions

Data Set: VEH

SAS Name: AVL##SB

Label Name: Driver's Position, Available: Seat belt

SP - Available: Seat Belt (SB)

Attribute Codes:

0	None
1	Lap and shoulder
2	Lap
3	Shoulder
.E	Didn't ask
.N	Not applicable
.R	Refused
.U	Unknown

Remarks:

This is a multi-variable definition that includes the different seating position possibilities, but not necessarily those available in the documented vehicle.

The "##" in the above variable SAS name and Label Name equates to the seating position. The available possibilities for "##" include: 11 – 13, 21 – 23, 31 – 33, and 41 – 43, (e.g., AVL13SB).

Format Type: Number

Field Length: 3

Question: 8 – Tether anchor availability – seating positions (12-43)

Data Set: VEH

SAS Name: AVL##TA

Label Name: ## SP - Available: Tether Anchor (TA)

Attribute Codes:

0	None
1	T-S (tether anchor – shelf)
2	T/O (tether anchor – other)
.E	Didn't ask
.N	Not applicable
.R	Refused
.U	Unknown

Remarks:

This is a multi-variable definition that includes the different seating position possibilities, but not necessarily those available in the documented vehicle.

The "##" in the above variable SAS name and Label Name equates to the seating position. The available possibilities for "##" include: 12 – 13, 21 – 23, 31 – 33, and 41 – 43, (e.g., AVL13TA).

Note: Seating position 11 (driver's position) was not documented for this variable.

Format Type: Number

Field Length: 3

Question: 9 – Lower anchor availability – seating positions (12-43)

Data Set: VEH

SAS Name: AVL##LA

Label Name: ## SP - Available: Lower Anchors (LA)

Attribute Codes:

0	None
1	L/A – L/R (both lower anchors)
2	L/A - L (lower anchor – left)
3	L/A – R (lower anchor – right)
.E	Didn't ask
.N	Not applicable
.R	Refused
.U	Unknown

Remarks:

This is a multi-variable definition that includes the different seating position possibilities, but not necessarily those available in the documented vehicle.

The "##" in the above variable SAS name and Label Name equates to the seating position. The available possibilities for "##" include: 12 – 13, 21 – 23, 31 – 33, and 41 – 43, (e.g., AVL13LA).

Note: Seating position 11 (driver's position) was not documented for this variable.

Format Type: Number

Field Length: 3

Question: 10 – Integrated child seat availability – seating positions (12-43)

Data Set: VEH

SAS Name: AVL##IG

Label Name: ## SP - Available: Integrated Child Seat (IG)

Attribute Codes:

0	No
1	Yes
.E	Didn't ask
.N	Not applicable
.R	Refused
.U	Unknown

Remarks:

This is a multi-variable definition that includes the different seating position possibilities, but not necessarily those available in the documented vehicle.

The "##" in the above variable SAS name and Label Name equates to the seating position. The available possibilities for "##" include: 12 – 13, 21 – 23, 31 – 33, and 41 – 43, (e.g., AVL13IG).

Note: Seating position 11 (driver's position) was not documented for this variable.

Format Type: Number

Field Length: 3

Question: 11 – Seat belt use – all seating positions

*Data Set: VEH

SAS Name: USE##SB

Label Name: Driver's Position, Used: Seat belt
                         ## SP - Available: Seat belt (SB)

Attribute Codes:

0	Not used
1	L/S (lap –shoulder)
2	L (lap belt)
3	S (shoulder belt)
.E	Didn't ask
.N	Not applicable
.R	Refused
.U	Unknown

Remarks:

This is a multi-variable definition that includes the different seating position possibilities, but not necessarily those available in the documented vehicle.

This variable indicates whether the safety system component was used.

The "##" in the above variable SAS name and Label Name equates to the seating position. The available possibilities for "##" include: 11 – 13, 21 – 23, 31 – 33, and 41 – 43, (e.g., USE13SB).

Format Type: Number

Field Length: 3

Question: 12 – Tether anchor use – seating positions (12-43)

Data Set: VEH

SAS Name: USE##TA

Label Name: ## SP - Use: Tether Anchor (TA)

Attribute Codes:

0	Not used
1	T-S (tether anchor – shelf)
2	T/O (tether anchor – other)
.E	Didn't ask
.N	Not applicable
.R	Refused
.U	Unknown

Remarks:

This is a multi-variable definition that includes the different seating position possibilities, but not necessarily those available in the documented vehicle.

This variable indicates whether the safety system component was used.

The "##" in the above variable SAS name and Label Name equates to the seating position. The available possibilities for "##" include: 12 – 13, 21 – 23, 31 – 33, and 41 – 43, (e.g., USE13TA).

Note: Seating position 11 (driver's position) was not documented for this variable.

Format Type: Number

Field Length: 3

Question: 13 – Lower anchor use – seating positions (12-43)

Data Set: VEH

SAS Name: USE##LA

Label Name: ## SP - Use: Lower Anchors (LA)

Attribute Codes:

0	Not used
1	L/A – L/R (both lower anchors)
2	L/A - L (lower anchor – left)
3	L/A – R (lower anchor – right)
.E	Didn't ask
.N	Not applicable
.R	Refused
.U	Unknown

Remarks:

This is a multi-variable definition that includes the different seating position possibilities, but not necessarily those available in the documented vehicle.

This variable indicates whether the safety system component was used.

The "##" in the above variable SAS name and Label Name equates to the seating position. The available possibilities for "##" include: 12 – 13, 21 – 23, 31 – 33, and 41 – 43, (e.g., USE13LA).

Note: Seating position 11 (driver's position) was not documented for this variable.

Format Type: Number

Field Length: 3

Question: 14 – Integrated child seat use – seating positions (12-43)

Data Set: VEH

SAS Name: USE##CRS

Label Name: ## SP - Available: Integrated Child Seat (IG)

Attribute Codes:

0	Not used
1	I-w/B (infant w/base)
2	I-w/o (infant w/o base)
3	RFC (RF convertible/all-in-one)
4	FFC (FF convertible or combination w/harness/shield)
5	HB-BPB (HB BP booster – no harness)
6	BL-BPB (backless BP booster)
7	S (shield booster)
8	C (car bed)
9	V (vest)
10	O (Other)
11	INT (integrated)
.E	Didn't ask
.N	Not applicable
.R	Refused
.U	Unknown

Remarks:

This is a multi-variable definition that includes the different seating position possibilities, but not necessarily those available in the documented vehicle.

This variable indicates whether the safety system component was used.

The "##" in the above variable SAS name and Label Name equates to the seating position. The available possibilities for "##" include: 12 – 13, 21 – 23, 31 – 33, and 41 – 43, (e.g., USE13CRS).

Note: Seating position 11 (driver's position) was not documented for this variable.

Format Type: Number

Field Length: 3

Question: 15 – Occupied seating positions – all seating positions

Data Set: VEH

SAS Name: OCC##

Label Name: ## seat occupied

Attribute Codes:

0	No
1	Yes
9	Unknown
.N	Not applicable

Remarks:

This is a multi-variable definition that includes the different seating position possibilities, but not necessarily those available in the documented vehicle. If a specific seating position is not available in the documented vehicle, the attribute code of ".N" is used.

The "##" in the above variable SAS name and Label Name equates to the seating position. The available possibilities for "##" include: 11 – 13, 21 – 23, 31 – 33, and 41 – 43, (e.g., OCC13).

Data was not collected for this variable during data collection—instead, the attribute codes were derived based upon an examination of the other variables collected in the survey forms. If occupancy status was not clear, the attribute code of "9" was used. Accordingly, the exact occupancy of each seat may not be captured in this variable, although it contains the best estimate of occupancy that is available.

Format Type: Number

Field Length: 3

Question: N/A (Sampling weight)

Data Set: VEH

SAS Name: SAMPWGT

Label Name   Sampling Weight

Range: 6.354 – 54873.984

Remarks:

This data element is not drawn from the data collection form, but is used to produce national estimates from the SAS dataset related to the form. See *Appendix E: Statistical Methods* for more information.

Format Type: Number

Field Length: 3

Question: **N/A (Primary Sampling Unit stratum)**

Data Set: VEH

SAS Name: PSUSTRAT

Label Name   Primary Sampling Unit Stratum

Range: 1 – 12

Remarks:

This data element is not drawn from the data collection form, but is used to calculate standard errors of national estimates from the SAS dataset related to the form. See *Appendix E: Statistical Methods* for more information.

Format Type: Number

Field Length: 3

Appendix A – List of Vehicle Makes (Possible)

Vehicle Make
ACURA
ALFA ROMEO
AM GENERAL
AMC/AMERICAN MOTORS
ASTON MARTIN
AUDI
AUSTIN/AUSTIN-HEALEY
AUTO UNION DKW
AUTOCAR
AVANTI
BERTONE
BMW
BRICKLIN
BROCKWAY
BSA
BUELL
BUICK
CADILLAC
CHECKER
CHEVROLET
CHRYSLER
CITROEN
CONSULIER
DAEWOO
DAIHATSU
DELOREAN
DESOTO
DESTA
DIAMOND REO/REO
DIVCO
DODGE
DUCATI
EAGLE
EXCALIBER
FERRARI
FIAT
FORD
FREIGHTLINER/WHITE
FWD

GMC
GRUMMAN
HARLEY-DAVIDSON
HILLMAN
HINO
HONDA
HUDSON
HYOSUNG
HYUNDAI
IMPERIAL
INDIAN
INFINITI
INTERNATIONAL HARVESTER/NAVISTAR
ISUZU
IVECO/MAGIRUS
JAGUAR
JEEP/KAISER JEEP
JENSEN
KAWASAKI
KENWORTH
KIA
KTM
LADA
LAMBORGHINI
LANCIA
LAND ROVER
LEXUS
LINCOLN
LOTUS
MACK
MARMON
MASERATI
MAZDA
MERCEDES-BENZ
MERCURY
MERKUR
MG
MINI
MITSUBISHI
MORGAN
MORRIS
MOTO GUZZI
NEOPLAN

Appendix A – List of Vehicle Makes

NISSAN/DATSUN
NORTON
OLDSMOBILE
OSHKOSH
OTHER DOMESTIC MANUFACTURER (light vehicles)
OTHER FOREIGN MANUFACTURER (light vehicles)
OTHER MAKE (med/heavy truck/bus or "other")
OTHER MAKE MOPED
OTHER MAKE MOTORED CYCLE
PACKARD
PETERBILT
PEUGEOT
PLYMOUTH
PONTIAC
PORSCHE
RELIANT
RENAULT/AMC
ROLLS ROYCE/BENTLEY
SAAB
SATURN
SCANIA
SCION
SIMCA
SINGER
SMART
STERLING
STERLING TRUCKS
STUDEBAKER
STUTZ
SUBARU
SUNBEAM
SUZUKI
TOYOTA
TRIUMPH
TVR
UNKNOWN DOMESTIC MANUFACTURER
UNKNOWN FOREIGN MANUFACTURER
UNKNOWN MANUFACTURER
UNKNOWN MEDIUM/HEAVY TRUCKS AND BUSES MANUFACTURER
VOLKSWAGEN
VOLVO
WARD LAFRANCE
WESTERN STAR

Appendix A – List of Vehicle Makes

WINNEBAGO
YAMAHA
YUGO

Appendix B – List of Vehicle Models (Possible)

Vehicle Model	Vehicle Make
ZDX	ACURA
RSX	ACURA
TSX	ACURA
RDX	ACURA
MDX	ACURA
LEGEND	ACURA
TL	ACURA
ILX	ACURA
RLX	ACURA
CL	ACURA
SLX	ACURA
OTHER LIGHT TRUCK	ACURA
UNKNOWN TYPE LIGHT TRUCK	ACURA
OTHER AUTOMOBILE	ACURA
UNKNOWN AUTOMOBILE	ACURA
UNKNOWN VEHICLE	ACURA
INTEGRA	ACURA
RL	ACURA
NSX	ACURA
VIGOR	ACURA
GTV-6	ALFA ROMEO
164	ALFA ROMEO
SPORTS SEDAN	ALFA ROMEO
SPRINT SPECIAL	ALFA ROMEO
SPIDER	ALFA ROMEO
UNKNOWN VEHICLE	ALFA ROMEO
UNKNOWN AUTOMOBILE	ALFA ROMEO
OTHER AUTOMOBILE	ALFA ROMEO
UNK TYPE TRUCK (LIGHT/MED/HEAVY)	AM GENERAL
OTHER BUS	AM GENERAL
BUS - REAR ENGINE/FLAT FRONT	AM GENERAL
UNKNOWN MEDIUM/HEAVY TRUCK	AM GENERAL
OTHER MEDIUM/HEAVY TRUCK	AM GENERAL
MEDIUM/HEAVY TRUCK	AM GENERAL
UNKNOWN BUS TYPE	AM GENERAL
HUMMER H1/H2	AM GENERAL
DISPATCHER - Post Office (Jeep)	AM GENERAL
UNKNOWN VEHICLE	AM GENERAL
HUMMER H3	AM GENERAL

OTHER LIGHT TRUCK	AM GENERAL
UNKNOWN LIGHT TRUCK	AM GENERAL
DISPATCHER - DJ series Post Office Van	AM GENERAL
UNKNOWN VEHICLE	AMC/AMERICAN MOTORS
PACER	AMC/AMERICAN MOTORS
EAGLE SX-4	AMC/AMERICAN MOTORS
EAGLE	AMC/AMERICAN MOTORS
HORNET/CONCORD	AMC/AMERICAN MOTORS
JAVELIN	AMC/AMERICAN MOTORS
AMX	AMC/AMERICAN MOTORS
AMBASSADOR	AMC/AMERICAN MOTORS
REBEL/MATADOR	AMC/AMERICAN MOTORS
RAMBLER/AMERICAN	AMC/AMERICAN MOTORS
SPIRIT/GREMLIN	AMC/AMERICAN MOTORS
OTHER AUTOMOBILE	AMC/AMERICAN MOTORS
UNKNOWN AUTOMOBILE	AMC/AMERICAN MOTORS
VOLANTE	ASTON MARTIN
LAGONDA	ASTON MARTIN
UNKNOWN AUTOMOBILE	ASTON MARTIN
VANTAGE	ASTON MARTIN
OTHER AUTOMOBILE	ASTON MARTIN
SALOON	ASTON MARTIN
100/A6	AUDI
200	AUDI
4000	AUDI
80/90	AUDI
COUPE QUATTRO	AUDI
S4/S6	AUDI
V8 QUATTRO	AUDI
OTHER AUTOMOBILE	AUDI
UNKNOWN AUTOMOBILE	AUDI
UNKNOWN VEHICLE	AUDI
SUPER 90	AUDI
FOX	AUDI
CABRIOLET	AUDI
A4	AUDI
A3	AUDI
A8	AUDI
S6	AUDI
S7	AUDI
ALLROAD	AUDI
5000	AUDI
TT	AUDI

