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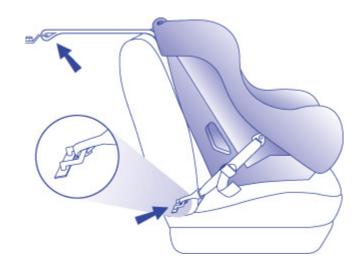Traffic Safety
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Child Restraint Use Survey (LATCH Use and Misuse): Coding Manual

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16. Abstract

The purpose of this project was to collect quantitative data and other information concerning the restraint use of children in passenger vehicles. In particular, the project was conducted to obtain information regarding whether LATCH technology (Lower Anchors and Tethers for Children) was being used in vehicles equipped with LATCH, and whether LATCH technology was being used correctly in the installation of child restraint systems (CRSs). The study also sought information about drivers' knowledge of booster seats and their purposes, as well as drivers' knowledge about the new LATCH technology for CRSs. In addition, if LATCH equipment was available in the vehicles, information about drivers' likes and dislikes about LATCH technology was obtained, and whether there were preferences for using safety belts to secure the CRS to the vehicle over use of lower anchors. Additionally, the study sought to identify relationships between selected driver demographic characteristics (age, gender, race/ethnicity) and restraint use of children; as well as the relationship that variables such as the demographics of other occupants in the vehicle, vehicle type, occupant seating position, and restraint type available for the seating position had on restraint use.

This Coding Manual provides information about data collected in 7 States from 1,182 vehicles that were transporting 1,728 children ages 12 and under. Data are organized into two sets—a *Vehicle* data set and an *Occupant* data set   This Manual provides a description of the 126 variables in the *Vehicle* data set and the 91 variables in the *Occupant* data set to be used for statistical analysis purposes.

A companion Final Report (DOT HS 810 679) for this project describes the research methodology used to collect the data.

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Introduction

This Coding Manual provides information about data collected and organized into two data sets—a *Vehicle* data set and an *Occupant* data set—as part of NHTSA contract DTNH22-03-C-06010, "Child Restraint Use Survey." An overview of the project purpose and methodology are presented below; more detail about data collection methodology may be found in the Final Report for this project.

The purpose of this project was to collect quantitative data and other information concerning the restraint use of children in passenger vehicles. In particular, the project was conducted to obtain answers to the following questions:

• Is LATCH technology (Lower Anchors and Tethers for Children) being used in vehicles equipped with LATCH?
• Are child restraint system (CRS) tethers being used in vehicles equipped with tether anchors?
• Are CRS lower anchor straps/connectors being used in vehicles equipped with lower anchors?
• Are children being restrained with the appropriate restraint for their age, weight and height?
• Are children riding in the back seat of vehicles?

The study also sought information about drivers' knowledge of booster seats and their purposes, as well as drivers' knowledge about the new LATCH technology for CRSs. In addition, if LATCH equipment is available in the vehicles, the following information was obtained:

• Do drivers use this technology?
• What are their likes and dislikes about LATCH technology?
• Are there preferences for using safety belts to secure the CRS to the vehicle over use of lower anchors? If so, what are the reasons?

Additionally, the study sought to identify relationships between selected driver demographic characteristics (age, gender, race/ethnicity) and restraint use of children; as well as the relationship that variables such as the demographics of other occupants in the vehicle, vehicle type, occupant seating position, and restraint type available for the seating position had on restraint use.

A convenience sampling approach was used to collect child safety seat and LATCH misuse data from the general public who had not been given any prior announcement of the survey. The data were collected in seven States (Arizona, Florida, Michigan, Missouri, North Carolina, Pennsylvania, and Washington) by teams of two certified child passenger safety technicians: an "interviewer" and an "observer." This approach involved using sites (e.g., shopping centers, large child care centers or pediatric offices, and fast-food restaurants) frequently visited by the target population. The target

population was defined as "child passengers restrained in Child Safety Seats (CSSs) in the back seat of vehicles that are equipped with LATCH; and child passengers from birth to 12 years of age."

In some States, the opportunity existed to work with local law enforcement agencies which participated in the survey using a "safety checkpoint" approach. This method involved slowing down every vehicle traveling through a checkpoint or entrance to a shopping center. Drivers in target vehicles with young child occupants meeting the project criteria were stopped and asked to participate in the survey. Drivers who agreed to participate were directed towards a designated parking area spot where the data collection could take place in a safe environment away from traffic.

Observation data were collected on child occupants, including type of restraint used and a gross measure of proper use vs. misuse, as well as vehicle LATCH installation use and misuse (specifically for children less than 5 years of age in a CRS). Restraint types available for all vehicle seating positions were also recorded. The two forms that were used to collect observation data were:

- NHTSA 1002 – "CRS and LATCH Use Observation Form."

- NHTSA 1002C – "Arrangement of Vehicle-Seating Positions and Occupant Restraint Equipment Available for Each Seating Position."

In addition, interview data were collected. Demographic information and restraint type used were obtained for all vehicle occupants, either from the drivers or from the individuals themselves. Drivers were also asked about their knowledge of booster seats and LATCH systems. If the LATCH systems were being used, drivers were asked questions about the reasons for use, ease of use, and choice over safety belts. The two forms that were used to collect interview data were:

- NHTSA 1002A (a 2-sided form) – "CRS and LATCH Use Interview Form."

- NHTSA 1002B – "CRS and LATCH Use Interview Form, Question 6: Occupant Characteristics Chart."

Data from these four forms were entered by trained data entry staff into two data sets; a *Vehicle* data set, and an *Occupant* data set. The *Vehicle* data set contains information describing the vehicle make, model, year, and restraint technology for each seating position; characteristics of the site where data were collected; and responses to questions asked of drivers about their knowledge of LATCH technology and their knowledge of the different stages of child occupant protection. The *Occupant* data set contains occupant demographics and information about restraint use.

Appendix A of this Coding Manual contains specific codes assigned in this project to vehicle makes and models. Appendix B includes copies of the four data collection forms used in the field. Shown on these forms are "unique identifiers"

assigned to each interview question or observational element that is coded in the data sets, for ease of cross-referencing between the data collection forms and the data sets. The first character of each identifier is a letter (i.e., A - E). Each letter refers to either a section of a form, or an entire data collection form. Section A is comprised of the front of NHTSA Form 1002A and the bottom portion of the back of NHTSA Form 1002A. Section A topics include vehicle information (make, model, and body type) and drivers' knowledge of CRSs and LATCH. Section B is represented by NHTSA Form 1002C. Section B topics include vehicle seating configurations and types of restraints available in the vehicle. Section C is represented by NHTSA Form 1002B; its topics include occupant demographic information. Section D is represented by NHTSA Form 1002, and was used to record observations of CRS and LATCH usage. Section E is comprised of the top portion of the back of NHTSA Form 1002A. Section E's topics included driver-reported usage of tethers and lower anchors for the CRSs in use in the car. Originally, all but Form NHTSA 1002C, were legal-sized forms.

It should be mentioned that some data elements were recorded separately by both the interviewer and observer during field data collection across the various data collection forms. Redundant data elements were not, however, entered into the data sets. Therefore, when a particular interview question or observational element on a form shown in Appendix B does not show a corresponding "Unique Identifier," it is because that particular unit of information was also collected on another form, assigned a unique identifier from that form, and entered into the data sets during entry of the data for that particular form. Several data elements were not recorded on the data collection forms, but were provided for each site by our State Site Coordinators. These included: site socioeconomic status; land-use type (urban, suburban, or rural), and site type (shopping center, fast-food restaurant, police checkpoint, etc.). Such variables have no "Unique Identifier" assignment, but were entered into the data sets.

Appendix C contains a description of methods used to check data collection and data entry accuracy. A glossary of terms is presented in Appendix D.

This Coding Manual provides a description of the variable fields in the *Vehicle* data set and the *Occupant* data set to be used for statistical analysis purposes. The SAS Variable Name, Format Type, Field Length, Range of Values, Data Set (Vehicle or Occupant), Unique Identifier, (see Appendix B), and NHTSA Form Number (1002, 1002A, 1002B, 1002C) and Location on the form where the data were recorded (e.g., the question and/or response number) are shown in the tables that follow, for each variable.

VEHICLE DATA SET

Form Number

Definition

Form number is a unique identifier for each target vehicle included in the study. A set of numbers was reserved for each of the States from which data were to be collected. All forms from one State were assigned a form number from those numbers reserved for that State.

SAS Variable Name	FORMNO
Format Type	N
Field Length	4
Range of Values	All characters are numeric. AZ = 1001-1999 FL = 2001-2999 MI = 3001-3999 MO = 4001-4999 NC = 5001-5999 PA = 6001-6999 WA = 7001-7999
Data Set	Vehicle
Unique Identifier	A1
NHTSA Form Number / Location	1002A / Top

Interviewer Identification

Definition

Initials of interviewer collecting the data.

SAS Variable Name	INTID
Format Type	C
Field Length	2
Range of Values	Alphabetical characters
Data Set	Vehicle
Unique Identifier	A2
NHTSA Form Number / Location	1002A / Top

Observer Identification

Definition

Initials of observer collecting the data.

SAS Variable Name	OBSID
Format Type	C
Field Length	2
Range of Values	Alphabetical characters
Data Set	Vehicle
Unique Identifier	A3
NHTSA Form Number / Location	1002A / Top

Month of Observation

Definition

Month the survey took place.

SAS Variable Name	DATEM
Format Type	N
Field Length	2
Range of Values	01 to 12
Data Set	Vehicle
Unique Identifier	A4
NHTSA Form Number / Location	1002A / Top

Date of Observation

Definition

Day (date) the survey took place.

SAS Variable Name	DATED
Format Type	N
Field Length	2
Range of Values	01 to 31
Data Set	Vehicle
Unique Identifier	A5
NHTSA Form Number / Location	1002A / Top

Year of Observation

Definition

Year the survey took place.

SAS Variable Name	DATEY
Format Type	N
Field Length	4
Range of Values	1 (2005)
Data Set	Vehicle
Unique Identifier	A6
NHTSA Form Number / Location	1002A / Top

Time of Observation

Definition

Time of the day when the survey was conducted.

SAS Name	TIME
Format Type	N
Field Length	1
Range of Values	1 = a.m. 2 = p.m.
Data Set	Vehicle
Unique Identifier	A7
NHTSA Form Number / Location	1002A / Top

State of Observation

Definition

State where the survey was conducted.

SAS Variable Name	STATE
Format Type	N
Field Length	1
Range of Values	1 = AZ Arizona 2 = FL Florida 3 = MI Michigan 4 = MO Missouri 5 = NC North Carolina 6 = PA Pennsylvania 7 = WA Washington
Data Set	Vehicle
Unique Identifier	A8
NHTSA Form Number / Location	1002A / Top

Site of Observation

Definition

Site where the survey was conducted. Predetermined alphanumeric codes were used to identify each site.

SAS Variable Name	SITE
Format Type	C
Field Length	4
Range of Values	AZ1 to AZ10 FL1 to FL10 MI1 to MI10 MO1 to MO10 NC1 to NC10 PA1 to PA10 WA1 to WA10
Data Set	Vehicle
Unique Identifier	A9
NHTSA Form Number / Location	1002A / Top

Site Type

Definition

Type of site where the survey was conducted. Site type was obtained from the State Site Coordinators (SSCs); it was not coded on the data collection forms.

SAS Variable Name	SITETYP
Format Type	N
Field Length	2
Range of Values	1 = Shopping center/single retail store 2 = Fast food/restaurant 3 = Pediatric office/hospital/healthcare 4 = Amusement park/fun fair day 5 = Child care 6 = Exercise facility 7 = Police/fire station 8 = Police check point 9 = State Government business center 10 = Vocational technical school 11= Native American reservation
Data Set	Vehicle
Unique Identifier	N/A
NHTSA Form Number / Location	N/A

Site Socioeconomic Characteristics

Definition

The State Site Coordinators (SSCs) provided a subjective categorization of field sites into one of three socioeconomic class levels:

1 = Low to low-middle.
2 = Middle to middle-upper.
3 = Upper only.

Data on SES for each site were obtained from the SSCs, and were not recorded on data collection forms.

SAS Variable Name	SITESES
Format Type	N
Field Length	1
Range of Values	1 = Low/low-middle 2 = Middle/middle-upper 3 = Upper only
Data Set	Vehicle
Unique Identifier	N/A
NHTSA Form Number / Location	N/A

Site Urban/Suburban/Rural

Definition

The State Site Coordinators (SSCs) provided a subjective categorization for each field site into one of three land-use types:

1 = Urban.
2 = Suburban.
3 = Rural.

Data describing land-use type were obtained from the SSCs. These data were not recorded on data collection forms.

SAS Variable Name	SITEUSR
Format Type	N
Field Length	1
Range of Values	1 = Urban 2 = Suburban 3 = Rural
Data Set	Vehicle
Unique Identifier	N/A
NHTSA Form Number / Location	N/A

Vehicle Make

Definition

Make of the vehicle, identified by the driver. There are two fields for this variable: VHMKE_Name and VHMKE.   VHMKE_Name is a character field that spells out the make of the vehicle, as reported by the driver. The field name VHMKE is a numeric field created using codes derived for this project, ranging from 1 to 46. Data entry staff used a code sheet to assign the codes shown below, to the vehicle make names provided by the driver.

SAS Variable Name	VHMKE	
Format Type	N	
Field Length	2	
Range of Values	1 = Acura	24 = Lexus
	2 = Audi	25 = Lincoln
	3 = Bentley	26 = Masarati
	4 = BMW	27 = Mazda
	5 = Buick	28 = Mercedes-Benz
	6 = Cadillac	29 = Mercury
	7 = Chevrolet	30 = Mini
	8 = Chrysler	31 = Mitsubishi
	9 = Daewoo	32 = Nissan
	10 = Dodge	33 = Oldsmobile
	11 = Ferrari	34 = Plymouth
	12 = Ford	35 = Pontiac
	13 = Geo	36 = Porsche
	14 = GMC	37 = Rolls-Royce
	15 = Honda	38 = Saab
	16 = Hummer	39 = Saturn
	17 = Hyundai	40 = Scion
	18 = Infiniti	41 = Subaru
	19 = Isuzu	42 = Suzuki
	20 = Jaguar	43 = Toyota
	21 = Jeep Eagle	44 = Volkswagon
	22 = Kia	45 = Volvo
	23 = Land Rover	46 = Sterling
		99 = Unknown
Data Set	Vehicle	
Unique Identifier	A10	
NHTSA Form Number/Location	1002A / 1	

Vehicle Model

Definition

Model of the vehicle, identified by the driver. There are two fields for this variable: VHMDL_Name and VHMDL.   VHMDL_Name is a character field that spells out the model of the vehicle, as reported by the driver. The field name VHMDL is a numeric field created using codes derived for this project, ranging from 1 to 594. Data entry staff used a code sheet to assign the codes shown in Appendix A of this Manual, to the vehicle model names provided by the driver. Unknown model names were coded as 999.

SAS Variable Name	VHMDL
Format Type	N
Field Length	3
Range of Values	1 to 594 (See Appendix A) (Code 999 = Unknown)
Data Set	Vehicle
Unique Identifier	A11
NHTSA Form Number / Location	1002A / 2

Vehicle Year

Definition

Year of vehicle manufacture, identified by the driver.

SAS Variable Name	VHYR
Format Type	N
Field Length	4
Range of Values	1984 – 2006
Data Set	Vehicle
Unique Identifier	A12
NHTSA Form Number / Location	1002A / 3

Vehicle Type

Definition

This is the vehicle body type of the observed vehicle. Nine types were presented on the data collection form, with a 10th space reserved for "other vehicle types" (unique identifier A14, on NHTSA Form 1002A). None of the observed vehicles fell into the "other" category, however.

SAS Variable Name	VHTYP
Format Type	N
Field Length	1
Range of Values	1 = 2-door car 2 = 4-door car 3 = Convertible 4 = Mini van or van 5 = Station wagon 6 = SUV 7 = Pick-up truck/reg. cab (2 doors) 8 = Pick-up truck/ext. cab (2 doors) 9 = Pick-up truck/crew cab (4 doors)
Data Set	Vehicle
Unique Identifier	A13
NHTSA Form Number / Location	1002A / 4

Number of Occupants in Vehicle

Definition

Number of occupants in the target vehicle, including the driver, "target" children, and other teens and adults.

SAS Variable name	OCINVH
Format Type	N
Field Length	2
Range of Values	2 –7
Data Set	Vehicle
Unique Identifier	A15
NHTSA Form Number / Location	1002A / 5

Seen or Heard of a Booster Seat

Definition

Identifies the response to the interviewer question, "Before today, had you ever seen or heard of a 'booster seat'?"

This question was asked of all drivers, regardless of the survey group in which the children they were transporting were assigned.

SAS Variable Name	QB
Format Type	N
Field Length	1
Range of Values	1 = Yes 2 = No
Data Set	Vehicle
Unique Identifier	A 16
NHTSA Form Number / Location	1002A / 7

Size of Child for a Booster Seat – "Weight" Criterion

Definition

Identifies whether a driver mentioned weight as a criterion for when a booster seat should be used, in response to the interview question, "For what size child should a booster seat be used?" This question was asked of all drivers, regardless of the survey group in which the children they were transporting were assigned.

1 = Yes. The driver identified weight as a criterion.

2 = No. The driver did not identify weight as a criterion.

QBWT will be blank if the variable QB = 2 (the driver had never seen or heard of a booster seat before today).

SAS Variable Name	QBWT
Format Type	N
Field Length	1
Range of Values	1 = Yes 2 = No
Data Set	Vehicle
Unique Identifier	A 17
NHTSA Form Number / Location	1002A / 8(1)

Size of Child for a Booster Seat – "Weight" Upper Value

Definition

Identifies the upper value (in pounds) if a range of weights was provided in response to the interview question, "For what size child should a booster seat be used?" This question was asked of all drivers, regardless of the survey group in which the children they were transporting were assigned.

If a discrete value was provided by the driver, rather than a range of values, the discrete value was entered in both the upper-value field and the lower-value field (QBWTHI and QBWTLO).

QBWTHI will be a blank field if QBWT = 2 (No), or if QB = 2 (No). It may also be blank if the driver did not offer a specific weight, but identified weight, in general, as a criterion for use of a booster seat (QBWT=1).

SAS Variable Name	QBWTHI
Format Type	N
Field Length	3
Range of Values	15 –100 pounds
Data Set	Vehicle
Unique Identifier	A 17
NHTSA Form Number / Location	1002A / 8(1)

Size of Child for a Booster Seat – "Weight" Lower Value

Definition

Identifies the lowest value (in pounds), if a range of weights was provided, in response to the interview question, "For what size child should a booster seat be used?" This question was asked of all drivers, regardless of the survey group in which the children they were transporting were assigned.

If a discrete value was provided by the driver, rather than a range of values, the discrete value was entered in both the upper-value field and the lower-value field (QBWTHI and QBWTLO).

QBWTLO will be a blank field if QBWT = 2 (No), or if QB = 2 (No). It may also be blank if the driver did not offer a specific weight, but identified weight, in general, as a criterion for use of a booster seat (QBWT=1).

SAS Variable Name	QBWTLO
Format Type	N
Field Length	3
Range of Values	15 –100 pounds
Data Set	Vehicle
Unique Identifier	A17
NHTSA Form Number / Location	1002A / 8(1)

Size of Child for a Booster Seat – "Age" Criterion

Definition

Identifies whether a driver mentioned age as a criterion for when a booster seat should be used, in response to the interview question, "For what size child should a booster seat be used?" This question was asked of all drivers, regardless of the survey group in which the children they were transporting were assigned.

1 = Yes. The driver identified age as a criterion.

2 = No. The driver did not identify age as a criterion.

QBAG will be blank if the variable QB = 2 (the driver had never seen or heard of a booster seat before today).

SAS Variable Name	QBAG
Format Type	N
Field Length	1
Range of Values	1 = Yes 2 = No
Data Set	Vehicle
Unique Identifier	A 18
NHTSA Form Number / Location	1002A / 8(2)

Size of Child for a Booster Seat – "Age" Upper Value

Definition

Identifies the upper value (in years) if a range of ages was provided in response to the interview question, "For what size child should a booster seat be used?" This question was asked of all drivers, regardless of the survey group in which the children they were transporting were assigned.

If a discrete value was provided by the driver, rather than a range of values, the discrete value was entered in both the upper-value field and the lower-value field (QBAGHI and QBAGLO).

QBAGHI will be a blank field if QBAG = 2 (No), or if QB = 2 (No). It may also be blank if the driver did not offer a specific age, but identified age, in general, as a criterion for use of a booster seat (QBAG=1).

SAS Variable Name	QBAGHI
Format Type	N
Field Length	3
Range of Values	1 – 12 yrs
Data Set	Vehicle
Unique Identifier	A 18
NHTSA Form Number / Location	1002A / 8(2)

Size of Child for a Booster Seat – "Age" Lower Value

Definition

Identifies the lowest value, if a range of ages was provided, in response to the interview question, "For what size child should a booster seat be used?" This question was asked of all drivers, regardless of the survey group in which the children they were transporting were assigned.

If a discrete value was provided by the driver, rather than a range of values, the discrete value was entered in both the upper-value field and the lower-value field (QBAGHI and QBAGLO).

QBAGLO will be a blank field if QBAG = 2 (No), or if QB = 2 (No). It may also be blank if the driver did not offer a specific age, but identified age, in general, as a criterion for use of a booster seat (QBAG=1).

SAS Variable Name	QBAGLO
Format Type	N
Field Length	3
Range of Values	1 – 12 yrs
Data Set	Vehicle
Unique Identifier	A18
NHTSA Form Number / Location	1002A / 8(2)

Size of Child for a Booster Seat – "Height" Criterion

Definition

Identifies whether a driver mentioned height as a criterion for when a booster seat should be used, in response to the interview question, "For what size child should a booster seat be used?" This question was asked of all drivers, regardless of the survey group in which the children they were transporting were assigned.

1 = Yes. The driver identified height as a criterion.

2 = No. The driver did not identify height as a criterion.

QBHT will be blank if the variable QB = 2 (the driver had never seen or heard of a booster seat before today).

SAS Variable Name	QBHT
Format Type	N
Field Length	1
Range of Values	1 = Yes 2 = No
Data Set	Vehicle
Unique Identifier	A 19
NHTSA Form Number / Location	1002A / 8(3)

Size of Child for a Booster Seat – "Height" Upper Value

Definition

Identifies the upper value (in inches) if a range of heights was provided in response to the interview question, "For what size child should a booster seat be used?" This question was asked of all drivers, regardless of the survey group in which the children they were transporting were assigned.

If a discrete value was provided by the driver, rather than a range of values, the discrete value was entered in both the upper-value field and the lower-value field (QBHTHI and QBHTLO).

QBHTHI will be a blank field if QBHT = 2 (No), or if QB = 2 (No). It may also be blank if the driver did not offer a specific height, but identified height, in general, as a criterion for use of a booster seat (QBHT=1).

SAS Variable Name	QBHTHI
Format Type	N
Field Length	2
Range of Values	29 – 59 inches
Data Set	Vehicle
Unique Identifier	A 19
NHTSA Form Number / Location	1002A / 8(3)

Size of Child for a Booster Seat – "Height" Lower Value

Definition

Identifies the lowest value (in inches), if a range of heights was provided, in response to the interview question, "For what size child should a booster seat be used?" This question was asked of all drivers, regardless of the survey group in which the children they were transporting were assigned.

If a discrete value was provided by the driver, rather than a range of values, the discrete value was entered in both the upper-value field and the lower-value field (QBHTHI and QBHTLO).

QBHTLO will be a blank field if QBHT = 2 (No), or if QB = 2 (No). It may also be blank if the driver did not offer a specific height, but identified height, in general, as a criterion for use of a booster seat (QBHT=1).

SAS Variable Name	QBHTLO
Format Type	N
Field Length	2
Range of Values	29 to 59 inches
Data Set	Vehicle
Unique Identifier	A19
NHTSA Form Number / Location	1002A / 8(3)

Size of Child for a Booster Seat — "For a Child Who Has Outgrown a CSS, But is Too Small for a SB" Response

Definition

Identifies the response, "For a child who has outgrown a CSS, but is too small for a SB," to the interview question, "For what size child should a booster seat be used?" This question was asked of all drivers, regardless of the survey group in which the children they were transporting were assigned.

1 = Yes. The driver said, "For a child who has outgrown a CSS, but is too small for a SB." This includes responses such as, "Until the seat belt fits properly."

2 = No. The driver did not provide this reason for booster seat use.

QBSM will be blank if the variable QB = 2 (the driver had never seen or heard of a booster seat before today).

SAS Variable Name	QBSM
Format Type	N
Field Length	1
Range of Values	1 = Yes 2 = No
Data Set	Vehicle
Unique Identifier	A 20
NHTSA Form Number / Location	1002A / 8(4)

Size of Child for a Booster Seat — "Don't Know" Response

Definition

Identifies the response of "Don't Know" to the interview question, "For what size child should a booster seat be used? This question was asked of all drivers, regardless of the survey group in which the children they were transporting were assigned.

1 = Yes. The driver said, "I don't know."

2 = No. The driver did not provide this response.

QBDK will be blank if the variable QB = 2 (the driver had never seen or heard of a booster seat before today).

SAS Variable Name	QBDK
Format Type	N
Field Length	1
Range of Values	1 = Yes 2 = No
Data Set	Vehicle
Unique Identifier	A 21
NHTSA Form Number / Location	1002A / 8(5)

Size of Child for a Booster Seat — "Other" Response

Definition

Identifies the response to the interview question, "For what size child should a booster seat be used?" when the driver gives a response other than the first 5 listed in Question 8. This question was asked of all drivers, regardless of the survey group in which the children they were transporting were assigned.

This is a character field, where the driver's response is typed as provided.

QB_OT will be blank if the variable QB = 2, or if any of the first 5 responses to this question adequately represented the driver's response.

SAS Variable Name	QB_OT
Format Type	C
Field Length	60
Range of Values	
Data Set	Vehicle
Unique Identifier	A22
NHTSA Form Number / Location	1002A / 8(6)

Purpose of a Booster Seat — "To Make the Safety Belt Fit the Child Better" Response

Definition

Identifies whether a driver provided the response, "To make the safety belt fit the child better" to the interview question "Why is a booster seat used?" This question was asked of all drivers, regardless of the survey group in which the children they were transporting were assigned.

1 = Yes. The driver stated, "To make the safety belt fit the child better." Included in this category are responses such as "When the child outgrows the CSS," and "As a transition between a CSS and a safety belt."

2 = No. The driver did not provide this response.

QBWHYFIT will be blank if the variable QB = 2 (the driver had never seen or heard of a booster seat before today).

SAS Variable Name	QBWHYFIT
Format Type	N
Field Length	1
Range of Values	1 = Yes 2 = No
Data Set	Vehicle
Unique Identifier	A 23
NHTSA Form Number / Location	1002A / 9(1)

Purpose of a Booster Seat — "It is the Law" Response

Definition

Identifies whether a driver provided the response, "It is the law" to the interview question, "Why is a booster seat used?" This question was asked of all drivers, regardless of the survey group in which the children they were transporting were assigned.

1 = Yes. The driver stated, "It is the law."

2 = No. The driver did not provide this response.

QBWHYLAW will be blank if the variable QB = 2 (the driver had never seen or heard of a booster seat before today).

SAS Variable Name	QBWHYLAW
Format Type	N
Field Length	1
Range of Values	1 = Yes 2 = No
Data Set	Vehicle
Unique Identifier	A 24
NHTSA Form Number / Location	1002A / 9(2)

Purpose of a Booster Seat — "So the Child Can See Out of the Windows" Response

Definition

Identifies whether a driver provided the response, "So the child can see out of the windows" to the interview question "Why is a booster seat used?" This question was asked of all drivers, regardless of the survey group in which the children they were transporting were assigned.

1 = Yes. The driver stated, "So the child can see out of the windows."

2 = No. The driver did not provide this response.

QBWHYSEE will be blank if the variable QB = 2 (the driver had never seen or heard of a booster seat before today).

SAS Variable Name	QBWHYSEE
Format Type	N
Field Length	1
Range of Values	1 = Yes
	2 = No
Data Set	Vehicle
Unique Identifier	A 25
NHTSA Form Number / Location	1002A / 9(3)

Purpose of a Booster Seat — "Safety" Response

Definition

Identifies whether a driver provided the response, "Safety" to the interview question, "Why is a booster seat used?" This question was asked of all drivers, regardless of the survey group in which the children they were transporting were assigned.

1 = Yes. The driver stated, "Safety." Included in this category are responses such as "Security."

2 = No. The driver did not provide this response.

QBWHYSAF will be blank if the variable QB = 2 (the driver had never seen or heard of a booster seat before today).

SAS Variable Name	QBWHYSAF
Format Type	N
Field Length	1
Range of Values	1 = Yes
	2 = No
Data Set	Vehicle
Unique Identifier	A 26
NHTSA Form Number / Location	1002A / 9(4)

Purpose of a Booster Seat — "Don't Know" Response

Definition

Identifies whether a driver provided the response, "Don't know" to the interview question, "Why is a booster seat used?" This question was asked of all drivers, regardless of the survey group in which the children they were transporting were assigned.

1 = Yes. The driver stated, "Don't know."

2 = No. The driver did not provide this response.

QBWHYDK will be blank if the variable QB = 2 (the driver had never seen or heard of a booster seat before today).

SAS Variable Name	QBWHYDK
Format Type	N
Field Length	1
Range of Values	1 = Yes 2 = No
Data Set	Vehicle
Unique Identifier	A 27
NHTSA Form Number / Location	1002A / 9(5)

Purpose of a Booster Seat — "Other" Response

Definition

Identifies the response to the interview question, "Why is a booster seat used?" when the driver gives a response other than the first 5 listed in Question 9. This is a character field, where the driver's response is typed as provided.

QBWHY_OT will be blank if the variable QB = 2, or if any of the first 5 responses to this question adequately represented the driver's response.

