Crash Investigation Sampling System
2019 Analytical User's Manual

**CRASH
INVESTIGATION
SAMPLING SYSTEM**

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16. Abstract

The Crash Investigation Sampling System provides a comprehensive national traffic crash database. Data collection is accomplished at 32 geographical sites, called Primary Sampling Units. This data is weighted to represent all police reported motor vehicle crashes occurring in the United States during the year involving passenger cars, light trucks and light vans that were towed.

This manual and the NHTSA Field Crash Investigation 2019 Coding and Editing Manual are part of the primary documentation supporting the 2019 CISS data file.

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INTRODUCTION

The National Highway Traffic Safety Administration is releasing data from the recently modernized Crash Investigation Sampling System (CISS) - a replacement of the National Automotive Sampling System Crashworthiness Data System (NASS/CDS).

NHTSA had been collecting motor vehicle crash data through two nested probability sampling systems - the General Estimates System (GES) and the Crashworthiness Data System (CDS) until 2015. The GES collected general information of the traffic crashes from police crash reports only. The CDS collected detailed information from the crashes involving passenger vehicles to better understand the crashworthiness of vehicles and consequences to occupants in crashes. NHTSA had developed and implemented CDS in the 1980s.

However, over the past two decades, the general population, vehicles and highway safety measures have changed dramatically; as a result, crash characteristics and distributions have also changed. In addition, the research interest of the transportation community has expanded to topics such as driver performance, crash avoidance, and the effects of new technologies on crash mitigation.

NHTSA recognized the need to undertake a redesign of NASS to better support its own and stakeholders' data needs. Congress authorized NHTSA to undertake a significant effort to re-design and modernize its crash data collection system.

The redesign started in January 2012. Major improvements have been made to the sample design, the data collection technology, and the information technology infrastructure.

The CISS crash sample is a nationally representative probability sample. From the sampled crashes, data about the accident, events, vehicles, and occupants is collected. CISS began data collection in 2016; and 2017 is the first year that NHTSA published CISS data.

This document lists major changes from CDS to CISS (Section 2) and changes in 2019 (Section 4). It also provides a brief overview of CISS sample design, weighting procedure, and estimation method (Section 3). The main purpose of this document is to provide a detailed description of data element definitions and their attributes (Section 5).

CISS data users may also find the following related documents useful.

- Zhang, F., Noh, E. Y., Subramanian, R., & Chen, C.-L. (2019, September). *Crash Investigation Sampling System: Sample design and weighting* (Report No. DOT HS 812 804). National Highway Traffic Safety Administration. Available at https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812804. This

document provides detailed description on CISS sample design and weighting procedures.

- Zhang, F., Subramanian, R., Chen, C.-L., & Noh, E. Y. (2019, September). *Crash Investigation Sampling System: Design overview, analytic guidance, and FAQs* (Report No. DOT HS 812 801). National Highway Traffic Safety Administration. Available at https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812801. This document gives an overview of CISS sample design and weighting procedures, explains basic concepts of complex survey data analysis, discusses issues related to CISS data analysis, and provides examples of analyzing CISS data in SAS and SUDAAN.

- Zhang, F., & Chen, C-L. (2013, July). *NASS-CDS: Sample design and weights*. (Report No. DOT HS 811 807). National Highway Traffic Safety Administration. Available at https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/811807. This document describes CDS sample design and weighting process.

- Radja, G. A. (2016, September). *National Automotive Sampling System - Crashworthiness Data System, 2015 analytical user's manual* (Report No. DOT HS 812 321). National Highway Traffic Safety Administration. Available at https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812321. This document is the CDS counterpart of CISS Analytical User's Manual. A 2016 CDS manual was not created because of the data collection gap during the transition from CDS to CISS. More related documents can be found in Section 1 of the CDS Analytical User's Manual.

Comments on the CISS files and documentation are appreciated. Please address them to the National Center for Statistics and Analysis - NSA-0010, National Highway Traffic Safety Administration, 1200 New Jersey Avenue, SE, Washington, DC 20590. Comments may also be e-mailed to NCSARequests@dot.gov.

SECTION 2

MAJOR CHANGES FROM CDS TO CISS

2.1   SAMPLE DESIGN CHANGES

- Target population: The target population for the CISS is all police-reported motor vehicle crashes on a traffic way involving a passenger vehicle[1] and in which a passenger vehicle is towed from the scene for any reason. This definition is slightly different from the CDS, which required that the vehicle be towed due to damage. This change was made because sometimes it is difficult to determine why the vehicles were towed.

- Independent samples: The CISS sample design is independent from any other NHTSA surveys, including NHTSA's new Crash Report Sampling System (CRSS) that replaces the NASS General Estimates System (GES). In comparison, the GES and the CDS samples were nested, i.e., the CDS used a subset of the GES data collection sites. The independent design allows NHTSA to optimize each system - CISS and CRSS.

- Different formation of Primary Sampling Units (PSUs): In both CISS and CDS, a PSU is either a county or a group of counties. In CISS, the nation was partitioned into 1,784 PSUs, while in CDS 1,195 PSUs were formed. CISS's average PSU size is smaller than CDS. This resulted in more operationally efficient PSUs in CISS. In addition, a new composite PSU measure of size variable using the various estimated crash counts by the new police crash report (PAR or PCR) domains was used in CISS.

- Scalable PSU sample: CISS has been designed in a way that the PSU sample size can be increased without changes to the existing PSU sample while the corresponding selection probabilities are still trackable. This enables NHTSA to accommodate potential budget fluctuations with minimum operational disruptions.

- Scalable police jurisdiction (PJ) sample: The Pareto sampling method was used to select the CISS PJ sample. The second stage sampling frame, the police jurisdictions in the selected PSUs, changes over time. Consequently, the PJ sample needs to be reselected occasionally to maintain adequate sample size or to cover the updated PJ frame. Pareto sampling reduces the changes to the existing PJ sample when a new PJ sample is reselected.

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[1] "Passenger vehicles" are automobiles, automobile derivatives, SUVs, van-based light trucks, light conventional trucks (pickup-style cab), and other light trucks with gross vehicle weight ratings (GVWRs) less than or equal to 4,536 kilograms or 10,000 lbs.

- Alignment with data needs: PAR domains were revised based on data needs to oversample crashes involving killed or injured occupants. At the PAR sample selection stage, PAR domains are used to oversample crashes of high interest.

- Optimized sample allocation: The optimal CISS PSU, PJ, and PAR sample sizes were determined by minimizing the variance of a simplified variance estimator subject to fixed cost.

- Replacement cases: In the CISS, if the vehicle that defines the PAR domain is not available for investigation, a replacement case is selected and investigated. This new feature results in more useful cases for analysis.

- Weight adjustments: In the CISS, non-responding PJs and PARs are monitored and weight adjustments are applied to mitigate potential non-response bias. Additionally, large weights are truncated by the 10 PAR domains.

- Jackknife replicate weights for variance estimation: Adjusted Jackknife replicate weights are provided as part of the CISS analysis files for variance estimation. These adjusted Jackknife replicate weights capture the impact of the weight adjustments and therefore facilitate a much better representation of the total variance.

2.2   INJURY CODING CHANGES

Injury coding had one of the most significant change between NASS-CDS and CISS. Users should refer to the following white paper which describes the changes:

DOCUMENTING INJURIES IN NHTSA's CISS PROGRAM
https://www-esv.nhtsa.dot.gov/Proceedings/25/25ESV-000173.pdf

Please refer to Appendix E - MAPPING BETWEEN NASS-CDS AND CISS for more information.

SECTION 3

CISS SAMPLE DESIGN, WEIGHTING, AND ESTIMATION

3.1   CISS SAMPLE DESIGN

The CISS target population is all police reported motor vehicle crashes on a traffic way involving a passenger vehicle towed from the scene. This target population is different from the CDS target population that required the passenger vehicle be towed from the scene due to damage. While this change eases the operational burden in the field but it also increases the size of the target population. To optimize CISS, NHTSA has also decided that CISS be independent from other NHTSA surveys, including CDS and CRSS - the successor of NHTSA's GES.

As with the CDS, the CISS used a three-stage sampling method to select a nationally representative probability sample of police reported crashes involving a towed passenger vehicle. First, the Nation was partitioned into 1,784 PSUs. A CISS PSU is either a county or a group of counties. An initial scalable sample of 49 PSUs was selected from 24 strata using probability proportional to size (PPS) sampling method. In 2017, as CISS was being implemented, the PSU sample size was 24 PSUs selected from 12 strata. Four more PSUs were added to CISS data collection in early 2018. Starting from July 2018, CISS has 32 data collection PSUs. All 32 PSUs cooperated with NHTSA's data collection request.

Within each selected PSU, the secondary sampling units (SSU) are PJs. An SSU sample was selected from each cooperating PSU using the stratified Pareto sampling method. The Pareto sampling results in approximate PPS samples and minimizes the difference between the new sample and the original sample if PJ sample is reselected. In 2019 a total of 233 SSUs were selected from the 32 sampled PSUs and 228 SSUs cooperated.

The third stage sampling, the PAR sample selection, is conducted weekly. Every week, in each selected PSU, new PARs accumulated in the sampled PJs were grouped into 10 PAR domains (see Table 1 below). These PAR domains are different from those used in CDS and they were formed based on the results of NHTSA's assessment of internal and public data needs. These PAR domains were used to ensure enough cases are selected into the sample for the following sub-populations:

- Crashes involving at least one passenger vehicle occupant killed;

- Crashes involving occupant injured or possibly injured in a recent model year passenger vehicle (vehicle no more than 4 years old);

- Crashes involving an occupant severely injured in a passenger vehicle.

Then all new PARs in the same PSU were pooled together and a Pareto sample of PARs was selected. In 2019, a total of 3,090 PARs were selected from the 32 PSUs.

Table 1: CISS PAR Domains, Crash Sample Allocation, and Population Distribution

CISS Analysis Domains	Description	Target Percent of Sample	Percent of Sample	Estimated Percent of Population
1	At least one occupant of towed passenger vehicle is killed	5%	5.0%	0.5%
2	Crashes not in Stratum 1 involving: • A recent model year passenger vehicle in which at least one occupant is incapacitated	10%	11.2%	0.9%
3	Crashes not in Stratum 1 or 2 involving: • A recent model year passenger vehicle in which at least one occupant is non-incapacitated, possibly injured or injured but severity is unknown.	20%	19.7%	11.3%
4	Crashes not in Stratum 1-3 involving: • A recent model year passenger vehicle in which all occupants are not injured	15%	14.3%	19.6%
5	Crashes not in Stratum 1-4 involving: • A mid-model year passenger vehicle in which at least one occupant is incapacitated	6%	5.9%	0.7%
6	Crashes not in Stratum 1-5 involving: • A mid-model year passenger vehicle in which at least one occupant is non-incapacitated, possibly injured or injured but severity is unknown	12%	12.4%	8.3%
7	Crashes not in Stratum 1-6 involving: • A mid-model year passenger vehicle in which all occupants are not injured	10%	10.1%	17.4%
8	Crashes not in Stratum 1-7 involving: • An older model year passenger vehicle in which at least one occupant is incapacitated	6%	5.1%	1.6%
9	Crashes not in Stratum 1-8 involving: • An older model year passenger vehicle in which at least one occupant is non-incapacitated, possibly injured or injured but severity is unknown.	10%	10.6%	13.6%
10	Crashes not in Stratum 1-9 involving: • An older model year passenger vehicle in which all occupants are not injured	6%	5.7%	26.1%

Note 1: This table uses the following definitions:
- Recent model year (or late model year): vehicles that are <= 4 years old (i.e., any model year of 2015 to 2020 for 2019 CISS)
- Mid-model year: 5 to 9 year old vehicles (i.e. any model year of 2010 to 2014 for 2019 CISS)
- Older model year: vehicles that are 10 years old or older (i.e., any model year up to 2009 for 2019 CISS)

Note 2: Percent of sample and estimated percent of population are based on 2019 CISS

After the PAR sample is selected, if the vehicle that defines the selected PAR's domain is unavailable for data collection, the PAR sample size is augmented and the PAR sample is reselected using the Pareto sampling method to add a replacement PAR. Replacement cases increase useful sample size. In 2019 a total of 3,090 cases were selected - including 301 non-responding cases, 301 replacement cases, and 8 out-of-scope cases. The final CISS analysis file has 2,781 cases.

Table 2 shows the sample sizes of three stages for each sample year of CISS.

Table 2: Sample Sizes in CISS

Year	PSU	PJ		PAR				
	Sampled[1]	Sampled	Cooperated	Sampled	Non-responding	Replacement	Out-of-Scope	Coded
2017	24	182	169	2,331	288	288	8	2,035
2018	32	233	225	2,992	298	298	11	2,683
2019	32	233	228	3,090	301	301	8	2,781

[1] All sampled PSUs cooperated.

For each selected PAR, CISS technicians collect information about the crash, the vehicles which sustain a harmful event, and the occupants of towed in-transport CISS applicable vehicles. Different levels of in-depth information are collected for the vehicle according to vehicle type (i.e., CISS applicable vehicle or not), transport status, and towing status of the vehicle. It is highly recommended that analysts intending to use the CISS data familiarize themselves with the relationship between data files which are visualized in detail in Appendix F: Entity Relationship Diagram of CISS Datasets.

Trained crash technicians obtain data from crash sites, studying evidence such as skid marks, fluid spills, broken glass, and bent guard rails. They locate the vehicles involved, photograph them, measure the crash damage, and identify interior locations that were contacted by the occupants. The technicians also interview crash victims, if they are available and cooperative, and review their medical records to determine the nature and severity of injuries.

For more detailed information about the CISS sample design see "Crash Investigation Sampling System: Sample Design and Weighting" (Zhang, Noh, et al., 2019).