S8	AUDI
ALLROAD	AUDI
OTHER LIGHT TRUCK	AUDI
Q7	AUDI
UNKNOWN LIGHT TRUCK	AUDI
A5	AUDI
R8	AUDI
Q5	AUDI
OTHER AUTOMOBILE	AUSTIN/AUSTIN-HEALEY
UNKNOWN AUTOMOBILE	AUSTIN/AUSTIN-HEALEY
UNKNOWN VEHICLE	AUSTIN/AUSTIN-HEALEY
MARINA	AUSTIN/AUSTIN-HEALEY
AMERICA	AUSTIN/AUSTIN-HEALEY
HEALEY SPRITE	AUSTIN/AUSTIN-HEALEY
HEALY 3000	AUSTIN/AUSTIN-HEALEY
MINI	AUSTIN/AUSTIN-HEALEY
MEDIUM/HEAVY - OTHER	AUTO UNION DKW
MEDIUM/HEAVY - COE/LOW ENTRY	AUTO UNION DKW
MEDIUM/HEAVY - UNKNOWN ENGINE LOCATION	AUTO UNION DKW
MEDIUM/HEAVY - COE/HIGH ENTRY	AUTO UNION DKW
MEDIUM/HEAVY - CBE	AUTO UNION DKW
MEDIUM/HEAVY BASED MOTORHOME	AUTO UNION DKW
MEDIUM/HEAVY - COE/ENTRY POSITION UNKNOWN	AUTO UNION DKW
MEDIUM/HEAVY - COE/ENTRY POSITION UNKNOWN	AUTOCAR
MEDIUM/HEAVY - OTHER	AUTOCAR
MEDIUM/HEAVY BASED MOTORHOME	AUTOCAR
MEDIUM/HEAVY - CBE	AUTOCAR
MEDIUM/HEAVY - COE/LOW ENTRY	AUTOCAR
MEDIUM/HEAVY - UNKOWN ENGINE LOCATION	AUTOCAR
MEDIUM/HEAVY - COE/HIGH ENTRY	AUTOCAR
OTHER AUTOMOBILE	AVANTI
UNKNOWN AUTOMOBILE	AVANTI
OTHER AUTOMOBILE	BERTONE
UNKNOWN AUTOMOBILE	BERTONE
6 SERIES	BMW
1 SERIES	BMW
V5	BMW
X3	BMW
Z4	BMW
Z8	BMW
UNKNOWN LIGHT TRUCK	BMW

OTHER LIGHT TRUCK	BMW
X5	BMW
Z3	BMW
MOTORCYCLE (350-449CC)	BMW
MOTORCYCLE (450-749CC)	BMW
MOTORCYCLE (750CC-OVER)	BMW
MOTORCYCLE (UNKNOWN CC)	BMW
UNKNOWN MOTORED CYCLE	BMW
UNKNOWN VEHICLE	BMW
3 SERIES	BMW
5 SERIES	BMW
X6	BMW
7 SERIES	BMW
OTHER AUTOMOBILE	BMW
UNKNOWN AUTOMOBILE	BMW
MOTORCYCLE (000-050CC)	BMW
MOTORCYCLE (051-124CC)	BMW
MOTORCYCLE (125-349CC)	BMW
1600, 2002	BMW
COUPE	BMW
BAVARIA SEDAN	BMW
8 SERIES	BMW
UNKNOWN AUTOMOBILE	BRICKLIN
OTHER AUTOMOBILE	BRICKLIN
MEDIUM/HEAVY - CBE	BROCKWAY
MEDIUM/HEAVY - OTHER	BROCKWAY
MEDIUM/HEAVY - UNKNOWN ENGINE LOCATION	BROCKWAY
MEDIUM/HEAVY - COE HIGH ENTRY	BROCKWAY
MEDIUM/HEAVY - COE/ENTRY POSITION UNKNOWN	BROCKWAY
MEDIUM/HEAVY TRUCK BASED MOTORHOME	BROCKWAY
UNKNOWN MEDIUM/HEAVY TRUCK	BROCKWAY
MEDIUM/HEAVE - COE/LOW ENTRY	BROCKWAY
MOTORCYCLE (000-050CC)	BSA
MOTORCYCLE (UNKNOWN CC)	BSA
OTHER MOTORED CYCLE	BSA
UNKNOWN MOTORED CYCLE	BSA
MOTORCYCLE (750CC-OVER)	BSA
MOTORCYCLE (125-349CC)	BSA
MOTORCYCLE (350-449CC)	BSA
MOTORCYCLE (051-124CC)	BSA
MOTORCYCLE (450-749CC)	BSA
UNKNOWN MOTORED CYCLE	BUELL

MOTORCYCLE (450-749CC)	BUELL
MOTORCYCLE (350-449CC)	BUELL
MOTORCYCLE (750CC OR GREATER)	BUELL
MOTORCYCLE (051-124CC)	BUELL
OTHER MOTORED CYCLE	BUELL
MOTORCYCLE (125-349CC)	BUELL
MOTORCYCLE (000-050CC)	BUELL
MOTORCYCLE (UNKNOWN CC)	BUELL
SKYLARK (76-85)	BUICK
ENCLAVE (< 2013)	BUICK
OTHER AUTOMOBILE	BUICK
UNKNOWN AUTOMOBILE	BUICK
SKYHAWK	BUICK
SPECIAL/SKYLARK (thru 1972)	BUICK
OPEL KADETT	BUICK
OPEL MANTA	BUICK
OPEL GT	BUICK
OPEL ISUZU	BUICK
VERANO	BUICK
ENCLAVE (>=2013	BUICK
ENCORE	BUICK
APOLLO/SKYLARK (73-76)	BUICK
RENDEZVOUS	BUICK
OTHER LIGHT TRUCK	BUICK
UNKNOWN LIGHT TRUCK	BUICK
RAINIER	BUICK
LACROSSE	BUICK
TERRAZA	BUICK
LUCERNE	BUICK
ROADMASTER	BUICK
REGAL (FWD)	BUICK
REGAL	BUICK
UNKNOWN VEHICLE	BUICK
RIVIERA	BUICK
CENTURY	BUICK
LESABRE/CENTURION/WILDCAT	BUICK
REATTA	BUICK
ELECTRA/ELECTRA 225/PARK AVENUE (91-ON)	BUICK
SOMERSET(85-87)/SKYLARK(86-ON)	BUICK
ELDORADO	CADILLAC
STS	CADILLAC
SRX	CADILLAC
ESCALADE EXT	CADILLAC

ESCALADE ESV	CADILLAC
XLR	CADILLAC
DEVILLE/FLEETWOOD	CADILLAC
SEVILLE	CADILLAC
UNKNOWN AUTOMOBILE	CADILLAC
UNKNOWN VEHICLE	CADILLAC
OTHER AUTOMOBILE	CADILLAC
ALLANTE	CADILLAC
CIMARRON	CADILLAC
LIMOUSINE	CADILLAC
DTS	CADILLAC
COMMERCIAL SERIES	CADILLAC
CATERA	CADILLAC
XTS	CADILLAC
ATS	CADILLAC
ESCALADE	CADILLAC
CTS	CADILLAC
OTHER LIGHT TRUCK	CADILLAC
UNKNOWN LIGHT TRUCK	CADILLAC
TAXI	CHECKER
OTHER AUTOMOBILE	CHECKER
SUPERBA	CHECKER
MARATHON	CHECKER
UNKNOWN AUTOMOBILE	CHECKER
AEROBUS	CHECKER
BERETTA/CORSICA	CHEVROLET
CORVETTE	CHEVROLET
CAMARO	CHEVROLET
CAVALIER	CHEVROLET
CELEBRITY	CHEVROLET
CHEVETTE	CHEVROLET
MEDIUM/HEAVY CBE	CHEVROLET
MEDIUM/HEAVY COE LOW ENTRY	CHEVROLET
MEDIUM/HEAVY COE HIGH ENTRY	CHEVROLET
G-SERIES VAN	CHEVROLET
P-SERIES VAN	CHEVROLET
VAN DERIVATIVE	CHEVROLET
S-10/T-10	CHEVROLET
GEO METRO	CHEVROLET
NOVA/GEO PRIZM	CHEVROLET
SPRINT/GEO SPRINT	CHEVROLET
GEO STORM	CHEVROLET
GEO TRACKER	CHEVROLET

IMPALA/CAPRICE	CHEVROLET
LUMINA	CHEVROLET
CHEVELLE/MALIBU (thru 83)	CHEVROLET
MONTE CARLO ('70-'88) (RWD ONLY)	CHEVROLET
MONZA	CHEVROLET
SPECTRUM	CHEVROLET
OTHER AUTOMOBILE	CHEVROLET
UNKNOWN AUTOMOBILE	CHEVROLET
OTHER LIGHT TRUCK	CHEVROLET
UNKNOWN LIGHT TRUCK	CHEVROLET
OTHER MEDIUM/HEAVY TRUCK	CHEVROLET
UNKNOWN MEDIUM/HEAVY TRUCK	CHEVROLET
BUS	CHEVROLET
OTHER BUS	CHEVROLET
OTHER VEHICLE	CHEVROLET
UNKNOWN VEHICLE	CHEVROLET
LUV	CHEVROLET
C, K, R, V-SERIES PICKUP	CHEVROLET
LUMINA APV/VENTURE	CHEVROLET
EL CAMINO	CHEVROLET
CORVAIR	CHEVROLET
NOVA (-79)	CHEVROLET
VEGA	CHEVROLET
MONTE CARLO (1995+) (FWD ONLY)	CHEVROLET
MALIBU (1997+)	CHEVROLET
S-10 BLAZER, BLAZER	CHEVROLET
FULLSIZE BLAZER (K, Tahoe)	CHEVROLET
SUBURBAN	CHEVROLET
ASTRO VAN	CHEVROLET
CAPRICE PPV	CHEVROLET
SPARK	CHEVROLET
UNK TYPE TRUCK (LIGHT/MED/HEAVY)	CHEVROLET
AVALANCHE	CHEVROLET
SSR	CHEVROLET
TRAILBLAZER (2002 and later)	CHEVROLET
AVEO	CHEVROLET
COLORADO	CHEVROLET
EQUINOX	CHEVROLET
COBALT	CHEVROLET
UPLANDER	CHEVROLET
HHR	CHEVROLET
TRAVERSE	CHEVROLET
CRUZE	CHEVROLET

VOLT	CHEVROLET
SONIC	CHEVROLET
MEDIUM/HEAVY; UNKNOWN ENGINE LOCATION	CHEVROLET
MEDIUM/HEAVY; UNKNOWN ENGINE LOCATION	CHEVROLET
UNKNOWN BUS TYPE	CHEVROLET
CITATION	CHEVROLET
NEWPORT	CHRYSLER
CROSSFIRE	CHRYSLER
NEON (EXPORT)	CHRYSLER
PACIFICA	CHRYSLER
RAMPAGE 2.2 (CAR BASED PICKUP)	CHRYSLER
CIRRUS	CHRYSLER
CONCORDE	CHRYSLER
CONQUEST	CHRYSLER
CORDOBA	CHRYSLER
RWD ONLY-NEW YORKER/NEWPORT/5TH AVENUE/IMPERIAL	CHRYSLER
NEW YORKER/E CLASS/IMPERIAL/5TH AVENUE	CHRYSLER
LASER	CHRYSLER
LEBARON	CHRYSLER
LEBARON GTS/GTC	CHRYSLER
LHS	CHRYSLER
NEW YORKER ('83-'90)	CHRYSLER
NEW YORKER FIFTH AVENUE ('89)	CHRYSLER
NEW YORKER SALON	CHRYSLER
ASPEN	CHRYSLER
SEBRING	CHRYSLER
TC (MASERATI SPORT)	CHRYSLER
TOWN AND COUNTRY	CHRYSLER
OTHER AUTOMOBILE	CHRYSLER
UNKNOWN AUTOMOBILE	CHRYSLER
OTHER LIGHT TRUCK	CHRYSLER
UNKNOWN LIGHT TRUCK	CHRYSLER
UNKNOWN VEHICLE	CHRYSLER
200	CHRYSLER
SRT VIPER (>=2013)	CHRYSLER
300/300M/300C	CHRYSLER
PT CRUISER	CHRYSLER
VOYAGER	CHRYSLER
INTREPID (CANADIAN)	CHRYSLER
PROWLER	CHRYSLER
UNKNOWN AUTOMOBILE	CITROEN
OTHER AUTOMOBILE	CITROEN

UNKNOWN AUTOMOBILE	CONSULIER
OTHER AUTOMOBILE	CONSULIER
LEGANZA	DAEWOO
NUBIRA	DAEWOO
LANOS	DAEWOO
UNKNOWN VEHICLE	DAEWOO
UNKNOWN AUTOMOBILE	DAEWOO
OTHER AUTOMOBILE	DAEWOO
UNKNOWN AUTOMOBILE	DAIHATSU
UNKNOWN LIGHT TRUCK	DAIHATSU
OTHER LIGHT TRUCK	DAIHATSU
UNKNOWN VEHICLE	DAIHATSU
OTHER AUTOMOBILE	DAIHATSU
CHARADE	DAIHATSU
ROCKY	DAIHATSU
UNKNOWN AUTOMOBILE	DELOREAN
OTHER AUTOMOBILE	DELOREAN
UNKNOWN AUTOMOBILE	DESOTO
OTHER AUTOMOBILE	DESOTO
OTHER AUTOMOBILE	DESTA
UNKNOWN AUTOMOBILE	DESTA
MEDIUM/HEAVY - COE/ENTRY POSITION UNKNOWN	DIAMOND REO/REO
MEDIUM/HEAVY - OTHER	DIAMOND REO/REO
MEDIUM/HEAVY - COE/HIGH ENTRY	DIAMOND REO/REO
UNKNOWN MEDIUM/HEAVY TRUCK	DIAMOND REO/REO
MEDIUM/HEAVY - CBE	DIAMOND REO/REO
MEDIUM/HEAVY - COE/LOW ENTRY	DIAMOND REO/REO
MEDIUM/HEAVY TRUCK BASED MOTORHOME	DIAMOND REO/REO
MEDIUM/HEAVY - UNKNOWN ENGINE LOCATION	DIAMOND REO/REO
MEDIUM/HEAVY - OTHER	DIVCO
MEDIUM/HEAVY BASED MOTORHOME	DIVCO
MEDIUM/HEAVY - CBE	DIVCO
MEDIUM/HEAVY - COE/LOW ENTRY	DIVCO
MEDIUM/HEAVY - COE/HIGH ENTRY	DIVCO
MEDIUM/HEAVY - UNKNOWN ENGINE LOCATION	DIVCO
MEDIUM/HEAVY - COE/ENTRY POSITION UNKNOWN	DIVCO
NITRO	DODGE
CHALLENGER (2008 - ON)	DODGE
LANCER	DODGE
INTREPID	DODGE
CORONET/CHARGER/MAGNUM	DODGE

MIRADA	DODGE
MONACO	DODGE
NEON	DODGE
OMNI/CHARGER	DODGE
MEDIUM/HEAVY: CBE	DODGE
MEDIUM/HEAVY: COE LOW ENGRY	DODGE
MEDIUM/HEAVY: COE HIGH ENTRY	DODGE
MEDIUM/HEAVY: UNKNOWN ENGINE LOCATION	DODGE
MEDIUM/HEAVY: COE ENTRY POSITION UNKNOWN	DODGE
UNKNOWN BUS TYPE	DODGE
DART	DODGE
POLARA/MONACO/ROYAL MONACO	DODGE
VIPER	DODGE
CHALLENGER (1970-1974)	DODGE
400	DODGE
SHADOW	DODGE
RAMCHARGER	DODGE
B-SERIES VANS	DODGE
VAN DERIVATIVE	DODGE
DAKOTA	DODGE
D, W-SERIES PICKUP, W100-W350	DODGE
RAM	DODGE
DYNASTY	DODGE
SPIRIT	DODGE
ST REGIS	DODGE
STEALTH	DODGE
STRATUS	DODGE
OTHER AUTOMOBILE	DODGE
UNKNOWN AUTOMOBILE	DODGE
OTHER LIGHT TRUCK	DODGE
UNKNOWN LIGHT TRUCK	DODGE
OTHER MEDIUM/HEAVY TRUCK	DODGE
UNKNOWN MEDIUM/HEAVY TRUCK	DODGE
MEDIUM BUS	DODGE
OTHER BUS	DODGE
OTHER VEHICLE	DODGE
UNKNOWN VEHICLE	DODGE
D50, COLT P/U, RAM 50/RAM 100	DODGE
RAIDER	DODGE
DIPLOMAT	DODGE
600	DODGE
ARIES (K)	DODGE