SAS Variable Name	QBWHY_OT
Format Type	C
Field Length	60 text characters
Range of Values	
Data Set	Vehicle
Unique Identifier	A 28
NHTSA Form Number / Location	1002A / 9(6)

Safe for Child to Graduate to Safety Belt from Booster Seat or Child Safety Seat – "Weight" Criterion

Definition

Identifies whether a driver mentioned weight as a criterion, in response to the interview question, "When is it safe for your child to use a safety belt without a booster seat or child safety seat?" This question was asked of all drivers, regardless of the survey group in which the children they were transporting were assigned.

1 = Yes. The driver identified weight as a criterion.

2 = No. The driver did not identify weight as a criterion.

SAS Variable Name	QSBWT
Format Type	N
Field Length	1
Range of Values	1 = Yes
	2 = No
Data Set	Vehicle
Unique Identifier	A 29
NHTSA Form Number / Location	1002A / 10(1)

Safe for Child to Graduate to Safety Belt from Booster Seat or Child Safety Seat – "Weight" Upper Value

Definition

Identifies the upper value (in pounds) if a range of weights was provided in response to the interview question, "When is it safe for your child to use a safety belt without a booster seat or child safety seat?" This question was asked of all drivers, regardless of the survey group in which the children they were transporting were assigned.

If a discrete value was provided by the driver, rather than a range of values, the discrete value was entered in both the upper-value field and the lower-value field (QSBWTHI and QSBWTLO).

QSBWTHI will be a blank field if QSBWT = 2 (No). It may also be blank if the driver did not offer a specific weight, but identified weight, in general, as a criterion for when a safety belt should be used without a CRS.

SAS Variable Name	QSBWTHI
Format Type	N
Field Length	3
Range of Values	30 – 100 pounds
Data Set	Vehicle
Unique Identifier	A 29
NHTSA Form Number / Location	1002A / 10(1)

Safe for Child to Graduate to Safety Belt from Booster Seat or Child Safety Seat – "Weight" Lower Value

Definition

Identifies the lowest value (in pounds), if a range of weights was provided, in response to the interview question, "When is it safe for your child to use a safety belt without a booster seat or child safety seat?" This question was asked of all drivers, regardless of the survey group in which the children they were transporting were assigned.

If a discrete value was provided by the driver, rather than a range of values, the discrete value was entered in both the upper-value field and the lower-value field (QSBWTHI and QSBWTLO).

QSBWTLO will be a blank field if QSBWT = 2 (No). It may also be blank if the driver did not offer a specific weight, but identified weight, in general, as a criterion for when a safety belt should be used without a CRS.

SAS Variable Name	QSBWTLO
Format Type	N
Field Length	3
Range of Values	30 – 100 pounds
Data Set	Vehicle
Unique Identifier	A 29
NHTSA Form Number / Location	1002A / 10(1)

Safe for Child to Graduate to Safety Belt from Booster Seat or Child Safety Seat- "Age" Criterion

Definition

Identifies whether a driver mentioned age as a criterion, in response to the interview question, "When is it safe for your child to use a safety belt without a booster seat or child safety seat?" This question was asked of all drivers, regardless of the survey group in which the children they were transporting were assigned.

1 = Yes. The driver identified age as a criterion.

2 = No. The driver did not identify age as a criterion.

SAS Variable Name	QSBAG
Format Type	N
Field Length	1
Range of Values	1 = Yes 2 = No
Data Set	Vehicle
Unique Identifier	A 30
NHTSA Form Number / Location	1002A / 10(2)

Safe for Child to Graduate to Safety Belt from Booster Seat or Child Safety Seat- "Age" Upper Value

Definition

Identifies the upper value (in years) if a range of ages was provided in response to the interview question, "When is it safe for your child to use a safety belt without a booster seat or child safety seat?" This question was asked of all drivers, regardless of the survey group in which the children they were transporting were assigned.

If a discrete value was provided by the driver, rather than a range of values, the discrete value was entered in both the upper-value field and the lower-value field (QSBAGHI and QSBAGLO).

QSBAGHI will be a blank field if QSBAG = 2 (No). It may also be blank if the driver did not offer a specific age, but identified age, in general, as a criterion for when a safety belt should be used without a CRS.

SAS Variable Name	QSBAGHI
Format Type	N
Field Length	2
Range of Values	3 –15
Data Set	Vehicle
Unique Identifier	A 30
NHTSA Form Number / Location	1002A / 10(2)

Safe for Child to Graduate to Safety Belt from Booster Seat or Child Safety Seat – "Age" Lower Value

Definition

Identifies the lowest value (in years) if a range of ages was provided, in response to the interview question, "When is it safe for your child to use a safety belt without a booster seat or child safety seat?" This question was asked of all drivers, regardless of the survey group in which the children they were transporting were assigned.

If a discrete value was provided by the driver, rather than a range of values, the discrete value was entered in both the upper-value field and the lower-value field (QSBAGHI and QSBAGLO).

QSBAGLO will be a blank field if QSBAG = 2 (No). It may also be blank if the driver did not offer a specific age, but identified age, in general, as a criterion for when a safety belt should be used without a CRS.

SAS Variable Name	QSBAGLO
Format Type	N
Field Length	2
Range of Values	3 – 15
Data Set	Vehicle
Unique Identifier	A 30
NHTSA Form Number / Location	1002A / 10(2)

Safe for Child to Graduate to Safety Belt from Booster Seat or Child Safety Seat – "Height" Criterion

Definition

Identifies whether a driver mentioned height as a criterion, in response to the interview question, "When is it safe for your child to use a safety belt without a booster seat or child safety seat?" This question was asked of all drivers, regardless of the survey group in which the children they were transporting were assigned.

1 = Yes. The driver identified height as a criterion.

2 = No. The driver did not identify height as a criterion.

SAS Variable Name	QSBHT
Format Type	N
Field Length	1
Range of Values	1 = Yes 2 = No
Data Set	Vehicle
Unique Identifier	A 31
NHTSA Form Number / Location	1002A / 10(3)

Safe for Child to Graduate to Safety Belt from Booster Seat or Child Safety Seat – "Height" Upper Value

Definition

Identifies the upper value (in inches) if a range of heights was provided in response to the interview question, "When is it safe for your child to use a safety belt without a booster seat or child safety seat?" This question was asked of all drivers, regardless of the survey group in which the children they were transporting were assigned.

If a discrete value was provided by the driver, rather than a range of values, the discrete value was entered in both the upper-value field and the lower-value field (QSBHTHI and QSBHTLO).

QSBHTHI will be a blank field if QSBHT = 2 (No). It may also be blank if the driver did not offer a specific height, but identified height, in general, as a criterion for when a safety belt should be used without a CRS.

SAS Variable Name	QSBHTHI
Format Type	N
Field Length	2
Range of Values	48 – 72 inches
Data Set	Vehicle
Unique Identifier	A 31
NHTSA Form Number / Location	1002A / 10(3)

Safe for Child to Graduate to Safety Belt from Booster Seat or Child Safety Seat — "Height" Lower Value

Definition

Identifies the lowest value (in inches), if a range of heights was provided, in response to the interview question, "When is it safe for your child to use a safety belt without a booster seat or child safety seat?" This question was asked of all drivers, regardless of the survey group in which the children they were transporting were assigned.

If a discrete value was provided by the driver, rather than a range of values, the discrete value was entered in both the upper-value field and the lower-value field (QSBHTHI and QSBHTLO).

QSBHTLO will be a blank field if QSBHT = 2 (No). It may also be blank if the driver did not offer a specific height, but identified height, in general, as a criterion for when a safety belt should be used without a CRS.

SAS Variable Name	QSBHTLO
Format Type	N
Field Length	2
Range of Values	48 to 72 inches
Data Set	Vehicle
Unique Identifier	A 31
NHTSA Form Number / Location	1002A / 10(3)

Safe for Child to Graduate to Safety Belt from Booster Seat or Child Safety Seat — "When Child's Knees Have Reached the Edge of the Vehicle Seat" Response

Definition

Identifies whether a driver provided the response, "When the child's knees have reached the edge of the vehicle seat" to the interview question, "When is it safe for your child to use a safety belt without a booster seat or child safety seat?" This question was asked of all drivers, regardless of the survey group in which the children they were transporting were assigned.

1 = Yes. The driver stated, "When the child's knees have reached the edge of the vehicle seat."

2 = No. The driver did not provide this response.

SAS Variable Name	QSBKNE
Format Type	N
Field Length	1
Range of Values	1 = Yes 2 = No
Data Set	Vehicle
Unique Identifier	A32
NHTSA Form Number / Location	1002A / 10(4)

Safe for Child to Graduate to Safety Belt from Booster Seat or Child Safety Seat – "When the Child is Tall Enough That the Shoulder Belt Doesn't Cut Across the Chin/Neck" Response

Definition

Identifies whether a driver provided the response, "When the child is tall enough that the shoulder belt doesn't cut across the chin/neck" to the interview question, "When is it safe for your child to use a safety belt without a booster seat or child safety seat?" This question was asked of all drivers, regardless of the survey group in which the children they were transporting were assigned.

1 = Yes. The driver stated, "When the child is tall enough that the shoulder belt doesn't cut across the chin/neck."

2 = No. The driver did not provide this response.

SAS Variable Name	QSBTAL
Format Type	N
Field Length	1
Range of Values	1 = Yes
	2 = No
Data Set	Vehicle
Unique Identifier	A 33
NHTSA Form Number / Location	1002A / 10(5)

Safe for Child to Graduate to Safety Belt from Booster Seat or Child Safety Seat — "When the Child Can Keep His/Her Feet Flat on the Floor" Response

Definition

Identifies whether a driver provided the response, "When the child can keep his/her feet flat on the floor" to the interview question, "When is it safe for your child to use a safety belt without a booster seat or child safety seat?" This question was asked of all drivers, regardless of the survey group in which the children they were transporting were assigned.

1 = Yes. The driver stated, "When the child can keep his/her feet flat on the floor."

2 = No. The driver did not provide this response.

SAS Variable Name	QSBFLT
Format Type	N
Field Length	1
Range of Values	1 = Yes 2 = No
Data Set	Vehicle
Unique Identifier	A 34
NHTSA Form Number / Location	1002A / 10(6)

Safe for Child to Graduate to Safety Belt from Booster Seat or Child Safety Seat – "Don't Know" Response

Definition

Identifies whether a driver provided the response, "Don't know" to the interview question, "When is it safe for your child to use a safety belt without a booster seat or child safety seat?" This question was asked of all drivers, regardless of the survey group in which the children they were transporting were assigned.

1 = Yes. The driver stated, "Don't know."

2 = No. The driver did not provide this response.

SAS Variable Name	QSBDK
Format Type	N
Field Length	1
Range of Values	1 = Yes 2 = No
Data Set	Vehicle
Unique Identifier	A35
NHTSA Form Number / Location	1002A / 10(7)

Safe for Child to Graduate to Safety Belt from Booster Seat or Child Safety Seat — "Other" Response

Definition

Identifies the response to the interview question, "When is it safe for your child to use a safety belt without a booster seat or child safety seat?" when the driver gives a response other than the first 7 listed in Question 10. This is a character field, where the driver's response is typed as provided.

QBSB_OT will be blank if any of the first 7 responses to this question adequately represented the driver's response.

SAS Variable Name	QSB_OT
Format Type	C
Field Length	60 characters
Range of Values	
Data Set	Vehicle
Unique Identifier	A 36
NHTSA Form Number / Location	1002A / 10(8)

Knowledge of New Way to Install a Child Safety Seat without a Safety Belt

Definition

Identifies the response to the question, "Do you know about a new way to install a child safety seat without a safety belt?" This question was asked of all drivers, regardless of the survey group in which the children they were transporting were assigned.

1 = Yes. The driver knows about a new way to install a child safety seat without a safety belt.

2 = No. The driver does not know about a new way to install a child safety seat without a safety belt.

SAS Variable Name	QNEW
Format Type	N
Field Length	1
Range of Values	1 = Yes 2 = No
Data Set	Vehicle
Unique Identifier	A 37
NHTSA Form Number / Location	1002A / 11

Name of New Way to Install a Child Safety Seat Without a Safety Belt

Definition

Identifies the response to the question, "What is it (the new way to install a child safety seat) called?" This question was asked of all drivers, regardless of the survey group in which the children they were transporting were assigned.

QCALLD will be blank if QNEW = 2 (No).

SAS Variable Name	QCALLD
Format Type	N
Field Length	1
Range of Values	1 = LATCH 2 = Tether 3 = ISOFIX 4 = Don't Know 5 = Other
Data Set	Vehicle
Unique Identifier	A 38
NHTSA Form Number / Location	1002A / 12

Name of New Way to Install a Child Safety Seat Without a Safety Belt (Other Response)

Definition

Identifies the response to the question, "What is it called?" when the driver gives a response other than the first 4 listed in Question 12.

This is a character field, where the driver's response is typed as provided.

QCALLD_OT will be blank if any of the first 4 responses to this question adequately represented the driver's response, or if QNEW=2 (No).

SAS Variable Name	QCALLD_OT
Format Type	C
Field Length	Text field with 50 characters
Range of Values	
Data Set	Vehicle
Unique Identifier	A 39
NHTSA Form Number / Location	1002A / 12(5)

Heard of the Term "LATCH" Associated with Child Safety Seats

Definition

Identifies the response to the question, "Have you heard of the term 'LATCH' associated with child safety seats?" This question was asked of all drivers, regardless of the survey group in which the children they were transporting were assigned.

1 = Yes. The driver has heard of the term "LATCH" associated with child safety seats.

2 = No. The driver has not heard of the term "LATCH" associated with child safety seats.

SAS Variable Name	QLATCH
Format Type	N
Field Length	1
Range of Values	1 = Yes 2 = No
Data Set	Vehicle
Unique Identifier	A 40
NHTSA Form Number / Location	1002A / 13

Does Vehicle have a Place to Hook the Child Safety Seat Top Tether Strap

Definition

Identifies the response to the question, "Does your vehicle have a place to hook the child safety seat top tether strap?" This question was asked of all drivers, regardless of the survey group in which the children they were transporting were assigned. The intent of the question was to determine whether the driver had correct knowledge regarding LATCH equipment in the vehicle. The data in this field may or may not match the data in the Vehicle data set, for fields defining whether a tether anchor was present in each seating position.

1 = Yes. According to the driver, the vehicle has a place to hook a child safety seat top tether strap.

2 = No. According to the driver, the vehicle does not have a place to hook a child safety seat top tether strap.

3 = Don't Know. The driver stated that he or she didn't know whether the vehicle had a place to hook a child safety seat top tether strap.

SAS Variable Name	QVHTH
Format Type	N
Field Length	1
Range of Values	1 = Yes 2 = No 3 = Don't Know
Data Set	Vehicle
Unique Identifier	A 41
NHTSA Form Number / Location	1002A / 14

Does Vehicle Have Lower Anchor Bars to Attach the Child Safety Seat Bottom Connectors

Definition

Identifies the response to the question, "Does your vehicle have bars to attach the child safety seat bottom connectors?" This question was asked of all drivers, regardless of the survey group in which the children they were transporting were assigned. The intent of the question was to determine whether the driver had correct knowledge regarding LATCH equipment in the vehicle. The data in this field may or may not match the data in the Vehicle data set, for fields defining whether lower anchors were present in each seating position.

1 = Yes. According to the driver, the vehicle has a place to attach child safety seat bottom connectors.

2 = No. According to the driver, the vehicle does not have a place to attach child safety seat bottom connectors.

3 = Don't Know. The driver stated that he or she didn't know whether the vehicle had a place to hook child safety seat bottom connectors.

SAS Variable Name	QVHLA
Format Type	N
Field Length	1
Range of Values	1 = Yes 2 = No 3 = Don't Know
Data Set	Vehicle
Unique Identifier	A 42
NHTSA Form Number Form / Location	1002A / 15

Lower Anchor Users – Personally Installed

Definition

Identifies the driver response to the question, "Have you personally installed the child safety seat using the LATCH (lower anchor) system?" This question was asked of drivers who were transporting a child in a CRS with a harness, and the CRS was installed using the lower anchors.

1 = Yes. The driver personally installed the child safety seat using the LATCH (lower anchor) system.

2 = No. The driver did not personally install the child safety seat using the LATCH (lower anchor) system.

QLAINST will have a value only when all of the following conditions are met in the Occupant data set:

- A child occupant is in a CRS in the back seat of a vehicle that has lower anchors and tethers (SURVYGR = 4);
- The child is restrained in a CSS with a harness (CHCRS = 1, 2, 3, 4, and sometimes 6); AND
- The lower anchors are in use (LAUS = 1).

SAS Variable Name	QLAINST
Format Type	N
Field Length	1
Range of Values	1 = Yes 2 = No
Data Set	Vehicle
Unique Identifier	A43
NHTSA Form Number / Location	1002A / 26

Lower Anchor Users: Personal Likes – "Easy to Use" Response

Definition

Identifies whether a driver provided the response, "Easy to use" to the interview question, "What do you like about the LATCH (lower anchor) system?" This question was asked of drivers who were transporting a child in a CRS with a harness, and the CRS was installed using the lower anchors.

1 = Yes. The driver stated that the LATCH system was "Easy to use."

2 = No. The driver did not provide this response.

QLALIKEAS will have a value only when all of the following conditions are met in the Occupant and Vehicle data sets:

- A child occupant is in a CRS in the back seat of a vehicle that has lower anchors and tethers (SURVYGR = 4);
- The child is restrained in a CSS with a harness (CHCRS = 1, 2, 3, 4, and sometimes 6);
- The lower anchors are in use (LAUS = 1); AND
- The driver personally installed the CSS using the lower anchors (QLAINST = 1).

SAS Variable Name	QLALIKEAS
Format Type	N
Field Length	1
Range of Values	1 = Yes 2 = No
Data Set	Vehicle
Unique Identifier	A44
NHTSA Form Number / Location	1002A / 27(1)

Lower Anchor Users: Personal Likes – "Can See the Connectors" Response

Definition

Identifies whether a driver provided the response, "Can see the connectors" to the interview question, "What do you like about the LATCH (lower anchor) system?" This question was asked of drivers who were transporting a child in a CRS with a harness, and the CRS was installed using the lower anchors.

1 = Yes. The driver stated, "Can see the connectors."

2 = No. The driver did not provide this response.

QLALIKSEE will have a value only when all of the following conditions are met in the Occupant and Vehicle data sets:

- A child occupant is in a CRS in the back seat of a vehicle that has lower anchors and tethers (SURVYGR = 4);
- The child is restrained in a CSS with a harness (CHCRS = 1, 2, 3, 4, and sometimes 6);
- The lower anchors are in use (LAUS = 1); AND
- The driver personally installed the CSS using the lower anchors (QLAINST = 1).

SAS Variable Name	QLALIKSEE
Format Type	N
Field Length	1
Range of Values	1 = Yes
	2 = No
Data Set	Vehicle
Unique Identifier	A45
NHTSA Form Number / Location	1002A / 27(2)

Lower Anchor Users: Personal Likes –"Results in a Tight Fit for the Child Safety Seat" Response

Definition

Identifies whether a driver provided the response, "Results in a tight fit for the child safety seat" to the interview question, "What do you like about the LATCH (lower anchor) system?" This question was asked of drivers who were transporting a child in a CRS with a harness, and the CRS was installed using the lower anchors.

1 = Yes. The driver stated, "Results in a tight fit for the child safety seat."

2 = No. The driver did not provide this response.

QLALIKFIT will have a value only when all of the following conditions are met in the Occupant and Vehicle data sets:

- A child occupant is in a CRS in the back seat of a vehicle that has lower anchors and tethers (SURVYGR = 4);
- The child is restrained in a CSS with a harness (CHCRS = 1, 2, 3, 4, and sometimes 6);
- The lower anchors are in use (LAUS = 1); AND
- The driver personally installed the CSS using the lower anchors (QLAINST = 1).

SAS Variable Name	QLALIKFIT
Format Type	N
Field Length	1
Range of Values	1 = Yes
	2 = No
Data Set	Vehicle
Unique Identifier	A46
NHTSA Form Number / Location	1002A / 27(3)

Lower Anchor Users: Personal Likes — "N/A Don't Like LATCH" Response

Definition

Identifies that none of the first 3 responses (27-1, 27-2, 27-3) are applicable, because the driver responded that he or she "Doesn't like LATCH" in response to the interview question, "What do you like about the LATCH (lower anchor) system?"

1 = Yes. The driver stated, "I don't like LATCH."

2 = No. The driver did not provide this response.

QLALIKNA will have a value only when all of the following conditions are met in the Occupant and Vehicle data sets:

- A child occupant is in a CRS in the back seat of a vehicle that has lower anchors and tethers (SURVYGR = 4);
- The child is restrained in a CSS with a harness (CHCRS = 1, 2, 3, 4, and sometimes 6);
- The lower anchors are in use (LAUS = 1); AND
- The driver personally installed the CSS using the lower anchors (QLAINST = 1).

SAS Variable Name	QLALIKNA
Format Type	N
Field Length	1
Range of Values	1 = Yes
	2 = No
Data Set	Vehicle
Unique Identifier	A47
NHTSA Form Number / Location	1002A / 27(4)

Lower Anchor Users: Personal Likes – "Other" Response

Definition

Identifies the response to the question, "What do you like about the LATCH (lower anchor) system?" when the driver gives a response other than the first 4 listed in Question 27. This is a character field, where the driver's response is typed as provided.

QLALIK_OT will have a value only when all of the following conditions are met in the Occupant and Vehicle data sets:

- A child occupant is in a CRS in the back seat of a vehicle that has lower anchors and tethers (SURVYGR = 4);
- The child is restrained in a CSS with a harness (CHCRS = 1, 2, 3, 4, and sometimes 6);
- The lower anchors are in use (LAUS = 1); AND
- The driver personally installed the CSS using the lower anchors (QLAINST = 1).
- QLALIK_OT will also only have a value if none of the first 4 responses to this question adequately represented the driver's response.

SAS Variable Name	QLALIK_OT
Format Type	C
Field Length	Text field with 50 characters
Range of Values	
Data Set	Vehicle
Unique Identifier	A48
NHTSA Form Number / Location	1002A / 27(5)

Lower Anchor Users: Personal Dislikes – "Hard to Use" Response

Definition

Identifies whether a driver provided the response, "Hard to use" to the interview question, "What don't you like about connecting or disconnecting the LATCH (lower anchor) system?" This question was asked of drivers who were transporting a child in a CRS with a harness, and the CRS was installed using the lower anchors.

1 = Yes. The driver stated, "Hard to use."

2 = No. The driver did not provide this response.

QLANOHARD will have a value only when all of the following conditions are met in the Occupant and Vehicle data sets:

- A child occupant is in a CRS in the back seat of a vehicle that has lower anchors and tethers (SURVYGR = 4);
- The child is restrained in a CSS with a harness (CHCRS = 1, 2, 3, 4, and sometimes 6);
- The lower anchors are in use (LAUS = 1); AND
- The driver personally installed the CSS using the lower anchors (QLAINST = 1).

SAS Variable Name	QLANOHARD
Format Type	N
Field Length	1
Range of Values	1 = Yes
	2 = No
Data Set	Vehicle
Unique Identifier	A49
NHTSA Form Number / Location	1002A / 28(1)

Lower Anchor Users: Personal Dislikes – "Hard to See the Bars" Response

Definition

Identifies whether a driver provided the response, "Hard to see the bars" to the interview question, "What don't you like about connecting or disconnecting the LATCH (lower anchor) system?" This question was asked of drivers who were transporting a child in a CRS with a harness, and the CRS was installed using the lower anchors.

1 = Yes. The driver stated, "Hard to see the bars."

2 = No. The driver did not provide this response.

QLANOSEE will have a value only when all of the following conditions are met in the Occupant and Vehicle data sets:

- A child occupant is in a CRS in the back seat of a vehicle that has lower anchors and tethers (SURVYGR = 4);
- The child is restrained in a CSS with a harness (CHCRS = 1, 2, 3, 4, and sometimes 6);
- The lower anchors are in use (LAUS = 1); AND
- The driver personally installed the CSS using the lower anchors (QLAINST = 1).

SAS Variable Name	QLANOSEE
Format Type	N
Field Length	1
Range of Values	1 = Yes
	2 = No
Data Set	Vehicle
Unique Identifier	A50
NHTSA Form Number / Location	1002A / 28(2)

Lower Anchor Users: Personal Dislikes – "Hard to Find the Bars" Response

Definition

Identifies whether a driver provided the response, "Hard to find the bars" to the interview question, "What don't you like about connecting or disconnecting the LATCH (lower anchor) system?" This question was asked of drivers who were transporting a child in a CRS with a harness, and the CRS was installed using the lower anchors.

1 = Yes. The driver stated, "Hard to find the bars."

2 = No. The driver did not provide this response.

QLANOFND will have a value only when all of the following conditions are met in the Occupant and Vehicle data sets:

- A child occupant is in a CRS in the back seat of a vehicle that has lower anchors and tethers (SURVYGR = 4);
- The child is restrained in a CSS with a harness (CHCRS = 1, 2, 3, 4, and sometimes 6);
- The lower anchors are in use (LAUS = 1); AND
- The driver personally installed the CSS using the lower anchors (QLAINST = 1).

SAS Variable Name	QLANOFND
Format Type	N
Field Length	1
Range of Values	1 = Yes
	2 = No
Data Set	Vehicle
Unique Identifier	A51
NHTSA Form Number / Location	1002A / 28(3)

Lower Anchor Users: Personal Dislikes – "Hard to Hook the CSS to the Bars" Response

Definition

Identifies whether a driver provided the response, "Hard to hook the CSS to the bars" to the interview question, "What don't you like about connecting or disconnecting the LATCH (lower anchor) system?" This question was asked of drivers who were transporting a child in a CRS with a harness, and the CRS was installed using the lower anchors.

1 = Yes. The driver stated, "Hard to hook the CSS to the bars."

2 = No. The driver did not provide this response.

QLANOHOOK will have a value only when all of the following conditions are met in the Occupant and Vehicle data sets:

- A child occupant is in a CRS in the back seat of a vehicle that has lower anchors and tethers (SURVYGR = 4);
- The child is restrained in a CSS with a harness (CHCRS = 1, 2, 3, 4, and sometimes 6);
- The lower anchors are in use (LAUS = 1); AND
- The driver personally installed the CSS using the lower anchors (QLAINST = 1).

SAS Variable Name	QLANOHOOK
Format Type	N
Field Length	1
Range of Values	1 = Yes
	2 = No
Data Set	Vehicle
Unique Identifier	A52
NHTSA Form Number / Location	1002A / 28(4)

Lower Anchor Users: Personal Dislikes – "Hard to Release the CSS from the Bars" Response

Definition

Identifies whether a driver provided the response, "Hard to release the CSS from the bars" to the interview question, "What don't you like about connecting or disconnecting the LATCH (lower anchor) system?" This question was asked of drivers who were transporting a child in a CRS with a harness, and the CRS was installed using the lower anchors.

1 = Yes. The driver stated, "Hard to release the CSS from the bars."

2 = No. The driver did not provide this response.

QLANOREL will have a value only when all of the following conditions are met in the Occupant and Vehicle data sets:

- A child occupant is in a CRS in the back seat of a vehicle that has lower anchors and tethers (SURVYGR = 4);
- The child is restrained in a CSS with a harness (CHCRS = 1, 2, 3, 4, and sometimes 6);
- The lower anchors are in use (LAUS = 1); AND
- The driver personally installed the CSS using the lower anchors (QLAINST = 1).

SAS Variable Name	QLANOREL
Format Type	N
Field Length	1
Range of Values	1 = Yes
	2 = No
Data Set	Vehicle
Unique Identifier	A53
NHTSA Form Number / Location	1002A / 28(5)

Lower Anchor Users: Personal Dislikes – "Can't Get the CSS Tight" Response

Definition

Identifies whether a driver provided the response, "Can't get the CSS tight" to the interview question, "What don't you like about connecting or disconnecting the LATCH (lower anchor) system?" This question was asked of drivers who were transporting a child in a CRS with a harness, and the CRS was installed using the lower anchors.

1 = Yes. The driver stated, "Can't get the CSS tight."

2 = No. The driver did not provide this response.

QLANOFIT will have a value only when all of the following conditions are met in the Occupant and Vehicle data sets:

- A child occupant is in a CRS in the back seat of a vehicle that has lower anchors and tethers (SURVYGR = 4);
- The child is restrained in a CSS with a harness (CHCRS = 1, 2, 3, 4, and sometimes 6);
- The lower anchors are in use (LAUS = 1); AND
- The driver personally installed the CSS using the lower anchors (QLAINST = 1).

SAS Variable Name	QLANOFIT
Format Type	N
Field Length	1
Range of Values	1 = Yes
	2 = No
Data Set	Vehicle
Unique Identifier	A54
NHTSA Form Number / Location	1002A / 28(6)

Lower Anchor Users: Personal Dislikes – "N/A (I don't dislike anything about LATCH" Response

Definition

Identifies that none of the first 6 responses (28-1, 28-2, 28-3, 28-4, 28-5, or 28-6) are applicable, because the driver responded that he or she "Doesn't dislike anything about LATCH" in response to the interview question, "What don't you like about connecting or disconnecting the LATCH (lower anchor) system?"

1 = Yes. The driver stated, "I don't dislike anything about LATCH."

2 = No. The driver did not provide this response.

QLANONA will have a value only when all of the following conditions are met in the Occupant and Vehicle data sets:

- A child occupant is in a CRS in the back seat of a vehicle that has lower anchors and tethers (SURVYGR = 4);
- The child is restrained in a CSS with a harness (CHCRS = 1, 2, 3, 4, and sometimes 6);
- The lower anchors are in use (LAUS = 1); AND
- The driver personally installed the CSS using the lower anchors (QLAINST = 1).