3.2   CISS WEIGHTING PROCEDURE

Because of the complex features used in the sample design, the CISS sample is not a simple random sample and users need to use proper weights to produce unbiased and robust estimates. The CISS weights were created in the following steps:

- Calculate the base weights (the inverse of selection probabilities) at all three stages.
- Adjust the base weights for PJ and PAR non-response[2] (There is no PSU-level non-response).
- Calibrate the PJ and the PAR weights using the urban or rural total PAR domain counts to correct potential non-response bias and coverage bias.
- Calibrate PSU weights using the U.S. resident population estimates to capture the effect of population shifts.
- Truncate the large weights. Weights larger than 3 percent of the PAR domain weight total are truncated to 3percent of the PAR domain weight total and the truncated weights are redistributed to other cases in the same PAR domain.
- The adjusted Jackknife replicate weights were created to capture the effects of weight adjustments on variance estimation.

The final weight variable for the CISS estimation is CASEWGT. For 2017 CISS, 24 sets of adjusted Jackknife replicate weights are JKWGT1 - JKWGT24. Starting from 2018, 32 sets of adjusted Jackknife replicate weights are JKWGT1 - JKWGT32. See "Crash Investigation Sampling System: Sample Design and Weighting" (Zhang, Noh, et al., 2019) for more detailed information on the CISS weighting procedure.

3.3   CISS ESTIMATION

The complex sample design features such as unequal selection probability, clustering, and stratification used in the CISS sample design must be taken into account while analyzing CISS data. Ignoring these sample design features may cause severe bias in both point estimates as well as the associated standard errors.

Estimation methods and computer software for complex survey data analysis are available. Specialized procedures for complex survey analysis, such as SAS SURVEY procedures and SUDAAN procedures, should be used for CISS data analysis along with proper design statements and weights.

Because of the small CISS PSU sampling fractions, the with-replacement design option can be used for CISS data analysis. The PSU stratification identification variable is PSUSTRAT. The PSU identification variable is PSU.

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[2] Non-responding PARs are the replaced PARs. Non-responding PJs are PJs which refused to cooperate.

Different variance estimation methods (for example, the Jackknife variance estimation method and the Taylor series method) can be used to estimate the standard errors of CISS estimates. Every year, a set of adjusted Jackknife replicate weights (SAS file: JKWGT), along with Jackknife coefficients (SAS file: JKCOEFF)[3], are also provided for variance estimation. The adjusted Jackknife replicate weights capture the gain in efficiency due to the weight adjustments so they may produce smaller variance estimates than the unadjusted Jackknife replicate weights or the Taylor series method. But the adjusted Jackknife replicate weights can be used only for single year data analysis.

The number of adjusted Jackknife replicate weights and Jackknife coefficients are different if the PSU sample size or the number of PSU strata changes. In 2017, 24 adjusted Jackknife replicate weights were created and they have the same Jackknife coefficient. In 2018, 32 adjusted Jackknife replicate weights were created, and they have different Jackknife coefficients. Starting from 2019, 32 adjusted Jackknife replicate weights were created, and they have the same Jackknife coefficient. In SAS, one option is to assign a single Jackknife coefficient when all Jackknife coefficients are the same or to list all Jackknife coefficients using comma or space when they have different values. Another option is to assign a SAS file that has Jackknife coefficients. In SUDAAN, a single Jackknife coefficient is assigned when all Jackknife coefficients are the same. If Jackknife coefficients have different values, they are listed using a simplified form in the JACKMULT statement. Table 3 shows the corresponding statements with Jackknife coefficient option to be used in SAS and SUDAAN by year.

Table 3: Jackknife Replicate Weights Statements in SAS and SUDAAN

Year	Software	Statements
2017	SAS	REPWEIGHTS JKWGT1-JKWGT24/JKCOEFS=0.5;
	SUDAAN	JACKWGTS JKWGT1-JKWGT24/ADJJACK=0.5;
2018	SAS	REPWEIGHTS JKWGT1-JKWGT32 /JKCOEFS=0.5, 0.5, 0.5, 0.5, 0.75, 0.75, 0.75, 0.75, 0.5, 0.5, 0.5, 0.5, 0.5, 0.5, 0.5, 0.5, 0.5, 0.5, 0.5, 0.5, 0.75, 0.75, 0.75, 0.75, 0.5, 0.5, 0.5, 0.5, 0.75, 0.75, 0.75, 0.75; or REPWEIGHTS JKWGT1-JKWGT32 /JKCOEFS=JKCOEFF;
	SUDAAN	JACKWGTS JKWGT1-JKWGT32; JACKMULT 4*0.5 4*0.75 12* 0.5 4*0.75 4*0.5 4*0.75;
2019	SAS	REPWEIGHTS JKWGT1-JKWGT32/JKCOEFS=0.5; or REPWEIGHTS JKWGT1-JKWGT32 /JKCOEFS=JKCOEFF;
	SUDAAN	JACKWGTS JKWGT1-JKWGT32/ADJJACK=0.5;

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[3] Jackknife coefficients (SAS file: JKCOEFF) have been published since 2018.

For more information about the CISS estimation, see "Crash Investigation Sampling System: Design Overview, Analytic Guidance and FAQs" (Zhang, Subramanian, et al., 2019). This document explains basic concept of complex survey data analysis and provides examples of the CISS data analysis using sample codes of SAS and SUDAAN.

SECTION 4

SAS FILE CHANGES IN 2019

CHILDSEAT DATASET

CHILD SEAT MODEL (SAS: CHILDMODEL)
New Attributes:

SAS CODE	MANUFACTURER	MAKE	MODEL
2053	Dorel Juvenile Group	Safety 1st	Guide 65
2054	Graco	Graco	Extend2Fit
2055	Peg Perego	Peg Perego	Primo Viaggio
4015	Graco	Graco	WAYZ
4016	Diono	Diono	Ranier 3-in-1
4017	Dorel Juvenile Group	Safety 1st	Multifit 3-in-1
5034	Chicco	Chicco	My Fit
6050	Goodbaby International	Evenflo	Amp Booster Seat

GV (GENERAL VEHICLE) DATASET

Added Variables:
  INSPECTION LAGTIME (SAS: INSPLAG)
  POLICE REPORTED VEHICLE REMOVAL (SAS: TOWED)

Retired Variables:
  PAR REPORTED TOWED STATUS (SAS: TOWSTAT)

ICS (INJURY CAUSATION SCENARIO) DATASET

Added Variables:
  ICS NOTE (SAS: ICSNOTE)

BODY REGION CONTACTED - #1 - PRIMARY (SAS: REGCONTACT1)
BODY REGION CONTACTED - #1 - ALTERNATE (SAS: REGCONTACT1_ALT)
BODY REGION CONTACTED - #2 - PRIMARY (SAS: REGCONTACT2)
BODY REGION CONTACTED - #2 - ALTERNATE (SAS: REGCONTACT2_ALT)
BODY REGION CONTACTED - #3 - PRIMARY (SAS: REGCONTACT3)
BODY REGION CONTACTED - #3 - ALTERNATE (SAS: REGCONTACT3_ALT)
BODY REGION CONTACTED - 2ND (SAS: REGCONTACT_2ND)
BODY REGION CONTACTED - 3RD (SAS: REGCONTACT_3RD)
  New attribute:
    Caused by other injury (88)

IPC AREA - #1 - PRIMARY (SAS: IPCAREA1)
IPC AREA - #2 - PRIMARY (SAS: IPCAREA2)
IPC AREA - #2 - ALTERNATE (SAS: IPCAREA2_ALT)
IPC AREA - #3 - PRIMARY (SAS: IPCAREA3)
IPC AREA - #3 - ALTERNATE (SAS: IPCAREA3_ALT)
    New attribute:
        Caused by other injury (88)

IPC COMPONENT - #1 - PRIMARY (SAS: IPC1)
IPC COMPONENT - #2 - PRIMARY (SAS: IPC2)
IPC COMPONENT - #2 - ALTERNATE (SAS: IPC2_ALT)
IPC COMPONENT - #3 - PRIMARY (SAS: IPC3)
IPC COMPONENT - #3 - ALTERNATE (SAS: IPC3_ALT)
    New attribute:
        Caused by other injury (8888)

IPC CONFIDENCE - #1 - PRIMARY (SAS: IPCCONF1)
IPC CONFIDENCE - #2 - PRIMARY (SAS: IPCCONF2)
IPC CONFIDENCE - #2 - ALTERNATE (SAS: IPCCONF2_ALT)
IPC CONFIDENCE - #3 - PRIMARY (SAS: IPCCONF3)
IPC CONFIDENCE - #3 - ALTERNATE (SAS: IPCCONF3_ALT)
    New attribute:
        Caused by other injury (8)

LOAD PATH PRIMARY (SAS: LOADPATH1)
LOAD PATH PRIMARY - ALTERNATE (SAS: LOADPATH1_ALT)
LOAD PATH SECONDARY (SAS: LOADPATH2)
LOAD PATH SECONDARY - ALTERNATE (SAS: LOADPATH2_ALT)
LOAD PATH TERTIARY (SAS: LOADPATH3)
LOAD PATH TERTIARY - ALTERNATE (SAS: LOADPATH3_ALT)
    New attribute:
        Caused by other injury (8888)

OCC (OCCUPANT ASSESSMENT) DATASET

EMS GCS MODIFIER (SAS: EMSGCSMOD)

    Attribute Label Change:
        Tubed & Paralized (3) changed to Intubated and Sedated
        Sedated (4) changed to Chemically Sedated
        (Spinal cord Injury)/Unk (5) changed to Spinal Cord Injury

HOSPITAL PULSE RATE (SAS: HOSPPULSE)

New attribute:
Palpable (8)

HOSPITAL GCS MODIFIER (SAS: HOSPGCSMOD)

Attribute Label Change:
Tubed & Paralized (3) changed to Intubated and Sedated
Sedated (4) changed to Chemically Sedated
(Spinal cord Injury)/Unk (5) changed to Spinal Cord Injury

TIRE DATASET

TIRE MANUFACTURER (SAS: TIREMANUF)

New attribute:
VELOZZA (200)

SECTION 5

DATA ELEMENTS, DEFINITIONS, and CODES

This section provides detailed information on the data elements, including definitions, column names, attribute codes and attribute labels. The 2016 (no 2017 manual was created) NHTSA Field Crash Investigations Crash Investigation Sampling System (CISS) Coding and Editing Manual contains a detailed description of each data element including coding instructions and attribute definitions. It is available at https://crashstats.nhtsa.dot.gov

The data elements are listed under the data file in which they are stored. Some data elements are provided in more than one data file to facilitate analyses.

Most of the data files contain the following common data elements.

Common Data Elements

CASE IDENTIFIER
Case ID is a unique number generated by the CISS data entry application. A case can be uniquely identified across ALL data years using this number.

COLUMN Name: CASEID

PSU
PSU (Primary Sampling Unit) refers to the sampling units in the first stage of the multi-stage sampling. In the CISS, PSU is a county or group of counties. Selected PSUs are data collection sites where crashes are sampled and investigated.

COLUMN Name: **PSU**

SEQUENTIAL CASE NUMBER
This is a 1 to 3-digit number that uniquely identifies a case within the PSU and Crash Year.

COLUMN Name: CASENO

CASE NUMBER
This variable is assigned by the system at case creation and cannot be changed. It is unique among all NHTSA crash investigation based programs, i.e. CISS, SCI, and CIREN. The variable is a combination of the Study ID (The Study ID for CISS is 1), PSU, Crash Year, Sequential Case Number (CASENO), and Category separated by

hyphens. No numbers are skipped. If a case must be dropped (and not included in the file), the number will not be reused.

COLUMN Name: CASENUMBER

CATEGORY

The Category identifies which CISS sampling domain the case is classified based upon the initial police crash report review and listing by the CISS technician. This is not a linking variable, however it is present in all the datasets.

COLUMN Name: CATEGORY

VEHICLE NUMBER

Vehicle numbers are consecutive beginning with "1," and normally follow the numbering found on the police crash report. All motor vehicles in the case/crash which sustain a harmful event are assigned a vehicle number, this is regardless of whether the motor vehicle was or was not in-transport.

COLUMN Name: VEHNO

VERSION NUMBER

The Version Number is a sequential numbering of data years beginning with "1," starting with the 2016 data year. The number will increase by one for each succeeding data year, e.g. the 2017 data year will have a Version Number of "2". This is not a linking variable, however it is present in all the datasets.

COLUMN Name: VERSION

CASE WEIGHT

CISS sampled cases are selected with unequal selection probabilities in the complex sample design. To produce unbiased estimates of data elements, case weight is calculated and assigned to each case. In addition, case weights are adjusted for non-response, calibrations, and truncation. This is not a linking variable, however it is present in all the datasets.

COLUMN Name: CASEWGT

PSU STRATA

In the CISS, PSU strata are groups of PSUs formed by Census regions, urban/rural, total highway/primary/secondary road miles, and total expected number of crashes. All the PSUs in the country are grouped into PSU strata, and then PSUs are selected independently from the PSU strata to produce a balanced and efficient PSU sample.

PSU strata should be used in the variance estimation of data elements. This is not a linking variable, however it is present in all the datasets.

COLUMN Name: PSUSTRAT

The CRASH Data Files

The Crash data files includes all crash level datasets. It contains the **Common Data Elements**, which are described in the beginning of the **Data Element Definitions and Codes** section. The Crash data files also contain the data elements on the following pages. CASEID is the unique case identifier for each record. The CASENUMBER, or PSU and CASENO, is also unique for each record.