Appendix B List of Vehicle Models

ASPEN	DODGE
AVENGER ('95 - '00)	DODGE
CARAVAN	DODGE
CHALLENGER (1978-1983) (ALL IMPORTED)	DODGE
COLT (EXCLUDES VISTA)	DODGE
VISTA	DODGE
CONQUEST	DODGE
DAYTONA	DODGE
DART (>=2013)	DODGE
DURANGO	DODGE
RAMPAGE 2.2, GT, SPORT	DODGE
UNK TYPE TRUCK (LIGHT/MED/HEAVY)	DODGE
SPRINTER	DODGE
MAGNUM	DODGE
CHARGER (2006+)	DODGE
CALIBER	DODGE
JOURNEY	DODGE
AVENGER ('08 - on)	DODGE
MOTORCYCLE (125-349CC)	DUCATI
MOTORCYCLE (450-749CC)	DUCATI
MOTORCYCLE (750CC-OVER)	DUCATI
UNKNOWN MOTORED CYCLE	DUCATI
MOTORCYCLE (000-050CC)	DUCATI
MOTORCYCLE (051-124CC)	DUCATI
MOTORCYCLE (UNKNOWN CC)	DUCATI
OTHER MOTORED CYCLE	DUCATI
MOTORCYCLE (350-449CC)	DUCATI
MEDALLION	EAGLE
PREMIER	EAGLE
SUMMIT	EAGLE
SUMMIT WAGON	EAGLE
TALON	EAGLE
VISION	EAGLE
OTHER AUTOMOBILE	EAGLE
UNKNOWN VEHICLE	EAGLE
UNKNOWN AUTOMOBILE	EAGLE
OTHER LIGHT TRUCK	EAGLE
UNKNOWN LIGHT TRUCK	EAGLE
UNKNOWN AUTOMOBILE	EXCALIBER
OTHER AUTOMOBILE	EXCALIBER
OTHER AUTOMOBILE	FERRARI
UNKNOWN AUTOMOBILE	FERRARI
SUPERAMERICA	FERRARI

X-1/9	FIAT
OTHER AUTOMOBILE	FIAT
UNKNOWN AUTOMOBILE	FIAT
UNKNOWN VEHICLE	FIAT
OTHER MEDIUM/HEAVY TRUCK	FIAT
124 (COUPE/SEDAN)	FIAT
850 (COUPE/SPYDER)	FIAT
128	FIAT
MEDIUM/HEAVY COE LOW ENTRY	FIAT
MEDIUM/HEAVY COE HIGH ENTRY	FIAT
MEDIUM/HEAVY COE ENTRY POSITION UNKNOWN	FIAT
500/500c	FIAT
STRADA	FIAT
124 SPIDER/RACER	FIAT
UNKNOWN MEDIUM/HEAVY TRUCK	FIAT
BRAVA - 131	FIAT
FLEX	FORD
TRANSIT CONNECT	FORD
OTHER AUTOMOBILE	FORD
UNKNOWN AUTOMOBILE	FORD
OTHER LIGHT TRUCK	FORD
UNKNOWN LIGHT TRUCK	FORD
OTHER MEDIUM/HEAVY TRUCK	FORD
UNKNOWN MEDIUM/HEAVY TRUCK	FORD
MEDIUM BUS	FORD
OTHER BUS	FORD
OTHER VEHICLE	FORD
TEMPO	FORD
THUNDERBIRD (ALL SIZES)	FORD
UNKNOWN VEHICLE	FORD
FALCON	FORD
FAIRLANE	FORD
MAVERICK	FORD
TORINO/GRAN TORINO/ELITE	FORD
GRANADA	FORD
PROBE	FORD
ENGLISH FORD	FORD
LASER	FORD
EXPLORER/BRONCO ii/BRONCO (-77)	FORD
BRONCO-FULLSIZE	FORD
EXPEDITION	FORD
WINDSTAR	FORD
E-SERIES VANS	FORD

VAN DERIVATIVE	FORD
RANGER	FORD
COURIER	FORD
F-SERIES PICKUP	FORD
MEDIUM/HEAVY CBE	FORD
MEDIUM/HEAVY COE LOW ENGRY	FORD
MEDIUM/HEAVY COE HIGH ENTRY	FORD
FESTIVA	FORD
FIESTA	FORD
LTD/CUSTOM/GALAXIE (ALL SIZES)	FORD
LTD II	FORD
MUSTANG/MUSTANG II	FORD
PINTO	FORD
RANCHERO	FORD
AEROSTAR	FORD
TAURUS/TAURUS X	FORD
ASPIRE	FORD
CONTOUR	FORD
CROWN VICTORIA	FORD
ESCORT/EXP	FORD
FAIRMONT	FORD
MEDIUM/HEAVY: UNKNOWN ENGINE LOCATION	FORD
MEDIUM/HEAVY: COE ENTRY POSITION UNKNOWN	FORD
UNKNOWN BUS TYPE	FORD
TRANSIT	FORD
C-MAX	FORD
UNK TYPE TRUCK (LIGHT/MED/HEAVY)	FORD
FOCUS	FORD
EXCURSION	FORD
ESCAPE	FORD
F450/550 PICKUP >4536 GVWR	FORD
SPORT TRAC	FORD
FREESTAR	FORD
GT	FORD
FIVE HUNDRED	FORD
FREESTYLE	FORD
FUSION	FORD
EDGE	FORD
UNKNOWN VEHICLE	FREIGHTLINER/WHITE
MEDIUM/HEAVY - OTHER	FREIGHTLINER/WHITE
SPRINTER/ADVANTAGE	FREIGHTLINER/WHITE

MEDIUM/HEAVY - COE/ENTRY POSITION UNKNOWN	FREIGHTLINER/WHITE
MEDIUM/HEAVY - UNKNOWN ENGINE LOCATION	FREIGHTLINER/WHITE
MEDIUM/HEAVY - COE/HIGH ENTRY	FREIGHTLINER/WHITE
MEDIUM/HEAVY - COE/LOW ENTRY	FREIGHTLINER/WHITE
MEDIUM/HEAVY - CBE	FREIGHTLINER/WHITE
MEDIUM/HEAVY TRUCK BASED MOTORHOME	FREIGHTLINER/WHITE
OTHER LIGHT TRUCK	FREIGHTLINER/WHITE
UNKNOWN LIGHT TRUCK	FREIGHTLINER/WHITE
M-LINE WALK IN VAN	FREIGHTLINER/WHITE
UNKNOWN LIGHT/MEDIUM/HEAVY TRUCK	FREIGHTLINER/WHITE
BUS CONVENTIONAL ENGINE OUT FRONT	FREIGHTLINER/WHITE
BUS FRONT ENGINE/FLAT FRONT	FREIGHTLINER/WHITE
BUS REAR ENGINE/FLAT FRONT	FREIGHTLINER/WHITE
OTHER BUS	FREIGHTLINER/WHITE
UNKNOWN BUS TYPE	FREIGHTLINER/WHITE
MEDIUM/HEAVY - COE/LOW ENTRY	FWD
MEDIUM/HEAVY - OTHER	FWD
MEDIUM/HEAVY - CBE	FWD
MEIDUM/HEAVY TRUCK BASED MOTORHOME	FWD
UNKNOWN MEDIUM/HEAVY TRUCK	FWD
MEDIUM/HEAVY - COE/ENTRY POSITION UNKNOWN	FWD
MEDIUM/HEAVY - UNKNOWN ENGINE LOCATION	FWD
MEDIUM/HEAVY - COE/HIGH ENTRY	FWD
CABALLERO/SPRINT	GMC
JIMMY/TYPHOON/ENVOY	GMC
TERRAIN	GMC
ACADIA	GMC
CANYON	GMC
UNK TYPE TRUCK (LIGHT/MED/HEAVY)	GMC
MEDIUM/HEAVY CBE	GMC
UNKNOWN BUS TYPE	GMC
MEDIUM/HEAVY: COE ENTRY POSITION UNKNOWN	GMC
MEDIUM/HEAVY: UNKNOWN ENGINE LOCATION	GMC
MEDIUM/HEAVY COE HIGH ENTRY	GMC
MEDIUM/HDAVY COE LOW ENTRY	GMC
UNKNOWN VEHICLE	GMC
OTHER BUS	GMC
MEDIUM BUS	GMC
UNKNOWN MEDIUM/HEAVY TRUCK	GMC
OTHER MEDIUM/HEAVY TRUCK	GMC

FULLSIZE JIMMY/YUKON	GMC
SUBURBAN	GMC
SAFARI (MINIVAN)	GMC
G-SERIES VAN	GMC
P-SERIES VAN	GMC
VAN DERIVATIVE	GMC
S15/T15/SONOMA	GMC
C, K, R, V-SERIES PICKUP	GMC
OTHER AUTOMOBILE	GMC
UNKNOWN AUTOMOBILE	GMC
OTHER LIGHT TRUCK	GMC
UNKNOWN LIGHT TRUCK	GMC
UNKNOWN LIGHT TRUCK	GRUMMAN
UNK TYPE TRUCK (LIGHT/MED/HEAVY)	GRUMMAN
UNKNOWN VEHICLE	GRUMMAN
UNKNOWN BUS TYPE	GRUMMAN
BUS-FLAT FRONT, REAR ENGINE	GRUMMAN
MEDIUM/HEAVY TRUCK ENTRY POSITION UNKNOWN	GRUMMAN
MEDIUM/HEAVY TRUCK UNKNOWN ENGINE LOCATION	GRUMMAN
MEDIUM/HEAVY TRUCK - COE HIGH ENTRY	GRUMMAN
MEDIUM/HEAVY TRUCK - COE LOW ENTRY	GRUMMAN
MEDIUM/HEAVY TRUCK - CBE	GRUMMAN
STEP-IN VAN	GRUMMAN
LLV	GRUMMAN
OTHER BUS	GRUMMAN
UNKNOWN MEDIUM/HEAVY TRUCK	GRUMMAN
OTHER MEDIUM/HEAVY TRUCK	GRUMMAN
OTHER LIGHT TRUCK	GRUMMAN
MOTORCYCLE (000-050CC)	HARLEY-DAVIDSON
MOTORCYCLE (450-749CC)	HARLEY-DAVIDSON
OTHER MOTORED CYCLE	HARLEY-DAVIDSON
MOTORCYCLE (UNKNOWN CC)	HARLEY-DAVIDSON
MOTORCYCLE (051-124CC)	HARLEY-DAVIDSON
UNKNOWN MOTORED CYCLE	HARLEY-DAVIDSON
MOTORCYCLE (350-449CC)	HARLEY-DAVIDSON
MOTORCYCLE (125-349CC)	HARLEY-DAVIDSON
MOTORCYCLE (750CC-OVER)	HARLEY-DAVIDSON
UNKNOWN AUTOMOBILE	HILLMAN
OTHER AUTOMOBILE	HILLMAN
MEDIUM/HEAVY BASED MOTORHOME	HINO
MEDIUM/HEAVY - CBE	HINO

MEDIUM/HEAVY - COE/LOW ENTRY	HINO
MEDIUM/HEAVY - COE/ENTRY POSITION UNKNOWN	HINO
MEDIUM/HEAVY - UNKNOWN ENGINE LOCATION	HINO
MEDIUM/HEAVY - COE/HIGH ENTRY	HINO
MEDIUM/HEAVY - OTHER	HINO
MOTORCYCLE (051-124CC)	HONDA
MOTORCYCLE (125-349CC)	HONDA
MOTORCYCLE (350-449CC)	HONDA
MOTORCYCLE (450-749CC)	HONDA
MOTORCYCLE (750CC-OVER)	HONDA
MOTORCYCLE (UNKNOWN CC)	HONDA
ATC/ATV (000-050CC)	HONDA
ATC/ATV (051-124CC)	HONDA
ATC/ATV (125-349CC)	HONDA
ATC/ATV (350CC-OVER)	HONDA
ATC/ATV (UNKNOWN CC)	HONDA
UNKNOWN VEHICLE	HONDA
600	HONDA
PASSPORT	HONDA
CR-V	HONDA
S2000	HONDA
INSIGHT	HONDA
OTHER MOTORED CYCLE	HONDA
ELEMENT	HONDA
PILOT	HONDA
FCX	HONDA
RIDGELINE	HONDA
FIT	HONDA
CR-Z	HONDA
CIVIC/CRX/DEL SOL	HONDA
MOTORCYCLE (000-050CC)	HONDA
UNKNOWN LIGHT TRUCK	HONDA
OTHER LIGHT TRUCK	HONDA
UNKNOWN AUTOMOBILE	HONDA
OTHER AUTOMOBILE	HONDA
ACCORD	HONDA
ODYSSEY	HONDA
PRELUDE	HONDA
UNKNOWN AUTOMOBILE	HUDSON
OTHER AUTOMOBILE	HUDSON
OTHER MOTORED CYCLE	HYOSUNG
UNKNOWN MOTORED CYCLE	HYOSUNG

TUCSON	HYUNDAI
AZERA	HYUNDAI
EQUUS	HYUNDAI
VERACRUZ	HYUNDAI
ENTOURAGE	HYUNDAI
SANTA FE	HYUNDAI
OTHER LIGHT TRUCK	HYUNDAI
XG300/350	HYUNDAI
VELOSTER	HYUNDAI
OTHER AUTOMOBILE	HYUNDAI
SONATA	HYUNDAI
UNKNOWN AUTOMOBILE	HYUNDAI
UNKNOWN VEHICLE	HYUNDAI
EXCEL	HYUNDAI
PONY	HYUNDAI
SCOUPE	HYUNDAI
ELANTRA	HYUNDAI
ACCENT	HYUNDAI
TIBURON	HYUNDAI
GENESIS	HYUNDAI
UNKNOWN LIGHT TRUCK	HYUNDAI
OTHER AUTOMOBILE	IMPERIAL
IMPERIAL	IMPERIAL
UNKNOWN AUTOMOBILE	IMPERIAL
UNKNOWN VEHICLE	IMPERIAL
MOTORCYCLE (125-349CC)	INDIAN
MOTORCYCLE (350-449CC)	INDIAN
MOTORCYCLE (750CC OR GREATER)	INDIAN
MOTORCYCLE (450-749CC)	INDIAN
MOTORCYCLE (UNKNOWN CC)	INDIAN
MOTORCYCLE (000-050CC)	INDIAN
UNKNOWN MOTORED CYCLE	INDIAN
OTHER MOTORED CYCLE	INDIAN
MOTORCYCLE (051-124CC)	INDIAN
UNKNOWN VEHICLE	INFINITI
I30	INFINITI
QX4	INFINITI
OTHER LIGHT TRUCK	INFINITI
UNKNOWN AUTOMOBILE	INFINITI
OTHER AUTOMOBILE	INFINITI
Q45	INFINITI
M30	INFINITI
J30	INFINITI