SAS Variable Name	QLANONA
Format Type	N
Field Length	1
Range of Values	1 = Yes
	2 = No
Data Set	Vehicle
Unique Identifier	A55
NHTSA Form Number / Location	1002A / 28(7)

Lower Anchor Users: Personal Dislikes – "Other" Response

Definition

Identifies the response to the question, "What don't you like about connecting or disconnecting the LATCH (lower anchor) system?" when the driver gives a response other than the first 7 listed in Question 28. This is a character field, where the driver's response is typed as provided.

QLANO_OT will have a value only when all of the following conditions are met in the Occupant and Vehicle data sets:

- A child occupant is in a CRS in the back seat of a vehicle that has lower anchors and tethers (SURVYGR = 4);
- The child is restrained in a CSS with a harness (CHCRS = 1, 2, 3, 4, and sometimes 6);
- The lower anchors are in use (LAUS = 1); AND
- The driver personally installed the CSS using the lower anchors (QLAINST = 1).
- QLANO_OT will also only have a value if none of the first 7 responses to this question adequately represented the driver's response.

SAS Variable Name	QLANO_OT
Format Type	C
Field Length	Text field with 50 characters
Range of Values	
Data Set	Vehicle
Unique Identifier	A56
NHTSA Form Number / Location	1002A / 28(8)

Lower Anchors - Anchor Bar Visibility

Definition

Identifies the driver response to the interview question, "Can you see the connection bars, or are they hidden between the seat cushions?" This question was asked of drivers who were transporting a child in a CRS with a harness, and the CRS was installed using the lower anchors.

QLASEEBARS will have a value only when all of the following conditions are met in the Occupant and Vehicle data sets:

- A child occupant is in a CRS in the back seat of a vehicle that has lower anchors and tethers (SURVYGR = 4);
- The child is restrained in a CSS with a harness (CHCRS = 1, 2, 3, 4, and sometimes 6);
- The lower anchors are in use (LAUS = 1); AND
- The driver personally installed the CSS using the lower anchors (QLAINST = 1).

SAS Variable Name	QLASEEBARS
Format Type	N
Field Length	1
Range of Values	1 = Can see the connectors. 2 = Hidden between the seat cushions 3 = Don't know 4 = Other
Data Set	Vehicle
Unique Identifier	A57
NHTSA Form Number / Location	1002A / 29

Lower Anchors - Anchor Bar Visibility (Other Response)

Definition

Identifies the response to the question, "Can you see the connection bars or are they hidden between the seat cushions?" when the driver gives a response other than the first 3 listed in Question 29. This is a character field, where the driver's response is typed as provided.

QLASEEBARS_OT will have a value only when all of the following conditions are met in the Occupant and Vehicle data sets:

- A child occupant is in a CRS in the back seat of a vehicle that has lower anchors and tethers (SURVYGR = 4);
- The child is restrained in a CSS with a harness (CHCRS = 1, 2, 3, 4, and sometimes 6);
- The lower anchors are in use (LAUS = 1); AND
- The driver personally installed the CSS using the lower anchors (QLAINST = 1).
- QLASEEBARS_OT will also only have a value if none of the first 3 responses to this question adequately represented the driver's response.

SAS Variable Name	QLASEEBARS_OT
Format Type	C
Field Length	50
Range of Values	Text field with 50 characters
Data Set	Vehicle
Unique Identifier	A58
NHTSA Form Number / Location	1002A / 29

Lower Anchors - Experience Connecting Child Safety Seat to a Vehicle Using a Safety Belt

Definition

Identifies the driver response to the question, "Have you had experience connecting a child safety seat to a vehicle using only the safety belts?" This question was asked of drivers who were transporting a child in a CRS with a harness, and the CRS was installed using the lower anchors.

1 = Yes. The driver has experienced connecting a child safety seat to a vehicle using only the safety belts.

2 = No. The driver has not connected a child safety seat to a vehicle using only the safety belts.

QLACRSSB will have a value only when all of the following conditions are met in the Occupant and Vehicle data sets:

- A child occupant is in a CRS in the back seat of a vehicle that has lower anchors and tethers (SURVYGR = 4);
- The child is restrained in a CSS with a harness (CHCRS = 1, 2, 3, 4, and sometimes 6);
- The lower anchors are in use (LAUS = 1); AND
- The driver personally installed the CSS using the lower anchors (QLAINST = 1).

SAS Variable Name	QLACRSSB
Format Type	N
Field Length	1
Range of Values	1 = Yes 2 = No
Data Set	Vehicle
Unique Identifier	A59
NHTSA Form Number / Location	1002A / 30

Lower Anchors - Preferred Method for Connecting Child Safety Seat to a Vehicle Using a Safety Belt

Definition

Identifies the driver's preference for LATCH vs. safety belts for connecting a child safety seat to a vehicle, if the driver has had experience using both systems. This question was asked of drivers who were transporting a child in a CRS with a harness, and the CRS was installed using the lower anchors.

QLACRSSBY will have a value only when all of the following conditions are met in the Occupant and Vehicle data sets:

- A child occupant is in a CRS in the back seat of a vehicle that has lower anchors and tethers (SURVYGR = 4);
- The child is restrained in a CSS with a harness (CHCRS = 1, 2, 3, 4, and sometimes 6);
- The lower anchors are in use (LAUS = 1);
- The driver personally installed the CSS using the lower anchors (QLAINST = 1); AND
- The driver has had experience connecting a CSS using the safety belts (QLACRSSB=1)

SAS Variable Name	QLACRSSBY
Format Type	N
Field Length	1
Range of Values	1 = LATCH 2 = Safety Belts 3 = Undecided
Data Set	Vehicle
Unique Identifier	A60
NHTSA Form Number / Location	1002A / 31

Lower Anchors - Reason for Preferred Method for Connecting Child Safety Seat to a Vehicle Using a Safety Belt

Definition

Identifies the reason for a driver's preference for LATCH vs. safety belts for connecting a child safety seat to a vehicle, if the driver has had experience using both systems.   This question was asked of drivers who were transporting a child in a CRS with a harness, and the CRS was installed using the lower anchors.

QLACRSSBYW will have response (in the text field of 50 characters) only when all of the following conditions are met in the Occupant and Vehicle data sets:

- A child occupant is in a CRS in the back seat of a vehicle that has lower anchors and tethers (SURVYGR = 4);
- The child is restrained in a CSS with a harness (CHCRS = 1, 2, 3, 4, and sometimes 6);
- The lower anchors are in use (LAUS = 1);
- The driver personally installed the CSS using the lower anchors (QLAINST = 1); AND
- The driver has had experience connecting a CSS using the safety belts (QLACRSSB=1)

SAS Variable Name	QLACRSSBYW
Format Type	C
Field Length	Text field with 50 characters
Range of Values	
Data Set	Vehicle
Unique Identifier	A61
NHTSA Form Number / Location	1002A / 31(a)

Lower Anchors - Ease of Attachment Comparison to Safety Belts

Definition

Identifies the driver response to the question, "Is it easier to attach a child safety seat to the vehicle with the lower anchors or vehicle safety belt?" This question was asked of drivers who were transporting a child in a CRS with a harness, and the CRS was installed using the lower anchors.

 QLABST will have a value only when all of the following conditions are met in the Occupant and Vehicle data sets:

- A child occupant is in a CRS in the back seat of a vehicle that has lower anchors and tethers (SURVYGR = 4);
- The child is restrained in a CSS with a harness (CHCRS = 1, 2, 3, 4, and sometimes 6);
- The lower anchors are in use (LAUS = 1);
- The driver personally installed the CSS using the lower anchors (QLAINST = 1); AND
- The driver has had experience connecting a CSS using the safety belts (QLACRSSB=1)

SAS Variable Name	QLABST
Format Type	N
Field Length	1
Range of Values	1 = Lower anchors 2 = Vehicle safety belt 3 = Undecided
Data Set	Vehicle
Unique identifier	A62
NHTSA Form Number / Location	1002A / 32

Number of Vehicle Seating Positions

Definition

The number of vehicle seating positions, regardless of whether or not they are occupied.

SAS Variable Name	NUMVEHSP
Format Type	N
Field Length	2
Range of Values	2-9
Data Set	Vehicle
Unique identifier	B1
NHTSA Form Number / Location	1002C / Below header info.

Vehicle Seating Configuration

Definition

The configuration of the seating positions in the vehicle (whether or not they are occupied). Seating positions are numbered as follows: 1 is the driver's seat, 2 is the center seat in the first row of seats (if there is one), 3 is the right front-seat passenger position. Seating positions 4, 5, and 6 are the second-row seating positions, with number 4 directly behind the driver, 5 in the center, and 6 on the right out-board side. Seating positions 7, 8, and 9 are third-row seating positions, with 7 on the left out-board side, 8 in the center, and 9 on the right out-board side. If there is a fourth row of seats, these would be numbered 10, 11, and 12. A diagram is provided below.

3	6	9	12
2	5	8	11
1 (Driver)	4	7	10

Front of vehicle points in this direction

Twenty-four codes describe the seating configurations for the vehicles observed in this study. As an example, a common passenger sedan with two seats in the first row and three seats in the second row would be coded as a "1", indicating that the vehicle seating position configuration is as follows: 1, 3, 4, 5, 6.

SAS Variable Name	VHSTCNFG
Format Type	N
Field Length	2
Range of Values	1 = 1, 3, 4, 5, 6 13 = 1, 3, 4, 5 2 = 1, 2, 3, 4, 5, 6 14 = 1, 3, 4, 5, 6, 7, 8 3 = 1, 3, 4, 5, 7, 8, 9 15 = 1, 3, 4, 5, 6, 7, 9 4 = 1, 3, 4, 6, 7, 8, 9 16 = 1, 3, 4, 5, 7, 8 5 = 1, 3, 5, 6, 7, 8, 9 17 = 1, 3, 4, 5, 7, 8, 9 6 = 1, 2, 3, 4, 5, 6, 7, 8, 9 18 = 1, 3, 4, 5, 7, 9 7 = 1, 3, 4, 5, 6, 7, 8, 9 19 = 1, 3, 4, 6, 7, 8 8 = 1, 3, 4, 6 20 = 1, 3, 4, 6, 7, 9 9 = 1, 2, 3 21 = 1, 3, 4, 6, 8, 9 10 = 1, 3 22 = 1, 3, 4, 6, 9 11 = 1, 2, 3, 4, 6 23 = 1, 3, 4, 7, 8, 9 12 = 1, 2, 3, 4, 6, 7, 8, 9 24 = 1, 3, 7, 8, 9
Data Set	Vehicle
Unique Identifier	(Not shown on form)
NHTSA Form Number / Location	1002C / NA

Vehicle Seating Position 1 Occupied

Definition

The code for this variable defines whether or not seating position 1 is occupied. Seating position 1 is the driver position, so this will always be coded as 1 (yes).

1 = Yes. The seating position is occupied.

2 = No. The seating position is not occupied.

3 = Not a vehicle seating position.

SAS Variable Name	VH1OCC
Format Type	N
Field Length	1
Range of Values	1 = Yes 2 = No 3 = Not a vehicle seating position
Data Set	Vehicle
Unique Identifier	(Not shown on form)
NHTSA Form Number / Location	1002 B, 1002C B (position is "X'd" out if not a vehicle seating position), C (data filled in for occupant, if seating position filled)

Occupant Restraint Devices Available in Seating Position 1

Definition

Identifies what kind of occupant restraint device (safety belt) is available in vehicle seating position 1 (driver).

SAS Variable Name	VHOR1
Format Type	N
Field Length	1
Range of Values	1 = Lap and Shoulder belt 2 = Lap belt only 3 = Shoulder belt only
Data Set	Vehicle
Unique Identifier	B2
NHTSA Form Number / Location	1002C / Driver seating position in matrix

Vehicle Seating Position 2 Occupied

Definition

The code for this variable defines whether or not Seating position 2 is occupied. Seating position 2 is the center position in the first row, if one is available in the vehicle.

1 = Yes. The seating position is occupied.

2 = No. The seating position is not occupied.

3 = Not a vehicle seating position.

SAS Variable Name	VH2OCC
Format Type	N
Field Length	1
Range of Values	1 = Yes 2 = No 3 = Not a vehicle seating position
Data Set	Vehicle
Unique Identifier	(Not shown on form)
NHTSA Form Number / Location	1002 B, 1002C B (position is "X'd" out if not a vehicle seating position), C (data filled in for occupant, if seating position filled)

Occupant Restraint Devices Available in Seating Position 2

Definition

Identifies what kind of occupant restraint device (safety belt) is available in vehicle seating position 2 (the center position in the first row, if this seating position is available in the vehicle).

This field will be blank if VH2OCC = 3 (not a vehicle seating position).

SAS Variable Name	VHOR2
Format Type	N
Field Length	1
Range of Values	1 = Lap and Shoulder belt 2 = Lap belt only 3 = Shoulder belt only
Data Set	Vehicle
Unique Identifier	B3
NHTSA Form Number / Location	1002C / Seating position 2 in matrix

Tether Anchor Present for Seating Position 2

Definition

Indicates whether or not a tether anchor is present in vehicle seating position 2 (the center position in the first row, if this seating position is available in the vehicle).

1 = Yes. A tether anchor is present for this seating position.

2 = No. There is no tether anchor present for this seating position.

This field will be blank if VH2OCC = 3 (not a vehicle seating position).

SAS Variable Name	VHTH2
Format Type	N
Field Length	1
Range of Values	1 = Yes
	2 = No
Data Set	Vehicle
Unique Identifier	B4
NHTSA Form Number / Location	1002C / Seating position 2 in matrix

Lower Anchors Present for Seating Position 2

Definition

Indicates whether or not lower anchors are present in vehicle seating position 2 (the center position in the first row, if this seating position is available in the vehicle).

1 = Yes. Lower anchors are present for this seating position.

2 = No. There are no lower anchors present for this seating position.

This field will be blank if VH2OCC = 3 (not a vehicle seating position).

SAS Variable Name	VHLA2
Format Type	N
Field Length	1
Range of Values	1 = Yes
	2 = No
Data Set	Vehicle
Unique Identifier	B5
NHTSA Form Number / Location	1002C / Seating position 2 in matrix

Vehicle Seating Position 3 Occupied

Definition

The code for this variable defines whether or not seating position 3 is occupied. Seating position 3 is the right outboard position in the first row, if one is available in the vehicle.

1 = Yes. The seating position is occupied.

2 = No. The seating position is not occupied.

3 = Not a vehicle seating position.

SAS Variable Name	VH3OCC
Format Type	N
Field Length	1
Range of Values	1 = Yes 2 = No 3 = Not a vehicle seating position
Data Set	Vehicle
Unique Identifier	(Not shown on form)
NHTSA Form Number / Location	1002 B, 100 B (position is "X'd" out if not a vehicle seating position), C (data filled in for occupant, if seating position filled)2C

Occupant Restraint Devices Available in Seating Position 3

Definition

Identifies what kind of occupant restraint device (safety belt) is available in vehicle seating position 3 (the right outboard position in the first row, if this seating position is available in the vehicle).

This field will be blank if VH3OCC = 3 (not a vehicle seating position).

SAS Variable Name	VHOR3
Format Type	N
Field Length	1
Range of Values	1 = Lap and Shoulder belt 2 = Lap belt only 3 = Shoulder belt only
Data Set	Vehicle
Unique Identifier	B6
NHTSA Form Number / Location	1002C / Seating position 3 in matrix

Tether Anchor Present for Seating Position 3

Definition

Indicates whether or not a tether anchor is present in vehicle seating position 3 (the right outboard position in the first row, if this seating position is available in the vehicle).

1 = Yes. A tether anchor is present for this seating position.

2 = No. There is no tether anchor present for this seating position.

This field will be blank if VH3OCC = 3 (not a vehicle seating position).

SAS Variable Name	VHTH3
Format Type	N
Field Length	1
Range of Values	1 = Yes
	2 = No
Data Set	Vehicle
Unique Identifier	B7
NHTSA Form Number / Location	1002C / Seating Position 3 in matrix

Lower Anchors Present for Seating Position 3

Definition

Indicates whether or not lower anchors are present in vehicle seating position 3 (the right outboard position in the first row, if this seating position is available in the vehicle).

1 = Yes. Lower anchors are present for this seating position.

2 = No. There are no lower anchors present for this seating position.

This field will be blank if VH3OCC = 3 (not a vehicle seating position)

SAS Variable Name	VHLA3
Format Type	N
Field Length	1
Range of Values	1 = Yes
	2 = No
Data Set	Vehicle
Unique Identifier	B8
NHTSA Form Number / Location	1002C / Seating position 3 in matrix

Vehicle Seating Position 4 Occupied

Definition

The code for this variable defines whether or not seating position 4 is occupied. Seating position 4 is the left outboard position in the second row (the seat behind the driver), if one is available in the vehicle.

1 = Yes. The seating position is occupied.

2 = No. The seating position is not occupied.

3 = Not a vehicle seating position.

SAS Variable Name	VH4OCC
Format Type	N
Field Length	1
Range of Values	1 = Yes 2 = No 3 = Not a vehicle seating position
Data Set	Vehicle
Unique Identifier	(Not shown on form)
NHTSA Form Number / Location	1002 B, 1002C B (position is "X'd" out if not a vehicle seating position), C (data filled in for occupant, if seating position filled)

Occupant Restraint Devices Available in Seating Position 4

Definition

Identifies what kind of occupant restraint device (safety belt) is available in vehicle seating position 4 (the left outboard position in the second row—the seat behind the driver—if this seating position is available in the vehicle).

This field will be blank if VH4OCC = 3 (not a vehicle seating position).

SAS Variable Name	VHOR4
Format Type	N
Field Length	1
Range of Values	1 = Lap and Shoulder belt 2 = Lap belt only 3 = Shoulder belt only
Data Set	Vehicle
Unique Identifier	B9
NHTSA Form Number / Location	1002C / Seating position 4 in matrix

Tether Anchor Present for Seating Position 4

Definition

Indicates whether or not a tether anchor is present in vehicle seating position 4 (the left outboard position in the second row, if this seating position is available in the vehicle).

1 = Yes. A tether anchor is present for this seating position.

2 = No. There is no tether anchor present for this seating position.

This field will be blank if VH4OCC = 3 (not a vehicle seating position).

SAS Variable Name	VHTH4
Format Type	N
Field Length	1
Range of Values	1 = Yes
	2 = No
Data Set	Vehicle
Unique Identifier	B10
NHTSA Form Number / Location	1002C / Seating position 4 in matrix

Lower Anchors Present for Seating Position 4

Definition

Indicates whether or not lower anchors are present in vehicle seating position 4 (the left outboard position in the second row—the seat behind the driver—if this seating position is available in the vehicle).

1 = Yes. Lower anchors are present for this seating position.

2 = No. There are no lower anchors present for this seating position.

This field will be blank if VH4OCC = 3 (not a vehicle seating position).

SAS Variable Name	VHLA4
Format Type	N
Field Length	1
Range of Values	1 = Yes
	2 = No
Data Set	Vehicle
Unique Identifier	B11
NHTSA Form Number / Location	1002C / Seating position 4 in matrix

Vehicle Seating Position 5 Occupied

Definition

The code for this variable defines whether or not seating position 5 is occupied. Seating position 5 is the center position in the second row, if one is available in the vehicle.

1 = Yes. The seating position is occupied.

2 = No. The seating position is not occupied.

3 = Not a vehicle seating position.

SAS Variable Name	VH5OCC
Format Type	N
Field Length	1
Range of Values	1 = Yes 2 = No 3 = Not a vehicle seating position
Data Set	Vehicle
Unique Identifier	(Not shown on form)
NHTSA Form Number / Location	1002 B, 1002C B (position is "X'd" out if not a vehicle seating position), C (data filled in for occupant, if seating position filled)

Occupant Restraint Devices Available in Seating Position 5

Definition

Identifies what kind of occupant restraint device (safety belt) is available in vehicle seating position 5 (the center position in the second row, if this seating position is available in the vehicle).

This field will be blank if VH5OCC = 3 (not a vehicle seating position).

SAS Variable Name	VHOR5
Format Type	N
Field Length	1
Range of Values	1 = Lap and Shoulder belt 2 = Lap belt only 3 = Shoulder belt only
Data Set	Vehicle
Unique Identifier	B12
NHTSA Form Number / Location	1002C / Seating position 5 in matrix

Tether Anchor Present for Seating Position 5

Definition

Indicates whether or not a tether anchor is present in vehicle seating position 5 (the center position in the second row, if this seating position is available in the vehicle).

1 = Yes. A tether anchor is present for this seating position.

2 = No. There is no tether anchor present for this seating position.

This field will be blank if VH5OCC = 3 (not a vehicle seating position).

SAS Variable Name	VHTH5
Format Type	N
Field Length	1
Range of Values	1 = Yes
	2 = No
Data Set	Vehicle
Unique Identifier	B13
NHTSA Form Number / Location	1002C / Seating position 5 in matrix

Lower Anchors Present for Seating Position 5

Definition

Indicates whether or not lower anchors are present in vehicle seating position 5 (the center position in the second row, if this seating position is available in the vehicle).

1 = Yes. Lower anchors are present for this seating position.

2 = No. There are no lower anchors present for this seating position.

This field will be blank if VH5OCC = 3 (not a vehicle seating position).

SAS Variable Name	VHLA5
Format Type	N
Field Length	1
Range of Values	1 = Yes
	2 = No
Data Set	Vehicle
Unique Identifier	B14
NHTSA Form Number / Location	1002C / Seating position 5 in matrix

Vehicle Seating Position 6 Occupied

Definition

The code for this variable defines whether or not seating position 6 is occupied. Seating position 6 is the right outboard position in the second row, if one is available in the vehicle.

1 = Yes. The seating position is occupied.

2 = No. The seating position is not occupied.

3 = Not a vehicle seating position.

SAS Variable Name	VH6OCC
Format Type	N
Field Length	1
Range of Values	1 = Yes 2 = No 3 = Not a vehicle seating position
Data Set	Vehicle
Unique Identifier	(Not shown on form)
NHTSA Form Number / Location	1002 B, 1002C B (position is "X'd" out if not a vehicle seating position), C (data filled in for occupant, if seating position filled)

Occupant Restraint Devices Available in Seating Position 6

Definition

Identifies what kind of occupant restraint device (safety belt) is available in vehicle seating position 6 (the right outboard position in the second row, if this seating position is available in the vehicle).

This field will be blank if VH6OCC = 3 (not a vehicle seating position).

SAS Variable Name	VHOR6
Format Type	N
Field Length	1
Range of Values	1 = Lap and Shoulder belt 2 = Lap belt only 3 = Shoulder belt only
Data Set	Vehicle
Unique Identifier	B15
NHTSA Form Number / Location	1002C / Seating position 6 in matrix

Tether Anchor Present for Seating Position 6

Definition

Indicates whether or not a tether anchor is present in vehicle seating position 6 (the right outboard position in the second row, if this seating position is available in the vehicle).

1 = Yes. A tether anchor is present for this seating position.

2 = No. There is no tether anchor present for this seating position.

This field will be blank if VH6OCC = 3 (not a vehicle seating position).

SAS Variable Name	VHTH6
Format Type	N
Field Length	1
Range of Values	1 = Yes
	2 = No
Data Set	Vehicle
Unique Identifier	B16
NHTSA Form Number / Location	1002C / Seating position 6 in matrix

Lower Anchors Present for Seating Position 6

Definition

Indicates whether or not lower anchors are present in vehicle seating position 6 (the right outboard position in the second row, if this seating position is available in the vehicle).

1 = Yes. Lower anchors are present for this seating position.

2 = No. There are no lower anchors present for this seating position.

This field will be blank if VH6OCC = 3 (not a vehicle seating position).

SAS Variable Name	VHLA6
Format Type	N
Field Length	1
Range of Values	1 = Yes
	2 = No
Data Set	Vehicle
Unique Identifier	B17
NHTSA Form Number / Location	1002C / Seating position 6 in matrix

Vehicle Seating Position 7 Occupied

Definition

The code for this variable defines whether or not seating position 7 is occupied. Seating position 7 is the left outboard position in the third row, if one is available in the vehicle.

1 = Yes. The seating position is occupied.

2 = No. The seating position is not occupied.

3 = Not a vehicle seating position.

SAS Variable Name	VH7OCC
Format Type	N
Field Length	1
Range of Values	1 = Yes 2 = No 3 = Not a vehicle seating position
Data Set	Vehicle
Unique Identifier	(Not shown on form)
NHTSA Form Number / Location	1002 B, 1002C B (position is "X'd" out if not a vehicle seating position), C (data filled in for occupant, if seating position filled)

Occupant Restraint Devices Available in Seating Position 7

Definition

Identifies what kind of occupant restraint device (safety belt) is available in vehicle seating position 7 (the left outboard position in the third row, if this seating position is available in the vehicle).

This field will be blank if VH7OCC = 3 (not a vehicle seating position).

SAS Variable Name	VHOR7
Format Type	N
Field Length	1
Range of Values	1 = Lap and Shoulder belt 2 = Lap belt only 3 = Shoulder belt only
Data Set	Vehicle
Unique Identifier	B18
NHTSA Form Number / Location	1002C / Seating position 7 in matrix

Tether Anchor Present for Seating Position 7

Definition

Indicates whether or not a tether anchor is present in vehicle seating position 7 (the left outboard position in the third row, if this seating position is available in the vehicle).

1 = Yes. A tether anchor is present for this seating position.

2 = No. There is no tether anchor present for this seating position.

This field will be blank if VH7OCC = 3 (not a vehicle seating position).

SAS Variable Name	VHTH7
Format Type	N
Field Length	1
Range of Values	1 = Yes
	2 = No
Data Set	Vehicle
Unique Identifier	B19
NHTSA Form Number / Location	1002C / Seating position 7 in matrix

Lower Anchors Present for Seating Position 7

Definition

Indicates whether or not lower anchors are present in vehicle seating position 7 (the left outboard position in the third row, if this seating position is available in the vehicle).

1 = Yes. Lower anchors are present for this seating position.

2 = No. There are no lower anchors present for this seating position.

This field will be blank if VH7OCC = 3 (not a vehicle seating position).

SAS Variable Name	VHLA7
Format Type	N
Field Length	1
Range of Values	1 = Yes
	2 = No
Data Set	Vehicle
Unique Identifier	B20
NHTSA Form Number / Location	1002C / Seating position 7 in matrix

Vehicle Seating Position 8 Occupied

Definition

The code for this variable defines whether or not seating position 8 is occupied. Seating position 8 is the center position in the third row, if one is available in the vehicle.

1 = Yes. The seating position is occupied.

2 = No. The seating position is not occupied.

3 = Not a vehicle seating position.

SAS Variable Name	VH8OCC
Format Type	N
Field Length	1
Range of Values	1 = Yes 2 = No 3 = Not a vehicle seating position
Data Set	Vehicle
Unique Identifier	(Not shown on form)
NHTSA Form Number / Location	1002 B, 1002C B (position is "X'd" out if not a vehicle seating position), C (data filled in for occupant, if seating position filled)

Occupant Restraint Devices Available in Seating Position 8

Definition

Identifies what kind of occupant restraint device (safety belt) is available in vehicle seating position 8 (the center position in the third row, if this seating position is available in the vehicle).

This field will be blank if VH8OCC = 3 (not a vehicle seating position).

SAS Variable Name	VHOR8
Format Type	N
Field Length	1
Range of Values	1 = Lap and Shoulder belt 2 = Lap belt only 3 = Shoulder belt only
Data Set	Vehicle
Unique Identifier	B21
NHTSA Form Number / Location	1002C / Seating position 8 in matrix

Tether Anchor Present for Seating Position 8

Definition

Indicates whether or not a tether anchor is present in vehicle seating position 8 (the center position in the third row, if this seating position is available in the vehicle).

1 = Yes. A tether anchor is present for this seating position.

2 = No. There is no tether anchor present for this seating position.

This field will be blank if VH8OCC = 3 (not a vehicle seating position).

SAS Variable Name	VHTH8
Format Type	N
Field Length	1
Range of Values	1 = Yes
	2 = No
Data Set	Vehicle
Unique Identifier	B22
NHTSA Form Number / Location	1002C / Seating position 8 in matrix

Lower Anchors Present for Seating Position 8

Definition

Indicates whether or not lower anchors are present in vehicle seating position 8 (the center position in the third row, if this seating position is available in the vehicle).

1 = Yes. Lower anchors are present for this seating position.

2 = No. There are no lower anchors present for this seating position.

This field will be blank if VH8OCC = 3 (not a vehicle seating position).

SAS Variable Name	VHLA8
Format Type	N
Field Length	1
Range of Values	1 = Yes
	2 = No
Data Set	Vehicle
Unique Identifier	B23
NHTSA Form Number / Location	1002C / Seating position 8 in matrix

Vehicle Seating Position 9 Occupied

Definition

The code for this variable defines whether or not seating position 9 is occupied. Seating position 9 is the right outboard position in the third row, if one is available in the vehicle.

1 = Yes. The seating position is occupied.

2 = No. The seating position is not occupied.

3 = Not a vehicle seating position.

SAS Variable Name	VH9OCC
Format Type	N
Field Length	1
Range of Values	1 = Yes 2 = No 3 = Not a vehicle seating position
Data Set	Vehicle
Unique Identifier	(Not shown on form)
NHTSA Form Number / Location	1002 B, 1002C B (position is "X'd" out if not a vehicle seating position), C (data filled in for occupant, if seating position filled)

Occupant Restraint Devices Available in Seating Position 9

Definition

Identifies what kind of occupant restraint device (safety belt) is available in vehicle seating position 9 (the right outboard position in the third row, if this seating position is available in the vehicle).

This field will be blank if VH9OCC = 3 (not a vehicle seating position).

SAS Variable Name	VHOR9
Format Type	N
Field Length	1
Range of Values	1 = Lap and Shoulder belt 2 = Lap belt only 3 = Shoulder belt only
Data Set	Vehicle
Unique Identifier	B24
NHTSA Form Number / Location	1002C / Seating position 9 in matrix

Tether Anchor Present for Seating Position 9

Definition

Indicates whether or not a tether anchor is present in vehicle seating position 9 (the right outboard position in the third row, if this seating position is available in the vehicle).