CRASH Dataset

Key Identifiers: CASEID, or PSU and CASENO

The CRASH dataset is the base dataset for all other CISS datasets. It contains one row per case and contains basic crash level information. Figure 1 displays the list of all the data elements in the CRASH table. Information about the type of each variable, its length, the format, and the label is provided for each data element.

```
Data Set Name        CISS19.CRASH              Observations           2781
Member Type          DATA                      Variables              23
Engine               V9                        Indexes                0
Created              10/22/2020 13:31:04       Observation Length     1696
Last Modified        10/22/2020 13:31:04       Deleted Observations   0
Protection                                     Compressed             NO
Data Set Type                                  Sorted                 YES
Label
Data Representation  WINDOWS_32
Encoding             wlatin1  Western (Windows)


                     Alphabetic List of Variables and Attributes

    #    Variable      Type   Len   Format        Informat   Label

   17    ALCINV        Num     3    YESNOUNK19F.  11.        ALCOHOL INVOLVEMENT
   12    CAIS          Num     3    VAIS19F.      11.        MAXIMUM KNOWN AIS IN THIS CRASH
    1    CASEID        Num     5    11.           11.        SYSTEM CASE IDENTIFIER
    4    CASENO        Num     3    11.           11.        SEQUENTIAL CASE NUMBER
    5    CASENUMBER    Char   16    $20.          $20.       CASE NUMBER
   21    CASEWGT       Num     8    26.20                    CASE WEIGHT
    6    CATEGORY      Num     3    11.           11.        CASE CATEGORY
   15    CINJSEV       Num     3    11.           11.        NUMBER OF SERIOUSLY INJURED OCCUPANTS
   14    CINJURED      Num     3    11.           11.        NUMBER OF INJURED OCCUPANTS
   13    CISS          Num     3    ISS19F.       11.        MAXIMUM ISS SCORE IN THIS CASE
    7    CRASHMONTH    Num     3    MONTH19F.     11.        CRASH MONTH
    9    CRASHTIME     Char    5    $5.           $5.        CRASH TIME
    2    CRASHYEAR     Num     3    11.           11.        CRASH YEAR
   16    CTREAT        Num     3    TREAT19F.     11.        MAXIMUM TREATMENT IN CRASH
    8    DAYOFWEEK     Num     3    DAYWEEK19F.   11.        DAY OF WEEK
   18    DRGINV        Num     3    YESNOUNK19F.  11.        DRUG INVOLVEMENT
   10    EVENTS        Num     3    11.           11.        NUMBER OF EVENTS
```

```
19    MANCOLL      Num      3    MANCOLL19F.    11.         MANNER OF COLLISION
 3    PSU          Num      3    11.            11.         PRIMARY SAMPLING UNIT
22    PSUSTRAT     Num      3    11.            11.         PSU STRATIFICATION
20    SUMMARY      Char  1601    $32767.        $32767.     CRASH SUMMARY
11    VEHICLES     Num      3    11.            11.         NUMBER OF IN-TRANSPORT VEHICLES
23    VERSION      Num      3    6.             6.          VERSION NUMBER


                         Sort Information

                   Sortedby       PSU CASENO
                   Validated      YES
                   Character Set  ANSI
```

Figure 1.

CRASH YEAR

Crash Year is the calendar year of the date of crash as documented from the police crash report in the CISS sampling software. This variable cannot be changed.

COLUMN Name: CRASHYEAR

CRASH MONTH

Crash Month is the calendar month of the date of crash as documented from the police crash report in the CISS sampling software. This variable cannot be changed.

COLUMN Name: CRASHMONTH

SAS Value	Value Text
1	January
2	February
3	March
4	April
5	May
6	June
7	July
8	August
9	September
10	October
11	November
12	December

DAY OF WEEK
This variable is derived from the Crash Date and indicates the day of the week of the crash.

COLUMN Name: DAYOFWEEK

SAS Value	Value Text
1	Sunday
2	Monday
3	Tuesday
4	Wednesday
5	Thursday
6	Friday
7	Saturday

CRASH TIME
Crash Time is the time of the crash as documented on the police crash report and entered into the CISS sampling software.

COLUMN Name: CRASHTIME

ALCOHOL INVOLVEMENT
This variable is derived by scanning the POLICE REPORTED ALCOHOL PRESENCE FOR DRIVER and ALCOHOL TEST RESULT FOR DRIVER variables on each general vehicle record in the crash. The ALCOHOL INVOLVEMENT codes are derived as follows:
(YES) 1 - If POLICE REPORTED ALCOHOL PRESENCE FOR DRIVER equals 1 (YES- ALCOHOL PRESENT) or ALCOHOL TEST RESULT FOR DRIVER equals 01-49 (positive result).
(NO) 2 - If POLICE REPORTED ALCOHOL PRESENCE FOR DRIVER equals 0 (NO ALCOHOL PRESENT) and ALCOHOL TEST RESULT FOR DRIVER equals 00 (NONE) or 96 (NONE GIVEN).
(UNKNOWN) 9 - If the variables shown above have any other combination of values.

COLUMN Name: ALCINV

SAS Value	Value Text
1	Yes
2	No
9	Unknown

CRASH SUMMARY

A basic description of the crash scenario as documented by the crash technician, supported by case coding. The Crash Summary may also include special circumstances not captured in the normal case coding.

COLUMN Name: SUMMARY

DRUG INVOLVEMENT

This variable is derived by scanning the POLICE REPORTED OTHER DRUG PRESENCE FOR DRIVER (GV15) and OTHER DRUG SPECIMEN TEST RESULT (GV16) variables on each general vehicle record in the crash. The DRUG INVOLVEMENT codes are derived as follows:
(YES) 1 - If POLICE REPORTED OTHER DRUG PRESENCE FOR DRIVER equals 1 (YES - OTHER DRUG PRESENT) or OTHER DRUG SPECIMEN TEST RESULT equals 2 (DRUG FOUND IN SPECIMEN).
(NO) 2 -If POLICE REPORTED OTHER DRUG PRESENCE FOR DRIVER equals 0 (NO OTHER DRUGS PRESENT) and OTHER DRUG SPECIMEN TEST RESULT equals 0 (NO SPECIMEN TEST GIVEN) or 1 (DRUG NOT FOUND IN SPECIMEN).
(UNKNOWN) 9 - If the variables shown above have any other combination of values.

COLUMN Name: DRGINV

SAS Value	Value Text
1	Yes
2	No
9	Unknown

MAXIMUM KNOWN AIS IN THIS CRASH

This single place numeric value indicates the single most severe injury level reported for any occupant of a towed in-transport CISS applicable vehicle in the crash based upon AIS SEVERITY codes, using the following order of codes.

COLUMN Name: CAIS

SAS Value	Value Text
0	Not Injured
1	Minor injury
2	Moderate injury
3	Serious injury
4	Severe injury

SAS Value	Value Text
5	Critical injury
6	Maximum (untreatable) injury
9	Injured, severity unknown
99	Unknown if injured

This variable is derived by scanning the AIS SEVERITY variable on each occupant injury record in the crash. If none of the occupants in the crash has an occupant injury record, then scan the INJURED STATUS variable on the occupant assessment record. Use the following order of codes: "if Injured, Details Unknown" then code 7; if "Unknown if Injured" then code 9; if "Not Injured" then code 0.

MAXIMUM ISS SCORE IN THIS CASE
This variable reports the maximum ISS score reported for any occupant in the case.

COLUMN Name: CISS

SAS Value	Value Text
0	Not Injured
1-75	[Actual Value]
97	Injury, Unknown Severity
99	Unknown if Injured

MANNER OF COLLISION
This variable is derived by scanning the OBJECT CONTACTED (SAS: OBJCONT) variable on the crash event record, the CRASH TYPE (SAS: CRASHTYPE) variable and the TRANSPORT STATUS (SAS: TRANSTAT) variables on the general vehicle record (SAS: GV), where VEHICLE NUMBER (SAS: EVENTS.VEHNO) equals VEHICLE NUMBER (SAS: GV.VEHNO). Note that vehicles not in-transport (TRANSTAT <> 1) are treated like objects and not vehicles. The MANNER OF COLLISION codes are derived as follows:
0 (NOT COLLISION WITH VEHICLE IN TRANSPORT) - If OBJECT CONTACTED equals 31-99 or CRASH TYPE = 01-16.
1 (REAR-END) - If OBJECT CONTACTED equals 01-30 and CRASH TYPE equals 20-43.
2 (HEAD-ON) - If OBJECT CONTACTED equals 01-30 and CRASH TYPE equals 50-63.
4 (ANGLE) - If OBJECT CONTACTED equals 01-30 and CRASH TYPE equals 68-91.
5 (SIDESWIPE, SAME DIRECTION) - If OBJECT CONTACTED equals 01-30 and CRASH TYPE equals 44-49.

6 (SIDESWIPE, OPPOSITE DIRECTION) - If OBJECT CONTACTED equals 01-30 and CRASH TYPE equals 64-67.
9 (UNKNOWN) - If OBJECT CONTACTED equals 01-30 and CRASH TYPE equals 92-99.

COLUMN Name: MANCOLL

SAS Value	Value Text
0	NOT COLLISION WITH VEHICLE IN TRANSPORT
1	REAR-END
2	HEAD-ON
4	ANGLE
5	SIDESWIPE, SAME DIRECTION
6	SIDESWIPE, OPPOSITE DIRECTION
9	UNKNOWN

MAXIMUM TREATMENT IN CRASH
This single place numeric value indicates the most intensive treatment OR mortality given to any occupant of a towed in-transport CISS applicable vehicle in the crash, using the following order of codes (NOTE position of Fatal - Ruled Disease, is ordered below most other codes):

COLUMN Name: CTREAT

SAS Value	Value Text
0	NO TREATMENT
1	FATAL
2	FATAL – RULED DISEASE
3	HOSPITALIZATION
4	TRANSPORTED AND RELEASED
5	TREATMENT AT SCENE, NOT TRANSPORTED
6	TREATMENT-LATER
7	TREATMENT-OTHER
8	TRANSPORTED TO A MEDICAL FACILITY - UNK IF TREATED
9	UNKNOWN

NUMBER OF EVENTS

This field is derived by counting the number of events coded for this case in the EVENT table.

COLUMN Name: EVENTS

NUMBER OF INJURED OCCUPANTS

This two-place numeric value indicates the total number of injured occupants of towed CISS applicable vehicles involved in the crash. It is derived by totaling the number of occupant assessment records in which NUMBER OF RECORDED INJURIES FOR THIS OCCUPANT has a value of 01-97 (includes Injured, Details Unknown). Zero (0) is used when all the occupants in the case have Injured Status equal to Unknown if injured or Not Injured.

COLUMN Name: CINJURED

NUMBER OF IN-TRANSPORT VEHICLES

This field is derived by counting the number of CISS in Transport vehicles in the GV dataset for this crash (GV.TRANSTAT=1).

COLUMN Name: VEHICLES

NUMBER OF SERIOUSLY INJURED OCCUPANTS

This two-place numeric value indicates the total number of injured occupants of towed CISS applicable vehicles involved in the crash. It is derived by totaling the number of occupant assessment records in which the AIS SEVERITY equals 3-6 for any occupant. Use 0 when none of the occupants have an AIS SEVERITY equal to 3-6.

COLUMN Name: CINJSEV

EVENT Dataset

Key Identifiers: PSU, CASENO, EVENTNO

This dataset contains one row for each harmful event in the crash. Figure 2 displays the list of all the data elements in the Event table. Information about the type of each variable, its length, the format, and the label is provided for each data element.

```
Data Set Name      CISS19.EVENT          Observations      5231
Member Type        DATA                  Variables         15
Engine             V9                    Indexes           0
```

```
Created              10/22/2020 13:31:06    Observation Length     64
Last Modified        10/22/2020 13:31:06    Deleted Observations   0
Protection                                  Compressed             NO
Data Set Type                               Sorted                 YES
Label
Data Representation  WINDOWS_32
Encoding             wlatin1  Western (Windows)


                    Alphabetic List of Variables and Attributes

    #    Variable      Type   Len    Format         Informat     Label

    1    CASEID        Num    5      11.            11.          SYSTEM CASE IDENTIFIER
    3    CASENO        Num    3      11.            11.          SEQUENTIAL CASE NUMBER
    4    CASENUMBER    Char   16     $20.           $20.         CASE NUMBER
   13    CASEWGT       Num    8      26.20                       CASE WEIGHT
    5    CATEGORY      Num    3      11.            11.          CASE CATEGORY
    8    CLASS1        Num    3      VEHCLASS19F.   11.          CLASS OF VEHICLE - FIRST VEHICLE
   11    CLASS2        Num    3      VEHCLASS19F.   11.          CLASS OF VEHICLE - OTHER VEHICLE
    6    EVENTNO       Num    3      6.             6.           CRASH EVENT SEQUENCE NUMBER
    9    GAD1          Char   1      $GAD19F.       $50.         GENERAL AREA OF DAMAGE - FIRST VEHICLE
   12    GAD2          Char   1      $GAD19F.       $50.         GENERAL AREA OF DAMAGE - OTHER VEHICLE
   10    OBJCONT       Num    3      OBJCONT19F.    11.          OTHER VEHICLE NUMBER OR OBJECT CONTACTED
    2    PSU           Num    3      11.            11.          PRIMARY SAMPLING UNIT
   14    PSUSTRAT      Num    3      11.            11.          PSU STRATIFICATION
    7    VEHNUM        Num    3      11.            11.          VEHICLE NUMBER
   15    VERSION       Num    3      6.             6.           VERSION NUMBER


                          Sort Information

                    Sortedby       PSU CASENO EVENTNO
                    Validated      YES
                    Character Set  ANSI
```

Figure 2.

CRASH EVENT SEQUENCE NUMBER

All events are numbered consecutively. Events are numbered chronologically and begin with "1."

COLUMN Name: EVENTNO

VEHICLE NUMBER

The number of the first vehicle involved in an event as found in the GV dataset, VEHNO column. The listing of the vehicle does not imply the vehicle was the striking vehicle in the event.

COLUMN Name: VEHNO

CLASS OF VEHICLE - FIRST VEHICLE

COLUMN Name: CLASS1

SAS Value	Value Text
0	Not a motor vehicle
1	Subcompact/mini (wheelbase < 254 cm)
2	Compact (wheelbase 254 but < 265 cm)
3	Intermediate (wheelbase >=265 but < 278 cm)
4	Full size (wheelbase >=278 but < 291 cm)
5	Largest (wheelbase >=291 cm)
9	Unknown passenger car size
14	Compact utility vehicle
15	Large utility vehicle (<=4,536 kgs GVWR)
16	Utility station wagon (<=4,536 kgs GVWR)
19	Unknown utility type
20	Minivan (<=4,536 kgs GVWR)
21	Large van (<=4,536 kgs GVWR)
24	Van based school bus (<=4,536 kgs GVWR)
28	Other van type (<=4,536 kgs GVWR)
29	Unknown van type (<=4,536 kgs GVWR)
30	Compact pickup truck (<=4,536 kgs GVWR)
31	Large pickup truck (<=4,536 kgs GVWR)
38	Other pickup truck (<=4,536 kgs GVWR)
39	Unknown pickup truck type (<=4,536 kgs GVWR)
45	Other light truck (<=4,536 kgs GVWR)
48	Unknown light truck type (<=4,536 kgs GVWR)
49	Unknown light vehicle type
50	School bus (excludes van based) (> 4,536 kgs GVWR)
58	Other bus (> 4,536 kgs GVWR)
59	Unknown Bus Type
60	Truck (> 4,536 kgs GVWR)
67	Tractor without trailer
68	Tractor - trailer(s)
78	Unknown medium/heavy truck type
79	Unknown light/medium/heavy truck type
80	Motored cycle
90	Other vehicle
99	Unknown

GENERAL AREA OF DAMAGE - FIRST VEHICLE

This field reports the plane that was initially contacted during this event, for the first vehicle listed in the event.