Appendix B List of Vehicle Models

Model	Make
G20	INFINITI
JX35	INFINITI
QX56	INFINITI
FX35/45/50	INFINITI
M35/M37/M45/M56	INFINITI
I35	INFINITI
UNKNOWN LIGHT TRUCK	INFINITI
EX35	INFINITI
G35/G37	INFINITI
UNKNOWN LIGHT TRUCK	INTERNATIONAL HARVESTER/NAVISTAR
TRUCK BASED MOTORHOME	INTERNATIONAL HARVESTER/NAVISTAR
UNKNOWN MEDIUM/HEAVY TRUCK	INTERNATIONAL HARVESTER/NAVISTAR
OTHER BUS	INTERNATIONAL HARVESTER/NAVISTAR
OTHER VEHICLE	INTERNATIONAL HARVESTER/NAVISTAR
UNKNOWN VEHICLE	INTERNATIONAL HARVESTER/NAVISTAR
SCOUT	INTERNATIONAL HARVESTER/NAVISTAR
TRAVELALL	INTERNATIONAL HARVESTER/NAVISTAR
MULTISTOP VAN	INTERNATIONAL HARVESTER/NAVISTAR
PICKUP	INTERNATIONAL HARVESTER/NAVISTAR
MEDIUM/HEAVY - COE HIGH ENTRY	INTERNATIONAL HARVESTER/NAVISTAR
UNK TYPE TRUCK (LIGHT/MED/HEAVY)	INTERNATIONAL HARVESTER/NAVISTAR
BUS BASED MOTOHOME	INTERNATIONAL HARVESTER/NAVISTAR
OTHER MEDIUM/HEAVY TRUCK	INTERNATIONAL HARVESTER/NAVISTAR
UNKNOWN BUS TYPE	INTERNATIONAL HARVESTER/NAVISTAR
MEDIUM/HEAVY: UNKNOWN ENGINE LOCATION	INTERNATIONAL HARVESTER/NAVISTAR
MEDIUM/HEAVY: COE ENTRY POSITION UNKNOWN	INTERNATIONAL HARVESTER/NAVISTAR
CONVENTIONAL BUS	INTERNATIONAL HARVESTER/NAVISTAR
BUS-FLAT FRONT, FRONT ENGINE	INTERNATIONAL HARVESTER/NAVISTAR

BUS-FLAT FRONT, REAR ENGINE	INTERNATIONAL HARVESTER/NAVISTAR
MEDIUM HEAVY - CBE	INTERNATIONAL HARVESTER/NAVISTAR
MEDIUM/HEAVY - COE LOW ENTRY	INTERNATIONAL HARVESTER/NAVISTAR
OTHER LIGHT TRUCK	INTERNATIONAL HARVESTER/NAVISTAR
RODEO	ISUZU
i-280/i-290	ISUZU
ASCENDER	ISUZU
AXIOM	ISUZU
VEHICROSS	ISUZU
UNK TYPE TRUCK (LIGHT/MED/HEAVY)	ISUZU
UNKNOWN BUS TYPE	ISUZU
REAR ENGINE/FLAT FRONT	ISUZU
OTHER AUTOMOBILE	ISUZU
UNKNOWN AUTOMOBILE	ISUZU
OTHER LIGHT TRUCK	ISUZU
UNKNOWN LIGHT TRUCK	ISUZU
OTHER MEDIUM/HEAVY TRUCK	ISUZU
UNKNOWN MEDIUM/HEAVY TRUCK	ISUZU
AMIGO	ISUZU
I-MARK	ISUZU
IMPULSE	ISUZU
OASIS	ISUZU
P'UP (PICKUP) HOMBRE	ISUZU
i-350/i-370	ISUZU
STYLUS	ISUZU
TROOPER/TROOPER II	ISUZU
MEDIUM/HEAVY - CBE	ISUZU
OTHER BUS	ISUZU
UNKNOWN VEHICLE	ISUZU
MEDIUM/HEAVY COE LOW ENTRY	ISUZU
MEDIUM/HEAVY COE HIGH ENTRY	ISUZU
MEDIUM/HEAVY UNKNOWN ENGINE LOCATION	ISUZU
MEDIUM/HEAVY COE ENTRY POSITION UNKNOWN	ISUZU
CONVENTIONAL FRONT ENGINE	ISUZU
FRONT ENGINE/FLAT FRONT	ISUZU
MEDIUM/HEAVY - COE/LOW ENTRY	IVECO/MAGIRUS
MEDIUM/HEAVY - COE/ENTRY POSITION UNKNOWN	IVECO/MAGIRUS
MEDIUM/HEAVY - UNKOWN ENGINE LOCATION	IVECO/MAGIRUS
MEDIUM/HEAVY - COE/HIGH ENTRY	IVECO/MAGIRUS

MEDIUM/HEAVY - OTHER	IVECO/MAGIRUS
MEDIUM/HEAVY - CBE	IVECO/MAGIRUS
MEDIUM/HEAVY BASED MOTORHOME	IVECO/MAGIRUS
UNKNOWN MEDIUM/HEAVY TRUCK	IVECO/MAGIRUS
S-TYPE	JAGUAR
VANDEN PLAS	JAGUAR
F-TYPE	JAGUAR
X100	JAGUAR
XKE	JAGUAR
X-TYPE	JAGUAR
UNKNOWN AUTOMOBILE	JAGUAR
OTHER AUTOMOBILE	JAGUAR
XJ6/12 SEDAN/COUPE/XJ8/	JAGUAR
XJ-S COUPE	JAGUAR
UNKNOWN VEHICLE	JAGUAR
COMMANDER	JEEP/KAISER JEEP
COMPASS	JEEP/KAISER JEEP
OTHER AUTOMOBILE	JEEP/KAISER JEEP
UNKNOWN AUTOMOBILE	JEEP/KAISER JEEP
PATRIOT	JEEP/KAISER JEEP
LIBERTY	JEEP/KAISER JEEP
UNKNOWN VEHICLE	JEEP/KAISER JEEP
UNKNOWN LIGHT TRUCK	JEEP/KAISER JEEP
OTHER LIGHT TRUCK	JEEP/KAISER JEEP
COMANCHE	JEEP/KAISER JEEP
PICKUP	JEEP/KAISER JEEP
GRAND WAGONEER	JEEP/KAISER JEEP
CHEROKEE (1963 - 1983)	JEEP/KAISER JEEP
CHEROKEE (1984 ON)	JEEP/KAISER JEEP
CJ-2/CJ-3/CJ-4	JEEP/KAISER JEEP
CJ-5/CJ-6/CH-7/CH-8	JEEP/KAISER JEEP
YJ-SERIES/WRANGLER	JEEP/KAISER JEEP
HEALY	JENSEN
OTHER AUTOMOBILE	JENSEN
UNKNOWN AUTOMOBILE	JENSEN
ATC/ATV (350CC-OVER)	KAWASAKI
MOTORCYCLE (350-449CC)	KAWASAKI
MOTORCYCLE (125-349CC)	KAWASAKI
MOTORCYCLE (000-050CC)	KAWASAKI
MOTORCYCLE (051-124CC)	KAWASAKI
MOTORCYCLE (750CC-OVER)	KAWASAKI
UNKNOWN MOTORED CYCLE	KAWASAKI
ATC/ATV (000-050CC)	KAWASAKI

MOTORCYCLE (UNKNOWN CC)	KAWASAKI
OTHER MOTORED CYCLE	KAWASAKI
ATC/ATV (UNKNOWN CC)	KAWASAKI
MOTORCYCLE (450-749CC)	KAWASAKI
ATC/ATV (125-349CC)	KAWASAKI
ATC/ATV (051-124CC)	KAWASAKI
MEDIUM/HEAVY - COE/LOW ENTRY	KENWORTH
UNKNOWN MEDIUM/HEAVY TRUCK	KENWORTH
MEDIUM/HEAVY TRUCK BASED MOTORHOME	KENWORTH
MEDIUM/HEAVY - CBE	KENWORTH
MEDIUM/HEAVY - OTHER	KENWORTH
MEDIUM/HEAVY - COE/HIGH ENTRY	KENWORTH
MEDIUM/HEAVY - COE/ENTRY POSITION UNKNOWN	KENWORTH
MEDIUM/HEAVY - UNKNOWN ENGINE LOCATION	KENWORTH
SOUL	KIA
UNKNOWN VEHICLE	KIA
UNKNOWN LIGHT TRUCK	KIA
UNKNOWN AUTOMOBILE	KIA
OTHER AUTOMOBILE	KIA
SPORTAGE	KIA
SEPHIA	KIA
OPTIMA	KIA
RIO/RIO 5	KIA
SPECTRA	KIA
AMANTI	KIA
SORENTO	KIA
SEDONA	KIA
BORREGO	KIA
FORTE	KIA
RONDO	KIA
OTHER LIGHT TRUCK	KIA
OTHER MOTORED CYCLE	KTM
UNKNOWN MOTORED CYCLE	KTM
UNKNOWN AUTOMOBILE	LADA
OTHER AUTOMOBILE	LADA
UNKNOWN AUTOMOBILE	LAMBORGHINI
OTHER AUTOMOBILE	LAMBORGHINI
COUNTACH 5000S	LAMBORGHINI
JALPA	LAMBORGHINI
OTHER AUTOMOBILE	LANCIA
UNKNOWN VEHICLE	LANCIA
UNKNOWN AUTOMOBILE	LANCIA

SCORPION	LANCIA
BETA SEDAN-HPE	LANCIA
BETA COUPE - ZAGATO	LANCIA
DISCOVERY (LR)	LAND ROVER
DEFENDER 90 (LR)	LAND ROVER
RANGE ROVER	LAND ROVER
UNKNOWN LIGHT TRUCK	LAND ROVER
UNKNOWN VEHICLE	LAND ROVER
OTHER LIGHT TRUCK	LAND ROVER
LR3	LAND ROVER
FREELANDER	LAND ROVER
LR2	LAND ROVER
4.0 SE (RR)	LAND ROVER
RX330/350/400h	LEXUS
UNKNOWN LIGHT TRUCK	LEXUS
CT 200H	LEXUS
LFA	LEXUS
SC 430	LEXUS
GX470	LEXUS
IS-250/300/350/500	LEXUS
RX300	LEXUS
GS-300/350/400/430/450h	LEXUS
LS	LEXUS
SC-300/SC-400	LEXUS
ES-250/300/330/350	LEXUS
OTHER AUTOMOBILE	LEXUS
UNKNOWN AUTOMOBILE	LEXUS
UNKNOWN VEHICLE	LEXUS
LX 450/470	LEXUS
OTHER LIGHT TRUCK	LEXUS
HS 250H	LEXUS
CONTINENTAL/TOWN CAR	LINCOLN
VERSAILLES	LINCOLN
MKT	LINCOLN
MKS	LINCOLN
MKX	LINCOLN
ZEPHYR/MKZ	LINCOLN
OTHER AUTOMOBILE	LINCOLN
UNKNOWN AUTOMOBILE	LINCOLN
UNKNOWN VEHICLE	LINCOLN
MARK	LINCOLN
CONTINENTAL (82-ON)	LINCOLN
NAVIGATOR	LINCOLN

OTHER LIGHT TRUCK	LINCOLN
UNKNOWN LIGHT TRUCK	LINCOLN
LS	LINCOLN
BLACKWOOD	LINCOLN
AVIATOR	LINCOLN
MARK LT	LINCOLN
ELISE	LOTUS
EUROPE	LOTUS
UNKNOWN AUTOMOBILE	LOTUS
OTHER AUTOMOBILE	LOTUS
ESPRIT	LOTUS
MEDIUM/HEAVY - OTHER	MACK
MEDIUM/HEAVY - COE/HIGH ENTRY	MACK
MEDIUM/HEAVY - UNKNOWN ENGINE LOCATION	MACK
MEDIUM/HEAVY - COE/ENTRY POSITION UNKNOWN	MACK
MEDIUM/HEAVY - COE/LOW ENTRY	MACK
UNKNOWN MEDIUM/HEAVY TRUCK	MACK
MEDIUM/HEAVY BASED MOTORHOME	MACK
MEDIUM/HEAVY - CBE	MACK
MEDIUM/HEAVY - OTHER	MARMON
MEDIUM/HEAVY - COE/ENTRY POSITION UNKNOWN	MARMON
MEDIUM/HEAVY - UNKNOWN ENGINE LOCATION	MARMON
MEDIUM/HEAVY BASED MOTORHOME	MARMON
MEDIUM/HEAVY - COE/LOW ENTRY	MARMON
MEDIUM/HEAVY - COE/HIGH ENTRY	MARMON
MEDIUM/HEAVY - CBE	MARMON
OTHER AUTOMOBILE	MASERATI
UNKNOWN AUTOMOBILE	MASERATI
BITURBO	MASERATI
1800	MAZDA
NAVAJO	MAZDA
MAZDA2	MAZDA
CX-5	MAZDA
UNKNOWN AUTOMOBILE	MAZDA
OTHER LIGHT TRUCK	MAZDA
UNKNOWN LIGHT TRUCK	MAZDA
UNKNOWN VEHICLE	MAZDA
929	MAZDA
MAZDA PICKUP	MAZDA
MILLENIA	MAZDA
MPV	MAZDA

MX-3	MAZDA
MIATA	MAZDA
MX-6	MAZDA
RX7	MAZDA
616/618	MAZDA
R-100	MAZDA
808	MAZDA
MIZER	MAZDA
COSMO	MAZDA
RX4	MAZDA
RX3	MAZDA
RX2	MAZDA
626	MAZDA
MP3	MAZDA
TRIBUTE	MAZDA
CX-7	MAZDA
MAZDA 5	MAZDA
MAZDA3	MAZDA
MAZDA 6	MAZDA
RX-8	MAZDA
OTHER AUTOMOBILE	MAZDA
CX9	MAZDA
GLC/PROTEGE/323	MAZDA
G CLASS	MERCEDES-BENZ
UNKNOWN VEHICLE	MERCEDES-BENZ
R-CLASS	MERCEDES-BENZ
CLS CLASS	MERCEDES-BENZ
S CLASS	MERCEDES-BENZ
SL CLASS	MERCEDES-BENZ
SLK	MERCEDES-BENZ
CL	MERCEDES-BENZ
CLK	MERCEDES-BENZ
E	MERCEDES-BENZ
UNK TYPE TRUCK (LIGHT/MED/HEAVY)	MERCEDES-BENZ
230/280 SL	MERCEDES-BENZ
350/380/420/450/560/SLC	MERCEDES-BENZ
MEDIUM/HEAVY: COE ENTRY POSITION UNKNOWN	MERCEDES-BENZ
M	MERCEDES-BENZ
VAN DERIVATIVE	MERCEDES-BENZ
MEDIUM/HEAVE - CBE	MERCEDES-BENZ
MEDIUM/HEAVY - COE LOW ENTRY	MERCEDES-BENZ
MEDIUM/HEAVY - COE HIGH ENTRY	MERCEDES-BENZ