1 = Yes. A tether anchor is present for this seating position.

2 = No. There is no tether anchor present for this seating position.

This field will be blank if VH9OCC = 3 (not a vehicle seating position).

SAS Variable Name	VHTH9
Format Type	N
Field Length	1
Range of Values	1 = Yes
	2 = No
Data Set	Vehicle
Unique Identifier	B25
NHTSA Form Number / Location	1002C / Seating position 9 in matrix

Lower Anchors Present for Seating Position 9

Definition

Indicates whether or not lower anchors are present in vehicle seating position 9 (the right outboard position in the third row, if this seating position is available in the vehicle).

1 = Yes. Lower anchors are present for this seating position.

2 = No. There are no lower anchors present for this seating position.

This field will be blank if VH9OCC = 3 (not a vehicle seating position).

SAS Variable Name	VHLA9
Format Type	N
Field Length	1
Range of Values	1 = Yes
	2 = No
Data Set	Vehicle
Unique Identifier	B26
NHTSA Form Number / Location	1002C / Seating position 9 in matrix

Vehicle Seating Position 10 Occupied

Definition

The code for this variable defines whether or not seating position 10 is occupied. Seating position 10 is the left outboard position in the fourth row, if one is available in the vehicle.

1 = Yes. The seating position is occupied.

2 = No. The seating position is not occupied.

3 = Not a vehicle seating position.

SAS Variable Name	VH10OCC
Format Type	N
Field Length	1
Range of Values	1 = Yes 2 = No 3 = Not a vehicle seating position
Data Set	Vehicle
Unique Identifier	(Not shown on form)
NHTSA Form Number / Location	1002 B, 1002C / NA

Occupant Restraint Devices Available in Seating Position 10

Definition

Identifies what kind of occupant restraint device (safety belt) is available in vehicle seating position 10 (the left outboard position in the fourth row, if this seating position is available in the vehicle).

This field will be blank if VH10OCC = 3 (not a vehicle seating position).

SAS Variable Name	VHOR10
Format Type	N
Field Length	1
Range of Values	1 = Lap and Shoulder belt 2 = Lap belt only 3 = Shoulder belt only
Data Set	Vehicle
Unique Identifier	(Not shown on form)
NHTSA Form Number / Location	1002C / NA

Tether Anchor Present for Seating Position 10

Definition

Indicates whether or not a tether anchor is present in vehicle seating position 10 (the left outboard position in the fourth row, if this seating position is available in the vehicle).

1 = Yes. A tether anchor is present for this seating position.

2 = No. There is no tether anchor present for this seating position.

This field will be blank if VH10OCC = 3 (not a vehicle seating position).

SAS Variable Name	VHTH10
Format Type	N
Field Length	1
Range of Values	1 = Yes
	2 = No
Data Set	Vehicle
Unique Identifier	(Not shown on form)
NHTSA Form Number / Location	1002C / NA

Lower Anchors Present for Seating Position 10

Definition

Indicates whether or not lower anchors are present in vehicle seating position 10 (the left outboard position in the fourth row, if this seating position is available in the vehicle).

1 = Yes. Lower anchors are present for this seating position.

2 = No. There are no lower anchors present for this seating position.

This field will be blank if VH10OCC = 3 (not a vehicle seating position).

SAS Variable Name	VHLA10
Format Type	N
Field Length	1
Range of Values	1 = Yes
	2 = No
Data Set	Vehicle
Unique Identifier	(Not shown on form)
NHTSA Form Number / Location	1002C / Location

Vehicle Seating Position 11 Occupied

Definition

The code for this variable defines whether or not seating position 11 is occupied. Seating position 11 is the center position in the fourth row, if one is available in the vehicle.

1 = Yes. The seating position is occupied.

2 = No. The seating position is not occupied.

3 = Not a vehicle seating position.

SAS Variable Name	VH11OCC
Format Type	N
Field Length	1
Range of Values	1 = Yes 2 = No 3 = Not a vehicle seating position
Data Set	Vehicle
Unique Identifier	(Not shown on form)
NHTSA Form Number / Location	1002 B, 1002C / NA

Occupant Restraint Devices Available in Seating Position 11

Definition

Identifies what kind of occupant restraint device (safety belt) is available in vehicle seating position 11 (the center position in the fourth row, if this seating position is available in the vehicle).

This field will be blank if VH11OCC = 3 (not a vehicle seating position).

SAS Variable Name	VHOR11
Format Type	N
Field Length	1
Range of Values	1 = Lap and Shoulder belt 2 = Lap belt only 3 = Shoulder belt only
Data Set	Vehicle
Unique Identifier	(Not shown on form)
NHTSA Form Number / Location	1002C / NA

Tether Anchor Present for Seating Position 11

Definition

Indicates whether or not a tether anchor is present in vehicle seating position 11 (the center position in the fourth row, if this seating position is available in the vehicle).

1 = Yes. A tether anchor is present for this seating position.

2 = No. There is no tether anchor present for this seating position.

This field will be blank if VH11OCC = 3 (not a vehicle seating position).

SAS Variable Name	VHTH11
Format Type	N
Field Length	1
Range of Values	1 = Yes
	2 = No
Data Set	Vehicle
Unique Identifier	(Not shown on form)
NHTSA Form Number / Location	1002C / NA

Lower Anchors Present for Seating Position 11

Definition

Indicates whether or not lower anchors are present in vehicle seating position 11 (the center position in the fourth row, if this seating position is available in the vehicle).

1 = Yes. Lower anchors are present for this seating position.

2 = No. There are no lower anchors present for this seating position.

This field will be blank if VH11OCC = 3 (not a vehicle seating position).

SAS Variable Name	VHLA11
Format Type	N
Field Length	1
Range of Values	1 = Yes
	2 = No
Data Set	Vehicle
Unique Identifier	(Not shown on form)
NHTSA Form Number / Location	1002C / NA

Vehicle Seating Position 12 Occupied

Definition

The code for this variable defines whether or not seating position 12 is occupied. Seating position 12 is the right outboard position in the fourth row, if one is available in the vehicle.

1 = Yes. The seating position is occupied.

2 = No. The seating position is not occupied.

3 = Not a vehicle seating position.

SAS Variable Name	VH12OCC
Format Type	N
Field Length	1
Range of Values	1 = Yes 2 = No 3 = Not a vehicle seating position
Data Set	Vehicle
Unique Identifier	(Not shown on form)
NHTSA Form Number / Location	1002 B, 1002C / NA

Occupant Restraint Devices Available in Seating Position 12

Definition

Identifies what kind of occupant restraint device (safety belt) is available in vehicle seating position 12 (the right outboard position in the fourth row, if this seating position is available in the vehicle).

This field will be blank if VH12OCC = 3 (not a vehicle seating position).

SAS Variable Name	VHOR12
Format Type	N
Field Length	1
Range of Values	1 = Lap and Shoulder belt 2 = Lap belt only 3 = Shoulder belt only
Data Set	Vehicle
Unique Identifier	(Not shown on form)
NHTSA Form Number / Location	1002C / Location

Tether Anchor Present for Seating Position 12

Definition

Indicates whether or not a tether anchor is present in vehicle seating position 12 (the right outboard position in the fourth row, if this seating position is available in the vehicle).

1 = Yes. A tether anchor is present for this seating position.

2 = No. There is no tether anchor present for this seating position.

This field will be blank if VH12OCC = 3 (not a vehicle seating position).

SAS Variable Name	VHTH12
Format Type	N
Field Length	1
Range of Values	1 = Yes
	2 = No
Data Set	Vehicle
Unique Identifier	(Not shown on form)
NHTSA Form Number / Location	1002C / NA

Lower Anchors Present for Seating Position 12

Definition

Indicates whether or not lower anchors are present in vehicle seating position 12 (the right outboard position in the fourth row, if this seating position is available in the vehicle).

1 = Yes. Lower anchors are present for this seating position.

2 = No. There are no lower anchors present for this seating position.

This field will be blank if VH12OCC = 3 (not a vehicle seating position).

SAS Variable Name	VHLA12
Format Type	N
Field Length	1
Range of Values	1 = Yes
	2 = No
Data Set	Vehicle
Unique Identifier	(Not shown on form)
NHTSA Form Number / Location	1002C / NA

OCCUPANT DATA SET

Form Number

Definition

Form number is a unique identifier for each target vehicle included in the study. A set of numbers was reserved for each of the States from which data were to be collected. All forms from one State were assigned a form number from those numbers reserved for that State.

FORMNO is a variable found in both the Vehicle data set and the Occupant data set. It is a "Primary Key" in the Vehicle data set (e.g., a field that uniquely identifies a particular record in the data set, in this case a particular target vehicle). It is combined with OCSTP (occupant seating position) in the Occupant data set as a "Multiple Field Primary Key" (e.g., two fields that uniquely identify a particular record in the data set, in this case, a particular occupant in a particular vehicle). In the Occupant data set, there will be multiple records with the same FORMNO in the first column of the data set, but there will only be one combination of FORMNO (first column) and OCSTP (second column) in the Occupant data set.

SAS Variable Name	FORMNO
Format Type	N
Field Length	4
Range of Values	All characters are numeric. AZ = 1001-1999 FL = 2001-2999 MI = 3001-3999 MO = 4001-4999 NC = 5001-5999 PA = 6001-6999 WA = 7001-7999
Data Set	Occupant
Unique Identifier	C1
NHTSA Form Number / Location	1002A, 1002B / Top of form

Occupant Seating Position

Definition

The seating position of the occupant under observation. Seating positions are numbered as follows: 1 is the driver's seat, 2 is the center seat in the first row of seats (if there is one), 3 is the right front-seat passenger position. Seating positions 4, 5, and 6 are the second-row seating positions, with number 4 directly behind the driver, 5 in the center, and 6 on the right out-board side. Seating positions 7, 8, and 9 are third-row seating positions, with 7 on the left out-board side, 8 in the center, and 9 on the right out-board side. If there is a fourth row of seats, these would be numbered 10, 11, and 12. A diagram is provided below.

3	6	9	12
2	5	8	11
1 (Driver)	4	7	10

← Front of vehicle points in this direction

OCSTP, when paired with FORMNO constitutes a unique identifier for a particular occupant in a particular vehicle. If more children were riding in a vehicle row than there were designated seats, the non-designated seating positions were identified with the decimal .5. For example, the seating positions for 5 children riding in a second row containing 3 seats would be coded as: 4, 4.5, 5, 5.5, and 6.

SAS Variable name	OCSTP
Format Type	N
Field Length	2
Range of Values	1 to 12
Data Set	Occupant
Unique Identifier	C2
NHTSA Form Number / Location	1002B / Matrix column 1

Occupant Sex

Definition

Sex of the occupant being surveyed.

SAS Variable name	OCSX
Format Type	N
Field Length	1
Range of Values	1 = Male
	2 = Female
Data Set	Occupant
Unique Identifier	C3
NHTSA Form Number / Location	1002B / Matrix column 2

Occupant Age (Category)

Definition

Age category of occupant surveyed.

SAS Variable name	OCAG
Format Type	N
Field Length	2
Range of Values	1 = 0 to 11 months
	2 = 1 to 12 years
	3 = 13 to 19 years
	4 = 20 to 29 years
	5 = 30 to 39 years
	6 = 40 to 49 years
	7 = 50 to 59 years
	8 = 60 to 69 years
	9 = 70 to 79 years
	10 = 80+ years
Data Set	Occupant
Unique Identifier	C 4
NHTSA Form Number / Location	1002B / Matrix column 3

Occupant Age (Actual)

Definition

Actual age of the occupant (in years). Actual age was asked for children under age 13, but some older children and adults provided their actual ages.

Drivers reported ages of child occupants in a variety of ways (weeks, months, and years). Data collection staff were trained to record the unit of measure on the forms (e.g., 6 months), when they were provided with age in units other than years.

Data entry staff were trained to enter age into the database as "number of years." If the age was recorded on the data collection form in days, then data entry staff divided number of days by 365 to get the decimal equivalent in years. If the age was recorded on the data collection form in weeks, then data entry staff divided the number of weeks by 52 to get the decimal equivalent in years. If the age was recorded on the data collection form in months, then data entry staff divided the number of months by 12 to get the decimal equivalent in years. Data entry staff used calculators to convert days, weeks, or months to years before entering a value into the database.

This field will be blank for adults and teenagers who did not provide their actual ages.

SAS Variable name	OCAGACT
Format Type	N
Field Length	4
Range of Values	.019 to 24
Data Set	Occupant
Unique Identifier	C5
NHTSA Form Number / Location	1002B / Matrix column 3

Occupant Race/Ethnicity: Caucasian

Definition

Each race/ethnicity is coded in a separate field, to account for the possibility of occupants reporting multiple races. The codes for the variable OCC identify whether or not the occupant is Caucasian (white).

1 = Yes. The occupant is Caucasian.

2 = No. The occupant is not Caucasian.

SAS Variable name	OCC
Format Type	N
Field Length	1
Range of Values	1 = Yes
	2 = No
Data Set	Occupant
Unique Identifier	C6
NHTSA Form Number / Location	1002B / Matrix column 4(1)

Occupant Race/Ethnicity: African American

Definition

Each race/ethnicity is coded in a separate field, to account for the possibility of occupants reporting multiple races. The codes for the variable OCAA identify whether or not the occupant is African American.

1 = Yes. The occupant is African American.

2 = No. The occupant is not African American.

SAS Variable name	OCAA
Format Type	N
Field Length	1
Range of Values	1 = Yes
	2 = No
Data Set	Occupant
Unique Identifier	C7
NHTSA Form Number / Location	1002B / Matrix column 4(2)

Occupant Race/Ethnicity: Hispanic/Latino

Definition

Each race/ethnicity is coded in a separate field, to account for the possibility of occupants reporting multiple races. The codes for the variable OCH identify whether or not the occupant is Hispanic/Latino.

1 = Yes. The occupant is Hispanic/Latino.

2 = No. The occupant is not Hispanic/Latino.

SAS Variable name	OCH
Format Type	N
Field Length	1
Range of Values	1 = Yes
	2 = No
Data Set	Occupant
Unique Identifier	C8
NHTSA Form Number / Location	1002B / Matrix column 4(3)

Occupant Race/Ethnicity: Asian

Definition

Each race/ethnicity is coded in a separate field, to account for the possibility of occupants reporting multiple races. The codes for the variable OCA identify whether or not the occupant is Asian.

1 = Yes. The occupant is Asian.

2 = No. The occupant is not Asian.

SAS Variable name	OCA
Format Type	N
Field Length	1
Range of Values	1 = Yes
	2 = No
Data Set	Occupant
Unique Identifier	C9
NHTSA Form Number / Location	1002B / Matrix column 4(4)

Occupant Race/Ethnicity: Native American

Definition

Each race/ethnicity is coded in a separate field, to account for the possibility of occupants reporting multiple races. The codes for the variable OCNA identify whether or not the occupant is Native American.

1 = Yes. The occupant is Native American.

2 = No. The occupant is not Native American.

SAS Variable name	OCNA
Format Type	N
Field Length	1
Range of Values	1 = Yes
	2 = No
Data Set	Occupant
Unique Identifier	C10
NHTSA Form Number / Location	1002B / Matrix column 4(5)

Occupant Race/Ethnicity: Pacific Islander

Definition

Each race/ethnicity is coded in a separate field, to account for the possibility of occupants reporting multiple races. The codes for the variable OCPI identify whether or not the occupant is Pacific Islander. This was not shown on the form, but would be coded as 1=Yes, if the person stated he or she was Pacific Islander in the "other" category.

1 = Yes. The occupant is Pacific Islander.

2 = No. The occupant is not Pacific Islander.

SAS Variable name	OCPI
Format Type	N
Field Length	1
Range of Values	1 = Yes
	2 = No
Data Set	Occupant
Unique Identifier	(Not shown on form)
NHTSA Form Number	1002B / NA

Occupant Race/Ethnicity: Other

Definition

Identifies whether or not the occupant is a race/ethnicity other than Caucasian, African American, Hispanic, Asian, Native American, or Pacific Islander.

1 = Yes. The occupant is of a race/ethnicity other than those listed above.

2 = No. The occupant is not an "other" race.

SAS Variable name	OC_OT
Format Type	N
Field Length	1
Range of Values	1 = Yes
	2 = No
Data Set	Occupant
Unique Identifier	C11
NHTSA Form Number / Location	1002B / Matrix column 4(6)

Occupant Race/Ethnicity: Other (Fill in)

Definition

Identifies to what race/ethnicity an occupant belongs, if OC_OT = 1 (yes). This is a 50-character field that indicates what the occupant stated his or her race/ethnicity is.

This field will be blank if OC_OT = 2 (No).

SAS Variable name	OC_OTW
Format Type	C
Field Length	50
Range of Values	
Data Set	Occupant
Unique Identifier	C11
NHTSA Form Number / Location	1002B / Matrix column 4(6)

Restraint Type Used by Occupant

Definition

Restraint type used by the occupant observed in the vehicle.

SAS Variable Name	OCRT
Format Type	N
Field Length	1
Range of Values	1 = CRS 2 = Booster 3 = Lap and Shoulder Belt 4 = Lap Belt Only 5 = Shoulder Belt Only 6 = Unrestrained
Data Set	Occupant
Unique Identifier	C12
NHTSA Form Number / Location	1002B / Matrix column 5

Occupant Weight

Estimated weight (in pounds) of target children (less than 13 years of age) as provided by the driver.

This field will be blank for occupants age 13 and older.

SAS Variable name	OCWT
Format Type	N
Field Length	3
Range of Values	4 – 169 pounds
Data Set	Occupant
Unique Identifier	C13
NHTSA Form Number / Location	1002B / Matrix column 6

Occupant Height

Definition

Estimated height range of "target" children (less than 13 yrs. of age) as provided by the driver of the vehicle. Categories correspond to heights where children move to the next step of occupant restraint (e.g., from infant seat, to harnessed forward-facing child safety seat, to booster seat, to safety belt).

This field will be blank for occupants age 13 and older.

SAS Variable name	OCHT
Format Type	N
Field Length	1
Range of Values	1 = less than or equal to 27 inches 2 = 28 to 40 inches 3 = 41 to 57 inches 4 = greater than 57 inches
Data Set	Occupant
Unique Identifier	C14
NHTSA Form Number / Location	1002B / Matrix column 7

Survey Group

Definition

There are four survey groups covered in the study:

Group 1 = Child age 0-12.
Group 2 = Child age 0-4, in the back seat in a CRS.
Group 3 = Child age 0-4, in the back seat in a CRS, in a vehicle equipped with a tether anchor.
Group 4 = Child age 0-4, in the back seat in a CRS, in a vehicle equipped with lower anchors and tethers.

The groups are not mutually exclusive; rather they are subsets. A Group 4 child is also part of Groups 3, 2, and 1. A Group 3 child is also part of Groups 2 and 1. A Group 2 child is also part of Group 1.

Child occupants age 12 and under were coded using the highest-numbered category in which they fit. For example, a Group 4 child, who would also be considered a Group 1, Group 2, and Group 3 child, was coded as Group 4. A child coded as Group 1, would be older than age 4, and/or would be sitting in the front seat or sitting in the back seat, but not in a child restraint system (CRS) in the back seat. A child age 0-4 in the front seat, in or out of a CRS, would also be coded as Group 1.

In this study, CRSs do not include booster seats. A booster seat raises the child so the vehicle lap and shoulder belts fit better. The vehicle safety belt restrains the child, not the booster seat. CRSs were defined as child restraints with internal harnesses (infant, rear-facing convertible, and forward-facing with a harness). Children in belt positioning booster seats (booster type = 5) were placed in Group 1, because belt-positioning booster seats (and combination seats with the harness removed and used in the booster mode) should not be attached to the vehicle using LATCH technology. Most vehicle manufacturers list a maximum weight of 40 pounds for children in tethered restraints. Vehicle manufacturers currently limit the use of their lower anchors to restraints for children weighing up to 48 pounds. Also seat manufacturers state that BPBs should move freely with the occupant during a collision to prevent submarining, which could happen if a BPB were attached using the lower anchors, and the child was restrained with the safety belt. Children in integrated CRSs were placed in Group 1.

An exception to this coding rule was made for the subset of children who were riding in a vehicle with lower anchors, who were restrained in combination seats used (improperly) as both a forward-facing CRS (CRS type = 4) and a belt-positioning booster (Booster type = 6). These children were restrained with the vehicle safety belt and the internal harness, and the seat was anchored to the vehicle using LATCH attachments. These children were coded as riding in a booster (restraint type =2), in a belt positioning booster

Survey Group (Cont'd)

with LATCH attachments (booster type =6), and as Group 4 children (age 0-4 in the back seat in a CRS, in a vehicle equipped with lower anchors and tethers).

This field will be blank for occupants age 13 and older.

SAS Variable Name	SURVYGR
Format Type	N
Field Length	1
Range of Values	Group 1 = Child age 0-12 Group 2 = Child age 0-4, in the back seat in a CRS Group 3 = Child age 0-4, in the back seat in a CRS, in a vehicle equipped with a tether anchor Group 4 = Child age 0-4, in the back seat in a CRS, in a vehicle equipped with lower anchors and tethers.
Data Set	Occupant
Unique Identifier	D1
NHTSA Form Number / Location	1002 / Top right cell

Passenger Side Airbag Switch Available

Definition

Identifies whether or not a passenger side air bag switch is available, when an occupant age 12 or younger is sitting in position 2 or 3 (front seat).

1 = Yes. A passenger side air bag switch is available.

2 = No. A passenger side air bag switch is not available.

This field will be blank for occupants age 13 and older (OCAG = 3, 4, 5, 6, 7, 8, 9, or 10) and for child passengers who are <u>not</u> sitting in the front seat, in seating positions 2 or 3 (OCSTP = 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, or 14).

SAS Variable Name	AIRBAG
Format Type	N
Field Length	1
Range of Values	1 = Yes 2 = No
Data Set	Occupant
Unique Identifier	D2
NHTSA Form Number / Location	1002 / Left column

Position of Airbag On-Off Switch, if Available

Definition

Identifies whether the air bag switch (if available) is in the "on" or "off" position, when an occupant age 12 or younger is sitting in position 2 or 3 (front seat).

1 = On. The air bag switch is in the "on" position.

2 = Off. The air bag switch is in the "off" position.

This field will be blank under the following conditions:

- For occupants age 13 and older (OCAG = 3, 4, 5, 6, 7, 8, 9, or 10).
- For child passengers who are <u>not</u> sitting in the front seat, in seating positions 2 or 3 (OCSTP = 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, or 14).
- When an air bag switch is not available (AIRBAG = 2, No).

SAS Variable Name	AIRBAGP
Format Type	N
Field Length	1
Range of Values	1 = On 2 = Off
Data Set	Occupant
Unique Identifier	D3
NHTSA Form Number / Location	1002 / Left column

Harness/Restrained (Child)

Definition

Identifies whether or not a "target" child (under 13 years of age) who is being restrained either by a CRS, booster, or safety belt is <u>properly</u> harnessed/restrained. This is a gross measure of proper use or misuse of an occupant restraint system.

Definition of "properly harnessed and restrained" is as follows:

> Harness or safety belt must be buckled, and
> Harness or safety belt must be over the shoulder(s), and
> Harness or safety belt must be snug, with no slack and meets the pinch test (i.e., cannot pinch the strap to make a fold in the webbing).

> For a shield booster, it must be secured with a safety belt.

1 = Yes. The child is properly harnessed/restrained.

2 = No. The child is not properly harnessed/restrained.

This field will be blank under the following conditions:

- For occupants age 13 and older (OCAG = 3, 4, 5, 6, 7, 8, 9, or 10).
- The target child is unrestrained (OCRT=6).

SAS Variable Name	HARRES
Format Type	N
Field Length	1
Range of Values	1 = Yes 2 = No
Data Set	Occupant
Unique Identifier	D4
NHTSA Form Number / Location	1002 / Left column

Type of Child Restraint System or Booster Seat

Definition

Identifies the type of child restraint system or booster seat being used by a "target" child (under 13 years of age).

This field will be blank under the following conditions:

- For occupants age 13 and older (OCAG = 3, 4, 5, 6, 7, 8, 9, or 10).
- The target child is using a safety belt only, or is unrestrained (OCRT=3, 4, 5, or 6).

SAS Variable Name	CHCRS
Format Type	N
Field Length	1
Range of Values	1 = Infant only with base 2 = Infant only w/o base 3 = Convertible (used rear-facing) 4 = Forward-facing w/ harness (FF only, Convertible FF, Combo seat with harness) 5 = Belt-Positioning Booster (BPB) 6 = Belt-Positioning Booster with LATCH attachments (a combination seat with the harness removed) 7 = Booster with Tethered Harness (e.g., Ride Ryte with E-Z-ON Kid-Y Harness) 8 = Shield Booster 9 = Other
Data Set	Occupant
Unique Identifier	D5
NHTSA Form Number / Location	1002 / Left column

Other Type of Child Restraint System or Booster Seat

Definition

Identifies the type of child restraint system or booster seat being used by a "target" child (under 13 years of age), when CHCRS=9 (Other). The identification is made by the observer, who fills in the blank using free text; the data field is a text field with a 50-character length.

This field will be blank under the following conditions:

- For occupants age 13 and older (OCAG = 3, 4, 5, 6, 7, 8, 9, or 10).
- The target child is using a safety belt only, or is unrestrained (OCRT=3, 4, 5, or 6).
- When CHCRS = 1, 2, 3, 4, 5, 6, 7, or 8

SAS Variable Name	CHCRS_OT
Format Type	C
Field Length	50
Range of Values	
Data Set	Occupant
Unique Identifier	D6
NHTSA Form Number / Location	1002 / Left column

Child Restraint System or Booster Seat Attachment to Vehicle

Definition

Type of vehicle restraint system used in the attachment of the CRS or booster seat to the vehicle seat.

This field will be blank under the following conditions:

- For occupants age 13 and older (OCAG = 3, 4, 5, 6, 7, 8, 9, or 10).
- The target child is using a vehicle safety belt (SB) only, or is unrestrained (OCRT=3, 4, 5, or 6).

SAS Variable Name	CHRSAT
Format Type	N
Field Length	2
Range of Values	1 = Lap belt only 2 = Shoulder belt only 3 = Lap and shoulder belt 4 = Lower anchors only 5 = Tether only 6 = Lower anchors + tether 7 = Lower anchors + SB 8 = Lower anchors + tether + SB 9 = Tether + SB 10 = Not attached
Data Set	Occupant
Unique Identifier	D7
NHTSA Form Number / Location	1002 / Left column

Child Restraint System Equipped with Tether

Definition

Identifies whether or not the child restraint system used by an observed "target" child has a tether strap.

This field will be blank under the following conditions:

- For occupants age 13 and older (OCAG = 3, 4, 5, 6, 7, 8, 9, or 10).
- The target child is using a vehicle safety belt only, or is unrestrained (OCRT=3, 4, 5, or 6).

SAS Variable Name	THCRS
Format Type	N
Field Length	1
Range of Values	1 = Yes 2 = No 3 = Unsure
Data Set	Occupant
Unique Identifier	D8
NHTSA Form Number / Location	1002 / Top of tether (middle) column

Appropriate to Use Rear-facing Child Restraint System with Tether

Definition

Identifies whether or not a rear-facing CRS can be used with a tether, according to the manufacturer's instructions. At present, there are only a few seats available in the U.S. (Britax and Safeline models) that can be tethered in the rear-facing mode.

1 = Yes. The CRS is rear facing, and the manufacturer allows tethering in the rear-facing mode.

2 = No. The CRS is rear facing, but the manufacturer does not allow tethering in the rear-facing mode.

3 = N/A. The CRS is forward facing.

This field will be blank under the following conditions:

- For occupants age 13 and older (OCAG = 3, 4, 5, 6, 7, 8, 9, or 10).
- The target child is using a vehicle safety belt only, or is unrestrained (OCRT=3, 4, 5, or 6).
- The CRS does not have a tether (THCRS = 2 or 3).

SAS Variable Name	THCRSRF
Format Type	N
Field Length	1
Range of Values	1 = Yes 2 = No 3 = Not applicable
Data Set	Occupant
Unique Identifier	D9
NHTSA Form Number / Location	1002 / Top of tether (middle) column

Tether Adjustor Type

Definition

Tether connector type on the CRS used by a "target" child.

This field will be blank under the following conditions:

- For occupants age 13 and older (OCAG = 3, 4, 5, 6, 7, 8, 9, or 10).
- The target child is using a vehicle safety belt only, or is unrestrained (OCRT=3, 4, 5, or 6).
- The CRS does not have a tether (THCRS = 2 or 3).

SAS Variable Name	THCRSADTY
Format Type	N
Field Length	1
Range of Values	1 = Tilt Lock 2 = Double Back 3 = Other 4 = Unsure
Data Set	Occupant
Unique Identifier	D10
NHTSA Form Number / Location	1002 / Top of tether (middle) column

Tether in Use

Definition

Identifies whether or not the tether is in use, and if it is not, whether it is stowed (e.g., behind or under the CRS) or if it hangs loose (a potential for causing injury).

This field will be blank under the following conditions:

- For occupants age 13 and older (OCAG = 3, 4, 5, 6, 7, 8, 9, or 10).
- The target child is using a vehicle safety belt only, or is unrestrained (OCRT=3, 4, 5, or 6).
- The CRS does not have a tether (THCRS = 2 or 3).

SAS Variable Name	THUS
Format Type	N
Field Length	1
Range of Values	1 = Yes 2 = No (stowed) 3 = No (hangs loose)
Data Set	Occupant
Unique Identifier	D11
NHTSA Form Number / Location	1002 / Top of tether (middle) column

Tether Attachment Visibile

Definition

Identifies whether or not the observer could see exactly what the tether was attached to.