COLUMN Name: GAD1

SAS Value	Value Text
0	Not a motor vehicle
B	Back/Truck Back
C	Rear of cab
D	Back (rear of tractor)
F	Front
L	Left Side
N	Noncollision
R	Right Side
T	Top
U	Undercarriage
V	Front of cargo area
9	Unknown

CLASS OF VEHICLE - OTHER VEHICLE

COLUMN Name: CLASS2

SAS Value	Value Text
0	Not a motor vehicle
1	Subcompact/mini (wheelbase < 254 cm)
2	Compact (wheelbase 254 but < 265 cm)
3	Intermediate (wheelbase >=265 but < 278 cm)
4	Full size (wheelbase >=278 but < 291 cm)
5	Largest (wheelbase >=291 cm)
9	Unknown passenger car size
14	Compact utility vehicle
15	Large utility vehicle (<=4,536 kgs GVWR)
16	Utility station wagon (<=4,536 kgs GVWR)
19	Unknown utility type
20	Minivan (<=4,536 kgs GVWR)
21	Large van (<=4,536 kgs GVWR)

SAS Value	Value Text
24	Van based school bus (<=4,536 kgs GVWR)
28	Other van type (<=4,536 kgs GVWR)
29	Unknown van type (<=4,536 kgs GVWR)
30	Compact pickup truck (<=4,536 kgs GVWR)
31	Large pickup truck (<=4,536 kgs GVWR)
38	Other pickup truck (<=4,536 kgs GVWR)
39	Unknown pickup truck type (<=4,536 kgs GVWR)
45	Other light truck (<=4,536 kgs GVWR)
48	Unknown light truck type (<=4,536 kgs GVWR)
49	Unknown light vehicle type
50	School bus (excludes van based) (> 4,536 kgs GVWR)
58	Other bus (> 4,536 kgs GVWR)
59	Unknown Bus Type
60	Truck (> 4,536 kgs GVWR)
67	Tractor without trailer
68	Tractor - trailer(s)
78	Unknown medium/heavy truck type
79	Unknown light/medium/heavy truck type
80	Motored cycle
90	Other vehicle
99	Unknown

OTHER VEHICLE NUMBER OR OBJECT CONTACTED

COLUMN Name: OBJCONT

SAS Value	Value Text
1-30	Vehicle #1-30
31	Overturn - rollover (excludes end-over-end)
32	Rollover - end-over-end
33	Fire or explosion
34	Jackknife
35	Other intraunit damage (specify):
36	Noncollision injury
38	Other noncollision (specify):
39	Noncollision - details unknown

SAS Value	Value Text
41	Tree (<= 10 cm in diameter)
42	Tree (> 10 cm in diameter)
43	Shrubbery or bush
44	Embankment
45	Breakaway pole or post (any diameter)
47	Cable barrier guardrail
48	Guardrail Face
49	Guardrail End
50	Nonbreakaway Pole or post (<= 10 cm in diameter)
51	Nonbreakaway Pole or post (> 10 cm but <= 30 cm in diameter)
52	Nonbreakaway Pole or post (> 30 cm in diameter)
53	Nonbreakaway Pole or post (diameter unknown)
54	Concrete traffic barrier
55	Impact attenuator
56	Other traffic barrier (specify):
57	Fence
58	Wall
59	Building
60	Ditch or culvert
61	Ground
62	Fire hydrant
63	Curb
64	Bridge
68	Other fixed object (specify):
69	Unknown fixed object
72	Pedestrian
73	Cyclist or cycle
74	Other nonmotorist or conveyance (specify)
75	Vehicle occupant
76	Animal
77	Railway vehicle
78	Trailer, disconnected in transport
79	Object fell from vehicle in-transport
88	Other nonfixed object (specify):
89	Unknown nonfixed object
98	Other event (specify):
99	Unknown event or object

GENERAL AREA OF DAMAGE - OTHER VEHICLE

This field reports the plane that was initially contacted during this event, for the second vehicle listed in the event. For impacts with objects, this field will be coded "0".

COLUMN Name: GAD2

SAS Value	Value Text
0	Not a motor vehicle
B	Back/Truck Back
C	Rear of cab
D	Back (rear of tractor)
F	Front
L	Left Side
N	Noncollision
R	Right Side
T	Top
U	Undercarriage
V	Front of cargo area
9	Unknown

JKWGT Dataset

Key Identifier: CASEID

The JKWGT dataset is the dataset for adjusted Jackknife replicate weights. Each adjusted Jackknife replicate weight is created by deleting one PSU, recalculating design weight, and performing the same weight adjustment procedures used in the calculation of case weights. In 2017, 24 sets of adjusted Jackknife replicate weights were created because 2017 CISS had 24 PSUs. Starting in 2018, 32 sets of adjusted Jackknife replicate weights were created because CISS now has 32 PSUs. As described in Section 3.3, the adjusted Jackknife replicate weights can be used for the variance estimation of single year estimates. Statements with Jackknife coefficient option in Table 3 are used in SAS and SUDAAN. Figure 3 displays the list of all the data elements in the JKWGT table.

```
Data Set Name          CISS19.JKWGT              Observations          2781
Member Type            DATA                      Variables             40
Engine                 V9                        Indexes               0
Created                10/22/2020 13:31:08       Observation Length    304
Last Modified          10/22/2020 13:31:08       Deleted Observations  0
Protection                                       Compressed            NO
Data Set Type                                    Sorted                YES
Label
Data Representation    WINDOWS_32
Encoding               wlatin1  Western (Windows)
```

```
                    Alphabetic List of Variables and Attributes

    #    Variable     Type   Len   Format    Informat   Label

    1    CASEID       Num     5    11.       11.        SYSTEM CASE IDENTIFIER
    3    CASENO       Num     3    11.       11.        SEQUENTIAL CASE NUMBER*
    4    CASENUMBER   Char   16    $20.      $20.       CASE NUMBER
   38    CASEWGT      Num     8    26.20                CASE WEIGHT
    5    CATEGORY     Num     3    11.       11.        CASE CATEGORY
    6    JKWGT1       Num     8    26.20                ADJUSTED JACKKNIFE REPLICATE WEIGHT 1
    7    JKWGT2       Num     8    26.20                ADJUSTED JACKKNIFE REPLICATE WEIGHT 2
    8    JKWGT3       Num     8    26.20                ADJUSTED JACKKNIFE REPLICATE WEIGHT 3
    9    JKWGT4       Num     8    26.20                ADJUSTED JACKKNIFE REPLICATE WEIGHT 4
   10    JKWGT5       Num     8    26.20                ADJUSTED JACKKNIFE REPLICATE WEIGHT 5
   11    JKWGT6       Num     8    26.20                ADJUSTED JACKKNIFE REPLICATE WEIGHT 6
   12    JKWGT7       Num     8    26.20                ADJUSTED JACKKNIFE REPLICATE WEIGHT 7
   13    JKWGT8       Num     8    26.20                ADJUSTED JACKKNIFE REPLICATE WEIGHT 8
   14    JKWGT9       Num     8    26.20                ADJUSTED JACKKNIFE REPLICATE WEIGHT 9
   15    JKWGT10      Num     8    26.20                ADJUSTED JACKKNIFE REPLICATE WEIGHT 10
   16    JKWGT11      Num     8    26.20                ADJUSTED JACKKNIFE REPLICATE WEIGHT 11
   17    JKWGT12      Num     8    26.20                ADJUSTED JACKKNIFE REPLICATE WEIGHT 12
   18    JKWGT13      Num     8    26.20                ADJUSTED JACKKNIFE REPLICATE WEIGHT 13
   19    JKWGT14      Num     8    26.20                ADJUSTED JACKKNIFE REPLICATE WEIGHT 14
   20    JKWGT15      Num     8    26.20                ADJUSTED JACKKNIFE REPLICATE WEIGHT 15
   21    JKWGT16      Num     8    26.20                ADJUSTED JACKKNIFE REPLICATE WEIGHT 16
   22    JKWGT17      Num     8    26.20                ADJUSTED JACKKNIFE REPLICATE WEIGHT 17
   23    JKWGT18      Num     8    26.20                ADJUSTED JACKKNIFE REPLICATE WEIGHT 18
   24    JKWGT19      Num     8    26.20                ADJUSTED JACKKNIFE REPLICATE WEIGHT 19
   25    JKWGT20      Num     8    26.20                ADJUSTED JACKKNIFE REPLICATE WEIGHT 20
   26    JKWGT21      Num     8    26.20                ADJUSTED JACKKNIFE REPLICATE WEIGHT 21
   27    JKWGT22      Num     8    26.20                ADJUSTED JACKKNIFE REPLICATE WEIGHT 22
   28    JKWGT23      Num     8    26.20                ADJUSTED JACKKNIFE REPLICATE WEIGHT 23
   29    JKWGT24      Num     8    26.20                ADJUSTED JACKKNIFE REPLICATE WEIGHT 24
   30    JKWGT25      Num     8    26.20                ADJUSTED JACKKNIFE REPLICATE WEIGHT 25
   31    JKWGT26      Num     8    26.20                ADJUSTED JACKKNIFE REPLICATE WEIGHT 26
   32    JKWGT27      Num     8    26.20                ADJUSTED JACKKNIFE REPLICATE WEIGHT 27
   33    JKWGT28      Num     8    26.20                ADJUSTED JACKKNIFE REPLICATE WEIGHT 28
   34    JKWGT29      Num     8    26.20                ADJUSTED JACKKNIFE REPLICATE WEIGHT 29
   35    JKWGT30      Num     8    26.20                ADJUSTED JACKKNIFE REPLICATE WEIGHT 30
   36    JKWGT31      Num     8    26.20                ADJUSTED JACKKNIFE REPLICATE WEIGHT 31
   37    JKWGT32      Num     8    26.20                ADJUSTED JACKKNIFE REPLICATE WEIGHT 32
    2    PSU          Num     3    11.       11.        PRIMARY SAMPLING UNIT
   39    PSUSTRAT     Num     3    11.       11.        PSU STRATA
   40    VERSION      Num     3    6.        6.         VERSION NUMBER


                              Sort Information

                    Sortedby       PSU CASENO
                    Validated      YES
                    Character Set  ANSI
```

Figure 3.

JKCOEFF Dataset

The JKCOEFF dataset is the dataset for Jackknife coefficients. When the adjusted Jackknife replicate weights are used for the variance estimation of single year estimates, Jackknife coefficients are assigned in the SAS statement. As described in Section 3.3, one option is to list all coefficients using comma or space. Another option is to assign the SAS file: JKCOEFF. Figure 4 displays the list of data elements in the JKCOEFF table.

```
Data Set Name          CISS19.JKCOEFF              Observations          32
Member Type            DATA                        Variables             2
Engine                 V9                          Indexes               0
Created                09/18/2020 12:27:04         Observation Length    16
Last Modified          09/18/2020 12:27:04         Deleted Observations  0
Protection                                         Compressed            NO
Data Set Type                                      Sorted                NO
Label
Data Representation    WINDOWS_64
Encoding               wlatin1  Western (Windows)


              Alphabetic List of Variables and Attributes

       #    Variable        Type    Len    Label

       2    JKCoefficient   Num       8    Jackknife Coefficient
       1    Replicate       Num       8    Replicate Number
```

Figure 4.

The GENERAL VEHICLE Data Files

The General Vehicle data files contain the **Common Data Elements** which are described in the beginning of the **Data Element Definitions and Codes** section. The General Vehicle data files also contain the data elements on the following pages. Per coding rules, not all vehicles in the crash will have data in all the tables, as noted in the individual table descriptions.