MEDIUM/HEAVY; UNKNOWN ENGINE LOCATION	MERCEDES-BENZ
UNKNOWN BUS TYPE	MERCEDES-BENZ
190	MERCEDES-BENZ
200/220/230/240/250/260/280/300/320 SE,CD,D,SD,ETC	MERCEDES-BENZ
280/300SEL	MERCEDES-BENZ
400/500 E	MERCEDES-BENZ
300	MERCEDES-BENZ
380/420/450/500/560SEL/500SEC/560SEC/350SDL /300SDL	MERCEDES-BENZ
300/350/380/450/500SL/560SL	MERCEDES-BENZ
600, 6.9 SEDAB	MERCEDES-BENZ
C CLASS (94 on)	MERCEDES-BENZ
OTHER AUTOMOBILE	MERCEDES-BENZ
300 SE/380/450 SE	MERCEDES-BENZ
UNKNOWN AUTOMOBILE	MERCEDES-BENZ
OTHER LIGHT TRUCK	MERCEDES-BENZ
UNKNOWN LIGHT TRUCK	MERCEDES-BENZ
OTHER MEDIUM/HEAVY TRUCK	MERCEDES-BENZ
UNKNOWN MEDIUM/HEAVY TRUCK	MERCEDES-BENZ
MEDIUM BUS	MERCEDES-BENZ
OTHER BUS	MERCEDES-BENZ
SLR MCLAREN	MERCEDES-BENZ
ZEPHYR	MERCURY
MARINER	MERCURY
MONTEGO (2005+)	MERCURY
MONTEREY (2004+)	MERCURY
MARAUDER	MERCURY
BOBCAT	MERCURY
CAPRI-DOMESTIC	MERCURY
CAPRI-FOREIGN	MERCURY
MARQUIS/MONTEREY	MERCURY
COUGAR/XR7	MERCURY
LYNX/LN-7 (82-83)	MERCURY
MONARCH	MERCURY
MYSTIQUE	MERCURY
SABLE	MERCURY
TOPAZ	MERCURY
TRACER	MERCURY
MILAN	MERCURY
OTHER AUTOMOBILE	MERCURY
UNKNOWN AUTOMOBILE	MERCURY
UNKNOWN VEHICLE	MERCURY

PANTERA	MERCURY
MOUNTAINEER	MERCURY
VILLAGER	MERCURY
OTHER LIGHT TRUCK	MERCURY
UNKNOWN LIGHT TRUCK	MERCURY
COMET	MERCURY
MONTEGO	MERCURY
CYCLONE	MERCURY
COUGAR	MERCURY
XR4Ti	MERKUR
UNKNOWN AUTOMOBILE	MERKUR
UNKNOWN VEHICLE	MERKUR
SCORPIO	MERKUR
OTHER AUTOMOBILE	MERKUR
MIDGET	MG
MGB ('76-'79)	MG
MGB ('67-'75)	MG
MGA	MG
TA/TC/TD/TF	MG
OTHER AUTOMOBILE	MG
UNKNOWN AUTOMOBILE	MG
UNKNOWN VEHICLE	MG
MGC	MG
COOPER,COOPER S	MINI
UNKNOWN LIGHT TRUCK	MITSUBISHI
OTHER BUS	MITSUBISHI
GALANT	MITSUBISHI
MIRAGE	MITSUBISHI
MONTERO	MITSUBISHI
PICKUP	MITSUBISHI
SIGMA	MITSUBISHI
STARION	MITSUBISHI
TREDIA	MITSUBISHI
MINIVAN	MITSUBISHI
EXPO WAGON	MITSUBISHI
OTHER AUTOMOBILE	MITSUBISHI
CONVENTIONAL FRONT ENGINE	MITSUBISHI
3000GT	MITSUBISHI
CORDIA	MITSUBISHI
LANCER	MITSUBISHI
RAIDER/DUROCROSS	MITSUBISHI
ECLIPSE	MITSUBISHI
OUTLANDER	MITSUBISHI

ENDEAVOR	MITSUBISHI
UNK TYPE TRUCK (LIGHT/MED/HEAVY)	MITSUBISHI
PRECIS	MITSUBISHI
DIAMANTE	MITSUBISHI
MEDIUM/HEAVY - COE LOW ENTRY	MITSUBISHI
FRONT ENGINE/FLAT FRONT	MITSUBISHI
REAR ENGINE/FLAT FRONT	MITSUBISHI
UNKNOWN TYPE BUS	MITSUBISHI
UNKNOWN VEHICLE	MITSUBISHI
UNKNOWN AUTOMOBILE	MITSUBISHI
OTHER LIGHT TRUCK	MITSUBISHI
OTHER MEDIUM/HEAVY TRUCK	MITSUBISHI
UNKNOWN MEDIUM/HEAVY TRUCK	MITSUBISHI
OTHER AUTOMOBILE	MORRIS
MINOR	MORRIS
UNKNOWN AUTOMOBILE	MORRIS
MOTORCYCLE (350-449CC)	MOTO GUZZI
MOTORCYCLE (450-749CC)	MOTO GUZZI
OTHER MOTORED CYCLE	MOTO GUZZI
MOTORCYCLE (UNKNOWN CC)	MOTO GUZZI
ATC/ATV (000-050CC)	MOTO GUZZI
ATC/ATV (051-124CC)	MOTO GUZZI
ATC/ATV (125-349CC)	MOTO GUZZI
ATC/ATV (350CC-OVER)	MOTO GUZZI
ATC/ATV (UNKNOWN CC)	MOTO GUZZI
MOTORCYCLE (750CC-OVER)	MOTO GUZZI
MOTORCYCLE (125-349CC)	MOTO GUZZI
MOTORCYCLE (051-124CC)	MOTO GUZZI
UNKNOWN MOTORED CYCLE	MOTO GUZZI
MOTORCYCLE (000-050CC)	MOTO GUZZI
BUS - CONVENTIONAL FRONT ENGINE	NEOPLAN
BUS BASED MOTORHOME	NEOPLAN
BUS - FRONT ENGINE/FLAT FRONT	NEOPLAN
BUS - REAR ENGINE/FLAT FRONT	NEOPLAN
OTHER BUS	NEOPLAN
NX 1600/2000	NISSAN/DATSUN
DATSUN/NISSAN PU/FRONTIER	NISSAN/DATSUN
PULSAR	NISSAN/DATSUN
QUEST	NISSAN/DATSUN
SENTRA	NISSAN/DATSUN
STANZA	NISSAN/DATSUN
VAN	NISSAN/DATSUN
OTHER AUTOMOBILE	NISSAN/DATSUN

UNKNOWN AUTOMOBILE	NISSAN/DATSUN
OTHER LIGHT TRUCK	NISSAN/DATSUN
UNKNOWN LIGHT TRUCK	NISSAN/DATSUN
OTHER MEDIUM/HEAVY TRUCK	NISSAN/DATSUN
UNKNOWN MEDIUM/HEAVY TRUCK	NISSAN/DATSUN
UNKNOWN VEHICLE	NISSAN/DATSUN
AXXESS	NISSAN/DATSUN
F10	NISSAN/DATSUN
610	NISSAN/DATSUN
710	NISSAN/DATSUN
ROADSTER	NISSAN/DATSUN
PL411, RL411	NISSAN/DATSUN
MICRA	NISSAN/DATSUN
PATHFINDER	NISSAN/DATSUN
MEDIUM/HEAVY COE HIGH ENTRY	NISSAN/DATSUN
NV200/eNV200	NISSAN/DATSUN
ALTIMA	NISSAN/DATSUN
UNK TYPE TRUCK (LIGHT/MED/HEAVY)	NISSAN/DATSUN
XTERRA	NISSAN/DATSUN
350Z/370Z	NISSAN/DATSUN
MURANO	NISSAN/DATSUN
PATHFINDER ARMADA	NISSAN/DATSUN
TITAN	NISSAN/DATSUN
VERSA	NISSAN/DATSUN
ROGUE	NISSAN/DATSUN
CUBE	NISSAN/DATSUN
JUKE	NISSAN/DATSUN
GT-R	NISSAN/DATSUN
LEAF	NISSAN/DATSUN
ALTRA EV	NISSAN/DATSUN
NV	NISSAN/DATSUN
810/MAXIMA	NISSAN/DATSUN
Z-CAR, ZX	NISSAN/DATSUN
200/240 SX	NISSAN/DATSUN
510	NISSAN/DATSUN
1200/210/B210	NISSAN/DATSUN
310	NISSAN/DATSUN
MOTORCYCLE (750CC-OVER)	NORTON
MOTORCYCLE (UNKNOWN CC)	NORTON
OTHER MOTORED CYCLE	NORTON
MOTORCYCLE (450-749CC)	NORTON
UNKNOWN MOTORED CYCLE	NORTON
MOTORCYCLE (125-349CC)	NORTON

MOTORCYCLE (051-124CC)	NORTON
MOTORCYCLE (000-050CC)	NORTON
MOTORCYCLE (350-449CC)	NORTON
COMMERCIAL SERIES	OLDSMOBILE
BRAVADA	OLDSMOBILE
OTHER VEHICLE	OLDSMOBILE
UNKNOWN VEHICLE	OLDSMOBILE
AURORA	OLDSMOBILE
CALAIS	OLDSMOBILE
DELTA 88	OLDSMOBILE
CUTLASS (RWD-ONLY)	OLDSMOBILE
CIERA	OLDSMOBILE
CUTLASS (FWD)	OLDSMOBILE
FIRENZA	OLDSMOBILE
NINETY-EIGHT	OLDSMOBILE
OMEGA	OLDSMOBILE
SILHOUETTE	OLDSMOBILE
STARFIRE	OLDSMOBILE
TORONADO-TROFEO	OLDSMOBILE
OTHER AUTOMOBILE	OLDSMOBILE
UNKNOWN AUTOMOBILE	OLDSMOBILE
OTHER LIGHT TRUCK	OLDSMOBILE
ACHIEVA	OLDSMOBILE
INTRIGUE	OLDSMOBILE
ALERO	OLDSMOBILE
UNKNOWN LIGHT TRUCK	OLDSMOBILE
MEDIUM/HEAVY BASED MOTORHOME	OSHKOSH
MEDIUM/HEAVY - COE/LOW ENTRY	OSHKOSH
MEDIUM/HEAVY - CBE	OSHKOSH
MEDIUM/HEAVY - COE/HIGH ENTRY	OSHKOSH
MEDIUM/HEAVY - OTHER	OSHKOSH
MEDIUM/HEAVY - COE/ENTRY POSITION UNKNOWN	OSHKOSH
MEDIUM/HEAVY - UNKNOWN ENGINE LOCATION	OSHKOSH
OTHER MAKE	OTHER DOMESTIC MANUFACTURER (light vehicles)
UNKNOWN MAKE	OTHER DOMESTIC MANUFACTURER (light vehicles)
OTHER VEHICLE	OTHER DOMESTIC MANUFACTURER (light vehicles)
OTHER BUS	OTHER DOMESTIC MANUFACTURER (light vehicles)
OTHER MEDIUM/HEAVY TRUCK	OTHER DOMESTIC MANUFACTURER (light vehicles)

OTHER LIGHT TRUCK	OTHER DOMESTIC MANUFACTURER (light vehicles)
OTHER MAKE	OTHER FOREIGN MANUFACTURER (light vehicles)
OTHER LIGHT TRUCK	OTHER FOREIGN MANUFACTURER (light vehicles)
UNKOWN MAKE	OTHER FOREIGN MANUFACTURER (light vehicles)
OTHER BUS	OTHER MAKE (med/heavy truck/bus or "other")
OTHER VEHICLE	OTHER MAKE (med/heavy truck/bus or "other")
TRUCK BASED MOTORHOME	OTHER MAKE (med/heavy truck/bus or "other")
BUS BASED MOTORHOME	OTHER MAKE (med/heavy truck/bus or "other")
OTHER MEDIUM/HEAVY TRUCK	OTHER MAKE (med/heavy truck/bus or "other")
0-50cc	OTHER MAKE MOPED
51-124cc	OTHER MAKE MOPED
UNKNOWN MOTORED CYCLE	OTHER MAKE MOPED
OTHER MOTORED CYCLE	OTHER MAKE MOPED
UNKNOWN cc	OTHER MAKE MOPED
750c or greater	OTHER MAKE MOTORED CYCLE
UNKNOWN MOTORED CYCLE	OTHER MAKE MOTORED CYCLE
ATC/ATV 0-50cc	OTHER MAKE MOTORED CYCLE
450-749cc	OTHER MAKE MOTORED CYCLE
350-449cc	OTHER MAKE MOTORED CYCLE
125-349cc	OTHER MAKE MOTORED CYCLE
51-124cc	OTHER MAKE MOTORED CYCLE
0-50cc	OTHER MAKE MOTORED CYCLE
Unknown cc	OTHER MAKE MOTORED CYCLE
OTHER MOTORED CYCLE	OTHER MAKE MOTORED CYCLE
ATV/ATC UNKNOWN cc	OTHER MAKE MOTORED CYCLE
ATC/ATV 51-124cc	OTHER MAKE MOTORED CYCLE
ATC/ATV 125-349cc	OTHER MAKE MOTORED CYCLE
ATC/ATV 350cc OR GREATER	OTHER MAKE MOTORED CYCLE
UNKNOWN MEDIUM/HEAVY TRUCK	PETERBILT
MEDIUM/HEAVY BASED MOTORHOME	PETERBILT
MEDIUM/HEAVY - CBE	PETERBILT
MEDIUM/HEAVY - COE/LOW ENTRY	PETERBILT
MEDIUM/HEAVY - COE/HIGH ENTRY	PETERBILT
MEDIUM/HEAVY - UNKNOWN ENGINE LOCATION	PETERBILT
MEDIUM/HEAVY - COE/ENTRY POSITION UNKNOWN	PETERBILT

MEDIUM/HEAVY - OTHER	PETERBILT
UNKNOWN MOTORED CYCLE	PEUGEOT
UNKNOWN VEHICLE	PEUGEOT
OTHER AUTOMOBILE	PEUGEOT
405	PEUGEOT
304	PEUGEOT
403	PEUGEOT
404	PEUGEOT
504/505	PEUGEOT
604	PEUGEOT
UNKNOWN AUTOMOBILE	PEUGEOT
MOTORCYCLE (000-050CC)	PEUGEOT
MOTORCYCLE (051-124CC)	PEUGEOT
MOTORCYCLE (UNKNOWN CC)	PEUGEOT
VALIANT/DUSTER/SCAMP	PLYMOUTH
VAN-FULLSIZE (B-SERIES)	PLYMOUTH
FURY	PLYMOUTH
BARRACUDA	PLYMOUTH
SCAMP (CAR BASED PICKUP)	PLYMOUTH
BREEZE	PLYMOUTH
PROWLER	PLYMOUTH
TRAILDUSTER	PLYMOUTH
ARROW PICKUP (FOREIGN)	PLYMOUTH
ACCLAIM	PLYMOUTH
ARROW	PLYMOUTH
CARAVELLE	PLYMOUTH
CHAMP/COLT (EXCLUDES VISTA)	PLYMOUTH
COLT VISTA	PLYMOUTH
CONQUEST	PLYMOUTH
GRAN FURY	PLYMOUTH
VOYAGER (MINIVAN)	PLYMOUTH
HORIZON	PLYMOUTH
LASER	PLYMOUTH
NEON	PLYMOUTH
RELIANT (K)	PLYMOUTH
SAPPORO	PLYMOUTH
SUNDANCE	PLYMOUTH
VOLARE	PLYMOUTH
OTHER AUTOMOBILE	PLYMOUTH
UNKNOWN AUTOMOBILE	PLYMOUTH
OTHER LIGHT TRUCK	PLYMOUTH
UNKNOWN LIGHT TRUCK	PLYMOUTH
UNKNOWN VEHICLE	PLYMOUTH