This field will be blank under the following conditions:

- For occupants age 13 and older (OCAG = 3, 4, 5, 6, 7, 8, 9, or 10).
- The target child is using a vehicle safety belt only, or is unrestrained (OCRT=3, 4, 5, or 6).
- The CRS does not have a tether (THCRS = 2 or 3).
- The tether is not in use (THUS = 2 or 3).

SAS Variable Name	THUSSEE
Format Type	N
Field Length	1
Range of Values	1 = Yes 2 = No
Data Set	Occupant
Unique identifier	D12
NHTSA Form Number / Location	1002 / Bottom of tether (middle) column

Rear-facing Child Restraint System Tether Application

Definition

Identifies whether or not a child restraint system manufacturer permits the use of a tether for a seat used in the rear-facing mode.

1 = Yes. The CRS is rear facing, and it is one of the Britax or Safeline models that allows tethering of rear-facing seats.

2 = No. The CRS is rear facing and the manufacturer is not one of the models that allows tethering in the rear-facing mode.

3 = N/A. The CRS is forward facing.

(Note: The code for THUSRF should be the same as the code for THCRSRF "If rear-facing CRS, can tether be used?").

This field will be blank under the following conditions:

- For occupants age 13 and older (OCAG = 3, 4, 5, 6, 7, 8, 9, or 10).
- The target child is using a vehicle safety belt only, or is unrestrained (OCRT=3, 4, 5, or 6).
- The CRS does not have a tether (THCRS = 2 or 3).
- The tether is not in use (THUS = 2 or 3).

SAS Variable Name	THUSRF
Format Type	N
Field Length	1
Range of Values	1 = Yes 2 = No 3 = Not applicable
Data Set	Occupant
Unique Identifier	D13
NHTSA Form Number / Location	1002 / Bottom of tether (middle) column, tether attachment 1

Combination Child Restraint System used as a Belt-Positioning Booster with a Tether

Definition

Identifies whether a combination child restraint is being used in the belt-positioning-booster mode with a tether.

1 = Yes. The seat is a combination child safety seat and it is being used in the belt positioning booster (BPB) mode (harness removed, and lap and shoulder belt restraining the child).

2 = No. The seat is a combination seat, and it is being used as a CRS (a forward-facing seat with the internal harness in use).

3 = N/A. The seat is not a combination seat.

This field will be blank under the following conditions:

- For occupants age 13 and older (OCAG = 3, 4, 5, 6, 7, 8, 9, or 10).
- The target child is using a vehicle safety belt only, or is unrestrained (OCRT=3, 4, 5, or 6).
- The CRS does not have a tether (THCRS = 2 or 3).
- The tether is not in use (THUS = 2 or 3)

SAS Variable Name	THUSBPB
Format Type	C
Field Length	1
Range of Values	1 = Yes
	2 = No
	3 = Not applicable
Data Set	Occupant
Unique Identifier	D14
NHTSA Form Number / Location	1002 / Bottom of tether (middle) column, tether attachment 2

Tether Routed Over an Integral/No Head Restraint

Definition

Correct tether routing is over a non-adjustable head restraint (either the head restraint is integral/built into the vehicle seat back or the vehicle seat back has no head restraint) or under an adjustable head restraint. This variable identifies the situation where the tether routing is over an integral head restraint or over a seat without a head restraint (and is therefore correct).

1 = Yes. The tether is routed over an integral head restraint or there is no head restraint on the vehicle seat back.

3 = N/A. The head restraint is an adjustable head restraint, and therefore this question is not applicable to the type of head restraint observed.

(NOTE: response "(2) NO" should not be used for this item)

This field will be blank under the following conditions:

• For occupants age 13 and older (OCAG = 3, 4, 5, 6, 7, 8, 9, or 10).
• The target child is using a vehicle safety belt only, or is unrestrained (OCRT=3, 4, 5, or 6).
• The CRS does not have a tether (THCRS = 2 or 3).
• The tether is not in use (THUS = 2 or 3)

SAS Variable Name	THOVINN
Format Type	N
Field Length	1
Range of Values	1 = Yes 3 = Not applicable
Data Set	Occupant
Unique Identifier	D15
NHTSA Form Number / Location	1002 / Bottom of tether (middle) column, tether attachment 3(a)

Tether Routed Under an Adjustable Head Restraint

Definition

Correct tether routing is over a non-adjustable head restraint (either the head restraint is integral/built into the vehicle seat back or the vehicle seat back has no head restraint) or under an adjustable head restraint. This variable identifies the situation where the tether routing is under an adjustable head restraint (and is therefore correct).

1 = Yes. The tether is routed under an adjustable head restraint.

2 = No. The head restraint is adjustable, but the tether is routed in a manner other than under the head restraint.

3 = N/A. The head restraint is integral to the seat (built in) or there is no head restraint, and therefore the question is not applicable to the head restraint being observed.

This field will be blank under the following conditions:

- For occupants age 13 and older (OCAG = 3, 4, 5, 6, 7, 8, 9, or 10).
- The target child is using a vehicle safety belt only, or is unrestrained (OCRT=3, 4, 5, or 6).
- The CRS does not have a tether (THCRS = 2 or 3).
- The tether is not in use (THUS = 2 or 3).

SAS Variable Name	THUNAD
Format Type	N
Field Length	1
Range of Values	1 = Yes 2 = No 3 = Not Applicable
Data Set	Occupant
Unique Identifier	D16
NHTSA Form Number / Location	1002 / Bottom of tether (middle) column, tether attachment 3(b)

Tether Routed Over a Raised Adjustable Head Restraint

Definition

Correct tether routing is over a non-adjustable head restraint (either the head restraint is integral/built into the vehicle seat back or the vehicle seat back has no head restraint) or under an adjustable head restraint. This variable identifies the situation where the tether routing is over a raised-adjustable head restraint (and therefore incorrect).

1 = Yes. The tether is routed over a head restraint that is adjustable, and is in a raised position.

2 = No. The head restraint is adjustable, and the tether is routed in a manner other than over the head restraint.

3 = N/A. The head restraint is integral to the seat (built in) or there is no head restraint, and therefore the question is not applicable to the head restraint being observed.

This field will be blank under the following conditions:

- For occupants age 13 and older (OCAG = 3, 4, 5, 6, 7, 8, 9, or 10).
- The target child is using a vehicle safety belt only, or is unrestrained (OCRT=3, 4, 5, or 6).
- The CRS does not have a tether (THCRS = 2 or 3).
- The tether is not in use (THUS = 2 or 3)

SAS Variable Name	THOVRAD
Format Type	N
Field Length	1
Range of Values	1 = Yes
	2 = No
	3 = Not applicable
Data Set	Occupant
Unique Identifier	D17
NHTSA Form Number / Location	1002 / Bottom of tether (middle) column, tether attachment 3(c)

Tether Routed Over a Down Adjustable Head Restraint

Definition

Correct tether routing is over a non-adjustable head restraint (either the head restraint is integral/built into the vehicle seat back or the vehicle seat back has no head restraint) or under an adjustable head restraint. This variable identifies the situation where the tether routing is over a down-adjustable head restraint (and therefore incorrect).

1 = Yes. The tether is routed over a head restraint that is adjustable, and is in a lowered (full down) position.

2 = No. The head restraint is adjustable, and the tether is routed in a manner other than over the head restraint.

3 = N/A. The head restraint is integral to the seat (built in) or there is no head restraint, and therefore the question is not applicable to the head restraint being observed.

This field will be blank under the following conditions:

- For occupants age 13 and older (OCAG = 3, 4, 5, 6, 7, 8, 9, or 10).
- The target child is using a vehicle safety belt only, or is unrestrained (OCRT=3, 4, 5, or 6).
- The CRS does not have a tether (THCRS = 2 or 3).
- The tether is not in use (THUS = 2 or 3).

SAS Variable Name	THOVDAD
Format Type	C
Field Length	1
Range of Values	1 = Yes 2 = No 3 = Not applicable
Data Set	Occupant
Unique Identifier	D18
NHTSA Form Number / Location	1002 / Bottom of tether (middle) column, tether attachment 3(d)

Tether Wrapped Around Head Restraint

Definition

Correct tether routing is over a non-adjustable head restraint (either the head restraint is integral/built into the vehicle seat back or the vehicle seat back has no head restraint) or under an adjustable head restraint. This variable identifies the situation where the tether is wrapped around the head restraint (and is therefore incorrect).

1 = Yes. The tether is wrapped around the head restraint.

2 = No. The tether is not wrapped around the head restraint.

3 = N/A. The head restraint is integral to the seat (built in) or there is no head restraint, and therefore the question is not applicable to the head restraint being observed.

This field will be blank under the following conditions:

- For occupants age 13 and older (OCAG = 3, 4, 5, 6, 7, 8, 9, or 10).
- The target child is using a vehicle safety belt only, or is unrestrained (OCRT=3, 4, 5, or 6).
- The CRS does not have a tether (THCRS = 2 or 3).
- The tether is not in use (THUS = 2 or 3).

SAS Variable Name	THWAR
Format Type	N
Field Length	1
Range of Values	1 = Yes 2 = No 3 = Not applicable
Data Set	Occupant
Unique Identifier	D19
NHTSA Form Number / Location	1002 / Bottom of tether (middle) column, tether attachment 3(e)

Tether in Use by Means of Other Routing Method

Definition

Describes tether routing, if it is none of the other tether routing variables in questions 3a through 3e (THOVINN, THUNAD, THOVRAD, THOVDAD, THWAR) were coded as a 1(Yes).

This field will be blank under the following conditions:

- For occupants age 13 and older (OCAG = 3, 4, 5, 6, 7, 8, 9, or 10).
- The target child is using a vehicle safety belt only, or is unrestrained (OCRT=3, 4, 5, or 6).
- The CRS does not have a tether (THCRS = 2 or 3).
- The tether is not in use (THUS = 2 or 3).
- If THOVINN = 1, or THUNAD = 1, or THOVRAD = 1, or THOVDAD = 1, or THWAR = 1

SAS Variable Name	THROT_OT
Format Type	C
Field Length	Text field of up to 100 characters
Range of Values	
Data Set	Occupant
Unique Identifier	D20
NHTSA Form Number / Location	1002 / Bottom of tether (middle) column, tether attachment 3(f)

Tether Attachment to Designated Tether Anchor

Definition

Identifies whether or not the tether is attached to a designated tether anchor, and the designated tether anchor for the particular seating position the child is occupying.

1 = Yes. The tether is attached to a tether anchor (not a cargo hook or lower anchor) and the tether anchor used is the correct one for the seating position (e.g., the anchor point located directly behind and closest to the center point of the top of the child restraint).

2 = No. The tether is attached to a cargo hook or a lower anchor (e.g., not attached to a tether anchor) or if the tether strap is attached to a tether anchor that is designated for a different seating position.

This field will be blank under the following conditions:

- For occupants age 13 and older (OCAG = 3, 4, 5, 6, 7, 8, 9, or 10).
- The target child is using a vehicle safety belt only, or is unrestrained (OCRT=3, 4, 5, or 6).
- The CRS does not have a tether (THCRS = 2 or 3).
- The tether is not in use (THUS = 2 or 3).

This field may be blank if the observer couldn't see what the tether was attached to (THUSSEE = 2, NO).

SAS Variable Name	THATDSG
Format Type	N
Field Length	1
Range of Values	1 = Yes 2 = No
Data Set	Occupant
Unique Identifier	D21
NHTSA Form Number / Location	1002 / Bottom of tether (middle) column, tether attachment 4

Not Attached to Designated Tether Anchor

Definition

Describes what the tether is attached to, if it is not attached to a designated tether anchor.

This field will be blank under the following conditions:

- For occupants age 13 and older (OCAG = 3, 4, 5, 6, 7, 8, 9, or 10).
- The target child is using a vehicle safety belt only, or is unrestrained (OCRT=3, 4, 5, or 6).
- The CRS does not have a tether (THCRS = 2 or 3).
- The tether is not in use (THUS = 2 or 3).
- The tether is attached to a designated tether anchor (THATDSG = 1, YES).

This field may be blank if the observer couldn't see what the tether was attached to (THUSSEE = 2, NO).

SAS Variable Name	THNOTAT
Format Type	C
Field Length	Text field containing up to 50 characters
Range of Values	
Data Set	Occupant
Unique Identifier	D22
NHTSA Form Number / Location	1002 / Bottom of tether (middle) column, tether attachment 4

One Tether Per Tether Anchor

Definition

Indicates whether or not there is only one tether strap connected to any one tether anchor.

1 = Yes. There is only 1 tether strap (1 tether strap on 1 CRS) attached to the tether anchor. (Exception: If the vehicle observed is a pick-up truck, it is acceptable for 2 or 3 tethers [for 2 or 3 CRSs] to be attached or passed through 1 loop, so this situation will also be coded as 1=Yes).

2 = No. There are 2 or more tether straps attached to the tether anchor (e.g., more that 1 CRS is using the same tether anchor, UNLESS the vehicle under observation is a pick-up truck, where multiple tethers may be attached to one loop.)

This field will be blank under the following conditions:

- For occupants age 13 and older (OCAG = 3, 4, 5, 6, 7, 8, 9, or 10).
- The target child is using a vehicle safety belt only, or is unrestrained (OCRT=3, 4, 5, or 6).
- The CRS does not have a tether (THCRS = 2 or 3).
- The tether is not in use (THUS = 2 or 3).

This field may be blank if the observer couldn't see what the tether was attached to (THUSSEE = 2, NO).

SAS Variable Name	THONE
Format Type	N
Field Length	1
Range of Values	1 = Yes
	2 = No
Data Set	Occupant
Unique Identifier	D23
NHTSA Form Number / Location	1002 / Bottom of tether (middle) column, tether attachment 5

Twisted Tether

Definition

Identifies whether or not the tether strap is twisted. A correct tether attachment requires that the tether be flat, or twisted no more than one-half twist.

1 = Yes. The tether strap is flat or has no more than one-half twist.

2 = No. The tether strap has 1 or more twists.

This field will be blank under the following conditions:

- For occupants age 13 and older (OCAG = 3, 4, 5, 6, 7, 8, 9, or 10).
- The target child is using a vehicle safety belt only, or is unrestrained (OCRT=3, 4, 5, or 6).
- The CRS does not have a tether (THCRS = 2 or 3).
- The tether is not in use (THUS = 2 or 3).

This field may be blank if the observer couldn't see what the tether was attached to (THUSSEE = 2, No).

SAS Variable Name	THTWST
Format Type	N
Field Length	1
Range of Values	1 = Yes 2 = No
Data Set	Occupant
Unique Identifier	D24
NHTSA Form Number / Location	1002 / Bottom of tether (middle) column, tether attachment 6

Snugness of Tether

Definition

Identifies whether or not the tether attachment is snug. Snug is defined as "cannot pinch the strap to make a fold in the webbing."

1 = Yes. The tether is snug.

2 = No. The tether is loose (e.g., the strap can be pinched to make a fold).

This field will be blank under the following conditions:

- For occupants age 13 and older (OCAG = 3, 4, 5, 6, 7, 8, 9, or 10).
- The target child is using a vehicle safety belt only, or is unrestrained (OCRT=3, 4, 5, or 6).
- The CRS does not have a tether (THCRS = 2 or 3).
- The tether is not in use (THUS = 2 or 3).

SAS Variable Name	THSNG
Format Type	N
Field Length	1
Range of Values	1 = Yes 2 = No
Data Set	Occupant
Unique Identifier	D25
NHTSA Form Number / Location	1002 / Bottom of tether (middle) column, tether attachment 7

Tether Not Snug – Reason: User Error

Definition

Identifies whether or not <u>user error</u> is the reason that a tether is not snug.

1 = Yes. User error explains why a tether attachment is loose (not snug).

2 = No. User error does not explain why a tether attachment is loose (not snug).

This field will only have a value if the tether was not snug (THSNG = 2).

This field will be blank under the following conditions:

- For occupants age 13 and older (OCAG = 3, 4, 5, 6, 7, 8, 9, or 10).
- The target child is using a vehicle safety belt only, or is unrestrained (OCRT=3, 4, 5, or 6).
- The CRS does not have a tether (THCRS = 2 or 3).
- The tether is not in use (THUS = 2 or 3).
- The tether is snug (THSNG = 1, Yes).

SAS Variable Name	THSNGNO_ER
Format Type	N
Field Length	1
Range of Values	1 = Yes (User Error) 2 = No (Not User Error)
Data Set	Occupant
Unique Identifier	D26
NHTSA Form Number / Location	1002 / Bottom of tether (middle) column, tether attachment 7(a)

Tether Not Snug – Reason: Anchor Too Close

Definition

Identifies whether or not the tether anchor location (too close to a vehicle seat back) is the reason that a tether is not snug.

1 = Yes. Tether anchor location (too close to vehicle seat back) explains why a tether attachment is loose (not snug).

2 = No. Tether anchor location (too close to vehicle seat back) does not explain why a tether attachment is loose (not snug).

This field will only have a value if the tether was not snug (THSNG = 2).

This field will be blank under the following conditions:

- For occupants age 13 and older (OCAG = 3, 4, 5, 6, 7, 8, 9, or 10).
- The target child is using a vehicle safety belt only, or is unrestrained (OCRT=3, 4, 5, or 6).
- The CRS does not have a tether (THCRS = 2 or 3).
- The tether is not in use (THUS = 2 or 3).
- The tether is snug (THSNG = 1, Yes).

SAS Variable Name	THSNGNO_CL
Format Type	N
Field Length	1
Range of Values	1 = Yes (Too Close) 2 = No (Not Too Close)
Data Set	Occupant
Unique Identifier	D27
NHTSA Form Number / Location	1002 / Bottom of tether (middle) column, tether attachment 7(b)

Tether Not Snug – Reason: Other

Definition

Identifies that there is a reason that a tether is not snug, other than user error or the location of a tether anchor.

1 = Yes. There is another reason to explain why a tether attachment is loose (not snug).

2 = No. There is no other reason to explain why a tether attachment is loose (not snug).

This field will only have a value if the tether was not snug (THSNG = 2).

This field will be blank under the following conditions:

- For occupants age 13 and older (OCAG = 3, 4, 5, 6, 7, 8, 9, or 10).
- The target child is using a vehicle safety belt only, or is unrestrained (OCRT=3, 4, 5, or 6).
- The CRS does not have a tether (THCRS = 2 or 3).
- The tether is not in use (THUS = 2 or 3).
- The tether is snug (THSNG = 1, Yes).

SAS Variable Name	THSNGNO_OT
Format Type	N
Field Length	1
Range of Values	1 = Yes (There is an other reason) 2 = No (There is no other reason)
Data Set	Occupant
Unique Identifier	D28
NHTSA Form Number / Location	1002 / Bottom of tether (middle) column, tether attachment 7(c)

Tether Not Snug – Reason: Why

Definition

Describes the reason that a tether is not snug, other than user error or the location of a tether anchor.

This field will only have a value if the tether was not snug (THSNG = 2) and the reason was coded as "Other" (THSNGNO_OT = 1, Yes).

This field will be blank under the following conditions:

- For occupants age 13 and older (OCAG = 3, 4, 5, 6, 7, 8, 9, or 10).
- The target child is using a vehicle safety belt only, or is unrestrained (OCRT=3, 4, 5, or 6).
- The CRS does not have a tether (THCRS = 2 or 3).
- The tether is not in use (THUS = 2 or 3).
- The tether is snug (THSNG = 1, Yes).

SAS Variable Name	THSNGNO_OTY
Format Type	C
Field Length	Text field with up to 50 characters
Range of Values	
Data Set	Occupant
Unique Identifier	D28
NHTSA Form Number / Location	1002 / Bottom of tether (middle) column, tether attachment 7(c)

Tether Tightness and Child Restraint System Base

Definition

Identifies whether or not the tether tightness allows for the child restraint system base to rest flat on vehicle seat. If a tether is too tight, it may pull the vehicle base away from the vehicle seat.

1 = Yes. Tether tightness allows CRS base to rest on seat cushion (doesn't pull base off of vehicle seat cushion).

2 = No. Tether tightness <u>does not</u> allow CRS base to rest on seat cushion (i.e., Tether strap is overly tight, and pulls the base of the CRS off of the vehicle seat cushion).

This field will be blank under the following conditions:

- For occupants age 13 and older (OCAG = 3, 4, 5, 6, 7, 8, 9, or 10).
- The target child is using a vehicle safety belt only, or is unrestrained (OCRT=3, 4, 5, or 6).
- The CRS does not have a tether (THCRS = 2 or 3).
- The tether is not in use (THUS = 2 or 3).

SAS Variable Name	THCRSBAS
Format Type	N
Field Length	1
Range of Values	1 = Yes 2 = No
Data Set	Occupant
Unique Identifier	D29
NHTSA Form Number / Location	1002 / Bottom of tether (middle) column, tether attachment 8

Tether Attachment (Other)

Definition

Describes any other tether attachment not included as one of the designated variables.

This field will be blank under the following conditions:

- For occupants age 13 and older (OCAG = 3, 4, 5, 6, 7, 8, 9, or 10).
- The target child is using a vehicle safety belt only, or is unrestrained (OCRT=3, 4, 5, or 6).
- The CRS does not have a tether (THCRS = 2 or 3).
- The tether is not in use (THUS = 2 or 3).
- There is no other information about tether routing or attachment, not covered by other variables already coded.

SAS Variable Name	TH_OT
Format Type	C
Field Length	Text field with a maximum of 50 characters.
Range of Values	
Data Set	Occupant
Unique Identifier	D30
NHTSA Form Number / Location	1002 / Bottom of tether (middle) column, tether attachment 9

Child Restraint System Equipped with Lower Attachments

Definition

Identifies whether or not the child restraint system used by an observed "target" child has lower attachments.

This field will be blank under the following conditions:

- For occupants age 13 and older (OCAG = 3, 4, 5, 6, 7, 8, 9, or 10).
- The target child is using a vehicle safety belt only, or is unrestrained (OCRT=3, 4, 5, or 6).

SAS Variable Name	LACRS
Format Type	N
Field Length	1
Range of Values	1 = Yes 2 = No 3 = Unsure
Data Set	Occupant
Unique Identifier	D31
NHTSA Form Number / Location	1002 / Top of lower anchor (right) column

Child Restraint System Lower Attachment Connector Type

Definition

Identifies lower attachment connector type on the child restraint system.

This field will be blank under the following conditions:

- For occupants age 13 and older (OCAG = 3, 4, 5, 6, 7, 8, 9, or 10).
- The target child is using a vehicle safety belt only, or is unrestrained (OCRT=3, 4, 5, or 6).
- If the CRS does not have lower attachments, or the observer was unsure of whether the CRS had lower attachments (LACRS=2 or 3).

SAS Variable Name	LACNCTY
Format Type	N
Field Length	1
Range of Values	1 = Flexible strap, hook-on 2 = Flexible strap, push-on 3 = Rigid attachment 4 = Unsure
Data Set	Occupant
Unique Identifier	D32
NHTSA Form Number / Location	1002 / Top of lower anchor (right) column

Webbing Tension Release Type for Lower Attachments with Flexible Straps

Definition

Identifies the type of webbing tension release on a flexible lower attachment strap.

This field will be blank under the following conditions:

- For occupants age 13 and older (OCAG = 3, 4, 5, 6, 7, 8, 9, or 10).
- The target child is using a vehicle safety belt only, or is unrestrained (OCRT=3, 4, 5, or 6).
- If the CRS does not have lower attachments, or the observer was unsure of whether the CRS had lower attachments (LACRS=2 or 3).
- If the lower attachment connector type is rigid, or the observer was unsure of the connector type (LACNCTY=3 or 4).

SAS Variable Name	LACNCTYFLX
Format Type	N
Field Length	1
Range of Values	1 = Squeeze Release 2 = Tilt-Lock 3 = Unsure
Data set	Occupant
Unique Identifier	D33
NHTSA Form Number / Location	1002 / Top of lower anchor (right) column

Child Restraint System Lower Attachment Connector Type (Flexible Strap – Strap Type)

Definition

Identifies the strap type of a flexible lower attachment strap.

This field will be blank under the following conditions:

- For occupants age 13 and older (OCAG = 3, 4, 5, 6, 7, 8, 9, or 10).
- The target child is using a vehicle safety belt only, or is unrestrained (OCRT=3, 4, 5, or 6).
- If the CRS does not have lower attachments, or the observer was unsure of whether the CRS had lower attachments (LACRS=2 or 3).
- If the lower attachment connector type is rigid, or the observer was unsure of the connector type (LACNCTY=3 or 4).

SAS Variable Name	LACNCSTRTY
Format Type	N
Field Length	1
Range of Values	1 = Single 2 = Side straps 3 = Two straps 4 = Unsure
Data Set	Occupant
Unique Identifier	D34
NHTSA Form Number / Location	1002 / Top of lower anchor (right) column

Lower Anchors in Use

Definition

Identifies whether or not the lower anchors are in use, and if it is not, whether they are stowed (e.g., behind or under the CRS) or if they hang loose (a potential for causing injury).

This field will be blank under the following conditions:

- For occupants age 13 and older (OCAG = 3, 4, 5, 6, 7, 8, 9, or 10).
- The target child is using a vehicle safety belt only, or is unrestrained (OCRT=3, 4, 5, or 6).
- If the CRS does not have lower attachments, or the observer was unsure of whether the CRS had lower attachments (LACRS=2 or 3).

SAS Variable Name	LAUS
Format Type	N
Field Length	1
Range of Values	1 = Yes 2 = No (stowed) 3 = No (hangs loose) 4 = Unsure
Data Set	Occupant
Unique Identifier	D35
NHTSA Form Number / Location	1002 / Top of lower anchor (right) column

Lower Anchor Attachments (Connections Visible to Observer)

Definition

Identifies whether or not the observer could see what the lower connectors were attached to, and whether this applies to both connectors, one connector, or neither connector.

This field will be blank under the following conditions:

- For occupants age 13 and older (OCAG = 3, 4, 5, 6, 7, 8, 9, or 10).
- The target child is using a vehicle safety belt only, or is unrestrained (OCRT=3, 4, 5, or 6).
- If the CRS does not have lower attachments, or the observer was unsure of whether the CRS had lower attachments (LACRS=2 or 3).
- If the lower attachments are not being used (LAUS = 2, 3, or 4).

SAS Variable Name	LAUSSEE
Format Type	N
Field Length	1
Range of Values	1 = Both 2 = One 3 = Neither
Data Set	Occupant
Unique Identifier	D36
NHTSA Form Number / Location	1002 / Bottom of lower anchor (right) column

Combination Child Restraint System used as a Belt-positioning Booster with Lower Anchors

Definition

Identifies whether or not the seat type under observation is a combination CRS being used in the booster mode (e.g., the internal harness has been removed, and the safety belt is being used to restrain the child). Note: unless otherwise specified by the manufacturer of the CRS, when a child reaches 40 pounds, the harness should be removed from a combination seat and the seat should be used as a BPB. In the BPB mode, the safety belt should be used to restrain the child, and the seat should not be attached to the vehicle with the lower anchors. Generally, then, it is considered misuse for a BPB to be secured to a vehicle with lower anchors.

1 = Yes. The seat is a combination seat being used in the belt-positioning-booster mode (harness removed), <u>and</u> it is attached to the vehicle using the lower anchors. This also includes a combination seat that is being used with both the safety belt and the internal harness to restrain the child.

2 = No. The seat is a combination seat, but it is being used as a forward-facing child safety seat with the internal harness (the safety belt is not being used to restrain the child), <u>and</u> the seat is attached to the vehicle using the lower anchors.

3 = N/A. The seat is not a combination seat.

This field will be blank under the following conditions:

- For occupants age 13 and older (OCAG = 3, 4, 5, 6, 7, 8, 9, or 10).
- The target child is using a vehicle safety belt only, or is unrestrained (OCRT=3, 4, 5, or 6).
- If the CRS does not have lower attachments, or the observer was unsure of whether the CRS had lower attachments (LACRS=2 or 3).
- If the lower attachments are not being used (LAUS = 2, 3, or 4).

SAS Variable Name	LAUSBPB
Format Type	N
Field Length	1
Range of Values	1 = Yes
	2 = No
	3 = Not applicable
Data Set	Occupant
Unique Identifier	D37
NHTSA Form Number / Location	1002 / Bottom of lower anchor (right) column, lower attachment 1

Lower Attachment- Correct Path for Flexible Single Strap

Definition

Identifies whether or not the correct belt path on the restraint system is being used, if the connector type consists of a flexible single strap.

1 = Yes. The lower attachment strap is a flexible single strap, <u>and</u> it is routed in the correct belt path (e.g., toward the rear of the seat for a forward-facing seat, and to the front of the seat for a rear-facing seat).

2 = No. The lower attachment strap is a flexible single strap, but it is <u>not</u> routed in the correct belt path.

3 = N/A. The lower attachment type is not a single strap.

This field will be blank under the following conditions:

- For occupants age 13 and older (OCAG = 3, 4, 5, 6, 7, 8, 9, or 10).
- The target child is using a vehicle safety belt only, or is unrestrained (OCRT=3, 4, 5, or 6).
- If the CRS does not have lower attachments, or the observer was unsure of whether the CRS had lower attachments (LACRS=2 or 3).
- If the lower attachments are not being used (LAUS = 2, 3, or 4).

SAS Variable Name	LAFLX
Format Type	N
Field Length	1
Range of Values	1 = Yes 2 = No 3 = Not applicable
Data Set	Occupant
Unique Identifier	D38
NHTSA Form Number / Location	1002 / Bottom of lower anchor (right) column, lower attachment 2

Lower Attachments Connected to Designated Lower Anchors

Definition

Identifies whether or not the lower attachments are attached to designated lower anchors, and are attached to the lower anchors that are designated for the particular seating position the child is occupying.

1 = Yes. The CRS is attached to lower anchors that are designated as lower anchors for this seating position.

2 = No. The CRS is not attached to the designated lower anchors (e.g., it is attached to something other than the designated lower anchors, or it is attached to lower anchors that are not designated for the seating position the child is occupying.)