GV Dataset

Key Identifiers: PSU, CASENO, VEHNO

This table contains basic information regarding the vehicle, and will contain one row for each motor vehicle in the crash which sustained a harmful event. All data will be present for in-transport CISS applicable vehicles, but may be missing in some variables for other vehicles as detailed in the individual fields. Figure 5 displays the list of all the data elements in the GV table. Information about the type of each variable, its length, the format and the label are displayed.

```
Data Set Name          CISS19.GV               Observations          4982
Member Type            DATA                    Variables             105
Engine                 V9                      Indexes               0
Created                10/22/2020 13:31:07     Observation Length    368
Last Modified          10/22/2020 13:31:07     Deleted Observations  0
Protection                                     Compressed            NO
Data Set Type                                  Sorted                YES
Label
Data Representation     WINDOWS_32
Encoding               wlatin1  Western (Windows)


                    Alphabetic List of Variables and Attributes

    #    Variable         Type   Len    Format           Informat    Label

    29   ALCTEST          Num    3      ALCTEST19F.      11.         ALCOHOL TEST PERFORMED
    30   ALCTESTRESULT    Num    3      ALCRESULT19F.                ALCOHOL TEST RESULT
    31   ALCTESTSRC       Num    3      ALCSOURCE19F.    11.         ALCOHOL TEST RESULT SOURCE
    43   ALIGNMENT        Num    3      ALIGNMNT19F.     11.         ROADWAY ALIGNMENT
    13   BODYCAT          Num    3      BODYCAT19F.      11.         BODY TYPE CATEGORY
    12   BODYTYPE         Num    3      BODYTYPE19F.     11.         BODY TYPE
    22   CARGOSRC         Num    3      CARGOSRC19F.     11.         CARGO WEIGHT SOURCE
    21   CARGOWT          Num    4      CARGOWT19F.      11.         CARGO WEIGHT
    1    CASEID           Num    5      11.              11.         SYSTEM CASE IDENTIFIER
    3    CASENO           Num    3      11.              11.         SEQUENTIAL CASE NUMBER
    4    CASENUMBER       Char   16     $20.             $20.        CASE NUMBER
    103  CASEWGT          Num    8      26.20                        CASE WEIGHT
    5    CATEGORY         Num    3      11.              11.         CASE CATEGORY
    61   CRASHCAT         Num    3      CATTYPE19F.      11.         CRASH TYPE CATEGORY
    62   CRASHCONF        Char   1      $CATCONF19F.     $50.        CRASH TYPE CONFIGURATION
    63   CRASHTYPE        Num    3      CRASHTYPE19F.    11.         CRASH TYPE
    56   CRITCAT          Num    3      PREEVCAT19F.     11.         PRE-CRASH CRITICAL EVENT CATEGORY
    57   CRITEVENT        Num    3      PREEVENT19F.     11.         PRE-CRASH CRITICAL EVENT
    20   CURBSRC          Num    3      CURBSRC19F.      11.         CURB WEIGHT SOURCE
    19   CURBWT           Num    4      CURBWT19F.       11.         CURB WEIGHT
    17   DAMPLANE         Char   1      $GAD19F.         $50.        MOST SEVERE DAMAGE PLANE
    18   DAMSEV           Num    3      DAMSEV19F.       11.         MOST SEVERE DAMAGE SEVERITY
    53   DISTRACT         Num    3      DRIVDIST19F.     11.         DRIVER DISTRACTION / INATTENTION
    27   DRPRESENT        Num    3      DRPRES19F.       11.         DRIVER PRESENT IN VEHICLE
```

33	DRUGTEST	Num	3	SPECOTH19F.	11.	DRUG TEST RESULT
77	DVANGOTH	Num	3	ANGLE19F.	11.	HIGHEST DELTA V HDG ANGLE - OTHER VEH
76	DVANGTHIS	Num	3	ANGLE19F.	11.	HIGHEST DELTA V HDG ANGLE - THIS VEH
82	DVBASIS	Num	3	DVBASIS19F.	11.	BASIS FOR HIGHEST DELTA V
89	DVBES	Num	3	BAREQSP19F.	11.	HIGHEST DELTA V BARRIER EQUIVALENT SPEED
91	DVCONF	Num	3	DVCONFID19F.	11.	HIGHEST DELTA V CONFIDENCE LEVEL
86	DVENERGY	Num	5	ENERGY19F.	11.	HIGHEST DELTA V ENERGY
90	DVEST	Num	3	DVEST19F.	11.	HIGHEST DELTA V ESTIMATED
81	DVEVENT	Num	3	DVEVENT19F.	11.	EVENT NUMBER FOR HIGHEST DELTA V
85	DVLAT	Num	3	DVLONLAT19F.	11.	HIGHEST DELTA V LATERAL
84	DVLONG	Num	3	DVLONLAT19F.	11.	HIGHEST DELTA V LONGITUDINAL
88	DVMOMENT	Num	3	DVMOMENT19F.	11.	HIGHEST DELTA V MOMENT ARM
87	DVSPEED	Num	3	DVSPEED19F.	11.	HIGHEST DELTA V SPEED
83	DVTOTAL	Num	3	DVTOTAL19F.	11.	HIGHEST DELTA V TOTAL
100	EDGEDISTX	Num	8	ROADEDGE19F.	5.1	DISTANCE FROM EDGE OF ROADWAY X
101	EDGEDISTY	Num	8	ROADEDGE19F.	5.1	DISTANCE FROM EDGE OF ROADWAY Y
102	EDGEDISTZ	Num	8	ROADEDGE19F.	5.1	DISTANCE FROM EDGE OF ROADWAY Z
36	ETHNICITY	Num	3	ETHNICIT19F.	11.	DRIVER`S ETHNICITY
75	HEADANGLECAT	Num	3	HEADANGCAT19F.	11.	HEADING ANGLE CATEGORY
40	INITLANE	Num	3	LANESINIT19F.	11.	TRAVEL LANE FOR THIS VEHICLE
70	INITOBJCLASS	Num	3	OBJCLASS19F.	11.	INITIATING OBJECT CLASS
24	INSPLAG	Num	4	INSPLAG19F.	11.	INSPECTION LAGTIME
23	INSPTYPE	Num	3	INSPTYPE19F.	11.	INSPECTION TYPE
49	LIGHTCOND	Num	3	LGTCOND19F.	11.	LIGHTING CONDITIONS
46	LINELEFT	Num	3	LINETYPE19F.	11.	LINE TYPE LEFT
45	LINERIGHT	Num	3	LINETYPE19F.	11.	LINE TYPE RIGHT
9	MAKE	Num	3	MAKE19F.	11.	VEHICLE MAKE
58	MANEUVER	Num	3	MANEUVER19F.	11.	PRE-CRASH MANEUVER
10	MODEL	Num	3	11.	11.	VEHICLE MODEL
11	MODELYR	Num	4	MODYR19F.	11.	VEHICLE MODEL YEAR
28	PARALCOHOL	Num	3	DRINKING19F.	11.	PAR REPORTED ALCOHOL PRESENCE
32	PARDRUG	Num	3	DRUGS19F.	11.	PAR REPORTED OTHER DRUG PRESENCE
54	PREFHE	Num	3	PREFHE19F.	11.	PRE-FIRST HARMFUL EVENTS CODED
60	PRELOC	Num	3	PREILOC19F.	11.	PRE-CRASH LOCATION
55	PREMOVE	Num	3	PREMOVE19F.	11.	PRE-EVENT MOVEMENT
59	PRESTAB	Num	3	PREISTAB19F.	11.	PRE-CRASH STABILITY
44	PROFILE	Num	3	PROFILE19F.	11.	ROADWAY PROFILE
2	PSU	Num	3	11.	11.	PRIMARY SAMPLING UNIT
104	PSUSTRAT	Num	3	11.	11.	PSU STRATIFICATION
35	RACE	Num	3	DRRACE19F.	11.	DRIVER`S RACE
39	RDLANES	Num	3	LANESRD19F.	11.	TRAVEL LANES FOR ROADWAY
37	RELTOJUNCT	Num	3	RELINTER19F.	11.	RELATION TO INTERCHANGE OR JUNCTION
73	ROLLDIR	Num	3	ROLINDIR19F.	11.	ROLLOVER DIRECTION OF ROLL
74	ROLLDIST	Num	3	ROLLDIST19F.	11.	ROLLOVER ESTIMATED DISTANCE
68	ROLLINITYP	Num	3	ROLINTYP19F.	11.	ROLLOVER INITIATION TYPE
69	ROLLINLOC	Num	3	ROLINLOC19F.	11.	ROLLOVER INITIATION LOCATION
66	ROLLINTRPT	Num	3	INTEROLL19F.	11.	ROLLOVER INTERUPTED
71	ROLLOBJ	Num	3	ROLLOBJ19F.	11.	ROLLOVER INITIATION OBJECT
67	ROLLPREMAN	Num	3	PROLLMAN19F.	11.	ROLLOVER PRE-EVENT MANEUVER
72	ROLLTRIP	Num	3	TRIPLOC19F.	11.	ROLLOVER LOCATION OF TRIP FORCE
65	ROLLTURN	Num	3	ROLLTURNS19F.	11.	ROLLOVER QUARTER TURNS
64	ROLLTYPE	Num	3	ROLLOVER19F.	11.	ROLLOVER TYPE
47	RUMBINIT	Num	3	RUMBLE19F.	11.	RUMBLE STRIP INITIAL TRAVEL LANE
48	RUMBROAD	Num	3	RUMBLE19F.	11.	RUMBLE STRIP ROAD
96	SHLDRWIDTH	Num	8	SHLDRWIDTH19F.	4.1	SHOULDER WIDTH
15	SPECUSE	Num	3	VEHUSE19F.	11.	VEHICLE SPECIAL USE
26	SPEEDLIMIT	Num	3	SPLIMIT19F.	11.	SPEED LIMIT
99	STRKHEIGHT	Num	3	STRUCKOBJECT19F.	11.	STRUCK OBJECT HEIGHT
97	STRKLENGTH	Num	3	STRUCKOBJECT19F.	11.	STRUCK OBJECT LENGTH
98	STRKWIDTH	Num	3	STRUCKOBJECT19F.	11.	STRUCK OBJECT WIDTH
42	SURFCOND	Num	3	SURCOND19F.	11.	ROADWAY SURFACE CONDITION
41	SURFTYPE	Num	3	SURTYPE19F.	11.	ROADWAY SURFACE TYPE
25	TOWED	Num	3	TOWED19F.	11.	POLICE REPORTED VEHICLE REMOVAL
78	TOWHITCH	Num	3	TOWHITCH19F.	11.	TOWED TRAILING UNIT
51	TRAFDEV	Num	3	TRAFCONT19F.	11.	TRAFFIC CONTROL DEVICE
38	TRAFFLOW	Num	3	TRAFFLOW19F.	11.	TRAFFICWAY FLOW
52	TRAFFUNCT	Num	3	TRCTLFCT19F.	11.	TRAFFIC CONTROL DEVICE FUNCTIONING
79	TRAJDOC	Num	3	TRAJDOC19F.	11.	DOCUMENTATION OF TRAJECTORY DATA
16	TRANSTAT	Num	3	TRANS19F.	11.	TRANSPORT STATUS
80	TREEPOLE	Num	3	CONDTREE19F.	11.	POST COLLISION CONDITION OF TREE OR POLE
92	VAIS	Num	3	VAIS19F.	11.	MAXIMUM AIS SEVERITY FOR THIS VEHICLE
14	VEHCLASS	Num	3	VEHCLASS19F.	11.	VEHICLE CLASS
6	VEHNO	Num	3	11.	11.	VEHICLE NUMBER
105	VERSION	Num	3	6.	6.	VERSION NUMBER
7	VIN	Char	12	$12.	$12.	VEHICLE IDENTIFICATION NUMBER
94	VINJURED	Num	3	INJSEV19F.	11.	NUMBER OF INJURED OCCUPANTS THIS VEHICLE
8	VINLENGTH	Num	3	11.	11.	VIN LENGTH
93	VISS	Num	3	ISS19F.	11.	MAXIMUM ISS FOR THIS VEHICLE
95	VTREAT	Num	3	VTREAT19F.	11.	MAXIMUM TREATMENT IN VEHICLE

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50      WEATHER         Num     3    WEATHER19F.      11.          WEATHER CONDITIONS
34      ZIP             Char    5    $DRZIP19F.       $50.         DRIVER`S ZIP CODE