CRICKET	PLYMOUTH
SATELLITE/BELVEDERE	PLYMOUTH
GRAND PRIX (FWD)	PONTIAC
G8	PONTIAC
G5	PONTIAC
TORRENT	PONTIAC
SOLSTICE	PONTIAC
G6	PONTIAC
VIBE	PONTIAC
OTHER LIGHT	PONTIAC
AZTEK	PONTIAC
UNKNOWN VEHICLE	PONTIAC
UNKNOWN LIGHT TRUCK	PONTIAC
OTHER LIGHT TRUCK	PONTIAC
UNKNOWN AUTOMOBILE	PONTIAC
OTHER AUTOMOBILE	PONTIAC
SUNBIRD (THRU 80)	PONTIAC
VENTURA/GTO	PONTIAC
ASTRE	PONTIAC
6000	PONTIAC
FIERO	PONTIAC
FIREBIRD/TRANS AM	PONTIAC
GRAND AM	PONTIAC
GRAND PRIX (RWD)	PONTIAC
G3	PONTIAC
LEMANS/TEMPEST (THRU 79)	PONTIAC
J2000/SUNBIRD/SUNFIRE	PONTIAC
T1000/1000	PONTIAC
TRANS SPORT/MONTANA	PONTIAC
LEMANS (88-on)	PONTIAC
BONNEVILLE/CATALINA/PARISIENNE	PONTIAC
PHOENIX	PONTIAC
CAYMAN	PORSCHE
CAYENNE	PORSCHE
959	PORSCHE
930	PORSCHE
914	PORSCHE
UNKNOWN VEHICLE	PORSCHE
UNKNOWN AUTOMOBILE	PORSCHE
OTHER AUTOMOBILE	PORSCHE
912	PORSCHE
911	PORSCHE
944	PORSCHE

928	PORSCHE
986 BOXSTER	PORSCHE
924	PORSCHE
968	PORSCHE
UNKNOWN AUTOMOBILE	RELIANT
OTHER AUTOMOBILE	RELIANT
FUEGO	RENAULT/AMC
MEDALLION	RENAULT/AMC
OTHER AUTOMOBILE	RENAULT/AMC
UNKNOWN AUTOMOBILE	RENAULT/AMC
UNKNOWN VEHICLE	RENAULT/AMC
DAUPHINE/10/R-8/CARAVELLE	RENAULT/AMC
12	RENAULT/AMC
15	RENAULT/AMC
16	RENAULT/AMC
17	RENAULT/AMC
ALPINE	RENAULT/AMC
R18I	RENAULT/AMC
ALLIANCE/ENCORE/GTA, CONVERTIBLE	RENAULT/AMC
LECAR	RENAULT/AMC
PREMIER	RENAULT/AMC
UNKNOWN AUTOMOBILE	ROLLS ROYCE/BENTLEY
CLOUD/SHADOW SERIES	ROLLS ROYCE/BENTLEY
OTHER AUTOMOBILE	ROLLS ROYCE/BENTLEY
UNKNOWN AUTOMOBILE	SAAB
OTHER AUTOMOBILE	SAAB
9000, CS	SAAB
99/99E/900	SAAB
95/96/97	SAAB
UNKNOWN VEHICLE	SAAB
SONNETT	SAAB
3-Sep	SAAB
UNKNOWN LIGHT TRUCK	SAAB
OTHER LIGHT TRUCK	SAAB
9-7X	SAAB
9-2X	SAAB
5-Sep	SAAB
AURA	SATURN
SKY	SATURN
OUTLOOK	SATURN
ASTRA	SATURN
RELAY	SATURN
ION	SATURN

UNKNOWN LIGHT TRUCK	SATURN
OTHER LIGHT TRUCK	SATURN
VUE	SATURN
LW/LW1/LW2/LW200/300	SATURN
LS/LS1/LS2/L100/L200/L300	SATURN
EV	SATURN
SW	SATURN
SC	SATURN
SL	SATURN
UNKNOWN VEHICLE	SATURN
OTHER AUTOMOBILE	SATURN
UNKNOWN AUTOMOBILE	SATURN
MEDIUM/HEAVY - COE/LOW ENTRY	SCANIA
MEDIUM/HEAVY - CBE	SCANIA
MEDIUM/HEAVY BASED MOTORHOME	SCANIA
MEDIUM/HEAVY - OTHER	SCANIA
MEDIUM/HEAVY - COE/ENTRY POSITION UNKNOWN	SCANIA
MEDIUM/HEAVY - UNKNOWN ENGINE LOCATION	SCANIA
MEDIUM/HEAVY - COE/HIGH ENTRY	SCANIA
OTHER AUTOMOBILE	SCION
FR-S	SCION
UNKNOWN AUTOMOBILE	SCION
XD (>=2012)	SCION
TC (>=2012)	SCION
XB (>=2012)	SCION
IQ (>=2012)	SCION
UNKNOWN AUTOMOBILE	SIMCA
OTHER AUTOMOBILE	SIMCA
FORTWO	SMART
UNKNOWN AUTOMOBILE	SMART
OTHER AUTOMOBILE	SMART
OTHER AUTOMOBILE	STERLING
827S	STERLING
UNKNOWN VEHICLE	STERLING
UNKNOWN AUTOMOBILE	STERLING
MEDIUM/HEAVY - OTHER	STERLING TRUCKS
MEDIUM/HEAVY - COE/HIGH ENTRY	STERLING TRUCKS
MEDIUM/HEAVY - COE/LOW ENTRY	STERLING TRUCKS
MEDIUM/HEAVY - CBE	STERLING TRUCKS
MEDIUM/HEAVY - COE/ENTRY POSITION UNKNOWN	STERLING TRUCKS
MEDIUM/HEAVY - UNKNOWN ENGINE LOCATION	STERLING TRUCKS

UNKNOWN AUTOMOBILE	STUDEBAKER
LARK	STUDEBAKER
OTHER AUTOMOBILE	STUDEBAKER
GRAN TURISMO	STUDEBAKER
HAWK	STUDEBAKER
CRUISER	STUDEBAKER
OTHER AUTOMOBILE	STUTZ
UNKNOWN AUTOMOBILE	STUTZ
STAR	SUBARU
UNKNOWN AUTOMOBILE	SUBARU
BAJA	SUBARU
UNKNOWN VEHICLE	SUBARU
B9 TRIBECA	SUBARU
FORESTER	SUBARU
OTHER LIGHT TRUCK	SUBARU
UNKNOWN LIGHT TRUCK	SUBARU
BRZ	SUBARU
XV CROSSTREK	SUBARU
OUTBACK	SUBARU
360	SUBARU
BRAT DL, GL	SUBARU
JUSTY	SUBARU
LEGACY	SUBARU
IMPREZA	SUBARU
DL/FE/G/GF/GL/GLF/STD/LOYALE	SUBARU
SVX	SUBARU
XT/XT6	SUBARU
OTHER AUTOMOBILE	SUBARU
UNKNOWN AUTOMOBILE	SUNBEAM
OTHER AUTOMOBILE	SUNBEAM
SIDEKICK/GRAND VITARA	SUZUKI
SWIFT	SUZUKI
X-90/VITARA	SUZUKI
OTHER AUTOMOBILE	SUZUKI
UNKNOWN AUTOMOBILE	SUZUKI
OTHER LIGHT TRUCK	SUZUKI
UNKNOWN LIGHT TRUCK	SUZUKI
MOTORCYCLE (000-050CC)	SUZUKI
MOTORCYCLE (051-124CC)	SUZUKI
MOTORCYCLE (125-349CC)	SUZUKI
MOTORCYCLE (350-449CC)	SUZUKI
MOTORCYCLE (450-749CC)	SUZUKI
MOTORCYCLE (750CC-OVER)	SUZUKI

MOTORCYCLE (UNKNOWN CC)	SUZUKI
ATC/ATV (000-050CC)	SUZUKI
ATC/ATV (051-124CC)	SUZUKI
ATC/ATV (125-349CC)	SUZUKI
ATC/ATV (350CC-OVER)	SUZUKI
ATC/ATV (UNKNOWN CC)	SUZUKI
UNKNOWN MOTORED CYCLE	SUZUKI
UNKNOWN VEHICLE	SUZUKI
SX4	SUZUKI
EQUATOR	SUZUKI
KIZASHI	SUZUKI
AERIO	SUZUKI
FORENZA	SUZUKI
GRAND VITARA	SUZUKI
VERONA	SUZUKI
XL7	SUZUKI
RENO	SUZUKI
OTHER MOTORED CYCLE	SUZUKI
SWIFT/SA310	SUZUKI
ESTEEM	SUZUKI
SAMURAI	SUZUKI
SCION XD (< 2012)	TOYOTA
T-100	TOYOTA
VENZA	TOYOTA
STARLET	TOYOTA
MINVAN/PREVIA	TOYOTA
PICKUP	TOYOTA
PASEO	TOYOTA
MR-2	TOYOTA
LANDCRUISER	TOYOTA
CRESSIDA	TOYOTA
CORONA	TOYOTA
COROLLA	TOYOTA
SUPRA	TOYOTA
CELICA	TOYOTA
CAMRY	TOYOTA
AVALON	TOYOTA
4-RUNNER	TOYOTA
TERCEL	TOYOTA
TACOMA	TOYOTA
RAV-4	TOYOTA
CARINA	TOYOTA
PRIUS	TOYOTA

HIGHLANDER	TOYOTA
MATRIX	TOYOTA
SCION XA	TOYOTA
SCION XB (< 2012)	TOYOTA
SCION TC (< 2012)	TOYOTA
FJ CRUISER	TOYOTA
YARIS	TOYOTA
SOLARA	TOYOTA
SIENNA	TOYOTA
ECHO	TOYOTA
TUNDRA	TOYOTA
SEQUOIA	TOYOTA
SCION IQ (< 2012)	TOYOTA
CROWN	TOYOTA
UNKNOWN AUTOMOBILE	TOYOTA
OTHER AUTOMOBILE	TOYOTA
OTHER LIGHT TRUCK	TOYOTA
UNKNOWN LIGHT TRUCK	TOYOTA
UNKNOWN VEHICLE	TOYOTA
MOTORCYCLE (UNKNOWN CC)	TRIUMPH
TR7/8	TRIUMPH
MOTORCYCLE (750CC-OVER)	TRIUMPH
TR6	TRIUMPH
TR4	TRIUMPH
MOTORCYCLE (350-449CC)	TRIUMPH
HERALD	TRIUMPH
UNKNOWN AUTOMOBILE	TRIUMPH
OTHER AUTOMOBILE	TRIUMPH
MOTORCYCLE (125-349CC)	TRIUMPH
GT-6	TRIUMPH
SPITFIRE	TRIUMPH
STAG	TRIUMPH
MOTORCYCLE (051-124CC)	TRIUMPH
MOTORCYCLE (000-050CC)	TRIUMPH
UNKNOWN VEHICLE	TRIUMPH
UNKNOWN MOTORED CYCLE	TRIUMPH
MOTORCYCLE (450-749CC)	TRIUMPH
OTHER AUTOMOBILE	TVR
UNKNOWN AUTOMOBILE	TVR
UNKNOWN VEHICLE	UNKNOWN DOMESTIC MANUFACTURER
UNKNOWN AUTOMOBILE	UNKNOWN DOMESTIC MANUFACTURER

UNKNOWN MOTORED CYCLE	UNKNOWN DOMESTIC MANUFACTURER
UNKNOWN BUS TYPE	UNKNOWN DOMESTIC MANUFACTURER
UNKNOWN LIGHT TRUCK	UNKNOWN DOMESTIC MANUFACTURER
UNKNOWN MEDIUM/HEAVY TRUCK	UNKNOWN DOMESTIC MANUFACTURER
UNKNOWN VEHICLE	UNKNOWN FOREIGN MANUFACTURER
UNKNOWN AUTOMOBILE	UNKNOWN FOREIGN MANUFACTURER
UNKNOWN MEDIUM/HEAVY TRUCK	UNKNOWN FOREIGN MANUFACTURER
UNKNOWN LIGHT TRUCK	UNKNOWN FOREIGN MANUFACTURER
UNKNOWN BUS TYPE	UNKNOWN FOREIGN MANUFACTURER
UNKNOWN MOTORED CYCLE	UNKNOWN FOREIGN MANUFACTURER
UNKNOWN BUS TYPE	UNKNOWN MANUFACTURER
UNKNOWN MEDIUM/HEAVY TRUCK	UNKNOWN MANUFACTURER
UNKNOWN LIGHT TRUCK	UNKNOWN MANUFACTURER
UNKNOWN MOTORED CYCLE	UNKNOWN MANUFACTURER
UNKNOWN VEHICLE	UNKNOWN MANUFACTURER
UNK TYPE TRUCK (LIGHT/MED/HEAVY)	UNKNOWN MANUFACTURER
UNKNOWN AUTOMOBILE	UNKNOWN MANUFACTURER
Unknown bus type	UNKNOWN MEDIUM/HEAVY TRUCKS AND BUSES MANUFACTURER
Unknown medium/heavy truck	UNKNOWN MEDIUM/HEAVY TRUCKS AND BUSES MANUFACTURER
OTHER LIGHT TRUCK	VOLKSWAGEN
ROUTAN	VOLKSWAGEN
GOLF III	VOLKSWAGEN
JETTA	VOLKSWAGEN
RABBIT	VOLKSWAGEN
VANAGON/CAMPER	VOLKSWAGEN
CORRADO	VOLKSWAGEN
EUROVAN	VOLKSWAGEN
FOX	VOLKSWAGEN
SCIROCCO	VOLKSWAGEN
GOLF/CABRIOLET/GTI	VOLKSWAGEN
SUPER BEETLE	VOLKSWAGEN

OTHER AUTOMOBILE	VOLKSWAGEN
UNKNOWN AUTOMOBILE	VOLKSWAGEN
JETTA III	VOLKSWAGEN
PASSAT	VOLKSWAGEN
UNKNOWN LIGHT TRUCK	VOLKSWAGEN
OTHER VEHICLE	VOLKSWAGEN
UNKNOWN VEHICLE	VOLKSWAGEN
KARMANN GHIA	VOLKSWAGEN
BEETLE 1300/1500	VOLKSWAGEN
411/412	VOLKSWAGEN
SQUAREBACK/FASTBACK	VOLKSWAGEN
DASHER	VOLKSWAGEN
RABBIT PICKUP	VOLKSWAGEN
THE THING (181)	VOLKSWAGEN
NEW BEETLE	VOLKSWAGEN
PHAETON	VOLKSWAGEN
TOUAREG	VOLKSWAGEN
EOS	VOLKSWAGEN
TIGUAN	VOLKSWAGEN
QUANTUM	VOLKSWAGEN
XC60	VOLVO
C30	VOLVO
MEDIUM/HEAVY: COE ENTRY POSITION	
UNKNOWN	VOLVO
60 SERIES	VOLVO
XC90	VOLVO
V50	VOLVO
70 SERIES	VOLVO
90 SERIES	VOLVO
40 SERIES	VOLVO
80 SERIES	VOLVO
240/242/244/245	VOLVO
UNKNOWN TYPE BUS	VOLVO
UNKNOWN VEHICLE	VOLVO
262/264/265	VOLVO
760/780	VOLVO
OTHER AUTOMOBILE	VOLVO
UNKNOWN AUTOMOBILE	VOLVO
OTHER MEDIUM/HEAVY TRUCK	VOLVO
UNKNOWN MEDIUM/HEAVY TRUCK	VOLVO
MEDIUM BUS	VOLVO
1800	VOLVO
960	VOLVO