This field will be blank under the following conditions:

- For occupants age 13 and older (OCAG = 3, 4, 5, 6, 7, 8, 9, or 10).
- The target child is using a vehicle safety belt only, or is unrestrained (OCRT=3, 4, 5, or 6).
- If the CRS does not have lower attachments, or the observer was unsure of whether the CRS had lower attachments (LACRS=2 or 3).
- If the lower attachments are not being used (LAUS = 2, 3, or 4).

SAS Variable Name	LADSG
Format Type	N
Field Length	1
Range of Values	1 = Yes
	2 = No
Data Set	Occupant
Unique Identifier	D39
NHTSA Form Number / Location	1002 / Bottom of lower anchor (right) column, lower attachment 3

Lower Attachment to Anchors Designated for Other Seating Position

Definition

For cases where LADSG = 2 (No, the CRS is not attached to designated lower anchors), this variable identifies whether or not the problem with the connection is that the restraint is in a non-LATCH designated position, connected to lower anchors designated for some other seating position.

1 = Yes. The restraint is connected to lower anchors, but not lower anchors that are designated for the child's seating position. (e.g., the CRS is in the back middle seat attached to lower anchors designated for an outboard seating position, when the vehicle manufacturer prohibits outboard anchor use for the middle position.)

2 = No. CRS attachment to lower anchors for another seating position does not describe the lower attachment problem.

This field will be blank under the following conditions:

- For occupants age 13 and older (OCAG = 3, 4, 5, 6, 7, 8, 9, or 10).
- The target child is using a vehicle safety belt only, or is unrestrained (OCRT=3, 4, 5, or 6).
- If the CRS does not have lower attachments, or the observer was unsure of whether the CRS had lower attachments (LACRS=2 or 3).
- If the lower attachments are not being used (LAUS = 2, 3, or 4).
- The lower attachments are connected to designated lower anchors, and to lower anchors designated for the seating position that the child is occupying (LDSG = 1, Yes).

SAS Variable Name	LANODSG
Format Type	N
Field Length	1
Range of Values	1 = Yes
	2 = No
Data Set	Occupant
Unique Identifier	D40
NHTSA Form Number / Location	1002 / Bottom of lower anchor (right) column, lower attachment 3(a)

Lower Attachment in Designated Position but not to Lower Anchor Bar (e.g., Seat Material, Springs)

Definition

For cases where LADSG = 2 (No, the CRS is not attached to designated lower anchors), this variable identifies whether or not the problem with the connection is that the restraint is in a designated LATCH position, but the lower attachment is connected to something other than the lower anchors (e.g., attachment is to seating material, springs, etc.)

1 = Yes. The CRS is in a seating position with dedicated lower anchors, but the lower attachments are connected to something other than the actual lower anchors (e.g., the seat material or seat springs).

2 = No. The CRS attachment to something other than lower anchors does not describe the lower attachment problem.

This field will be blank under the following conditions:

- For occupants age 13 and older (OCAG = 3, 4, 5, 6, 7, 8, 9, or 10).
- The target child is using a vehicle safety belt only, or is unrestrained (OCRT=3, 4, 5, or 6).
- If the CRS does not have lower attachments, or the observer was unsure of whether the CRS had lower attachments (LACRS=2 or 3).
- If the lower attachments are not being used (LAUS = 2, 3, or 4).
- The lower attachments are connected to designated lower anchors, and to lower anchors designated for the seating position that the child is occupying (LADSG = 1, Yes).

SAS Variable Name	LADSGAT
Format Type	N
Field Length	1
Range of Values	1 = Yes
	2 = No
Data Set	Occupant
Unique Identifier	D 41
NHTSA Form Number / Location	1002 / Bottom of lower anchor (right) column, lower attachment 3(b)

Lower Attachment in Designated Position but Only One Side Attached to Anchor

Definition

For cases where LADSG = 2 (No, the CRS is not attached to designated lower anchors), this variable identifies whether or not the problem with the connection is that the restraint is attached to only 1 of the two lower anchors in the LATCH-designated seating position that the child is occupying.

1 = Yes. The CRS is in a designated lower anchor seating position, but only one side of the CRS is connected to the lower anchors (e.g., only one of the two of lower connectors is in use).

2 = No. CRS attachment to only one anchor does not describe the lower attachment problem.

This field will be blank under the following conditions:

- For occupants age 13 and older (OCAG = 3, 4, 5, 6, 7, 8, 9, or 10).
- The target child is using a vehicle safety belt only, or is unrestrained (OCRT=3, 4, 5, or 6).
- If the CRS does not have lower attachments, or the observer was unsure of whether the CRS had lower attachments (LACRS=2 or 3).
- If the lower attachments are not being used (LAUS = 2, 3, or 4).
- The lower attachments are connected to designated lower anchors, and to lower anchors designated for the seating position that the child is occupying (LADSG = 1, Yes).

SAS Variable Name	LADSGON
Format Type	N
Field Length	1
Range of Values	1 = Yes
	2 = No
Data Set	Occupant
Unique Identifier	D42
NHTSA Form Number / Location	1002 / Bottom of lower anchor (right) column, lower attachment 3(c)

Other Problem with Lower Attachment

Definition

For cases where LADSG = 2 (No, the CRS is not attached to designated lower anchors), this variable identifies what the problem is with the lower attachment to the vehicle (if the problem was not addressed with the variables LANODSG, LADSGAT, LADSGON). The description may also include further detail regarding LANODSG, LADSGAT, or LADSGON. This field contains text characters to describe the problem.

This field will be blank under the following conditions:

- For occupants age 13 and older (OCAG = 3, 4, 5, 6, 7, 8, 9, or 10).
- The target child is using a vehicle safety belt only, or is unrestrained (OCRT=3, 4, 5, or 6).
- If the CRS does not have lower attachments, or the observer was unsure of whether the CRS had lower attachments (LACRS=2 or 3).
- If the lower attachments are not being used (LAUS = 2, 3, or 4).
- The lower attachments are connected to designated lower anchors, and to lower anchors designated for the seating position that the child is occupying (LADSG = 1, Yes).

SAS Variable Name	LADSG_OT
Format Type	C
Field Length	50 text characters
Range of Values	
Data Set	Occupant
Unique Identifier	D43
NHTSA Form Number / Location	1002 / Bottom of lower anchor (right) column, lower attachment 3(d)

Lower Attachment One Connector Per Bar

Definition

Identifies whether or not there is only one lower attachment strap connected to a particular lower anchor. Proper connection requires that only one CRS be connected to any one lower anchor. Multiple CRSs may not use the same lower anchors.

1 = Yes. Each of the 2 lower anchor bars being used to attach the CRS under observation has only one lower attachment strap connected to it.

2 = No. One or both lower anchor bars being used to attach the CRS under observation has multiple lower attachment straps connected to it.

This field will be blank under the following conditions:

- For occupants age 13 and older (OCAG = 3, 4, 5, 6, 7, 8, 9, or 10).
- The target child is using a vehicle safety belt only, or is unrestrained (OCRT=3, 4, 5, or 6).
- If the CRS does not have lower attachments, or the observer was unsure of whether the CRS had lower attachments (LACRS=2 or 3).
- If the lower attachments are not being used (LAUS = 2, 3, or 4).

SAS Variable Name	LACNCON
Format Type	N
Field Length	1
Range of Values	1 = Yes
	2 = No
Data Set	Occupant
Unique identifier	D44
NHTSA Form Number / Location	1002 / Bottom of lower anchor (right) column, lower attachment 4

Lower Attachment Connectors Installed Right-side Up

Definition

Identifies whether or not the lower attachment connectors of the child restraint system are attached right-side up to the lower anchor bars.

1 = Yes. Both lower attachment connectors are installed to the lower anchor bar right-side up (for hooks, pushed over the bar; for push-on connectors, attached to that the release button is accessible; e.g., not wedged between the connector and the shell of the seat.)

2 = No. If one or both lower attachment connectors are installed upside down.

3 = N/A. The CRS has rigid attachments (making upside-down connection impossible), or the observer could not see the connection. N/A may also apply, based on conditions that were not listed on the data collection form.

This field will be blank under the following conditions:

- For occupants age 13 and older (OCAG = 3, 4, 5, 6, 7, 8, 9, or 10).
- The target child is using a vehicle safety belt only, or is unrestrained (OCRT=3, 4, 5, or 6).
- If the CRS does not have lower attachments, or the observer was unsure of whether the CRS had lower attachments (LACRS=2 or 3).
- If the lower attachments are not being used (LAUS = 2, 3, or 4).

SAS Variable Name	LARSUP
Format Type	N
Field Length	1
Range of Values	1 = Yes
	2 = No
	3 = Not applicable
Data Set	Occupant
Unique identifier	D45
NHTSA Form Number / Location	1002 / Bottom of lower anchor (right) column, lower attachment 5

Lower Attachment Connectors Twisted No More than a Half-twist

Definition

Identifies whether or not the lower attachment strap is twisted. A correct lower attachment requires that the strap be flat, or twisted no more than one-half twist.

1 = Yes. The lower attachments are flexible and they are attached without any twists or with only one-half of a twist.

2 = No. The lower attachments are flexible and they are attached with a full twist or more.

3 = N/A. The CRS has rigid attachments (cannot twist rigid attachments), or the observer could not see the connection. N/A may also apply, based on conditions that were not listed on the data collection form.

This field will be blank under the following conditions:

- For occupants age 13 and older (OCAG = 3, 4, 5, 6, 7, 8, 9, or 10).
- The target child is using a vehicle safety belt only, or is unrestrained (OCRT=3, 4, 5, or 6).
- If the CRS does not have lower attachments, or the observer was unsure of whether the CRS had lower attachments (LACRS=2 or 3).
- If the lower attachments are not being used (LAUS = 2, 3, or 4).

SAS Variable Name	LATWS
Format Type	N
Field Length	1
Range of Values	1 = Yes 2 = No 3 = Not applicable
Data Set	Occupant
Unique Identifier	D46
NHTSA Form Number / Location	1002 / Bottom of lower anchor (right) column, lower attachment 6

Lower Attachment with Tight Installation

Definition

Identifies whether or not the lower attachment connection resulted in a tight (snug) CRS installation. Tight is defined using the "1-inch rule:" A CRS installation is tight if the CRS cannot be moved more that one inch from side to side, or from front to back, when pulled at the belt path.

1 = Yes. The CRS attachment is tight (e.g., it cannot move more than 1 inch forward or 1 inch side to side).

2 = No. The CRS attachment is not tight (e.g., it moves more than 1 inch forward or 1 inch side to side).

This field will be blank under the following conditions:

- For occupants age 13 and older (OCAG = 3, 4, 5, 6, 7, 8, 9, or 10).
- The target child is using a vehicle safety belt only, or is unrestrained (OCRT=3, 4, 5, or 6).
- If the CRS does not have lower attachments, or the observer was unsure of whether the CRS had lower attachments (LACRS=2 or 3).
- If the lower attachments are not being used (LAUS = 2, 3, or 4).

SAS Variable Name	LASNG
Format Type	N
Field Length	1
Range of Values	1 = Yes
	2 = No
Data Set	Occupant
Unique Identifier	D47
NHTSA Form Number / Location	1002 / Bottom of lower anchor (right) column, lower attachment 7

Lower Attachment with Loose Installation (User Error)

Definition

Identifies whether or not <u>user error</u> is the reason that a lower attachment is not snug.

1 = Yes. User error explains why a lower connector attachment is loose (not snug).

2 = No. User error does not explain why a lower connector attachment is loose (not snug).

This field will only have a value if the lower attachment was not snug (LASNG = 2).

This field will be blank under the following conditions:

* For occupants age 13 and older (OCAG = 3, 4, 5, 6, 7, 8, 9, or 10).
* The target child is using a vehicle safety belt only, or is unrestrained (OCRT=3, 4, 5, or 6).
* If the CRS does not have lower attachments, or the observer was unsure of whether the CRS had lower attachments (LACRS=2 or 3).
* If the lower attachments are not being used (LAUS = 2, 3, or 4).

SAS Variable Name	LASNG_ER
Format Type	N
Field Length	1
Range of Values	1 =Yes 2 = No
Data Set	Occupant
Unique identifier	D48
NHTSA Form Number / Location	1002 / Bottom of lower anchor (right) column, lower attachment 7(a)

Lower Attachment with Loose Installation (CRS Base Too Wide)

Definition

Identifies whether or the CRS base width (too wide) is the reason that a lower attachment is not snug.

1 = Yes. CRS base width (too wide) explains why a lower connector attachment is loose (not snug).

2 = No. CRS base width does not explain why a lower connector attachment is loose (not snug).

This field will only have a value if the lower attachment was not snug (LASNG = 2).

This field will be blank under the following conditions:

- For occupants age 13 and older (OCAG = 3, 4, 5, 6, 7, 8, 9, or 10).
- The target child is using a vehicle safety belt only, or is unrestrained (OCRT=3, 4, 5, or 6).
- If the CRS does not have lower attachments, or the observer was unsure of whether the CRS had lower attachments (LACRS=2 or 3).
- If the lower attachments are not being used (LAUS = 2, 3, or 4).

SAS Variable Name	LASNG_WD
Format Type	N
Field Length	1
Range of Values	1 = Yes 2 = No
Data Set	Occupant
Unique identifier	D49
NHTSA Form Number / Location	1002 / Bottom of lower anchor (right) column, lower attachment 7(b)

Lower Attachment with Loose Installation (Other Reason)

Definition

Identifies the reason that a lower attachment is not snug, other than user error or the CRS base width. This is a 50-character text field.

This field will only have a value if the lower attachment was not snug (LASNG = 2).

This field will be blank under the following conditions:

- For occupants age 13 and older (OCAG = 3, 4, 5, 6, 7, 8, 9, or 10).
- The target child is using a vehicle safety belt only, or is unrestrained (OCRT=3, 4, 5, or 6).
- If the CRS does not have lower attachments, or the observer was unsure of whether the CRS had lower attachments (LACRS=2 or 3).
- If the lower attachments are not being used (LAUS = 2, 3, or 4).

SAS Variable Name	LASNG_OT
Format Type	C
Field Length	50
Range of Values	1 = Yes 2 = No
Data Set	Occupant
Unique identifier	D50
NHTSA Form Number / Location	1002 / Bottom of lower anchor (right) column, lower attachment 7(c)

Correct Angle for Rear-Facing CRS

Definition

For a rear-facing CRS, this variable identifies whether or not the CRS installation resulted in the correct angle. Rear-facing CRSs should be reclined at an angle between 30 and 45 degrees from perpendicular, with newborn and younger infants closer to 45 degrees. As infants approach 6 to 8 months, the seat may be angled closer to 30 degrees. Many rear-facing CRSs have an angle (level) gauge built into the side of the seat to verify a correct angle range.

1 = Yes. The CRS is rear facing, and the recline angle is between 30 and 45 degrees.

2 = No. The CRS is rear-facing, and the recline angle is more than 45 degrees (too reclined) or less than 30 degrees (too upright).

3 = N/A. The CRS is a forward-facing seat.

This field will be blank under the following conditions:

- For occupants age 13 and older (OCAG = 3, 4, 5, 6, 7, 8, 9, or 10).
- The target child is using a vehicle safety belt only, or is unrestrained (OCRT=3, 4, 5, or 6).
- If the CRS does not have lower attachments, or the observer was unsure of whether the CRS had lower attachments (LACRS=2 or 3).
- If the lower attachments are not being used (LAUS = 2, 3, or 4).

SAS Variable Name	LAANGRF
Format Type	N
Field Length	1
Range of Values	1 = Yes
	2 = No
	3 = N/A
Data Set	Occupant
Unique Identifier	D51
NHTSA Data Form / Location	1002 / Bottom of lower anchor (right) column, lower attachment 8

Lower Attachment – Other Information

Definition

Identifies anything else about the lower attachment connection that was not covered by the other variables with the prefix "LA." This is a text field containing up to 50 characters.

This field will be blank under the following conditions:

- For occupants age 13 and older (OCAG = 3, 4, 5, 6, 7, 8, 9, or 10).
- The target child is using a vehicle safety belt only, or is unrestrained (OCRT=3, 4, 5, or 6).
- If the CRS does not have lower attachments, or the observer was unsure of whether the CRS had lower attachments (LACRS=2 or 3).
- If the lower attachments are not being used (LAUS = 2, 3, or 4).
- There is no other information about lower attachment connection that is not covered by other variables already coded.

SAS Variable Name	LA_OT
Format Type	C
Field Length	50
Range of Values	Text field with up to 50 characters
Data Set	Occupant
Unique Identifier	D52
NHTSA Form Number / Location	1002 / Bottom of lower anchor (right) column, lower attachment 9

Does Child Safety Seat Have a Tether

Definition

Identifies the driver's response to the question, "Some child safety seats have a strap on the back of the seat near the top called a tether. Does your child safety seat have a tether?" The intent of the question was to determine whether drivers had correct knowledge regarding tether attachments on their child restraints. The data in this field may or may not match the data obtained by the observers for the variable THCRS.

This question was asked of drivers who were transporting children in CRSs with a harness. This applies to CHCRS types 1, 2, 3, and 4, but may apply to children in type 6 (a belt-positioning booster with LATCH attachments), if the parent did not remove the internal harness from the CRS, but is also using the seat as a booster seat with the safety belt restraining the child.

This field will be blank under the following conditions:

- For occupants age 13 and older (OCAG = 3, 4, 5, 6, 7, 8, 9, or 10).
- The target child is using a vehicle safety belt only, or is unrestrained (OCRT=, 3, 4, 5, or 6).
- The target child is restrained in a booster seat (without a harness). This generally includes CHCRS = 5, 6, and 8.

SAS Variable Name	QTH
Format Type	N
Field Length	1
Range of Values	1 = Yes 2 = No 3 = Don't Know
Data Set	Occupant
Unique Identifier	E1
NHTSA Form Number / Location	1002A / 16

Using Child Safety Seat Tether

Definition

Identifies the driver response to question, "Are you using the tether?" The intent of the question was to determine whether drivers had correct knowledge regarding how their child restraints were installed. The data in this field may or may not match the data obtained by the observers for the variable THUS.

This question was asked of drivers who were transporting children in CRSs with a harness. This applies to CHCRS types 1, 2, 3, and 4, but may apply to children in type 6 (a belt-positioning booster with LATCH attachments), if the parent did not remove the internal harness from the CRS, but is using the seat as a booster seat with the safety belt restraining the child.

This field will be blank under the following conditions:

- For occupants age 13 and older (OCAG = 3, 4, 5, 6, 7, 8, 9, or 10).
- The target child is using a vehicle safety belt only, or is unrestrained (OCRT=3, 4, 5, or 6).
- The target child is restrained in a booster seat (without a harness). This generally includes CHCRS = 5, 6, and 8.
- The driver indicated that the CSS does not have a tether (QTH = 2, NO or 3, Don't know).

SAS Variable Name	QTHUS
Format Type	N
Field Length	1
Range of Values	1 = Yes 2 = No 3 = Don't Know
Data Set	Occupant
Unique Identifier	E2
NHTSA Form Number / Location	1002A / 17

Ease/Difficulty of Tether Use

Definition

Identifies the driver's response to the question, "If yes (you are using a child safety seat tether) how easy or difficult is it for you to use?"

This field will be coded only if the child is restrained in a CSS with a harness (CHCRS = 1, 2, 3, 4, and sometimes 6).

This field will be blank under the following conditions:

• For occupants age 13 and older (OCAG = 3, 4, 5, 6, 7, 8, 9, or 10).
• The target child is using a vehicle safety belt or is unrestrained (OCRT=3, 4, 5, or 6).
• The target child is restrained in a booster seat (without a harness). This generally includes CHCRS = 5, 6, and 8.
• The driver indicated that the CSS does not have a tether (QTH = 2, NO or 3, Don't know).
• The driver indicated that he/she is not using the tether (QTHUS = 2, No).

SAS Variable Name	QTHUSEAS
Format Type	N
Field Length	1
Range of Values	1 = Very Easy 2 = Relatively easy 3 = Neither easy nor Difficult 4 = Somewhat Difficult 5 = Very Difficult
Data Set	Occupant
Unique Identifier	E3
NHTSA Form Number / Location	1002A / 18

Reason for Not Using Child Safety Seat Tether: Didn't Know About it

Definition

Identifies whether or not the driver responded with, "I didn't know about it" when asked why he or she is not using the tether.

1 = Yes. The driver said "I didn't know about it."

2 = No. The driver did not say "I didn't know about it."

This field will be coded only:

- If the child is restrained in a CSS with a harness (CHCRS = 1, 2, 3, 4, and sometimes 6) AND
- The driver states that the CSS has a tether (QTH = 1, Yes), AND
- The driver states that he or she is not using the tether (QTHUS = 2, No)

This field will be blank under the following conditions:

- For occupants age 13 and older (OCAG = 3, 4, 5, 6, 7, 8, 9, or 10).
- The target child is using a vehicle safety belt or is unrestrained (OCRT=3, 4, 5, or 6).
- The target child is restrained in a booster seat (without a harness). This generally includes CHCRS = 5, 6, and 8.
- The driver indicated that the CSS does not have a tether (QTH = 2, NO or 3, Don't know).
- The driver indicated that he/she is using the tether (QTHUS = 1, Yes).

SAS Variable Name	QTHUSKNW
Format Type	N
Field Length	1
Range of Values	1 = Yes
	2 = No
Data Set	Occupant
Unique Identifier	E4
NHTSA Form Number / Location	1002A / 19(1)

Reason for Not Using Child Safety Seat Tether: Did Not Think it was Important to Use

Definition

Identifies whether or not the driver responded with, "I did not think it was important to use," when asked why he or she is not using the tether.

1 = Yes. The driver said, "I did not think it was important to use."

2 = No. The driver did not say, "I did not think it was important to use."

This field will be coded only:

- If the child is restrained in a CSS with a harness (CHCRS = 1, 2, 3, 4, and sometimes 6) AND
- The driver states that the CSS has a tether (QTH = 1, Yes), AND
- The driver states that he or she is not using the tether (QTHUS = 2, No)

This field will be blank under the following conditions:

- For occupants age 13 and older (OCAG = 3, 4, 5, 6, 7, 8, 9, or 10).
- The target child is using a vehicle safety belt or is unrestrained (OCRT=3, 4, 5, or 6).
- The target child is restrained in a booster seat (without a harness). This generally includes CHCRS = 5, 6, and 8.
- The driver indicated that the CSS does not have a tether (QTH = 2, NO or 3, Don't know).
- The driver indicated that he/she is using the tether (QTHUS = 1, Yes).

SAS Variable Name	QTHUSTHNK
Format Type	N
Field Length	1
Range of Values	1 = Yes
	2 = No
Data Set	Occupant
Unique Identifier	E5
NHTSA Form Number / Location	1002A / 19(2)

Reason for Not Using Child Safety Seat Tether: Don't Know How to Use it

Definition

Identifies whether or not the driver responded with, "I did not know how to use it," when asked why he or she is not using the tether.

1 = Yes. The driver said, "I did not know how to use it."

2 = No. The driver did not say, "I did not know how to use it."

This field will be coded only:

- If the child is restrained in a CSS with a harness (CHCRS = 1, 2, 3, 4, and sometimes 6) AND
- The driver states that the CSS has a tether (QTH = 1, Yes), AND
- The driver states that he or she is not using the tether (QTHUS = 2, No)

This field will be blank under the following conditions:

- For occupants age 13 and older (OCAG = 3, 4, 5, 6, 7, 8, 9, or 10).
- The target child is using a vehicle safety belt or is unrestrained (OCRT=3, 4, 5, or 6).
- The target child is restrained in a booster seat (without a harness). This generally includes CHCRS = 5, 6, and 8.
- The driver indicated that the CSS does not have a tether (QTH = 2, NO or 3, Don't know).
- The driver indicated that he/she is using the tether (QTHUS = 1, Yes).

SAS Variable Name	QTHUSHOW
Format Type	N
Field Length	1
Range of Values	1 =Yes
	2 = No
Data Set	Occupant
Unique Identifier	E6
NHTSA Form Number / Location	1002A / 19(3)

Reason for Not Using Child Safety Seat Tether: Too Hard to Use

Definition

Identifies whether or not the driver responded with, "It's too hard to use," when asked why he or she is not using the tether.

1 = Yes. The driver said, "It's too hard to use."

2 = No. The driver did not say, "It's too hard to use."

This field will be coded only:

- If the child is restrained in a CSS with a harness (CHCRS = 1, 2, 3, 4, and sometimes 6) AND
- The driver states that the CSS has a tether (QTH = 1, Yes), AND
- The driver states that he or she is not using the tether (QTHUS = 2, No)

This field will be blank under the following conditions:

- For occupants age 13 and older (OCAG = 3, 4, 5, 6, 7, 8, 9, or 10).
- The target child is using a vehicle safety belt or is unrestrained (OCRT=3, 4, 5, or 6).
- The target child is restrained in a booster seat (without a harness). This generally includes CHCRS = 5, 6, and 8.
- The driver indicated that the CSS does not have a tether (QTH = 2, NO or 3, Don't know).
- The driver indicated that he/she is using the tether (QTHUS = 1, Yes).

SAS Variable Name	QTHUSHARD
Format Type	N
Field Length	1
Range of Values	1 = Yes
	2 = No
Data Set	Occupant
Unique Identifier	E7
NHTSA Form Number / Location	1002A / 19(4)

Reason for Not Using Child Safety Seat Tether: Rear-facing Seat

Definition

Identifies whether or not the driver responded with, "The seat is rear facing," when asked why he or she is not using the tether.

1 = Yes. The driver said, "The seat is rear facing."

2 = No. The driver did not say, "The seat is rear facing."

This field will be coded only:

- If the child is restrained in a CSS with a harness (CHCRS = 1, 2, 3, 4, and sometimes 6) AND
- The driver states that the CSS has a tether (QTH = 1, Yes), AND
- The driver states that he or she is not using the tether (QTHUS = 2, No)

This field will be blank under the following conditions:

- For occupants age 13 and older (OCAG = 3, 4, 5, 6, 7, 8, 9, or 10).
- The target child is using a vehicle safety belt or is unrestrained (OCRT=3, 4, 5, or 6).
- The target child is restrained in a booster seat (without a harness). This generally includes CHCRS = 5, 6, and 8.
- The driver indicated that the CSS does not have a tether (QTH = 2, NO or 3, Don't know).
- The driver indicated that he/she is using the tether (QTHUS = 1, Yes).

SAS Variable Name	QTHUSRF
Format Type	N
Field Length	1
Range of Values	1 = Yes
	2 = No
Data Set	Occupant
Unique Identifier	E8
NHTSA Form Number / Location	1002A / 19(5)

Reason for Not Using Child Safety Seat Tether: Other Response

Definition

Identifies whether or not the driver provided a response other than, "I didn't know about it;" I did not think it was important to use;" "I didn't know how to use it;" "It's too hard to use;" or "It's a rear-facing seat" when asked why he or she is not using the tether.

1 = Yes. The driver provided some "Other" response.

2 = No. The driver did not provide some "Other" response.

This field will be coded only:

- If the child is restrained in a CSS with a harness (CHCRS = 1, 2, 3, 4, and sometimes 6) AND
- The driver states that the CSS has a tether (QTH = 1, Yes), AND
- The driver states that he or she is not using the tether (QTHUS = 2, No)

This field will be blank under the following conditions:

- For occupants age 13 and older (OCAG = 3, 4, 5, 6, 7, 8, 9, or 10).
- The target child is using a vehicle safety belt or is unrestrained (OCRT=3, 4, 5, or 6).
- The target child is restrained in a booster seat (without a harness). This generally includes CHCRS = 5, 6, and 8.
- The driver indicated that the CSS does not have a tether (QTH = 2, NO or 3, Don't know).
- The driver indicated that he/she is using the tether (QTHUS = 1, Yes).

SAS Variable Name	QTHUS_OT
Format Type	N
Field Length	1
Range of Values	1 = Yes
	2 = No
Data Set	Occupant
Unique Identifier	E9
NHTSA Form Number / Location	1002A / 19(6)

Reason for Not Using Child Safety Seat Tether: Description of Other Response

Definition

Identifies the reason the driver provided when asked why he or she is not using the tether, when he or she gave a reason other than "I didn't know about it;" I did not think it was important to use;" "I didn't know how to use it;" "It's too hard to use;" or "It's a rear-facing seat."

This field will be coded only:

- If the child is restrained in a CSS with a harness (CHCRS = 1, 2, 3, 4, and sometimes 6) AND
- The driver states that the CSS has a tether (QTH = 1, Yes), AND
- The driver states that he or she is not using the tether (QTHUS = 2, No)
- The driver indicated "other" (QTHUS_OT = 1, Yes).

This field will be blank under the following conditions:

- For occupants age 13 and older (OCAG = 3, 4, 5, 6, 7, 8, 9, or 10).
- The target child is using a vehicle safety belt or is unrestrained (OCRT=3, 4, 5, or 6).
- The target child is restrained in a booster seat (without a harness). This generally includes CHCRS = 5, 6, and 8.
- The driver indicated that the CSS does not have a tether (QTH = 2, NO or 3, Don't know).
- The driver indicated that he/she is using the tether (QTHUS = 1, Yes).

SAS Variable Name	QTHUS_OTY
Format Type	C
Field Length	Up to 50 text characters
Range of Values	
Data Set	Occupant
Unique Identifier	E9
NHTSA Form Number / Location	1002A / 19(6)

Does Child Safety Seat Have Lower Connectors

Definition

Identifies the driver's response to the question, "Does your child safety seat have connectors to attach it to the vehicle?" The intent of the question was to determine whether drivers had correct knowledge regarding lower attachments on their child restraints. The data in this field may or may not match the data obtained by the observers for the variable LACRS.

This question was asked of drivers who were transporting children in CRSs with a harness. This applies to CHCRS types 1, 2, 3, and 4, but may apply to children in type 6 (a belt-positioning booster with LATCH attachments), if the parent did not remove the internal harness from the CRS, but is also using the seat as a booster seat with the safety belt restraining the child.