                               Sort Information

                     Sortedby       PSU CASENO VEHNO
                     Validated      YES
                     Character Set  ANSI
```

Figure 5.

ALCOHOL TEST PERFORMED

Blood Alcohol Concentration (BAC) test is administered either by the police or at a treatment facility. This data is only collected for in-transport vehicles.

COLUMN Name: ALCTEST

SAS Value	Value Text
0	None Given
1	Test Performed
2	Test Refused
7	No Driver Present
8	BAC test performed, results unknown
9	Unknown if test given

ALCOHOL TEST RESULT

Blood Alcohol Concentration (BAC) measures, analytically, the mass of alcohol per unit volume of blood. The standard measure is expressed as the number of milligrams per deciliter (mg/dL). This data is only collected for in-transport vehicles.

COLUMN Name: ALCTESTRESULT

SAS Value	Value Text
0-450	[Actual Value]
887	No driver present
995	None Given
996	Test Refused
997	BAC Test Performed, Results Unknown
998	Unknown if test given
999	Unknown

ALCOHOL TEST RESULT SOURCE

The source of data used to code the Blood Alcohol Concentration (BAC). This data is only collected for in-transport vehicles.

COLUMN Name: ALCTESTSRC

SAS Value	Value Text
0	No alcohol test result
1	Police reported
2	Medical record
3	Autopsy
4	Lay coroner
6	No driver present
7	Other (specify)
8	Not Applicable

BASIS FOR HIGHEST DELTA V

This variable is used to indicate: (1) which WinSMASH routine was used to compute this vehicle's highest delta V or (2) the reason WinSMASH was not applied to the most severe impact. This data is only collected for in-transport CISS applicable vehicles.

COLUMN Name: DVBASIS

SAS Value	Value Text
0	Not Inspected
1	SMASH - Damage only
2	SMASH - Damage and trajectory
3	SMASH - Missing vehicle
4	SMASH - Damage with CDC only
5	At least one vehicle is beyond the scope of SMASH
6	Rollover
7	Other non-horizontal forces
8	Sideswipe type damage
9	Severe override
10	Yielding object
11	Overlapping damage
12	Insufficient data (specify)
98	Other (specify)
99	Unknown

BODY TYPE

The body style of a vehicle refers to the shape and model of a particular automobile make.

COLUMN Name: BODYTYPE

SAS VALUE	VALUE TEXT
1	Convertible(excludes sun-roof,t-bar)
2	2-door sedan,hardtop,coupe
3	3-door/2-door hatchback
4	4-door sedan, hardtop
5	5-door/4-door hatchback
6	Station Wagon (excluding van and truck based)
7	Hatchback, number of doors unknown
8	Sedan/Hardtop, number of doors unknown
9	Other or Unknown automobile type
10	Auto-based pickup (includes E1 Camino, Caballero, Ranchero, SSR, G8-ST, Subaru Brat, Rabbit Pickup)
11	Auto-based panel (cargo station wagon, auto-based ambulance or hearse)
12	Large Limousine-more than four side doors or stretched chassis
13	Three-wheel automobile or automobile derivative
14	Compact Utility (Utility Vehicle Categories "Small" and "Midsize")
15	Large utility (ANSI D16.1 Utility Vehicle Categories and "Full Size" and "Large")
16	Utility station wagon (includes suburban limousines, Suburban, Travellall, Grand Wagoneer)
17	3-door coupe
19	Utility Vehicle, Unknown body type
20	Minivan (Chrysler Town and Country, Caravan, Grand Caravan, Voyager, Voyager, Honda-Odyssey, ...)
21	Large Van-Includes van-based buses (B150-B350, Sportsman, Royal Maxiwagon, Ram, Tradesman,...)
22	Step-van or walk-in van (<= 10,000 lbs. GVWR)
28	Other van type (Hi-Cube Van, Kary)
29	Unknown van type
32	Pickup with slide-in camper
33	Convertible pickup
34	Light Pickup
39	Unknown (pickup style) light conventional truck type
40	Cab Chassis Based (includes Rescue Vehicle, Light Stake, Dump, and Tow Truck)
41	Truck based panel

SAS VALUE	VALUE TEXT
42	Light Truck Based Motorhome (Chassis Mounted)
45	Other light conventional truck type
48	Unknown light truck type
49	Unknown light vehicle type (automobile,utility vehicle, van, or light truck)
50	School Bus
51	Cross Country/Intercity Bus
52	Transit Bus (City Bus)
55	Van-Based Bus GVWR > 10,000 lbs.
58	Other Bus Type
59	Unknown Bus Type
60	Step van (>10,000 lbs. GVWR)
61	Single-unit straight truck or Cab-Chassis (10,000 lbs. < GVWR < or = 19,500 lbs.)
62	Single-unit straight truck or Cab-Chassis (19,500 lbs. < GVWR < or = 26,000 lbs.)
63	Single-unit straight truck or Cab-Chassis (GVWR > 26,000 lbs.)
64	Single-unit straight truck or Cab-Chassis (GVWR unknown)
65	Medium/heavy truck based motorhome
66	Truck-tractor (Cab only, or with any number of trailing unit; any weight)
67	Medium/heavy Pickup (>10,000 lbs. GVWR)
71	Unknown if single unit or combination unit Medium Truck (10,000 lbs. < GVWR < 26,000 lbs.)
72	Unknown if single unit or combination unit Heavy Truck (GVWR > 26,000 lbs.)
73	Camper or motorhome, unknown truck type
78	Unknown medium/heavy truck type
79	Unknown truck type (light/medium/heavy)
80	Two Wheel Motorcycle (excluding motor scooters)
81	Moped or motorized bicycle
82	Three-wheel Motorcycle (2 Rear Wheels)
83	Off-road Motorcycle
84	Motor Scooter
85	Unenclosed Three Wheel Motorcycle/Unenclosed Autocycle (1 Rear Wheel)
86	Enclosed Three Wheel Motorcycle/Enclosed Autocycle (1 Rear Wheel)
87	Unknown Three Wheel Motorcycle Type
88	Other motored cycle type (mini-bikes, pocket motorcycles "pocket bikes")
89	Unknown motored cycle type
90	ATV/ATC [All-Terrain Cycle]

SAS VALUE	VALUE TEXT
91	Snowmobile
92	Farm equipment other than trucks
93	Construction equipment other than trucks (includes graders)
94	Low Speed Vehicle (LSV)/Neighborhood Electric Vehicle (NEV)
95	Golf Cart
96	Recreational Off-Highway Vehicle
97	Other vehicle type (includes go-cart, fork-lift, city street sweeper dunes/swamp buggy)
98	Not Reported
99	Unknown body type

BODY TYPE CATEGORY

Vehicles categorized by means of the body style and the level of commonality in vehicle construction.

COLUMN Name: BODYCAT

SAS Value	Value Text
1	Automobiles
2	Automobile Derivatives
3	Utility Vehicles
4	Van Based Light Trucks
5	Light Conventional Trucks
6	Other Light Trucks
7	Buses (Excludes Van Based GVWR <= 4,536 kgs)
8	Medium/heavy Trucks
9	Motored Cycles
10	Other Vehicles
11	Motor Homes
99	Unknown Body Type

CURB WEIGHT

Curb weight is the total weight of a vehicle, expressed in kilograms (kgs), with standard equipment and hardpoints. This data is only collected for in-transport vehicles.

COLUMN Name: CURBWT

SAS Value	Value Text
450-4536	[Actual Value]
9999	Unknown

CURB WEIGHT SOURCE

This reports the source from which the curb weight was obtained. This data is only collected for in-transport vehicles.

COLUMN Name: CURBSRC

SAS Value	Value Text
1	AAMA
2	Automotive News
3	Branham Automobile Reference Book
4	Gasoline Truck, Import, Truck and Diesel Truck Index
5	Canadian Specifications
8	Other (specify):
9	Curb weight unknown

CARGO WEIGHT

The weight of cargo, not including occupants. This would include add-on equipment (roof racks, brush guards, etc.) as well as items brought into the vehicle. The value is expressed in kilograms (kgs). This data is only collected for in-transport vehicles.

COLUMN Name: CARGOWT

SAS Value	Value Text
0-4540	[Actual Value]
9999	Unknown

CARGO WEIGHT SOURCE

This reports the source from which the cargo weight was obtained. This data is only collected for in-transport CISS applicable vehicles.

COLUMN Name: CARGOSRC

SAS Value	Value Text
1	Vehicle Inspection
2	Interview
3	PAR
4	Tow Yard Operator
5	Non-CISS Vehicle
8	Other (specify):
9	Cargo weight unknown

CRASH TYPE CATEGORY

Variables Crash Type (Category) and Crash Type (Configuration) are used for categorizing the collisions of drivers involved in crashes. This data is only collected for in-transport vehicles.

COLUMN Name: CRASHCAT

SAS Value	Value Text
1	Single Driver
2	Same Trafficway, Same Direction
3	Same Trafficway, Opposite Direction
4	Changing Trafficway, Vehicle Turning
5	Intersecting Paths (Vehicle Damage)
6	Miscellaneous

CRASH TYPE CONFIGURATION

Each Category is further defined by a Crash Configuration. This data is only collected for in-transport vehicles.

COLUMN Name: CRASHCONF

SAS Value	Value Text
A	Right Roadside Departure
B	Left Roadside Departure
C	Forward Impact
D	Rear-End
E	Forward Impact
F	Angle, Sideswipe
G	Head-On
H	Forward Impact

SAS Value	Value Text
I	Angle, Sideswipe
J	Turn Across Path
K	Turn Into Path
L	Straight Paths
M	Backing, Etc.

CRASH TYPE

A numeric value used to classify the first harmful event in the crash. This data is only collected for in-transport vehicles.

COLUMN Name: CRASHTYPE*

*Please refer to the CISS Field Investigation Coding Manual for codes and code descriptions.

DISTANCE FROM EDGE OF ROADWAY X

This variable, entered in meters, measures the longitudinal distance along the roadway between where the vehicle departs the roadway and where the vehicle strikes a fixed object. This data is only collected when a vehicle departs a roadway and strikes a fixed object, otherwise the variable is coded "Not Applicable."

COLUMN Name: EDGEDISTX

SAS Value	Value Text
0.0	On Road Edge
0.1 - 98.9	[Actual Value]
99.0	>= 99 meters
99.8	Not Applicable
99.9	Unknown

DISTANCE FROM EDGE OF ROADWAY Y

This variable, entered in meters, measures the lateral distance between the roadway and the first struck fixed object. This data is only collected when a vehicle departs a roadway and strikes a fixed object, otherwise the variable is coded "Not Applicable."

COLUMN Name: EDGEDISTY

SAS Value	Value Text
0.0	On Road Edge
0.1 - 98.9	[Actual Value]
99.0	>= 99 meters
99.8	Not Applicable
99.9	Unknown

DISTANCE FROM EDGE OF ROADWAY Z

This variable, entered in meters, measures the straight-line distance between where the vehicle departs the roadway and where the vehicle strikes a fixed object. This data is only collected when a vehicle departs a roadway and strikes a fixed object, otherwise the variable is coded "Not Applicable."

COLUMN Name: EDGEDISTZ

SAS Value	Value Text
0.0	On Road Edge
0.1 - 98.9	[Actual Value]
99.0	>= 99 meters
99.8	Not Applicable
99.9	Unknown

DOCUMENTATION OF TRAJECTORY DATA

The purpose of this variable is to assess the availability of crash induced physical evidence for impact and final rest, including multiple impacts. This data is only collected for in-transport CISS applicable vehicles.

COLUMN Name: TRAJDOC

SAS Value	Value Text
0	No
1	Yes

DRIVER`S ETHNICITY

This variable is a "self-identification" by the occupant. It is not always an "official record". This data is only collected for in-transport vehicles.

COLUMN Name: ETHNICITY

SAS Value	Value Text
1	Hispanic or Latino
2	Not Hispanic or Latino
8	No Driver Present
9	Unknown

DRIVER DISTRACTION/INATTENTION

This field describes whether the driver is attentive, or not, to the driving task. The field also serves as a gateway variable to the DISTRACTION table, i.e. rows for this vehicle will exist in the DISTRACTION table when DISTRACT equals 3/"Inattentive or distracted." This data is only collected for in-transport vehicles.

COLUMN Name: DISTRACT

SAS Value	Value Text
0	No driver present
1	Attentive or not distracted
2	Looked but did not see
3	Inattentive or distracted
9	Unknown

DRIVER PRESENT IN VEHICLE

This variable serves as a flag to identify driverless motor vehicles in-transport. This data is only collected for in-transport vehicles.

COLUMN Name: DRPRESENT

SAS Value	Value Text
0	No Driver Present
1	Yes
9	Unknown

DRIVER`S RACE

This variable is a "self-identification" by the driver of the vehicle. It is not always an "official record". This data is only collected for in-transport vehicles.

COLUMN Name: RACE

SAS Value	Value Text
1	White
2	Black or African American
3	Asian
4	Native Hawaiian or Other Pacific Islander
5	American Indian or Alaska Native
7	Other (specify):
8	No Driver present
9	Unknown

DRIVER`S ZIP CODE

The zip code of the driver's current residence. This data is only collected for in-transport vehicles.

COLUMN Name: ZIP

SAS Value	Value Text
1	Not a Resident of U.S. or Territories
00501 - 99950	[Actual Value]
99998	No driver present
99999	Unknown

DRUG TEST RESULT

If a medical, police report, or other official source says that a certain drug was "screened for" or that it was "not detected", then that a specimen test was used. In addition, the presence of a measured quantity of an "other drug(s)" means that a specimen test was given. The specimen used in the test that obtained the measurement could be blood, urine, or another specimen (*e.g.*, nasal swab, saliva). Some drugs are tested using a particular type of specimen; others can be tested in multiple ways. This data is only collected for in-transport vehicles.

COLUMN Name: DRUGTEST

SAS Value	Value Text
0	No specimen test given
1	Drug(s) not found in specimen
2	Drug(s) found in specimen, (specify)

SAS Value	Value Text
3	Specimen test given, results unknown or not obtained
8	No driver present
9	Unknown if specimen test given

EVENT NUMBER FOR HIGHEST DELTA V

The Event Number that the Technician selects as the highest severity impact is rolled-up from the Vehicle Exterior Form/CDC. If there is no Vehicle Exterior Form the technician selects the Event Number for the highest severity impact. This data is only collected for in-transport CISS applicable vehicles.

COLUMN Name: DVEVENT

SAS Value	Value Text
1-30	[Actual Event Number]
99	Unknown Event

HEADING ANGLE CATEGORY

The impact category describes this vehicle's most severe impact. This data is only collected for in-transport CISS applicable vehicles.

COLUMN Name: HEADANGLECAT

SAS Value	Value Text
995	Impact with Vehicle
996	Non Horizontal Impact
997	Non Collision
998	Impact with Object
999	Unknown

HIGHEST DELTA V HDG ANGLE - THIS VEH

The Heading Angle at Impact for Highest Delta V - Angle - This Vehicle records the heading angle for this vehicle's highest delta V when this impact was with another vehicle. The angle is coded in five degree increments. This data is only collected for in-transport CISS applicable vehicles.

COLUMN Name: DVANGTHIS

SAS Value	Value Text
0-355	[Actual Value]
888	Not a CISS Vehicle
996	Non-horizontal impact
997	Non-collision
998	Impact with object
999	Unknown

HIGHEST DELTA V HDG ANGLE - OTHER VEH

The Heading Angle at Impact for Highest Delta V--Angle - Other Vehicle records the heading angle for the other vehicle's highest delta V when this impact was with another vehicle. The angle is coded in five degree increments. This data is only collected for in-transport CISS applicable vehicles.