850	VOLVO
940	VOLVO
122	VOLVO
142/144/145	VOLVO
164	VOLVO
740	VOLVO
MEDIUM/HEAVY CBE	VOLVO
OTHER BUS	VOLVO
MEDIUM/HEAVY COE LOW ENTRY	VOLVO
MEDIUM/HEAVY COE HIGH ENTRY	VOLVO
MEDIUM/HEAVY - UNKNOWN ENGINE LOCATION	VOLVO
MEDIUM/HEAVY - COE/LOW ENTRY	WARD LAFRANCE
MEDIUM/HEAVY - COE/HIGH ENTRY	WARD LAFRANCE
MEDIUM/HEAVY - UNKNOWN ENGINE LOCATION	WARD LAFRANCE
MEDIUM/HEAVY - COE/ENTRY POSITION UNKNOWN	WARD LAFRANCE
MEDIUM/HEAVY - OTHER	WARD LAFRANCE
MEDIUM/HEAVY BASED MOTORHOME	WARD LAFRANCE
MEDIUM/HEAVY - CBE	WARD LAFRANCE
MEDIUM/HEAVY - OTHER	WESTERN STAR
MEDIUM/HEAVY - COE/ENTRY POSITION UNKNOWN	WESTERN STAR
MEDIUM/HEAVY - UNKNOWN ENGINE LOCATION	WESTERN STAR
MEDIUM/HEAVY - COE/HIGH ENTRY	WESTERN STAR
MEDIUM/HEAVY BASED MOTORHOME	WESTERN STAR
MEDIUM/HEAVY - COE/LOW ENTRY	WESTERN STAR
MEDIUM/HEAVY - CBE	WESTERN STAR
UNKNOWN VEHICLE	WINNEBAGO
UNKNOWN TYPE LIGHT MOTORHOME	WINNEBAGO
LIGHT TRUCK BASED MOTORHOME	WINNEBAGO
MEDIUM/HEAVY UNKNOWN	WINNEBAGO
MEDIUM/HEAVY OTHER	WINNEBAGO
MOTOR HOME	WINNEBAGO
VAN BASED MOTORHOME	WINNEBAGO
MOTORCYCLE (UNKNOWN CC)	YAMAHA
MOTORCYCLE (000-050CC)	YAMAHA
UNKNOWN MOTORED CYCLE	YAMAHA
OTHER MOTORED CYCLE	YAMAHA
OTHER VEHICLE	YAMAHA
MOTORCYCLE (051-124CC)	YAMAHA
MOTORCYCLE (350-449CC)	YAMAHA
MOTORCYCLE (450-749CC)	YAMAHA
MOTORCYCLE (750CC-OVER)	YAMAHA

MOTORCYCLE (125-349CC)	YAMAHA
ATC/ATV (000-050CC)	YAMAHA
ATC/ATV (051-124CC)	YAMAHA
ATC/ATV (125-349CC)	YAMAHA
ATC/ATV (350CC-OVER)	YAMAHA
ATC/ATV (UNKNOWN CC)	YAMAHA
GV	YUGO
OTHER AUTOMOBILE	YUGO
UNKNOWN AUTOMOBILE	YUGO
UNKNOWN VEHICLE	YUGO

Appendix C – List of Child Seat Makes (Possible)

Child Seat Make	SAS Code
Baby Trend	001
Babyhood	002
Basic Comfort	003
Britax	004
Buick	005
Car Seat Specialty	006
Century Products	007
Century/Graco	008
Chevrolet	009
Chicco	010
Chrysler	011
Collier-Keyworth	012
Columbia Medical	013
Combi	014
Compass	015
Cosco/Dorel	016
Cosco/Peterson	017
Cybex	018
Dodge	019
Downunder	020
E-Z On Products	021
Early Development	022
Evenflo	023
FBS, Inc. Renolux	024
Fisher-Price	025
Ford	026
GMC	027
Gerry	028
Graco	029
Guardian	030
Harmony	031
IMMI	032
International	033
Jane	034
Jeep	035
Joey Safe	036
Jupiter	037
Kia	038
Kolcraft	039
LaRoche	040

Lennox	041
Little Cargo	042
Magna	043
Maxi-Cosi	044
Mercedes-Benz	045
Mercury	046
Nania	047
New Harness	048
Nissan	049
No Child Safety Seat	000
Oldsmobile	050
Orbit Baby	051
Other	997
Other Make (Specify)	997
Other make/model (specify)	997
Peg Perego	052
Pioneered II	053
Plymouth	054
Pontiac	055
Porsche	056
Pride-Trimble	057
Prodigy	058
Questor/Kantwet	059
Recaro	060
Renolux	061
Saab	062
Safe-n-Sound	063
Safeguard	064
Safeline	065
Safety 1st	066
Safety Angel	067
Safety Baby	068
Safety Rehab	069
Sammons Preston	070
Snug Seat	071
Special Tomato	072
Strolee	073
Subaru	074
Sunshine Kids	075
Team Tex	076
Teutonia	077
The First Years	078
Toyota	079

Travel Safety	080
Tripleplay Products	081
Tumble Forms	082
Unknown Make	998
Unknown if child safety seat used	999
Unknown make/model	998
Volvo	083
Welsh	084
ZB Sales	085

Appendix D – List of Child Seat Models

Child seat Manufacturer	Child seat Model	SAS
Baby Trend	EZ Loc	149
Baby Trend	Flex Loc	142
Baby Trend	Latch Loc	150
Baby Trend	Recaro	343
Baby Trend	Tahoe	130
Baby Trend	Trend	344
Babyhood	Baby Sitter, Wonda Chair	249
Basic Comfort	Booster	548
Basic Comfort	Galaxy 2000	636
Britax	Advantage	702
Britax	Advocate CS	287
Britax	Baby Safe	131
Britax	Baby Trend Latch-Loc	133
Britax	Bodyguard	836
Britax	Boulevard	265
Britax	Chaperone	152
Britax	Companion	132
Britax	Cruiser	640
Britax	Decathlon	266
Britax	Diplomat	281
Britax	Elite	677
Britax	Expressway	706
Britax	Freeway, Plus	701
Britax	Frontier	359
Britax	Galaxy	267
Britax	Handle With Care	639
Britax	Husky	811
Britax	Laptop	815
Britax	Marathon	812
Britax	Monarch	350
Britax	Parkway	331
Britax	Regent	705
Britax	Roadster	531
Britax	Rock -a- tot	641
Britax	Romer King	874
Britax	Romer Safefix	873
Britax	Roundabout	637
Britax	Snug Seat Hippo	414
Britax	Stariser/Comfy	530
Britax	Traveller Plus	700

Britax	Wizard	845
Bubblebum	Inflatable Booster	370
Buick	Baby Safe	129
Built-in child safety seat	Built-in child safety seat	950
Car Seat Specialty	Airway	830
Car Seat Specialty	Duo Highback Booster	520
Car Seat Specialty	Nania Baby One	123
Car Seat Specialty	Nania Basic	269
Car Seat Specialty	Nania Convertible	268
Car Seat Specialty	Nania Nuevo	851
Car Seat Specialty	Nania Ola	329
Car Seat Specialty	Nania Solo	850
Car Seat Specialty	Safety Basic Convertible	521
Car Seat Specialty	Speedway Booster	522
Car Seat Specialty	Speedway Car Seat	526
Car Seat Specialty	Topper Highback/LoBack	532
Car Seat Specialty	Uno/Polo	704
Century Products	4100	710
Century Products	4200	630
Century Products	4300	631
Century Products	4400	632
Century Products	4500	633
Century Products	4600	709
Century Products	1000 STE	205
Century Products	1500 STE	635
Century Products	2000 STE	206
Century Products	3000 STE, 3500 STE	207
Century Products	4-in-1 Travel Solutions	591
Century Products	5000 STE, 5500 STE	250
Century Products	8480 Booster	634
Century Products	Accel	534
Century Products	Advanta	513
Century Products	Assura	514
Century Products	Assura Premiere	771
Century Products	Assura V	515
Century Products	Avanta SE	772
Century Products	Bravo	596
Century Products	Breverra	599
Century Products	Breverra Ascend, Sport	516
Century Products	Breverra Classic	774
Century Products	Breverra Contour	600
Century Products	Breverra Contour SE	601
Century Products	Breverra Contour Sport	519
Century Products	Breverra Metro	517
Century Products	Breverra Premier	518

Century Products	Breverra Transit	792
Century Products	Century Infant Car Seat - Includes 560,565,570(disc)	102
Century Products	Century Infant Car Seat - Includes 580(disc),590	121
Century Products	Century Safety Car Seat 100	201
Century Products	Century Safety Car Seat 200	202
Century Products	Century Safety Car Seat 300	203
Century Products	Century Safety Car Seat 400, XL	204
Century Products	Child Love Seat/GM Child Love Seat	208
Century Products	Commander	301
Century Products	CR3	598
Century Products	GM Love Seat	101
Century Products	Infant 560, 565, 570	565
Century Products	Infant 580, 590	569
Century Products	Infant Love Seat	567
Century Products	Next Step	776
Century Products	Nexus	597
Century Products	Ovation	594
Century Products	Ovation Encore	684
Century Products	Ovation Select Fit	595
Century Products	Room To Grow	592
Century Products	Safe-T-Rider	801
Century Products	Safe-T-Rider - Includes II, Deluxe	302
Century Products	Smart Fit	593
Century Products	Smart Fit Plus, Elite	625
Century Products	Smart Fit Supreme	623
Century Products	Smart Move	681
Century Products	Smart Move XT, SE	533
Century/Chrysler	Century Infant Love Seat	103
Century/Graco	530	602
Century/Graco	560	536
Century/Graco	Avanta	537
Century/Graco	Celestia	562
Century/Graco	Encore	686
Century/Graco	Simpson	397
Century/Graco	Travel System	140
Century/Graco	Vante V	804
Century/Graco	Vante V	814
Chicco	KeyFit	848
Chicco	Shuttle	685
Collier-Keyworth	Co-Pilot	303
Collier-Keyworth	Cuddle Shuttle	104
Collier-Keyworth	Formula 1	547
Collier-Keyworth	Roundtripper	210
Collier-Keyworth	Safe & Sound II	209
Collier-Keyworth	Voyager	211

Columbia Medical	2000	703
Columbia Medical	Columbia Orthropedic Seat	409
Combi	Apogee	342
Combi	Avatar	271
Combi	Centre	138
Combi	Connection	136
Combi	Dakota	348
Combi	Everest	347
Combi	Kobuk	349
Combi	Shuttle	144
Combi	Tyro	134
Combi	Victoria	270
Combi	Yorktown	345
Compass	Apex	857
Compass	B500 Folding Booster	346
Cosco/Dorel	5 PT	215
Cosco/Dorel	Adventurer II	535
Cosco/Dorel	Alpha Luxe Echelon	284
Cosco/Dorel	Alpha Omega	551
Cosco/Dorel	Alpha Omega Elite	506
Cosco/Dorel	Ambassador	325
Cosco/Dorel	Arriva	552
Cosco/Dorel	Auto Trac	553
Cosco/Dorel	Comfort Ride	751
Cosco/Dorel	Commuter	554
Cosco/Dorel	Commuter High Back Booster	324
Cosco/Dorel	Complete Voyager	725
Cosco/Dorel	Cosco Auto Booster	318
Cosco/Dorel	Cosco Dream Ride	116
Cosco/Dorel	Cosco Explorer I	304
Cosco/Dorel	Cosco Safe & Easy	213
Cosco/Dorel	Cosco Safe & Snug	214
Cosco/Dorel	Cosco Soft Shield/Auto Trac. Autotrac	212
Cosco/Dorel	Cosco TLC	105
Cosco/Dorel	Designer 22	726
Cosco/Dorel	Designer 35	727
Cosco/Dorel	Dream Ride	728
Cosco/Dorel	Eddie Bauer	278
Cosco/Dorel	Eddie Bauer 02-429,	679
Cosco/Dorel	Eddie Bauer 02-537	718
Cosco/Dorel	Eddie Bauer 02-770	719
Cosco/Dorel	Eddie Bauer 02-849, 02-880, 22-854	668
Cosco/Dorel	Eddie Bauer 02-870	669
Cosco/Dorel	Eddie Bauer 02-875	670
Cosco/Dorel	Eddie Bauer Auto Booster	364

Cosco/Dorel	Eddie Bauer Comfort	124
Cosco/Dorel	Eddie Bauer Deluxe 3-in-1	326
Cosco/Dorel	Eddie Bauer Deluxe Convertible	500
Cosco/Dorel	Eddie Bauer Deluxe Infant Car Seat	148
Cosco/Dorel	Eddie Bauer High Back Booster	864
Cosco/Dorel	Eddie Bauer Infant Car Seat	146
Cosco/Dorel	Eddie Bauer Integrated Travel System	135
Cosco/Dorel	Eddie Bauer SureFit	143
Cosco/Dorel	Enspira	502
Cosco/Dorel	Explorer	672
Cosco/Dorel	First Ride	673
Cosco/Dorel	Grand Explorer	674
Cosco/Dorel	High Back Booster	550
Cosco/Dorel	Highrise	328
Cosco/Dorel	Infant Car Seat	675
Cosco/Dorel	Intera	503
Cosco/Dorel	LatchLoc	846
Cosco/Dorel	Maxi-Cosi Priori	615
Cosco/Dorel	Olympian	576
Cosco/Dorel	Opus 35	577
Cosco/Dorel	Peterson Safety Shield	220
Cosco/Dorel	Pronto	362
Cosco/Dorel	Protek	323
Cosco/Dorel	Regal Ride	578
Cosco/Dorel	Scenera	272
Cosco/Dorel	Select Ride	357
Cosco/Dorel	Soft Shield	579
Cosco/Dorel	Summit	797
Cosco/Dorel	TLC	580
Cosco/Dorel	Touriva	581
Cosco/Dorel	Travel Vest	720
Cosco/Dorel	Traveler	332
Cosco/Dorel	Triad	582
Cosco/Dorel	Turnbout	583
Cosco/Dorel	Ultra Dream Ride	584
Cosco/Dorel	Valet	333
Cosco/Dorel	Vantage Point	852
Cosco/Dorel	Ventura/Vision	586
Cosco/Dorel	Vista	800
Cosco/Dorel	Voyager	585
Cosco/Peterson	Cosco First Ride	107
Cosco/Peterson	Safe & Easy	764
Cosco/Peterson	Safe & Snug	765
Cosco/Peterson	Safe-T-Mate	219
Cosco/Peterson	Safe-T-Seat	217