This field will be blank under the following conditions:

- For occupants age 13 and older (OCAG = 3, 4, 5, 6, 7, 8, 9, or 10).
- The target child is using a vehicle safety belt or is unrestrained (OCRT=3, 4, 5, or 6).
- The target child is restrained in a booster seat (without a harness). This generally includes CHCRS = 5, 6, and 8.

SAS Variable Name	QLA
Format Type	N
Field Length	1
Range of Values	1 = Yes
	2 = No
	3 = Don't Know
Data Set	Occupant
Unique Identifier	E10
NHTSA Form Number / Location	1002A / 20

Using Child Safety Seat Lower Connectors

Definition

Identifies the driver response to question, "Are you using the connectors?" The intent of the question was to determine whether drivers had correct knowledge regarding how their child restraints were installed. The data in this field may or may not match the data obtained by the observers for the variable LAUS.

This question was asked of drivers who were transporting children in CRSs with a harness. This applies to CHCRS types 1, 2, 3, and 4, but may apply to children in type 6 (a belt-positioning booster with LATCH attachments), if the parent did not remove the internal harness from the CRS, but is also using the seat as a booster seat with the safety belt restraining the child.

This field will be blank under the following conditions:

- For occupants age 13 and older (OCAG = 3, 4, 5, 6, 7, 8, 9, or 10).
- The target child is using a vehicle safety belt or is unrestrained (OCRT=3, 4, 5, or 6).
- The driver indicated that the CSS does not have connectors (QLA = 2, NO or 3, Don't know).
- The target child is restrained in a booster seat (without a harness). This generally includes CHCRS = 5, 6, and 8.

SAS Variable Name	QLAUS
Format Type	N
Field Length	1
Range of Values	1 = Yes 2 = No
Data Set	Occupant
Unique Identifier	E11
NHTSA Form Number / Location	1002A / 21

Ease/Difficulty with Child Safety Seat Lower Anchor Connectors

Definition

Identifies the driver's response to the question, "If yes (you are using a child safety seat lower connectors) how easy or difficult is it for you to use them?"

This field will be coded only if :
- The child is restrained in a CSS with a harness (CHCRS = 1, 2, 3, 4, and sometimes 6) AND,
- The driver states he or she is using the connectors (QLAUS = 1, Yes).

This field will be blank under the following conditions:

- For occupants age 13 and older (OCAG = 3, 4, 5, 6, 7, 8, 9, or 10).
- The target child is using a vehicle safety belt or is unrestrained (OCRT=3, 4, 5, or 6).
- The target child is restrained in a booster seat (without a harness). This generally includes CHCRS = 5, 6, and 8.
- The driver indicated that the CSS does not have connectors (QLA = 2, NO or 3, Don't know).
- The driver indicated that he/she is not using the connectors (QLAUS = 2, No).

SAS Variable Name	QLAUSEAS
Format Type	N
Field Length	1
Range of Values	1 = Very Easy 2 = Relatively Easy 3 = Neither Easy nor Difficult 4 = Somewhat Difficult 5 = Very Difficult
Data Set	Occupant
Unique Identifier	E12
NHTSA Form Number / Location	1002A / 22

Vehicle Safety Belt and Child Restraint System Lower Anchor Use

Definition

Identifies the driver's response to the question, "Are you also using the safety belt?"

This field will be coded only if:
- The child is restrained in a CSS with a harness (CHCRS = 1, 2, 3, 4, and sometimes 6) AND,
- The driver states he or she is using the connectors (QLAUS = 1, Yes).

This field will be blank under the following conditions:

- For occupants age 13 and older (OCAG = 3, 4, 5, 6, 7, 8, 9, or 10).
- The target child is using a vehicle safety belt or is unrestrained (OCRT=3, 4, 5, or 6).
- The target child is restrained in a booster seat (without a harness). This generally includes CHCRS = 5, 6, and 8.
- The driver indicated that the CSS does not have connectors (QLA = 2, NO or 3, Don't know).
- The driver indicated that he/she is not using the connectors (QLAUS = 2, No).

SAS Variable Name	QLASB
Format Type	N
Field Length	1
Range of Values	1 = Yes 2 = No 3 = Don't Know
Data Set	Occupant
Unique Identifier	E13
NHTSA Form Number / Location	1002A / 23

Reasons for Using Both the Vehicle Safety Belt and Child Restraint System Lower Anchor

Definition

Identifies the driver's response to the question, "Why do you use both the safety belt and the lower anchor connectors?"

This field will be coded only if :
- The child is restrained in a CSS with a harness (CHCRS = 1, 2, 3, 4, and sometimes 6) AND,
- The driver states he or she is using the connectors (QLAUS = 1, Yes); AND
- The driver states he or she is also using the safety belt (QLASB = 1, Yes).

This field will be blank under the following conditions:

- For occupants age 13 and older (OCAG = 3, 4, 5, 6, 7, 8, 9, or 10).
- The target child is using a vehicle safety belt or is unrestrained (OCRT=3, 4, 5, or 6).
- The target child is restrained in a booster seat (without a harness). This generally includes CHCRS = 5, 6, and 8.
- The driver indicated that the CSS does not have connectors (QLA = 2, NO or 3, Don't know).
- The driver indicated that he/she is not using the connectors (QLAUS = 2, No).
- The driver indicated that he or she is not also using the safety belt (QLASB = 2, No).

SAS Variable Name	QLASBBTH
Format Type	N
Field Length	1
Range	1 = Extra secureness or safety 2 = Believed it was necessary 3 = Other
Data Set	Occupant
Unique Identifier	E14
NHTSA Form Number / Location	1002A / 24

Reasons for Using Both the Vehicle Safety Belt and Child Restraint System Lower Anchor: Other Response

Definition

Identifies the reason provided by the driver for using both the safety belt and lower anchors, other than "For extra secureness or safety" or "Believed it was necessary" in response to the question, "Why do you use both the safety belt in addition to using the lower anchor connectors?"

This field will be coded only if:
- The child is restrained in a CSS with a harness (CHCRS = 1, 2, 3, 4, and sometimes 6) AND,
- The driver states he or she is using the connectors (QLAUS = 1, Yes); AND
- The driver states he or she is also using the safety belt (QLASB = 1, Yes).
- The reason given for using both is coded as "other" (QLASBBTH = 3, other).

This field will be blank under the following conditions:

- For occupants age 13 and older (OCAG = 3, 4, 5, 6, 7, 8, 9, or 10).
- The target child is using a vehicle safety belt or is unrestrained (OCRT=3, 4, 5, or 6).
- The target child is restrained in a booster seat (without a harness). This generally includes CHCRS = 5, 6, and 8.
- The driver indicated that the CSS does not have connectors (QLA = 2, NO or 3, Don't know).
- The driver indicated that he/she is not using the connectors (QLAUS = 2, No).
- The driver indicated that he or she is not also using the safety belt (QLASB = 2, No).

SAS Variable Name	QLASBBTH_OT
Format Type	C
Field Length	Text field with up to 50 characters
Range	
Data Set	Occupant
Unique Identifier	E15
NHTSA Form Number / Location	1002A / 24

Reasons for Not Using the Connectors: Didn't Know About it

Definition

Identifies whether or not the driver responded with, "I didn't know about it" when asked why he or she is not using the lower connectors.

1 = Yes. The driver said, "I didn't know about it."

2 = No. The driver did not say, "I didn't know about it."

This field will be coded only:

- If the child is restrained in a CSS with a harness (CHCRS = 1, 2, 3, 4, and sometimes 6) AND
- The driver states that the CSS has connectors (QLA = 1, Yes), AND
- The driver states that he or she is not using the connectors (QLAUS = 2, No)

This field will be blank under the following conditions:

- For occupants age 13 and older (OCAG = 3, 4, 5, 6, 7, 8, 9, or 10).
- The target child is using a vehicle safety belt or is unrestrained (OCRT=3, 4, 5, or 6).
- The target child is restrained in a booster seat (without a harness). This generally includes CHCRS = 5, 6, and 8.
- The driver indicated that the CSS does not have lower connectors (QLA = 2, NO or 3, Don't know).
- The driver indicated that he/she is using the lower connectors (QLAUS = 1, Yes).

SAS Variable Name	QLAUSKNW
Format Type	N
Field Length	1
Range of Values	1 = Yes
	2 = No
Data Set	Occupant
Unique Identifier	E16
NHTSA Form Number / Location	1002 A / 25(1)

Reasons for Not Using the Connectors: Did Not Think it was Important to Use

Definition

Identifies whether or not the driver responded with, "I did not think it was important to use," when asked why he or she is not using the lower connectors.

1 = Yes. The driver said, "I did not think it was important to use."

2 = No. The driver did not say, "I did not think it was important to use."

This field will be coded only:

- If the child is restrained in a CSS with a harness (CHCRS = 1, 2, 3, 4, and sometimes 6) AND
- The driver states that the CSS has lower connectors (QLA = 1, Yes), AND
- The driver states that he or she is not using the connectors (QLAUS = 2, No)

This field will be blank under the following conditions:

- For occupants age 13 and older (OCAG = 3, 4, 5, 6, 7, 8, 9, or 10).
- The target child is using a vehicle safety belt or is unrestrained (OCRT=3, 4, 5, or 6).
- The target child is restrained in a booster seat (without a harness). This generally includes CHCRS = 5, 6, and 8.
- The driver indicated that the CSS does not have lower connectors (QLA = 2, NO or 3, Don't know).
- The driver indicated that he/she is using the connectors (QLAUS = 1, Yes).

SAS Variable Name	QLAUSTHNK
Format Type	N
Field Length	1
Range of Values	1 = Yes
	2 = No
Data Set	Occupant
Unique Identifier	E17
NHTSA Form Number / Location	1002 A / 25(2)

Reasons for Not Using the Connectors: Don't Know How to Use it

Definition

Identifies whether or not the driver responded with, "I did not know how to use it," when asked why he or she is not using the lower connectors.

1 = Yes. The driver said, "I did not know how to use it."

2 = No. The driver did not say, "I did not know how to use it."

This field will be coded only:

- If the child is restrained in a CSS with a harness (CHCRS = 1, 2, 3, 4, and sometimes 6) AND
- The driver states that the CSS has lower connectors (QLA = 1, Yes), AND
- The driver states that he or she is not using the connectors (QLAUS = 2, No)

This field will be blank under the following conditions:

- For occupants age 13 and older (OCAG = 3, 4, 5, 6, 7, 8, 9, or 10).
- The target child is using a vehicle safety belt or is unrestrained (OCRT=3, 4, 5, or 6).
- The target child is restrained in a booster seat (without a harness). This generally includes CHCRS = 5, 6, and 8.
- The driver indicated that the CSS does not have lower connectors (QLA = 2, NO or 3, Don't know).
- The driver indicated that he/she is using the connectors (QLAUS = 1, Yes).

SAS Variable Name	QLAUSHOW
Format Type	N
Field Length	1
Range of Values	1 = Yes
	2 = No
Data Set	Occupant
Unique Identifier	E18
NHTSA Form Number / Location	1002 A / 25(3)

Reasons for Not Using the Connectors: Too Hard to Use

Definition

Identifies whether or not the driver responded with, "It's too hard to use," when asked why he or she is not using the lower connectors.

1 = Yes. The driver said, "It's too hard to use."

2 = No. The driver did not say, "It's too hard to use."

This field will be coded only:

- If the child is restrained in a CSS with a harness (CHCRS = 1, 2, 3, 4, and sometimes 6) AND
- The driver states that the CSS has lower connectors (QLA = 1, Yes), AND
- The driver states that he or she is not using the connectors (QLAUS = 2, No)

This field will be blank under the following conditions:

- For occupants age 13 and older (OCAG = 3, 4, 5, 6, 7, 8, 9, or 10).
- The target child is using a vehicle safety belt or is unrestrained (OCRT=3, 4, 5, or 6).
- The target child is restrained in a booster seat (without a harness). This generally includes CHCRS = 5, 6, and 8.
- The driver indicated that the CSS does not have lower connectors (QLA = 2, NO or 3, Don't know).
- The driver indicated that he/she is using the connectors (QLAUS = 1, Yes).

SAS Variable Name	QLAUSHARD
Format Type	N
Field Length	1
Range of Values	1 = Yes
	2 = No
Data Set	Occupant
Unique Identifier	E19
NHTSA Form Number / Location	1002 A / 25(4)

Reasons for Not Using the Connectors: Couldn't Get Seat Installed Tightly

Definition

Identifies whether or not the driver responded with, "Couldn't get the seat installed tightly," when asked why he or she is not using the lower connectors.

1 = Yes. The driver said, "Couldn't get the seat installed tightly."

2 = No. The driver did not say, "Couldn't get the seat installed tightly."

This field will be coded only:

- If the child is restrained in a CSS with a harness (CHCRS = 1, 2, 3, 4, and sometimes 6) AND
- The driver states that the CSS has lower connectors (QLA = 1, Yes), AND
- The driver states that he or she is not using the connectors (QLAUS = 2, No)

This field will be blank under the following conditions:

- For occupants age 13 and older (OCAG = 3, 4, 5, 6, 7, 8, 9, or 10).
- The target child is using a vehicle safety belt or is unrestrained (OCRT=3, 4, 5, or 6).
- The target child is restrained in a booster seat (without a harness). This generally includes CHCRS = 5, 6, and 8.
- The driver indicated that the CSS does not have lower connectors (QLA = 2, NO or 3, Don't know).
- The driver indicated that he/she is using the connectors (QLAUS = 1, Yes).

SAS Variable Name	QLAUSFIT
Format Type	N
Field Length	1
Range of Values	1 = Yes
	2 = No
Data Set	Occupant
Unique Identifier	E20
NHTSA Form Number / Location	1002 A / 25(5)

Reasons for Not Using the Connectors: Other Response

Definition

Identifies whether or not the driver provided a response other than, "I didn't know about it;" I did not think it was important to use;" "I didn't know how to use it;" "It's too hard to use;" or "Couldn't get the seat installed tightly" when asked why he or she is not using lower connectors.

1 = Yes. The driver provided some "Other" response.

2 = No. The driver did not provide some "Other" response.

This field will be coded only:

- If the child is restrained in a CSS with a harness (CHCRS = 1, 2, 3, 4, and sometimes 6) AND
- The driver states that the CSS has lower connectors (QLA = 1, Yes), AND
- The driver states that he or she is not using the connectors (QLAUS = 2, No)

This field will be blank under the following conditions:

- For occupants age 13 and older (OCAG = 3, 4, 5, 6, 7, 8, 9, or 10).
- The target child is using a vehicle safety belt or is unrestrained (OCRT=3, 4, 5, or 6).
- The target child is restrained in a booster seat (without a harness). This generally includes CHCRS = 5, 6, and 8.
- The driver indicated that the CSS does not have lower connectors (QLA = 2, NO or 3, Don't know).
- The driver indicated that he/she is using the connectors (QLAUS = 1, Yes).

SAS Variable Name	QLAUS_OT
Format Type	N
Field Length	1
Range of Values	1 = Yes
	2 = No
Data Set	Occupant
Unique Identifier	E21
NHTSA Form Number / Location	1002 A / 25(6)

Reason for Not Using Child Safety Seat Lower Connectors: Description of Other Response

Definition

Identifies the reason the driver provided when asked why he or she is not using the lower connectors, when he or she gave a reason other than, "I didn't know about it;" "I did not think it was important to use;" "I didn't know how to use it;" "It's too hard to use;" or "Couldn't get seat installed tightly."

This field will be coded only:

- If the child is restrained in a CSS with a harness (CHCRS = 1, 2, 3, 4, and sometimes 6) AND
- The driver states that the CSS has lower connectors (QLA = 1, Yes), AND
- The driver states that he or she is not using the lower connectors (QLAUS = 2, No)
- The driver indicated "other" (QLAUS_OT = 1, Yes).

This field will be blank under the following conditions:

- For occupants age 13 and older (OCAG = 3, 4, 5, 6, 7, 8, 9, or 10).
- The target child is using a vehicle safety belt or is unrestrained (OCRT=3, 4, 5, or 6).
- The target child is restrained in a booster seat (without a harness). This generally includes CHCRS = 5, 6, and 8.
- The driver indicated that the CSS does not have lower connectors (QLA = 2, NO or 3, Don't know).
- The driver indicated that he/she is using the connectors (QLAUS = 1, Yes).

SAS Variable Name	QLAUS_OTY
Format Type	C
Field Length	Up to 50 text characters
Range of Values	
Data Set	Occupant
Unique Identifier	E21
NHTSA Form Number / Location	1002A / 25(6)

APPENDIX A: Vehicle Make and Model Codes

Vehicle Make	Vehicle Make Code	Vehicle Model Name	Vehicle Model Code
Acura	1	CL	1
		Integra	2
		Legend	3
		MDX	581
		NSX	4
		NSX-T	5
		RL	6
		RSX	7
		SLX	8
		TL	9
Audi	2	100	11
		200	12
		4000S	13
		4000S Quattro	14
		5000 Avant	15
		5000S	16
		80	17
		90	18
		A4	19
		A6	20
		A8	21
		Allroad Quattro	22
		Coupe GT Quattro Type 857	23
		Coupe Quattro	24
		CS Turbo	25
		S4	26
		S6	27
		TT Coupe	28
		TT Roadster	29
Bentley	3	Arnage R	30
		Arnage RL	31
		Arnage T	32
		Azure	33
		Continental GT	34
		Continental R	35
		Continental T	36

Vehicle Make	Vehicle Make Code	Vehicle Model Name	Vehicle Model Code
BMW	4	3 Series	37
		5 Series	38
		6 Series	39
		7 Series	40
		Alpina	41
		M	42
		M3	43
		M5	44
		X3	45
		X5	46
		Z3	47
		Z4	48
		Z8	49
Buick	5	Century	50
		Lesabre	51
		Park Avenue	52
		Ranier	53
		Regal	54
		Rendezvous	55
		Terraza	56
Cadillac	6	Catera	57
		CTS	58
		Deville	59
		Eldorado	60
		Escalade	61
		Escalade ESV	62
		Escalade EXT	63
		Seville	64
		XLR	65
Chevrolet	7	2500	589
		Astro Van	66
		Avalanche	67
		Aveo	68
		Blazer	69
		Camero	70
		Cavalier	71
		Cobalt	72
		Colorado	73
		Corvette	74
		Equinox	75

Vehicle Make	Vehicle Make Code	Vehicle Model Name	Vehicle Model Code
Chevrolet	7	Express	76
		Impala	77
		Jimmy	78
		Lumina	582
		Malibu	79
		Malibu Classic	80
		Malibu MAXX (5 doors) 2005	81
		Metro	590
		Monte Carlo	82
		S-10	83
		Silverado	84
		SSR	85
		Suburban	86
		Tahoe	87
		Tracker	88
		Trailblazer	89
		Uplander	90
		Venture	91
Chrysler	8	300C	92
		300M	93
		5th Avenue	94
		Cirrus	95
		Concorde	96
		Conquest	97
		Crossfire	98
		Imperial	99
		Lebaron	100
		Lebaron GTS	101
		LHS	102
		New Yorker	103
		New Yorker 5th Avenue	104
		New Yorker Landau	105
		Pacifica	106
		Prowler	107
		PT Cruiser	108
		Sebring	109
		Town and Country	110
		Voyager	111
Daewoo	9	Lanos	112
		Leganza	113

Vehicle Make	Vehicle Make Code	Vehicle Model Name	Vehicle Model Code
Daewoo	9	Nubira	114
Dodge	10	Aries	115
		Avenger	116
		Caravan	117
		Colt	118
		Colt Vista	119
		Dakota	120
		Daytona	121
		Durango	122
		Dynasty	123
		Grand Caravan	124
		Intrepid	125
		Lancer	126
		Magnum	594
		Monaco	127
		Neon	128
		Omni	129
		Raider	130
		Ram	131
		Ram-Charger	132
		Shadow	133
		Spirit	134
		Sprinter	135
		SRT-4	136
		Stealth	137
		Stratus	138
		Viper	139
Ferrari	11	360	140
		456M GT	141
		456M GTA	142
		575M Maranello	143
		612 Scaglietti	144
		Enzo	145
Ford	12	Aerostar	146
		Aspire	147
		Bronco	148
		Bronco I	149
		Bronco II	150
		Contour	151
		Crown Victoria	152

Vehicle Make	Vehicle Make Code	Vehicle Model Name	Vehicle Model Code
Ford	12	DF-150	153
		Econoline E150	154
		Econoline E250	155
		Econoline E350	156
		Escape	157
		Escape HEV	158
		Escort	159
		Escort ZX2	160
		Excursion	161
		Expedition	162
		Explorer	163
		Explorer Sport	164
		F-150	165
		F-250	166
		F-250 HD	167
		F-250 LD	168
		F-350	169
		F-450	170
		F-550	171
		Festiva	172
		Five Hundred	173
		Focus	174
		Freestar	177
		Freestyle	175
		GT	176
		Mustang	192
		Probe	193
		Ranger	194
		Taurus	195
		Tempo	196
		Thunderbird	197
		Windstar	198
GEO	13	Metro	199
		Prizm	200
		Tracker	201
GMC	14	Canyon	202
		Denali	203
		Denali XL	204
		Envoy	205
		Envoy XL	206

Vehicle Make	Vehicle Make Code	Vehicle Model Name	Vehicle Model Code
GMC	14	Envoy XUT	207
		Safari	208
		Savana	209
		Sierra 1500	210
		Sierra 2500	211
		Sierra Denali	212
		Sierra HD	213
		Sierra HD 3500	214
		Sonoma	215
		Yukon	216
		Yukon Denali	217
		Yukon Denali XL	218
		Yukon XL	219
Honda	15	Accord	220
		Accord Hybrid	221
		Civic	222
		Civic-GX	223
		CR-V	224
		Del Sol	225
		Element	226
		EV Plus	227
		Insight	228
		Odyssey	229
		Passport	230
		Pilot	231
		Prelude	232
		Ridgeline	591
		S2000	233
Hummer	16	H1 SUV	234
		H2 Sports Utility Truck	235
		H2 SUV	236
		H3	579
Hyundai	17	Accent	237
		Elantra	238
		Excel	239
		Santa Fe	240
		Scoupe	241
		Sonata	242
		Tiburon	243
		Tucson	244

Vehicle Make	Vehicle Make Code	Vehicle Model Name	Vehicle Model Code
Hyundai	17	XG300	245
		XG350	246
Infiniti	18	FX35	247
		FX45	248
		G-20	249
		G-35	250
		I-30	251
		I-35	252
		M-45	253
		Q-45	254
		QX-4	255
		QX56	469
Isuzu	19	Amigo	256
		Ascender	257
		Axiom	258
		Hombre	259
		Oasis	260
		Pickup	261
		Rodeo	262
		Rodeo Sport	263
		Trooper	264
		Vehi-Cross	265
Jaguar	20	S-Type	266
		VDP	267
		XJ New Series	268
		XJ Series	269
		XJ6	270
		XJS	271
		XK Series	272
		XK8	273
		X-Type	274
Jeep Eagle	21	Cherokee	275
		Eagle Talon	276
		Eagle Vision	277
		Grand Cherokee	278
		Grand Cherokee Canada	279
		Grand Cherokee US	280
		Grand Wagoneer	281
		Liberty	282
		Medallion	283

Vehicle Make	Vehicle Make Code	Vehicle Model Name	Vehicle Model Code
Jeep Eagle	21	Premier	284
		Summit	285
		Wagoneer	286
		Wrangler	287
Kia	22	Amanti	288
		Optima	289
		Rio	290
		Rio Cinco	291
		Sedona	292
		Sephia	293
		Sephia LS	294
		Sorento	295
		Spectra	296
		Spectra 5	297
		Sportage	298
Land Rover	23	Discovery	299
		Discovery Series II	300
		Freelander	301
		LR3	302
		Range Rover	303
Lexus	24	ES 250	304
		ES 300	305
		ES 330	306
		GS 300	307
		GS 400	308
		GS 430	309
		GX 470	310
		IS 300	311
		LS 400	312
		LS 430	313
		LX 450	314
		LX 470	315
		RX 300	316
		RX 330	317
		SC 300	318
		SC 400	319
		SC 430	320
		Sport Cross	321
Lincoln	25	Aviator	322
		Continental	323

Vehicle Make	Vehicle Make Code	Vehicle Model Name	Vehicle Model Code
Lincoln	25	LS	324
		Mark VII	325
		Mark VIII	326
		Navivator	327
		Town Car	328
		Vigor	10
Masarati	26	Coupe	329
		Quattroporte	330
		Spyder	331
Mazda	27	323	332
		626	333
		929	334
		B Series Truck	335
		Mazda 6	336
		Mazda3	337
		Millenia	338
		MPV	339
		MX3	340
		MX5 Miata	341
		MX6	342
		Protégé	343
		Protégé 5	344
		RX-7	345
		RX-8	346
		Tribute	347
Mercedes-Benz	28	190 D	348
		190 E	349
		230	350
		240 D	351
		260 E	352
		280 CE	353
		280 E	354
		280 SL	355
		280 SLC	356
		300 CD	357
		300 CD Turbo	358
		300 CE	359
		300 D	360
		300 D Turbo	361
		300 E	362

Vehicle Make	Vehicle Make Code	Vehicle Model Name	Vehicle Model Code
Mercedes-Benz	28	300 SD Turbo	363
		300 SDL Turbo	364
		300 SE	365
		300 SEL	366
		300 TD	367
		300 TD Turbo	368
		300 TE	369
		300 Turbo	370
		350 SDL Turbo	371
		350 SL	372
		350 SLC	373
		380 SE	374
		380 SEC	375
		380 SEL	376
		380 SL	377
		380 SLC	378
		400 E	379
		420 SEL	380
		450 SL	381
		450 SLC	382
		500 E	383
		500 SL	384
		560 SL	385
		C-Class	386
		CL-Calss	387
		CLK-Class	388
		E300D	389
		E320	390
		E420	391
		E500	392
		E-Class	393
		G-Class	394
		M-Class	395
		S50SD Turbo	396
		S-Class	397
		SL	398
		SLK	399
		SUV	400
Mercury	29	Capri	401
		Cougar	402

Vehicle Make	Vehicle Make Code	Vehicle Model Name	Vehicle Model Code
Mercury	29	Grand Marquis	403
		Marauder	404
		Mariner	405
		Montego	406
		Monterey	407
		Mountaineer	408
		Mystique	409
		Sable	410
		Topaz	411
		Tracer	412
		Villager	413
Mini	30	Cooper	414
		Cooper S	415
Mitsubishi	31	3000GT	416
		Cordia	417
		Diamante	418
		Eclipse	419
		Eclipse Spyder	420
		Endeavor	421
		Expo	422
		Expo LRV	423
		Galant	424
		Lancer	425
		Mighty Max	426
		Mirage	427
		Montero	428
		Montero Sport	429
		Outlander	430
		Precis	431
		Sigma	432
		Tredia	433
Nissan	32	200 SX	434
		240 SX	435
		300 ZX	436
		350 Z	437
		Altima	438
		Armada	439
		Axxess	440
		Frontier	441
		Maxima	442

Vehicle Make	Vehicle Make Code	Vehicle Model Name	Vehicle Model Code
Nissan	32	Murano	443
		Pathfinder	444
		Quest	445
		Sentra	446
		Stanza	447
		Titan	448
		Truck (Hardbody)	449
		Xterra	450
Oldsmobile	33	Alero	451
		Aurora	452
		Bravada	453
		Cutass Supreme	586
		Delta 88	585
		Intrigue	454
		Silhouette	455
Plymouth	34	Acclaim	456
		Breeze	457
		Colt	458
		Colt Vista	459
		Gran Fury	460
		Grand Voyager	461
		Horizon	462
		Laser	463
		Neon	464
		Prowler	465
		Reliant	466
		Sundance	467
		Voyager	468
Pontiac	35	Aztek	470
		Bonneville	471
		Firebird	472
		G6	473
		Grand AM	474
		Grand Prix	475
		GTO	476
		Le Mans	587
		Montana	477
		Sunfire	478
		Trans Am	588
		Vibe	479

Vehicle Make	Vehicle Make Code	Vehicle Model Name	Vehicle Model Code
Porsche	36	911	480
		928	481
		928	482
		944	483
		968	484
		Boxster	485
		Cayenne	486
Rolls-Royce	37	Rolls Royce	487
Saab	38	900	488
		9000	489
		9-3	490
		9-5	491
		MDX	492
		TSX	493
Saturn	39	Coupe	592
		Ion	494
		L Series	495
		Relay	496
		S Series	497
		Vue	498
Scion	40	TC	499
		XA	500
		XB	501
Sterling	46	825	583
		827	584
Subaru	41	Baja	502
		Forester	503
		Impreza	504
		Justy	505
		Legacy	506
		Leone	507
		Loyale	508
		Loyale XT	509
		Loyale XT6	510
		Outback	511
		SVX	512
Suzuki	42	Aerio	513
		Esteem	514
		Forenza	515
		Grand Vitara	516

Vehicle Make	Vehicle Make Code	Vehicle Model Name	Vehicle Model Code
Suzuki	42	Reno	517
		Side-Kick	518
		Swift	519
		Vitara	520
		X-90	521
		XL7	522
Toyota	43	4Runner	523
		Avalon	524
		Camry	525
		Celica	526
		Corolla	527
		Echo	528
		Highlander	529
		Land Cruiser	530
		Matrix	531
		MR2 Spyder	532
		Previa	580
		Prius	533
		Rav4	534
		Scion	593
		Sequioa	535
		Sienna	536
		Solora	537
		Tacoma	538
		Tundra	539
Volkswagon	44	Cabrio	540
		Cabriolet	541
		Corrado	542
		Eurovan	543
		Fox	544
		Golf	545
		GTI	546
		Jetta	547
		Jetta A3	548
		Jetta A4	549
		New Beetle	550
		Passat	551
		Passat 4Motion	552
		Phaeton	553
		Scirocco	554

Vehicle Make	Vehicle Make Code	Vehicle Model Name	Vehicle Model Code
Volkswagon	44	Touareg	555
		Vanagon	556
Volvo	45	240	557
		260	558
		700	559
		740	560
		760	561
		780	562
		850	563
		900	564
		940	565
		960	566
		C70	567
		S40	568
		S60	569
		S70	570
		S80	571
		S90	572
		V40	573
		V50	574
		V70	575
		V90	576
		XC70	577
		XC90	578

APPENDIX B: Data Collection Forms

U.S. Department of Transportation
National Highway Traffic Safety Administration

CRS AND LATCH USE INTERVIEW FORM

OMB No. 2127 – 0642 (Expiration Date 04/30/08)

A8
STATE: _____

FORM NUMBER
A1 [ ][ ][ ]

A2 [ ][ ]   A3 [ ][ ]
INTERVIEWER INITIALS   OBSERVER INITIALS

A4 [ ] A5 [ ] A6 [ ][ ]
DATE (MO/DAY/YEAR)

A9
SITE: _____

TIME OF DAY [Circle one.]:   AM   PM
A7

"Hello. We are conducting a community child safety survey. We are a community child safety field observational study which will take about 7 minutes. This study is sponsored by the National Highway Traffic Safety Administration. The study involves asking you a few questions and opening your vehicle doors to look at the restraint systems used by your child passengers. There is no need for your children to leave the vehicle. We will not touch your children. You are more than welcome to watch as we observe your children in their restraints. Our observers will not change anything, and if errors are found, you will be directed to a contact to learn how to properly position your children in their restraints. This survey is voluntary and your answers will be kept confidential. Please note that an agency may not conduct or sponsor, and a person is not required to respond to, collection of information unless it displays a currently valid OMB control number. Do we have your permission to conduct these activities?"