COLUMN Name: DVANGOTH

SAS Value	Value Text
0-355	[Actual Value]
888	Not a CISS Vehicle
996	Non-horizontal impact
997	Non-collision
998	Impact with object
999	Unknown

HIGHEST DELTA V TOTAL

The Total Delta V for the highest severity impact generated by the WinSMASH application. The data is expressed in kilometers per hour (kmph). This data is only collected for in-transport CISS applicable vehicles.

COLUMN Name: DVTOTAL

SAS Value	Value Text
1-160	[Actual Value]
999	Unknown

HIGHEST DELTA V LONGITUDINAL

The Longitudinal Delta V for the highest severity impact generated by the WinSMASH application. The data is expressed in kilometers per hour (kmph). This data is only collected for in-transport CISS applicable vehicles.

COLUMN Name: DVLONG

SAS Value	Value Text
-160 - +160	[Actual Value]
999	Unknown

HIGHEST DELTA V LATERAL

The Lateral Delta V for the highest severity impact generated by the WinSMASH application. The data is expressed in kilometers per hour (kmph). This data is only collected for in-transport CISS applicable vehicles.

COLUMN Name: DVLAT

SAS Value	Value Text
-160 - +160	[Actual Value]
999	Unknown

HIGHEST DELTA V ENERGY

The Energy Absorption for the highest severity impact generated by the WinSMASH application. The data is expressed in joules. This data is only collected for in-transport CISS applicable vehicles.

COLUMN Name: DVENERGY

SAS Value	Value Text
40 - 1000000	[Actual Value]
9999999	Unknown

HIGHEST DELTA V ESTIMATED

This variable reports a gross description of the damage to the vehicle for its most severe impact when WinSMASH is unable to be run. Depending on the impact type and/or the amount of information available, the data can be coded in a delta V range or as Minor, Moderate or Severe. This data is only collected for in-transport CISS applicable vehicles.

COLUMN Name: DVEST

SAS Value	Value Text
0	Reconstruction Delta V coded
1	Less than 10 kmph
2	10 kmph < 25 kmph
3	25 kmph < 40 kmph
4	40 kmph < 55 kmph
5	>= 55 kmph
6	Minor
7	Moderate
8	Severe
9	Unknown

HIGHEST DELTA V SPEED

The Impact speed for the highest severity impact, automatically generated by the WinSMASH (Damage and Trajectory routine). The data is expressed in kilometers per hour (kmph). This data is only collected for in-transport CISS applicable vehicles.

COLUMN Name: DVSPEED

SAS Value	Value Text
0 - 160	[Actual Value]
998	Damage and Trajectory run not made
999	Unknown

HIGHEST DELTA V MOMENT ARM

The Moment Arm of Principal Force for the highest severity impact generated by the WinSMASH application. The data is expressed in centimeters. This data is only collected for in-transport CISS applicable vehicles.

COLUMN Name: DVMOMENT

SAS Value	Value Text
-650 - 650	[Actual Value]
999	Unknown

HIGHEST DELTA V BARRIER EQUIVALENT SPEED

The Barrier Equivalent speed for the highest severity impact generated by the WinSMASH application. The data is expressed in kilometers per hour (kmph). This data is only collected for in-transport CISS applicable vehicles.

COLUMN Name: DVBES

SAS Value	Value Text
1 - 160	[Actual Value]
999	Unknown

HIGHEST DELTA V CONFIDENCE LEVEL

This variable captures the quality of this vehicle's WinSMASH application results for the highest severity impact by evaluating the results, and the data used to create those results, for this impact. This data is only collected for in-transport CISS applicable vehicles.

COLUMN Name: DVCONF

SAS Value	Value Text
0	No reconstruction
1	Collision fits model - results appear reasonable
2	Collision fits model - results appear high
3	Collision fits model - results appear low
4	Borderline reconstruction

INSPECTION LAGTIME

This variable is the calculated time, in days, between the Crash Date and the date the vehicle was inspected. This data is only collected for CISS applicable vehicles.

COLUMN Name: INSPLAG

SAS Value	Value Text
1-250	[Actual Value]
998	Not inspected

INSPECTION TYPE

This variable is designed to allow users to identify cases with complete documentation of required damage data (exterior and interior). This data is only collected for CISS applicable vehicles.

COLUMN Name: INSPTYPE

SAS Value	Value Text
0	No inspection
1	Complete inspection
2	Partial inspection-Non tow
3	Partial inspection-Partially repaired
4	Partial inspection-Photos only
5	Partial inspection-other (specify)
6	Vehicle fully repaired - no damage evident

LIGHTING CONDITIONS

The light condition best representing the precrash conditions at the time of the crash based on ambient and artificial sources. This data is only collected for in-transport vehicles.

COLUMN Name: LIGHTCOND

SAS Value	Value Text
1	Daylight
2	Dark
3	Dark,but lighted
4	Dawn
5	Dusk
9	Unknown

LINE TYPE LEFT

This element describes the travel lane line type during the pre-movement phase of the crash. This data is only collected for in-transport vehicles.

COLUMN Name: LINELEFT

SAS Value	Value Text
0	None
1	Solid White
2	Solid Yellow
3	Dotted/Dashed White
4	Dotted/Dashed Yellow
5	Raised Pavement Marker
9	Unknown

LINE TYPE RIGHT

This element describes the travel lane line type during the pre-movement phase of the crash. This data is only collected for in-transport vehicles.

COLUMN Name: LINERIGHT

SAS Value	Value Text
0	None
1	Solid White
2	Solid Yellow
3	Dotted/Dashed White
4	Dotted/Dashed Yellow
5	Raised Pavement Marker
9	Unknown

NUMBER OF INJURED OCCUPANTS IN THIS VEHICLE

This variable reports the number of injured occupants in this vehicle.

COLUMN Name: VINJURED

SAS Value	Value Text
0-15	[Actual Value]
95	Not a towed CISS applicable vehicle

MAXIMUM AIS SEVERITY FOR THIS VEHICLE

The most severe (*i.e.*, highest AIS) injury to a person in this vehicle. This data is only collected for towed in-transport CISS applicable vehicles.

COLUMN Name: VAIS

SAS Value	Value Text
0	Not injured
1	Minor injury
2	Moderate injury
3	Serious injury
4	Severe injury
5	Critical injury
6	Maximum (untreatable) injury
9	Injured, severity unknown
95	Not a towed CISS applicable vehicle
99	Unknown if injured

MAXIMUM ISS FOR THIS VEHICLE

This derived variable reports the highest Injury Severity Score (ISS) for any occupant in this vehicle. This data is only collected for towed in-transport CISS applicable vehicles.

COLUMN Name: VISS

SAS Value	Value Text
0	Not Injured
1-75	[Actual Value]
95	Not a towed CISS applicable vehicle
97	Injury, Unknown Severity
99	Unknown if Injured

MAXIMUM TREATMENT IN VEHICLE

This data is only collected for towed in-transport CISS applicable vehicles.

COLUMN Name: VTREAT

SAS Value	Value Text
0	NO TREATMENT
1	FATAL

SAS Value	Value Text
2	FATAL - RULED DISEASE
3	HOSPITALIZED
4	TRANSPORTED AND RELEASED
5	TREATMENT AT SCENE, NOT TRANSPORTED
6	TREATMENT-LATER
7	TREATMENT-OTHER
8	TRANSPORTED TO A MEDICAL FACILITY – UNKNOWN IF TREATED
95	Not a towed CISS applicable vehicle
99	UNKNOWN

MOST SEVERE DAMAGE PLANE

This data is only collected for all vehicles.

COLUMN Name: DAMPLANE

SAS Value	Value Text
0	Not a motor vehicle
B	Back/Truck Back
C	Rear of cab
D	Back (rear of tractor)
F	Front
L	Left Side
N	Noncollision
R	Right Side
T	Top
U	Undercarriage
V	Front of cargo area
9	Unknown

MOST SEVERE DAMAGE SEVERITY

This data reports the severity of the vehicle's damage plane reported in GV.DAMPLANE. This data is collected for all vehicles.

COLUMN Name: DAMSEV

SAS Value	Value Text
1	Light
2	Moderate
3	Severe
9	Unknown

PAR REPORTED ALCOHOL PRESENCE

The phrase "alcohol present" means that the police report indicates that the driver had consumed an alcoholic beverage. Presence is not an indication that alcohol was in any way a cause of the crash. This data is reported for all in-transport vehicles.

COLUMN Name: PARALCOHOL

SAS Value	Value Text
0	No alcohol Present
1	Yes- alcohol present
7	No Driver Present
8	Not Reported
9	Unknown

PAR REPORTED OTHER DRUG PRESENCE

The phrase "other drug present" includes all prescription, "over-the-counter" medications, as well as "illicit" substances (*e.g.*, in most cases, marijuana, cocaine, heroin). Also, "other drug present" means that the driver had ingested another drug prior to the crash, but it is not an indication that the drug usage was in any way the cause of the crash (or event), even though it may have been. This data is only collected for in-transport vehicles.

COLUMN Name: PARDRUG

SAS Value	Value Text
0	No other drug(s) present
1	Yes other drug(s) present
7	Not Reported
8	No Driver Present
9	Unknown

PAR REPORTED VEHICLE REMOVAL

This variable reports the tow status and disabling damage status as reported on the police crash report. A "towed" vehicle is defined as a vehicle which is removed from the crash scene other than by means of its own power. Disabling damage refers to to vehicle which cannot be moved from the scene under its own power. This data is only collected for in-transport vehicles.

COLUMN Name: TOWED

SAS Value	Value Text
2	Towed Due to Disabling Damage
3	Towed Not Due to Disabling Damage
5	Not Towed
7	Towed, Unknown Reason
8	Not Reported
9	Unknown

POST COLLISION CONDITION OF TREE OR POLE

This variable records the condition of the struck Tree, Pole or Post for this vehicle's most severe impact. This data is only collected for in-transport CISS applicable vehicles.

COLUMN Name: TREEPOLE

SAS Value	Value Text
0	Not collision (for Highest Delta V) with tree or pole
1	Not damaged
2	Cracked/Sheared
3	Tilted < 45 Degrees
4	Tilted >= 45 Degrees
5	Uprooted Tree
6	Separated pole from base
7	Pole replaced
8	Other (specify):
9	Unknown

PRE-CRASH CRITICAL EVENT CATEGORY

The critical factor leading to the collision for the vehicle. This data is only collected for in-transport vehicles.

COLUMN Name: CRITCAT

SAS Value	Value Text
1	This Vehicle Loss of Control
2	This Vehicle Traveling
3	Other Motor Vehicle in Lane
4	Other Motor Vehicle Encroaching Into Lane
5	Pedestrian or Pedacyclist, or Other Non-Motorist
6	Object or Animal
8	Other (Specify):
9	Unknown

PRE-CRASH CRITICAL EVENT

This variable identifies the critical event which made the crash imminent (*i.e.*, something occurred which made the collision possible). This data is only collected for in-transport vehicles.

COLUMN Name: CRITEVENT

SAS Value	Value Text
1	Blow out/flat tire
2	Stalled engine
3	Disabling vehicle failure (e.g., wheel fell off) (specify:)
4	Non-disabling vehicle problem (e.g., hood flew up) (specify):
5	Poor road conditions (puddle, ice, pothole, etc.) (specify):
6	Traveling too fast for conditions
8	Other cause of control loss (specify):
9	Unknown cause of control loss
10	Over the lane line on left side of travel lane
11	Over the lane line on right side of travel lane
12	Off the edge of the road on the left side
13	Off the edge of the road on the right side
14	End departure
15	Turning left
16	Turning right
17	Crossing over (passing through) intersection
18	This vehicle decelerating
19	Unknown travel direction
20	This vehicle backing
21	This vehicle making a u-turn

SAS Value	Value Text
50	Other vehicle stopped
51	Traveling in same direction with lower steady speed
52	Traveling in same direction while decelerating
53	Traveling in same direction with higher speed
54	Traveling in opposite direction
55	In crossover
56	Backing
59	Unknown travel direction of the other motor vehicle in lane
60	From adjacent lane (same direction) over left lane line
61	From adjacent lane (same direction) over right lane line
62	From opposite direction over left lane line
63	From opposite direction over right lane line
64	From parking lane/shoulder
65	From crossing street, turning into same direction
66	From crossing street, across path
67	From crossing street, turning into opposite direction
68	From crossing street, intended path not known
70	From driveway, turning into same direction
71	From driveway, across path
72	From driveway, turning into opposite direction
73	From driveway, intended path not known
74	From entrance to limited access highway
78	Encroachment by other vehicle details unknown
80	Pedestrian in road
81	Pedestrian approaching road
82	Pedestrian unknown location
83	Pedalcyclist or other non-motorist in road (specify):
84	Pedalcyclist or other non-motorist approaching road (specify):
85	Pedalcyclist or other non-motorist unknown location (specify):
87	Animal in road
88	Animal approaching road
89	Animal - unknown location
90	Object in road
91	Object approaching road
92	Object unknown location
98	Other Critical Pre-Crash Event (specify):
99	Unknown

PRE-CRASH LOCATION
The location of the vehicle after the critical event, and immediately before the first impact. This data is only collected for in-transport vehicles.

COLUMN Name: PRELOC

SAS Value	Value Text
0	No driver present
1	Stayed in original travel lane
2	Stayed on roadway, but left original travel lane
3	Stayed on roadway, not known if left original travel lane
4	Departed roadway
5	Remained off roadway
6	Returned to roadway
7	Entered roadway
9	Unknown

PRE-CRASH MANEUVER
Attempted avoidance maneuvers are movement/actions taken by the driver in response to an impending critical pre-crash event. This data is only collected for in-transport vehicles.

COLUMN Name: MANEUVER

SAS Value	Value Text
0	No driver present
1	No Avoidance Maneuver
2	Braking
3	Braking and steering left
4	Braking and steering right
5	Braking and unknown steering direction
6	Releasing brakes
7	Steering left
8	Steering right
9	Accelerating
10	Accelerating and steering left
11	Accelerating and steering right
98	Other action (specify):
99	Unknown

PRE-CRASH STABILITY

The stability of the vehicle after the critical event, but before the impact. This data is only collected for in-transport CISS applicable vehicles.

COLUMN Name: PRESTAB

SAS Value	Value Text
0	No driver present
1	Tracking
2	Skidding longitudinally rotation less than 30 degrees
3	Skidding laterally clockwise rotation
4	Skidding laterally counter-clockwise rotation
8	Other vehicle loss-of-control (specify):
9	Precrash stability unknown

PRE-EVENT MOVEMENT

Vehicle's activity prior to the driver's realization of an impending critical event or just prior to impact if the driver took no action or had no time to attempt any evasive maneuvers. This data is only collected for in-transport vehicles.

COLUMN Name: PREMOVE

SAS Value	Value Text
0	No Driver Present
1	Going straight
2	Decelerating in road
3	Accelerating in road
4	Starting in road
5	Stopped in road
6	Passing or overtaking another vehicle