Cosco/Peterson	Safe-T-Shield	218
Cosco/Peterson	Travel Hi-Lo - Includes Deluxe High Back	305
Cosco/Peterson	Traver Hi-Lo	671
Cosco/Peterson	Trav-L-Ette	106
Cybex	Aton	154
Cybex	Solution X-Fix	369
Dodge	Flex Loc	122
Downunder	Kangaroo	770
Early Development	Guardian Comfort	667
Early Development	Guardian Express	773
Early Development	Guardian Folder	775
Evenflo	7 Year	616
Evenflo	Apollo	813
Evenflo	Big Kid	330
Evenflo	Bobby Mac	223
Evenflo	Bobby-Mac Champion	620
Evenflo	Bobby-Mac Lite	621
Evenflo	Bobby-Mac Super	622
Evenflo	Bolero	866
Evenflo	Booster	306
Evenflo	Booster Seat	624
Evenflo	Champion	626
Evenflo	Champion - Includes Scout	259
Evenflo	Chase Comfort Touch	798
Evenflo	Chase DLX	862
Evenflo	Comet	835
Evenflo	Confidence	355
Evenflo	Conquest I	627
Evenflo	Conquest V	628
Evenflo	Cozy Carry	794
Evenflo	Discovery	629
Evenflo	Dyn-O-Mite	109
Evenflo	Embrace	847
Evenflo	Evenflo Convertible	221
Evenflo	Evenflo Infant Car Seat	108
Evenflo	Express	545
Evenflo	First Choice	546
Evenflo	Generations	860
Evenflo	Harness	724
Evenflo	Horizon	707
Evenflo	Horizon I	524
Evenflo	Horizon V	525
Evenflo	Infant Seat 456	508
Evenflo	Joy Ride	115
Evenflo	Medallion	510

Evenflo	Medallion V	527
Evenflo	Momentum 65 DLX	291
Evenflo	My Style	273
Evenflo	Odyssey I	643
Evenflo	Odyssey V	646
Evenflo	On My Way	649
Evenflo	On My Way, Position Right	654
Evenflo	One Step	655
Evenflo	Orion	224
Evenflo	Port About	805
Evenflo	Port About 3	832
Evenflo	Port About 5, Comfort Touch, Premier	831
Evenflo	Premier V	261
Evenflo	Right Fit	656
Evenflo	Scout	657
Evenflo	Secure Advantage I	658
Evenflo	Secure Advantage V	659
Evenflo	Secure Choice	660
Evenflo	Secure Comfort	661
Evenflo	Seven Year	605
Evenflo	Sidekick	606
Evenflo	Sightseer	319
Evenflo	Sightseer Comfort Touch	834
Evenflo	Symphony	288
Evenflo	Titan	793
Evenflo	Titan 5	816
Evenflo	Tot Taxi	806
Evenflo	Town & Country	607
Evenflo	Traditions	853
Evenflo	Travel Tandem	117
Evenflo	Tribute	817
Evenflo	Tribute 5	818
Evenflo	Triumph	799
Evenflo	Trooper	608
Evenflo	Two-in-One	609
Evenflo	Ultara I	610
Evenflo	Ultara II	611
Evenflo	Ultara Premier	612
Evenflo	Ultara Premier V	613
Evenflo	Ultara V	614
Evenflo	Vanguard 1 Comfort Touch	833
Evenflo	Vanguard 5	809
Evenflo	Vest	248
Evenflo	Victory 5	808
Evenflo	Vision	264

Evenflo	Wings	307
E-Z On Products	E-Z-On Vest - Includes 101-TCXS, 101-TC, 102-TC(8 sizes)	403
E-Z On Products	Modified E-Z-On Vest - Includes 101M	405
FBS, Inc. Renolux	GT-2000	549
FBS, Inc. Renolux	GT-5000 Turn-A-Tot	574
FBS, Inc. Renolux	GT-7000	575
Fisher-Price	9100, 9101	555
Fisher-Price	Bolster	556
Fisher-Price	Comfort Plus	557
Fisher-Price	Deluxe	558
Fisher-Price	Fisher-Price Care Seat	225
Fisher-Price	Fisher-Price Infant Seat	118
Fisher-Price	Futura 20/60	559
Fisher-Price	Grow with me	662
Fisher-Price	Infant Seat	663
Fisher-Price	Infant Seat 9149, 9173	664
Fisher-Price	Safe Embrace	587
Fisher-Price	Safe Embrace Booster	828
Fisher-Price	Safe Embrace Infant Seat	588
Fisher-Price	Safe Voyage Booster	352
Fisher-Price	Safe Voyage Convertible	279
Fisher-Price	Stay in View	589
Fisher-Price	T-Shield Booster	590
Ford	Tot Guard	308
Gerico, Inc.	Gerry DoubleGuard	321
Gerico, Inc.	Gerry Guard SecureLock	262
Gerico, Inc.	Gerry Guard w/Glide	119
Gerico, Inc.	Gerry Guardian - Includes 633(disc),643,653,655	226
Gerico, Inc.	Gerry Guardian 654	251
Gerico, Inc.	Gerry Voyager	309
Gerry	Belt Right	761
Gerry	Double Guard	762
Gerry	Evolution	777
Gerry	Guard with Glide	779
Gerry	Guardian	781
Gerry	One Click	784
Gerry	Pro-Ride	785
Gerry	Pro-Tech	787
Gerry	ReadyLock	789
Gerry	Secure Ride	791
Gerry	SecureLock	617
Gerry	Super Shield	618
Gerry	Voyager	619
Graco	AirBooster	353
Graco	Aspen	139

Graco	CarGo	859
Graco	Cherish Car Bed	729
Graco	Cherished CarGo	730
Graco	CoachRider Travel System	840
Graco	ComfortSport	795
Graco	DuoGlider Travel System	841
Graco	Grand Cargo	822
Graco	GT1000	228
Graco	Infant Car Bed	733
Graco	Infant Safe Seat	145
Graco	Infant Seat/Carrier	735
Graco	LiteRider	837
Graco	LiteRider Breeze	844
Graco	LiteRider Glider	843
Graco	LiteRider Sterling	842
Graco	Little Trav'ler	227
Graco	MetroLite Travel System	839
Graco	My CarGo	334
Graco	My Ride 65	289
Graco	MyCarGo	823
Graco	Nautilus	865
Graco	Platinum CarGo	854
Graco	Quest	737
Graco	Safe Seat Step 1	141
Graco	Safe Seat Step 2	861
Graco	Signature Series Smart Seat	871
Graco	Snug Ride	749
Graco	Snug Ride DX5	750
Graco	Snug Seat	111
Graco	Teasured Cargo	824
Graco	TurboBooster	802
Graco	Ultra Cargo	829
Graco	Vanguard Comfort Touch	810
Guardian	Comfort Plus	757
Guardian	Double Up	758
Guardian	Folder Plus	682
Gunnell	Kidster (3 sizes)	410
Harmony	Baby Armor Youth Booster Seat	366
Harmony	Secure Comfort Deluxe Booster	365
IMMI	Komfort Kruiser	827
IMMI	SafeGuard	711
International	Teddy Tot Astrorider	760
International	Teddy Tot Astrorider 6000 Series	310
International	Teddy Tot Astroseat 9100/9300 Series	229
Jane	Indy Plus	363

Joey Safe	Safety Harness	807
Jupiter	Grand Touring	722
Jupiter	Komfort Rider	723
Jupiter	Komfort Rider GT	604
Kolcraft	Auto-Mate - Includes Dial-A-Fit	252
Kolcraft	Dial-A-Fit	778
Kolcraft	Flip'n Go	780
Kolcraft	Hi-Rider XL2	782
Kolcraft	Hi-Rider XL7	230
Kolcraft	Infant Car Seat	783
Kolcraft	Infant Rider	786
Kolcraft	Perfect F.I.T.	247
Kolcraft	Performa	788
Kolcraft	Playskool	253
Kolcraft	Prodigy	790
Kolcraft	Quickstep	232
Kolcraft	Redi-Rider	231
Kolcraft	Rock 'n Ride	112
Kolcraft	Secura	731
Kolcraft	Secure Fit	732
Kolcraft	Tot Rider	734
Kolcraft	Tot Rider Quick Step	838
Kolcraft	Tot Rider Quick Step - Includes XL	311
Kolcraft	Travel About	736
Kolcraft	Traveler 700	260
Kolcraft	Ultra Ride	233
Koziatek & Assoc.	Preemie Bunting	407
Koziatek & Assoc.	SPELCAST	408
LaRoche	Grizzly Bear	738
LaRoche	Polar Bear	335
LaRoche	Teddy Bear	739
Lennox	Tattle Tale	275
Little Cargo	Travel Vest	740
Magna	Clek Olli	354
Magna	Clek Oobr	360
Magna	Clek Ozzi	361
Maxi-Cosi	Mico	147
Maxi-Cosi	Priori	283
Maxi-Cosi	Rodi	368
Mercedes-Benz	Baby Smart	741
Mercedes-Benz	Booster Seat	690
Mercedes-Benz	Toddler Seat	680
Nania	HighRide	358
New Harness	Little Cargo Auto Vest (Harness Only)	501
Nissan	Child Safety Seat	746

Nissan	Infant-Child Safety Seat	234
No Child Safety Seat	No Child Safety Seat	0
Non-response	Non-response	.N
Orbit Baby	G2	155
Orbit Baby	Toddler Car Seat	292
Ortho-Kinetics	Travel Chair	406
Other make/model (specify)	Other make/model (specify)	997
Peg Perego	Primo Viaggio	796
Pioneered II	Safety System Infant Car Seat	125
Porsche	Baby-Safe	650
Porsche	Comfy	651
Porsche	Convertible	678
Porsche	Prince	652
Porsche	Zoom	653
Pride-Trimble	#812	313
Pride-Trimble	Click 'N Go 890 Series	314
Pride-Trimble	Pride-Ride 820 & 830 Series	235
Prodigy	Kiwi Plus	254
Prodigy	Shuttle	255
Questor/Kantwet	Care Seat	236
Questor/Kantwet	One Step	752
Questor/Kantwet	Safe Guard	237
Recaro	Como	282
Recaro	ProSport	872
Recaro	Signo	258
Recaro	Start	665
Recaro	Vivo	356
Recaro	Young Sport	867
Renolux	Booster	666
Renolux	GT 4000	714
Renolux	GT 7000	715
Renolux	Renolux - Includes Turn-A-Tot	263
Renolux	Renolux GT 2000	256
Renolux	Renolux GT 5000 - Includes 4000(disc), 7000	257
Renolux	Turn-A-Tot GT 5000	753
Romer/KFS	Peggy	238
Romer/KFS	Swinger	113
Romer/KFS	Tip-up	239
Romer/KFS	Vario	315
Safe Traffic Systems	Safe Rider Travel Vest	415
Safeguard	Child Seat	870
Safeguard	Go	868
Safeline	Mission Control	573
Safeline	Pilot	695
Safeline	Sit n' Stroll	696

Safe-n-Sound	Capsule	126
Safe-n-Sound	Series 3	712
Safe-n-Sound	Unity	137
Safety 1st	Alpha Omega Elite	285
Safety 1st	Alpha Sport 3 Phase	507
Safety 1st	Apex 65	863
Safety 1st	Comfort Ride	274
Safety 1st	Complete Air with Air Protect	286
Safety 1st	Designer 22	821
Safety 1st	Enspira	505
Safety 1st	Forerunner	820
Safety 1st	Highrider	336
Safety 1st	Intera	504
Safety 1st	Prospect	856
Safety 1st	Starter	127
Safety 1st	Summit Deluxe	869
Safety 1st	Surveyor	855
Safety 1st	Tote 'n Go	900
Safety 1st	Uptown	280
Safety 1st	Vantage Point	819
Safety Angel	Ride Ryte	337
Safety Angel	Travel Vest	803
Safety Baby	Airway	825
Safety Baby	Speedway	826
Safety Rehab	900 Series Transporter	412
Sammons Preston	Tumbleforms Carrie	698
Shinn & Assoc.	Britax	402
Shinn & Assoc.	Swinger Infant Car Bed - Includes Carry Cot	401
Snug Seat	Gorilla	511
Snug Seat	Snug Seat 1	411
Snug Seat	Snug Seat 2	688
Snug Seat	Snug Seat Car Bed	512
Snug Seat	Spelcast	528
Special Tomato	MPS Special Needs	413
Strolee	597	708
Strolee	599	523
Strolee	Airway Kansas	858
Strolee	Baby One	128
Strolee	GE- Includes 2000, 3000	242
Strolee	Highride	339
Strolee	McKinley	340
Strolee	Quick Click	243
Strolee	Quick Click 605 Booster	317
Strolee	Rockit Seat 640 - Includes 639,640	114
Strolee	Saratoga	338

Strolee	Wee Care 500 Series	240
Strolee	Wee Care 600 Series	241
Strolee	Wee Care Booster	509
Strolee	Yorktown 8600	341
Sunshine Kids	Radian	276
Team Tex	Polo Uno	327
Teutonia	t-tario 35	153
The First Years	Compass B500 Booster	367
The First Years	True Fit	290
The First Years	Via	151
Travel Safety	Inflatable Car Seat	691
Tripleplay Products	Sit n' Stroll	277
Tumble Forms	Carrie Car Seat	404
Unknown	Safeline Sit 'N Stroll	120
Unknown Make	Other (Specify)	998
Unknown Make	Unknown Model	.U
Volvo	240, 260	539
Volvo	Booster Cushion	692
Volvo	Child Cushion	245
Volvo	Volvo Child Seat	244
Welsh	Travel Tot	246
ZB Sales	Bobob	538

Appendix E – Statistical Methods

Since the NCRUSS data is obtained from a national probability sample, national estimates can be made from weighted data on the NCRUSS files. The national sampling weight of each sampled child in NCRUSS is represented in the SAS files by the variable SAMPWGT. Technically, this weight is the product of the inverse of the probabilities of selection at each of the stages in the sampling process. The full sample design is described in the NHTSA publication *Results of the National Child Restraint Use Special Study*.[18]

Note that only one child was selected per vehicle for full data collection. In the event that more than one child was in the vehicle, one child was selected at random. This child has a SAMPWGT of greater than 0. In the data sets "CRS," "DRIV," and "VEH," every observation represents a child selected for the survey, so every observation has a SAMPWGT greater than zero. In the dataset "OCC," all children in NCRUSS vehicles have an observation, but only sampled children have a SAMPWGT greater than zero; non-selected children have SAMPWGT of zero. The datasets "NR" and "SITE" have no SAMPWGT.

Complex survey designs such as NCRUSS involve dividing the population into groups (strata) and sampling the groups themselves and/or sampling from the groups. The added variable PSUSTRAT denotes 12 strata of the primary sampling units or PSUs of the sample design. When using SAS survey analysis procedures such as SURVEYFREQ and SURVEYMEANS to generate weighted estimates with standard errors, STRATA, CLUSTER, and WEIGHT statements are needed. The three variables required to specify the sample design and generate weighted estimates are PSUSTRAT, PSU, and SAMPWGT. The following SAS code demonstrates how the STRATA, CLUSTER, and WEIGHT statements are to be used with the NCRUSS data.

STRATA PSUSTRAT;

CLUSTER PSU;

WEIGHT SAMPWGT;

The use of these statements is only valid for analysis on data sets "DRIV," "OCC," "CRS," and "VEH." Also, as noted in Section 4.1, the sampling weight is the same across those four datasets but applies to the sampled child in the vehicle, not to the driver or the vehicle; so weighted estimation using SAMPWGHT on the "DRIV" or "VEH" datasets is meaningful only in conjunction with the CRS dataset.

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[18] Greenwell, N. K. (2015, May). *Results of the national child restraint use special study.* (Report No. DOT HS 812 142). Washington, DC: National Highway Traffic Safety Administration.

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