(Boxes for data entry use: See Vehicle Make and Model Code Manual.)

1. Vehicle Make: _____   A10   [ ][ ]

2. Vehicle Model: _____   A11   [ ][ ][ ]

3. Vehicle Year: _____   A12   [ ][ ][ ][ ]

4. Vehicle Type: A13 [ ]
- (1) 2-door car
- (2) 4-door car
- (3) Convertible
- (4) Mini van or van
- (5) Station wagon
- (6) SUV
- (7) Pick-up truck/regular cab (2 doors)
- (8) Pick-up truck/extended cab (2 doors)
- (9) Pick-up truck/crew cab (4 doors)
- (10) Other: _____ A14

5. Total Number of Occupants in Vehicle: _____   A15

6. Occupant Characteristics: [Complete the Occupant Characteristics Chart for all occupants.]

ASK THE DRIVER THE FOLLOWING QUESTIONS IF THERE IS A CHILD LESS THAN AGE 13 IN THE VEHICLE

7. Before today, had you ever seen or heard of a "booster seat"? A16 (1) Yes   (2) No   [If No skip to Q.10.]

8. For what size child should a booster seat be used? [Circle all responses offered by driver. If "other," fill in the blank.]
- A17 (1) Weight _____
- A18 (2) Age _____
- A19 (3) Height _____
- A20 (4) For a child who has outgrown a CSS, but is too small for a SB.
- A21 (5) Don't know.
- A22 (6) Other: _____

9. Why is a booster seat used? [Circle all responses offered by driver. If "other," fill in the blank.]
- A23 (1) To make the safety belt fit the child better.
- A24 (2) It is the law.
- A25 (3) So the child can see out of the windows.
- A26 (4) Safety.
- A27 (5) Don't know.
- A28 (6) Other: _____

10. When is it safe for your child to use a safety belt without a booster seat or child safety seat? [Circle all responses offered by driver. If "other," fill in the blank.]
- A29 (1) Weight _____
- A30 (2) Age _____
- A31 (3) Height _____
- A32 (4) When the child's knees have reached the edge of the vehicle seat.
- A33 (5) When the child is tall enough that the shoulder belt doesn't cut across the chin/neck.
- A34 (6) When the child can keep his/her feet flat on the floor.
- A35 (7) Don't know.
- A36 (8) Other: _____

11. Do you know about a new way to install a child safety seat without a safety belt?   A37   (1) Yes   (2) No [If NO, skip to Q.15].

12. What is it called?   A38
- (1) LATCH [If LATCH, also circle Yes to Q.13 when asking it]   (2) Tether   (3) ISOFIX
- (4) Don't know   (5) Other: _____   A39

13. Have you heard of the term "LATCH" associated with child safety seats?   A40   (1) Yes   (2) No   (3) Don't know.

14. Does your vehicle have a place to hook the child safety seat top tether strap?   A41   (1) Yes   (2) No   (3) Don't know.

15. Does your vehicle have bars to attach the child safety seat bottom connectors?   A42   (1) Yes   (2) No   (3) Don't know.

SECTION A

ASK THE FOLLOWING QUESTIONS FOR ALL CHILDREN IN CRSs WITH A HARNESS

[For each child in a harnessed CRS, circle the seating position and circle the response(s) offered by the driver for Q 16-19 and 20-25. If response is "Other," fill in the blank.]

TETHER

3	4	5	6
D			
2	1	8	7
B			

16. Some child safety seats have a strap on the back of the seat near the top called a tether. Does your child safety seat have a tether? E1
(1) Yes (2) No
(3) Don't know
[If NO or Don't Know, skip to Q 20.]

17. Are you using the tether? E2
(1) Yes (2) No *[If NO, skip to Q.19.]*

18. If YES, how easy or difficult is it for you to use? E3 *[Read response categories to driver.]*
(1) Very easy
(2) Relatively easy
(3) Neither easy nor difficult
(4) Somewhat difficult
(5) Very difficult

19. If NO, why aren't you using it? *[Driver may provide multiple answers.]*
(1) Didn't know about it. E4
(2) Did not think it was important to use. E5
(3) Don't know how to use it. E6
(4) Too hard to use. E7 E8
(5) Rear-facing seat. E9
(6) Other:

LOWER ANCHORS

3	4	5	6
D			
2	1	8	7
B			

E10

20. Does your child safety seat have connectors to attach it to the vehicle? E10
(1) Yes (2) No (3) Don't know
[If NO or Don't Know, interview is terminated for seating position.]

21. Are you using the connectors? E11
(1) Yes (2) No *[If No, skip to Q 25.]*

22. How easy or difficult is it for you to use the connectors? E12 *[Read response categories to driver.]*
(1) Very easy
(2) Relatively easy
(3) Neither easy nor difficult
(4) Somewhat difficult
(5) Very difficult

23. Are you also using the safety belt? E13
(1) Yes (2) No *[If NO, skip to Q 26]*

24. Why do you use both the safety belt and the connectors? E14 *[Circle response, or fill in "Other," then skip to Q 26]*
(1) Extra secureness or safety
(2) Believed it was necessary
(3) Other:

25. If NO, why aren't you using the connectors? *[Driver may provide multiple answers. Interview is terminated after completion of Q 25.] [at lower anchors are not used.]*
(1) Didn't know about it. E16 E17
(2) Did not think it was important to use. E17
(3) Don't know how to use it. E18
(4) Too hard to use. E19
(5) Couldn't get seat installed tightly. E20 E2d
(6) Other:

FOR LATCH (LOWER ANCHOR) USERS

26. Have you personally installed the child safety seat using the LATCH (lower anchor) system? A43
(1) Yes (2) No *[If NO, terminate interview.]*

27. What do you like about the LATCH (lower anchor) system? *[Driver may provide multiple answers.]* A44
(1) Easy to use. A45 (2) Can see the connectors. A46 (3) Results in a tight fit for the child safety seat. A47 (4) N/A (I don't like LATCH) A48 (5) Other:

28. What don't you like about connecting or disconnecting the LATCH (lower anchor) system? *[Driver may provide multiple answers.]* A49
(1) Hard to use. A50 (2) Hard to see the barn. A51 (3) Hard to find the barn. A52 (4) Hard to hook the CSS to the barn. A53 (5) Hard to release the CSS from the barn.

A54 (6) Can't get the CSS tight. A55 (7) N/A (I don't dislike anything about LATCH)
A56 (8) Other:

29. Can you see the connection bars, or are they hidden between the seat cushions? *[Circle one response.]*
(1) Yes (2) Hidden between the seat cushions. (3) Don't know

30. Have you had experience connecting a child safety seat to a vehicle using easy the safety belts? A57 (1) Yes A58 (2) No

31. If YES, which method do you prefer? A59 (1) LATCH (2) Safety Belts (3) Undecided A60 **31a. Why?** A60

32. Is it easier to attach a child safety seat to the vehicle with the lower anchors or vehicle safety belt? A61 (1) Lower anchors (2) Vehicle safety belt (3) Undecided A62

SECTION E   SECTION A

U.S. Department of Transportation
National Highway Traffic Safety Administration

Seating and Restraint Form

Arrangement of Vehicle Seating Positions and Occupant Restraint Equipment Available for each Seating Position
(For Observer Completion)

FORM NUMBER

INTERVIEWER INITIALS

OBSERVER INITIALS

DATE (MO/DAY/YEAR)

SITE: _____

Number of vehicle seating positions: _____ B1

To show the seating arrangement in this vehicle, the safety belt type available for each seat, and the kind of LATCH equipment available for each seat (whether occupied or not), do the following:

- *Place an X in chart below if seating position is NOT available in vehicle.*
- *Safety Belt: Circle either L-S (for lap-shoulder). L (for lap only), or S (for shoulder only)for each seating position.*
- *Tether: Circle the T for each designated tether seating position.*
- *Lower Anchors: Circle the LA for each designated lower anchor seating position.*

B6 L-S L S T LA B7 B8 **3**	B5 L-S L S LA B16 B17 **6**	B24 L-S L S T LA B25 B26 **9**
B3 L-S L S T LA B4 B5 **2**	B12 L-S L S LA B13 B14 **5**	B21 L-S L S T LA B22 B23 **8**
B2 L-S L S **D**	B9 L-S L S T LA B10 B11 **4**	B18 L-S L S T LA B19 B20 **7**

◄ Front of vehicle points in this direction

NHTSA 1002C

SECTION B

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CRS AND LATCH USE INTERVIEW FORM, QUESTION 6: OCCUPANT CHARACTERISTICS CHART

U.S. Department of Transportation
National Highway Traffic Safety Administration

OMB No. 2127 – 0642 (Expiration Date: 04/30/08)

- For all occupants, circle: sex; race/ethnicity; and restraint type used. For 4th row or cargo area (positions 10, 11, 12), attach 2nd form and edit seating positions.
- For children under age 13, enter age in the blank. For children under 1 year, add "m" for months (e.g., 8 m). Enter child's weight and circle height category.
- For occupants age 13+, circle age category.
- CRS=child restraint system; L-S = Lap-Shoulder; L=Lap Only; S=Shoulder Only; U=Unrestrained.

C1

FORM NUMBER   C3 C4   INTERVIEWER INITIALS   C12 C13 C14

Seat. Pos.	Sex	Age	Race/Ethnicity	Restraint Type Used	Weight	Height Show ref. chart
3	1) M 2) F	C5 ___ 3) 13-19 4) 20-29 5) 30-39 6) 40-49 7) 50-59 8) 60-69 9) 70-79 10) 80+	1) Caucasian C6 2) African Amer. C7 3) Hispanic/Latino C8 4) Asian C9 5) Native Amer. C10 6) Other C11	1) CRS 2) Booster 3) L-S 4) L 5) S 6) U	___ (lb)	1) ≤27" 2) 28-40" 3) 41-57" 4) >57"
2	1) M 2) F	___ 3) 13-19 4) 20-29 5) 30-39 6) 40-49 7) 50-59 8) 60-69 9) 70-79 10) 80+	1) Caucasian 2) African Amer. 3) Hispanic/Latino 4) Asian 5) Native Amer. 6) Other	1) CRS 2) Booster 3) L-S 4) L 5) S 6) U	___ (lb)	1) ≤27" 2) 28-40" 3) 41-57" 4) >57"
D	1) M 2) F	___ 3) 13-19 4) 20-29 5) 30-39 6) 40-49 7) 50-59 8) 60-69 9) 70-79 10) 80+	1) Caucasian 2) African Amer. 3) Hispanic/Latino 4) Asian 5) Native Amer. 6) Other	1) CRS 2) Booster 3) L-S 4) L 5) S 6) U	___ (lb)	1) ≤27" 2) 28-40" 3) 41-57" 4) >57"

Seat. Pos.	Sex	Age	Race/Ethnicity	Restraint Type Used	Weight	Height Show ref. chart
6	1) M 2) F	___ 3) 13-19 4) 20-29 5) 30-39 6) 40-49 7) 50-59 8) 60-69 9) 70-79 10) 80+	1) Caucasian 2) African Amer. 3) Hispanic/Latino 4) Asian 5) Native Amer. 6) Other	1) CRS 2) Booster 3) L-S 4) L 5) S 6) U	___ (lb)	1) ≤27" 2) 28-40" 3) 41-57" 4) >57"
5	1) M 2) F	___ 3) 13-19 4) 20-29 5) 30-39 6) 40-49 7) 50-59 8) 60-69 9) 70-79 10) 80+	1) Caucasian 2) African Amer. 3) Hispanic/Latino 4) Asian 5) Native Amer. 6) Other	1) CRS 2) Booster 3) L-S 4) L 5) S 6) U	___ (lb)	1) ≤27" 2) 28-40" 3) 41-57" 4) >57"
4	1) M 2) F	___ 3) 13-19 4) 20-29 5) 30-39 6) 40-49 7) 50-59 8) 60-69 9) 70-79 10) 80+	1) Caucasian 2) African Amer. 3) Hispanic/Latino 4) Asian 5) Native Amer. 6) Other	1) CRS 2) Booster 3) L-S 4) L 5) S 6) U	___ (lb)	1) ≤27" 2) 28-40" 3) 41-57" 4) >57"

Seat. Pos.	Sex	Age	Race/Ethnicity	Restraint Type Used	Weight	Height Show ref. chart
9	1) M 2) F	___ 3) 13-19 4) 20-29 5) 30-39 6) 40-49 7) 50-59 8) 60-69 9) 70-79 10) 80+	1) Caucasian 2) African Amer. 3) Hispanic/Latino 4) Asian 5) Native Amer. 6) Other	1) CRS 2) Booster 3) L-S 4) L 5) S 6) U	___ (lb)	1) ≤27" 2) 28-40" 3) 41-57" 4) >57"
8	1) M 2) F	___ 3) 13-19 4) 20-29 5) 30-39 6) 40-49 7) 50-59 8) 60-69 9) 70-79 10) 80+	1) Caucasian 2) African Amer. 3) Hispanic/Latino 4) Asian 5) Native Amer. 6) Other	1) CRS 2) Booster 3) L-S 4) L 5) S 6) U	___ (lb)	1) ≤27" 2) 28-40" 3) 41-57" 4) >57"
7	1) M 2) F	___ 3) 13-19 4) 20-29 5) 30-39 6) 40-49 7) 50-59 8) 60-69 9) 70-79 10) 80+	1) Caucasian 2) African Amer. 3) Hispanic/Latino 4) Asian 5) Native Amer. 6) Other	1) CRS 2) Booster 3) L-S 4) L 5) S 6) U	___ (lb)	1) ≤27" 2) 28-40" 3) 41-57" 4) >57"

↑ Front of vehicle points in this direction.

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SECTION C

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CRS AND LATCH USE OBSERVATION FORM

US Department of Transportation
National Highway Traffic Safety Administration

FORM NUMBER: [ ] OBSERVER INITIALS: [ ] DATE: [ ] Month [ ] Day [ ] Year STATE: [ ] SITE: [ ]

Record data for each child under age 13 on a separate form. Circle one choice unless indicated. Use the back of this form for additional comments.

Child Position (Circle seating position number):

3	6	9
2	5	8
D	4	7

Front of vehicle points in this direction

Available SB Type for this Position (whether or not used):
(1) Lap and Shoulder Belt
(2) Lap Belt Only
(3) Shoulder Belt Only
(4) None

If Child Is in Positions 2 or 3: D2
Is Passenger Air Bag On-Off Switch Available? (1) YES (2) NO
If Available, Position of On-Off Switch: D3 (1) ON (2) OFF

Restraint Type Used:
(1) CRS
(2) Booster
(3) Lap-Shoulder Belt
(4) Lap Belt Only
(5) Shoulder Belt Only
(6) Unrestrained

For Restraint Types 1- 5, Is Child Harnessed/Restrained? D4
(See def. Harness or safety belt must be: buckled & over shoulders & snug.)
(1) YES (2) NO

—If Restraint Type 3-6, stop observation. If Restraint type 1 or 2, continue below—

If CRS or Booster, Type Used: D5

CRS Type:
(1) Infant only with Base
(2) Infant only w/o Base
(3) Convertible (Rear-Facing)
(4) Forward-Facing w/Harness
(9) Other: D6

Booster Type:
(5) Both Positioning Booster (BPB)
(6) Belt-Positioning Booster w/LATCH
(7) Booster w/tethered harness
(8) Shield Booster

CRS/Booster Attachment to Vehicle: D7
(1) Lap belt only
(2) Shoulder belt only
(3) Lap and shoulder belt
(4) Lower anchors only
(5) Tether only
(6) Lower anchors + tether
(7) Lower anchors + SB
(8) Lower anchors + tether + SB
(9) Tether + SB
(10) Not attached

Survey Group (Circle all that apply): D1
Child age 0-12 .... Group 1
Child age 0-4, Back seat in a CRS .... Group 2
Child age 0-4, Back seat in a CRS, vehicle equipped with tether anchor .... Group 3
Child age 0-4, Back seat in a CRS, vehicle equipped with lower anchors .... Group 4

TETHER

Is tether anchor present for this position? (1) YES (2) NO (3) Unsure

Does CRS have a tether? D8 (1) YES (2) NO (3) Unsure
(If NO, stop tether observation. Move to next column for lower anchor obs).

If rear facing CRS, can tether be used? D9 (1) YES (2) NO (3) N/A
Adjustor type: D10 (1) Tilt Lock (2) Double Back (3) Other (4) Unsure

Is tether in use? D11 (1) YES (2) NO (slowed) (3) NO (hangs loose) D12 (1) YES (2) NO
(If NO, stop tether observation. Move to next column for lower anchor obs).

Can you see what the tether is attached to? (1) YES (2) NO D12

Tether attachment (Answer all questions.)

(1) CRS Mfg. permits use of RF tether D13 (1) Y (2) N (3) N/A
(2) Combination used as BPB with tether D14 (1) Y (2) N (3) N/A
(3a)Tether routed over an integral/no head restraint D15 (1) Y (2) N (3) N/A
(3b)Tether routed under an adjustable head restraint D16 (1) Y (2) N (3) N/A
(3c)Tether routed over a raised-adjustable head restraint D17 (1) Y (2) N (3) N/A
(3d)Tether routed over a down-adjustable head restraint D18 (1) Y (2) N (3) N/A
(3e)Tether wrapped around head restraint D19 (1) Y (2) N (3) N/A
(3f)Other routing: D20
(4) Attached to designated tether anchor D21 (1) Y (2) N
If NO, explain: D22

(5) One tether per tether anchor (See def.) D23 (1) Y (2) N
(6) Twisted no more than a half-twist D24 (1) Y (2) N
(7) Tether is snug (passes pinch test) D25 (1) Y (2) N
If NO:
(7a) User error D26 (1) Y (2) N
(7b)Tether anchor too close to veh seat back D27 (1) Y (2) N
(7c) Other D28 (1) Y (2) N
(8) Tether tightness allows CRS base to rest on seat cushion D29 (1) Y (2) N
(9) Other (explain): D30

LOWER ANCHORS

Are lower anchors present in seat position? (1) YES (2) NO (3) Unsure

Does CRS have lower attachment? D31 (1) YES (2) NO (3) Unsure

If YES, Connector Type: D32
(1) Flexible strap, hook-on
(2) Flexible strap, push-on
(3) Rigid attachment
(4) Unsure

If Flexible Strap:
D33 Webbing Tension Release: (1) Squeeze release (2) Tilt-Lock (3) Unsure
D34 Strap Type: (1) Single (2) Side straps (3) Two straps (4) Unsure

Are lower anchors in use? (1) YES (3) NO (hangs loose)
D35 (2) NO (stowed) (4) Unsure
(If NO or unsure, stop lower anchor observation.)

Can you see what lower attachments are connected to? D37
(1) Both (2) One (3) Neither

Lower attachment (Answer all questions.)
(1) Combination used as BPB with lower anchors D38 (1) Y (2) N (3) N/A
(2) Correct path used for flexible single strap D39 (1) Y (2) N (3) N/A
(3) Attached to designated lower anchors D39 (1) Y (2) N IF NO:
D40 (3a) In non-designated position, attached using lower anchors D40 (1) Y (2) N
D41 (3b) In designated position, attached to seat material or spring and not anchor D41 (1) Y (2) N

D42 (3c) In designated position, only one side attached to anchor D42 (1) Y (2) N
D43 (3d) Other:
(5) One connector per bar D44 (1) Y (2) N
(6) Connector installed right-side up D45 (1) Y (2) N
(6) Twisted no more than a half-twist D46 (1) Y (2) N
(7) Tight installation (1-inch rule) D47 (1) Y (2) N
(7a) User Error D48 (1) Y (2) N
(7b) CRS Base Too Wide D49 (1) Y (2) N
(7c) Other: D50
(8) Correct angle for rear-facing CRS D51 (1) Y (2) N
(9) Other (explain): D52

SECTION D

NH-TSA 7002

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APPENDIX C: Data Checks and Data Entry Procedures

Data Checks and Data Entry Procedures

Data Collection Forms

There were 4 forms used in the field data collection effort:

- NHTSA 1002   Observation Form (LATCH Use and Misuse)
- NHTSA 1002A Interview Form (Vehicle, Booster, and LATCH Questions)
- NHTSA 1002B Interview Form (Question 6: Occupant Characteristics)
- NHTSA 1002C Observation Form (Vehicle Restraint/Seating Positions)

Initial Data Checks

Data were initially checked at the field sites by the State Site Coordinator (SSC): The SSCs checked for missing data and inconsistencies across the forms. Data Collectors were then questioned regarding their recordings; and if necessary corrections were made.

Secondary Data Checks

Prior to data entry, the data were reviewed by project staff for overall "data completeness" and were given a more specific check for inconsistencies in vehicle LATCH configurations (i.e., top tether and/or lower anchor bar systems), target child positions and restraint use, and LATCH presence in target child seating position.

Vehicle LATCH Configurations (top tether and/or lower anchor bar systems, Form 1002A) were checked and compared with information from the most comprehensive guide on the topic (*LATCH 2005 – The Essential Guide*, by D. Stewart, N. Lang, and S Emery – the "Green Book"). Revisions (or additions) were made to this data collection form, in red ink, upon finding missing or inconsistent data from the Green Book review.

Target Child Position and Child Restraint Use appear on Interview Form 1002B and Observer Form 1002. Form 1002C also had a record of vehicle restraint type for seating position and was used as an additional verification check. Inconsistencies in the data were checked (e.g., if the interviewer recorded that the child was in a booster seat and the observer recorded that the child was in a CRS). If a clear-cut decision could not be made about the type of restraint use (by looking at the CRS or Booster type, for example), then the data field was left blank.

LATCH Presence in Seat Occupied by Child appears on Observation Form 1002. Recordings were made for the presence of a tether and/or the presence of lower anchors in the seat positions occupied by the target child or children. Data on this form were checked with Observation Form 1002C to verify consistency with the LATCH system attachments in the vehicle.

Data Entry Procedures

Data entry specialists received orientation to the content of the data fields for each data collection form and were trained by project staff regarding the proper procedure for entering the

data. Accuracy of data entry was maximized by use of a data entry form in MicroSoft ACCESS, using combo boxes that have drop-down lists for coding variable choices in each data field. The selection of choices for the data entry specialist eliminated the need to remember values and minimized the chance of data entry error.

Data Entry Checks

Following entry of all data, further data checking activities were conducted. These are described below.

Range Checks. For each field, data were sorted in both ascending and descending orders to isolate entries outside of the range of values specified in the coding manual (e.g., a field containing the value of "4" when only 1-3 for Yes, No, and N/A were expected). This was rare, but when it occurred, the corresponding paper forms were pulled to determine what the correct code for the variable should have been, and the correct data were then entered into the database.

Skip Pattern Checks. Another data checking activity included isolating groups of variables that followed skip patterns to see if data were present when there should be none, based on the code to a prior variable. If data appeared in fields which should have been blank, the corresponding paper forms were pulled to see where the discrepancy was (e.g., an answer should have been coded as 1=Yes to the prior variable based on what was circled on the data form, instead of 2=No, and the following data were entered correctly; or the prior field was accurately coded as 2=No, and the interviewer should have skipped the following questions).

Data Consistency Checks. Some tether and lower anchor observations were relevant to specific restraint types (e.g., a rear-facing CRS or a belt-positioning booster). If a child was riding in a restraint type that was not relevant to the observation, the item should have been coded as 3 =N/A. Occasionally, observers incorrectly recorded such observations as a 1=Yes or a 2=No. These forms were pulled to double check the coding of the seat, and the database entries were corrected.

Forms were pulled when there were discrepancies in Survey Group and CRS or Booster Type. For example, children riding in booster seats (Booster Type 5) who were coded as either Group 2, 3, or 4 were recoded as Group 1.

When CRS/Booster Attachment to vehicle was coded as a "3" (Lap and Shoulder Belt), and the tether and lower anchor observation columns indicated that a tether and/or the lower anchors were in use, Attachment was recoded to either "7" lower anchors + SB, or "8" lower anchors + tether + SB, or "9" tether + SB.

When 7a, 7b, and/or 7c were coded as "1=Yes" in the tether and lower anchor observation columns, and there were blanks for the other 1-2 variables in this sequence, the blanks were recoded to "2=No."

<u>Review of Text Items</u>. Some recoding of "Other" responses occurred for interview questions 8, 9, and 10; and 27, 28, and 29 when the response given for "Other" really fit into one of the existing categories. For example, for Question 28, if the interviewer wrote "seat moves too much" or "can't tighten enough" and response #6 ("Can't get CSS tight") was not coded as 1=Yes, than 28(6) was recoded from a "2" to a "1."

If numeric codes were entered in a character field, this indicated a position error in the entry of the data, either for earlier variables or later variables. Paper forms were pulled to determine where the code should have been entered.

<u>Age Category 2 Children Who Were Missing Actual Age</u>. Six children who were coded as Age Group 2 (age 1 to 12 years) were missing actual age. Five of these children were coded as Survey Groups 2 through 4, indicating that they were age 0 to 4. All five of these children were riding in forward-facing CRSs. Weights were provided for 4 of the 5 children, ranging from 23 pounds to 35 pounds. A decision was made to enter a "guestimate" of the actual ages of the 5 children in Survey Groups 2, 3, and 4 based loosely on their weight, as follows (identified by Form Number and Occupant Seating Position), because leaving them blank removes them from queries using "< age 5" as a criteria for inclusion:

     1140-6, weight = 27 pounds: entered actual age as 2.
     1213-5, weight = 35 pounds: entered actual age as 3.
     4056-7, weight = missing: entered actual age as 3.
     5028-5, weight = 26.5 pounds: entered actual age as 2.
     5108-5, weight = 23 pounds: entered actual age as 2.

APPENDIX D: Glossary of Child Restraint Terms

Glossary of Child Restraint Terms

<u>Booster Seats</u>

> <u>Belt-positioning Booster (BPB)</u> – A device that raises the child's seating height, to provide a better fit for the vehicle lap and shoulder belts. A BPB may be a low-back or a backless booster, or may have a high back that provides head restraint. Some BPBs come with LATCH systems (when they are combination forward-facing and BPB restraints) and some come with tethered harnesses.

<u>Child Restraint Systems (CRS)</u> – An infant or child seat, vest, or similar device made for the purpose of reducing motor-vehicle-related injury and deaths in the event of a crash.

<u>Child Safety Seat (CSS)</u> – This term is generally reserved to describe infant, convertible, and forward-facing child restraint systems used with a harness. It is often used synonymously with child restraint system; however, in the pure sense, it does not encompass booster seats.

> <u>Infant-only</u> – A rear-facing CRS for an infant. Most are for babies from 5 to 20 or 22 pounds. Some are designed with a base that stays attached to the vehicle seat, so the seat can be used as an infant carrier.

> <u>Convertible</u> – This CRS is intended for use in the rear-facing mode for a baby up to at least 20 or 22 pounds, and later in the forward-facing mode for a toddler over age 1 and over 22 pounds up to 40 pounds.

> <u>Forward Facing with Harness</u> - A CRS with a full harness for toddlers over age 1, used facing forward only. Most have an upper weight limit of 40 pounds, but a few accommodate children up to 60 to 80 pounds or more.

<u>LATCH</u> - <u>L</u>ower <u>A</u>nchors and <u>T</u>ethers for <u>C</u>hildren, an acronym used to refer to the child restraint installation system (lower anchor and tether) being phased in for CRSs and vehicles.

<u>Lower Anchor (Vehicle)</u> - One of a pair of horizontal bars in the area of the vehicle seat bight (space where back support and lower seat cushions meet), used in place of a vehicle safety belt to secure the base of the CRS to a vehicle with lower anchor attachments.

<u>Lower Attachment (Child Seat)</u> – An assembly (connector, adjuster, and often webbing) on a child restraint that connects it to a lower anchor in the vehicle. There are three types of connector types (flexible strap with hook-on connector, flexible strap with push-on connector, and rigid attachment).

<u>Tether</u> - The strap and associated hardware that anchors the top of a CRS to the vehicle body. The tether hook from the back of the CRS hooks into the vehicle's tether anchor.

"Unsure" category field in some variables. While this code does not provide useful data on tether or lower anchor use characteristics, it does provide information on observer's attempts to collect this data. In other words, the data were not missed, just unable to be observed and recorded.

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