7	Disabled or parked in travel lane
8	Leaving a parking position
9	Entering a parking position
10	Turning right
11	Turning left
12	Making a U-turn
13	Backing up (other than for parking position)
14	Negotiating a curve
15	Changing lanes
16	Merging

SAS Value	Value Text
17	Successful avoidance maneuver to a previous critical event
98	Other (specify):
99	Unknown

PRE-FIRST HARMFUL EVENTS CODED

This variable describes whether the vehicle experienced any lateral movements along the vehicle's trajectory between the end of the pre-event movement phase and the first harmful event. This field serves as a gateway to the PRE_FHE dataset which further describes the vehicle's movement. This further data will only be found when PREFHE equals 1/Yes. This data is only collected for in-transport vehicles.

COLUMN Name: PREFHE

SAS Value	Value Text
0	No pre-first harmful events
1	Pre-first harmful events exist
8	No driver present

RELATION TO INTERCHANGE OR JUNCTION

The attribute selected is based on the characteristics of the roadway environment just prior to the critical pre-crash event for this vehicle. This data is only collected for in-transport vehicles.

COLUMN Name: RELTOJUNCT

SAS Value	Value Text
0	Non-interchange area and non-junction
1	Interchange area related
2	Intersection related/non-interchange
3	Driveway/alley access related/non-interchange
4	Other junction/non-interchange
5	Unknown type of junction/non-interchange
9	Unknown

ROADWAY SURFACE TYPE

The surface type of the lane the driver's vehicle was traveling on just prior to this vehicle's critical pre-crash event. This data is only collected for in-transport vehicles.

COLUMN Name: SURFTYPE

SAS Value	Value Text
1	Concrete
2	Bituminous (asphalt)
3	Brick or Block
4	Slag, gravel or stone
5	Dirt
8	Other, specify:
9	Unknown

ROADWAY SURFACE CONDITION

This variable refers to the surface condition of the roadway immediately prior to this vehicle's critical pre-crash event. This data is only collected for in-transport vehicles.

COLUMN Name: SURFCOND

SAS Value	Value Text
1	Dry
2	Wet
3	Snow
4	Slush
5	Ice/Frost
6	Water (Standing, Moving)
7	Sand
8	Mud, Dirt, Gravel
9	Oil
98	Other, (specify):
99	Unknown

ROADWAY ALIGNMENT

The descriptor that best represents the vehicle's environment just prior to this vehicle's critical pre-crash event. This data is only collected for in-transport vehicles.

COLUMN Name: ALIGNMENT

SAS Value	Value Text
1	Straight
2	Curve Right
3	Curve Left
9	Unknown

ROADWAY PROFILE

The vertical profile that best represents this vehicle's pre-crash environment. This data is only collected for in-transport vehicles.

COLUMN Name: PROFILE

SAS Value	Value Text
1	Level
2	Uphill grade (>2%)
3	Hillcrest
4	Downhill grade (>2%)
5	Sag
9	Unknown

ROLLOVER TYPE

This variable captures the number of quarter turns, i.e. 90 degree rotations, the vehicle experienced during the rollover. This data is only collected for in-transport CISS applicable vehicles.

COLUMN Name: ROLLTYPE

SAS Value	Value Text
0	No rollover (no overturning)
1	Rollover -- Longitudinal axis
2	Rollover -- end-over-end (i.e., primarily about the lateral axis)
7	Not a CISS Vehicle
9	Overturn, details unknown

ROLLOVER DIRECTION OF ROLL
This variable shows the direction of the initial roll. This data is only collected for in-transport CISS applicable vehicles.

COLUMN Name: ROLLDIR

SAS Value	Value Text
0	No rollover
1	Roll right-primarily about the longitudinal axis
2	Roll left-primarily about the longitudinal axis
8	End over end
9	Unknown roll direction

ROLLOVER QUARTER TURNS
A "quarter turn" is defined as a rotation of 90 degrees about the longitudinal axis of the vehicle; this does not include rotation about the vertical axis, commonly called yaw.

COLUMN Name: ROLLTURN

SAS Value	Value Text
0	No rollover
1-20	Number of quarter turns
98	End over end
99	Unknown

ROLLOVER ESTIMATED DISTANCE
This variable reports the distance the vehicle rolled between the trip point and final rest. The data is expressed in meters. This data is only collected for in-transport CISS applicable vehicles.

COLUMN Name: ROLLDIST

SAS Value	Value Text
0	No rollover
1 - 500	[Actual Value]
998	End over end
999	Unknown

ROLLOVER INTERUPTED

The purpose of this variable is to determine if the vehicle's rollover sequence was acted upon by another vehicle or object between the trip point and the final rest position. This data is only collected for in-transport CISS applicable vehicles.

COLUMN Name: ROLLINTRPT

SAS Value	Value Text
0	No rollover
1	Yes
2	No
8	End over end
9	Unknown

ROLLOVER INITIATION TYPE

This variable captures the type of rollover the vehicle experienced. This data is only collected for in-transport CISS applicable vehicles.

COLUMN Name: ROLLINITYP

SAS Value	Value Text
0	No rollover
1	Trip-over
2	Flip-over
3	Turn-over (specify):
4	Climb-over
5	Fall-over
6	Bounce-over
7	Collision with another vehicle
8	Other rollover initiation type (specify):
98	End over end
99	Unknown

ROLLOVER INITIATION LOCATION

This variable defines the location of the trip point or start of the vehicle's roll that was identified in the Rollover Initiation Type. This data is only collected for in-transport CISS applicable vehicles.

COLUMN Name: ROLLINLOC

SAS Value	Value Text
0	No rollover
1	On roadway
2	On shoulder - paved
3	On shoulder - unpaved
4	On roadside or divided trafficway median
8	End over end
9	Unknown

ROLLOVER INITIATING OBJECT CLASS

This variable serves as a high level grouping of attributes for Rollover Initiating Object. This data is only collected for in-transport CISS applicable vehicles.

COLUMN Name: INITOBJCLASS

SAS Value	Value Text
0	No rollover
1	Vehicle
2	Non-collision
3	Collision with fixed object
4	Collision with non-fixed object
7	Other event
8	Rollover end-over-end
9	Unknown Event or Object

ROLLOVER INITIATING OBJECT

This variable identifies the source of the force that acted upon the vehicle which precipitated the rollover. This data is only collected for in-transport CISS applicable vehicles.

COLUMN Name: ROLLOBJ

SAS Value	Value Text
0	No rollover
1-30	Vehicle #1 thru 30
31	Overturn – rollover (excludes end-over-end)
32	Rollover end-over-end

SAS Value	Value Text
34	Jackknife
41	Tree (<=10 cm in diameter)
42	Tree (> 10 cm in diameter)
43	Shrubbery or bush
44	Embankment
45	Breakaway pole or post (any diameter)
47	Cable barrier guardrail
48	Guardrail Face
49	Guardrail End
50	Pole or post (<=10 cm in diameter)
51	Pole or post (> 10 cm but <= 30 cm diameter)
52	Pole or post (> 30 cm in diameter)
53	Pole or post (diameter unknown)
54	Concrete traffic barrier
55	Impact attenuator
56	Other traffic barrier (specify)
57	Fence
58	Wall
59	Building
60	Ditch or culvert
61	Ground
62	Fire hydrant
63	Curb
64	Bridge
68	Other fixed object (specify):
69	Unknown fixed object
74	Other nonmotorist or conveyance (specify)
76	Animal
77	Railway vehicle
78	Trailer, disconnected in transport
79	Object fell from vehicle in-transport
88	Other nonfixed object (specify):
89	Unknown nonfixed object
98	Other event (specify)
99	Unknown event or object

ROLLOVER LOCATION OF TRIP FORCE

The purpose of this variable is to identify the point on the vehicle where the initiating rollover force was applied. This data is only collected for in-transport CISS applicable vehicles.

COLUMN Name: ROLLTRIP

SAS Value	Value Text
0	No rollover
1	Wheels/tires
2	Side plane
3	End plane
4	Undercarriage
5	Other location on vehicle (specify):
6	Non-contact rollover forces (specify):
8	End over end
9	Unknown

ROLLOVER PRE-EVENT MANEUVER

The last controlled maneuver, relative to the roadway, prior to the initiation of the rollover. This data is only collected for in-transport CISS applicable vehicles.

COLUMN Name: ROLLPREMAN

SAS Value	Value Text
0	No rollover
1	Departing roadway (to paved surface)
2	Departed roadway (to non-paved surface)
3	Returning to roadway (from paved surface)
4	Returning to roadway (from non-paved surface)
5	On roadway maneuver
6	Off roadway maneuver
8	Rollover end-over-end
9	Unknown

RUMBLE STRIP INITIAL TRAVEL LANE

This variable captures the presence of rumble strips adjacent to the vehicle's initial travel lane along the direction of travel during this vehicle's pre-event movement phase of the crash. This data is only collected for in-transport vehicles.

COLUMN Name: RUMBINIT

SAS Value	Value Text
0	None
1	Left Rumble Strip Present
2	Right Rumble Strip Present
3	Left and Right Rumble Strips Present
9	Unknown

RUMBLE STRIP ROAD

This variable captures the presence of rumble strips in the vehicles road along the direction of travel during the pre-event movement phase of the crash. This data is only collected for in-transport vehicles.

COLUMN Name: RUMBROAD

SAS Value	Value Text
0	None
1	Left Rumble Strip Present
2	Right Rumble Strip Present
3	Left and Right Rumble Strips Present
9	Unknown

SHOULDER WIDTH

This variable, entered in meters, establishes the width of the stabilized shoulder available to this vehicle. This data is only collected when a vehicle departs a roadway and strikes a fixed object, otherwise the variable is coded "Not Applicable."

COLUMN Name: SHLDRWIDTH

SAS Value	Value Text
0.0 - 9.6	[Actual Value]
9.7	>= 9.7 meters
9.8	Not Applicable
9.9	Unknown

SPEED LIMIT

The posted speed limit for this vehicle expressed in kilometers per hour (kmph). This data is only collected for in-transport motor vehicles.

COLUMN Name: SPEEDLIMIT

SAS Value	Value Text
0	No Statutory Limit
24-121	[Actual Value]
999	Unknown

STRUCK OBJECT HEIGHT

This variable, entered in centimeters, measures the height of the first object contacted after the vehicle departs the shoulder, or roadway if there is no shoulder. This data is only collected when a vehicle departs a roadway and strikes a fixed object, otherwise the variable is coded "Not Applicable."

COLUMN Name: STRKHEIGHT

SAS Value	Value Text
-120	<= -120 centimeters
-119 - +119	[Actual Value]
120	>= 120 centimeters
998	Not Applicable
999	Unknown

STRUCK OBJECT LENGTH

This variable, entered in centimeters, measures the length of the first object contacted after the vehicle departs the shoulder, or roadway if there is no shoulder. This data is only collected when a vehicle departs a roadway and strikes a fixed object, otherwise the variable is coded "Not Applicable."

COLUMN Name: STRKLENGTH

SAS Value	Value Text
0 - 119	[Actual Value]
120	>= 120 centimeters
998	Not Applicable
999	Unknown

STRUCK OBJECT WIDTH

This variable, entered in centimeters, measures the width of the first object contacted after the vehicle departs the shoulder, or roadway if there is no shoulder. This data is only collected when a vehicle departs a roadway and strikes a fixed object, otherwise the variable is coded "Not Applicable."

COLUMN Name: STRKWIDTH

SAS Value	Value Text
0 - 119	[Actual Value]
120	>= 120 centimeters
998	Not Applicable
999	Unknown

TRAFFIC CONTROL DEVICE

The device that best controls traffic in the vehicle's environment just prior to this vehicle's critical pre-crash event. This data is only collected for in-transport motor vehicles.

COLUMN Name: TRAFDEV

SAS Value	Value Text
0	No traffic control(s)
1	Traffic control signal (not RR crossing)
2	Stop Sign
3	Yield Sign
4	School zone sign
5	Other regulatory sign (specify):
6	Warning sign (not RR crossing)
7	Unknown Sign
8	Miscellaneous/other controls including RR controls (specify):
9	Unknown

TRAFFIC CONTROL DEVICE FUNCTIONING

The status of the traffic control device at the time of the crash. This data is only collected for in-transport motor vehicles.

COLUMN Name: TRAFFUNCT

SAS Value	Value Text
0	No traffic control(s)
1	Traffic control device not functioning (specify):
2	Traffic control device functioning properly
9	Unknown

TRAFFICWAY FLOW

This variable describes the flow of traffic for this vehicle. This data is collected for in-transport vehicles.

COLUMN Name: TRAFFLOW

SAS Value	Value Text
1	Divided trafficway-median strip without positive barrier
2	Divided trafficway-median strip with positive barrier
3	One-Way Traffic
4	Not physically divided (two way traffic)
5	Not physically divided with two way left turn lane
9	Unknown

TRAVEL LANES FOR ROADWAY

This variable captures the number of travel lanes which best describes this vehicle's pre-impact location. This data is collected for in-transport vehicles.

COLUMN Name: RDLANES

SAS Value	Value Text
1	One
2	Two
3	Three
4	Four
5	Five
6	Six
7	Seven or More
9	Unknown

TRAVEL LANE FOR THIS VEHICLE
This element assesses the location of the vehicle prior to the critical envelope. This data is collected for in-transport vehicles.

COLUMN Name: INITLANE

SAS Value	Value Text
1	One
2	Two
3	Three
4	Four
5	Five
6	Six
7	Seven
8	Eight
98	Other
99	Unknown

TOWED TRAILING UNIT
This variable captures whether this vehicle was towing any kind of trailer or other vehicle using a fixed linkage. This data is only captured for in-transport CISS applicable vehicles.

COLUMN Name: TOWHITCH

SAS Value	Value Text
0	No Trailing Units
1	Yes, Towed Trailing Unit
8	Not a CISS Vehicle
9	Unknown

TRANSPORT STATUS
This variable captures whether this vehicle was in-transport on a trafficway at the time of crash.

COLUMN Name: TRANSTAT

SAS Value	Value Text
1	In-Transport
2	Not in-Transport
3	Working Vehicle

VEHICLE IDENTIFICATION NUMBER

This variable captures the vehicle's unique vehicle identification number (VIN). Only the first 12 characters are included, the rest being truncated for privacy reasons.

COLUMN Name: VIN

SAS Value	Value Text
000000000000	No VIN
999999999999	Unknown

VIN LENGTH

This derived variable reports the number of characters in the vehicle's VIN.

COLUMN Name: VINLENGTH

VEHICLE MAKE

This variable reports the vehicle's make/manufacturer.

COLUMN Name: MAKE

SAS Value	Value Text
1	American Motors
2	Jeep / Kaiser-Jeep / Willys- Jeep
3	AM General
6	Chrysler
7	Dodge
8	Imperial
9	Plymouth
10	Eagle
12	Ford
13	Lincoln
14	Mercury
18	Buick / Opel

SAS Value	Value Text
19	Cadillac
20	Chevrolet
21	Oldsmobile
22	Pontiac
23	GMC
24	Saturn
25	Grumman
26	Coda
29	Other Domestic Manufacturers
30	Volkswagen
31	Alfa Romeo
32	Audi
33	Austin/Austin Healey
34	BMW
35	Nissan/Datsun
36	Fiat
37	Honda
38	Isuzu
39	Jaguar
40	Lancia
41	Mazda
42	Mercedes-Benz
43	MG
44	Peugeot
45	Porsche
46	Renault
47	Saab
48	Subaru
49	Toyota
50	Triumph
51	Volvo
52	Mitsubishi
53	Suzuki
54	Acura
55	Hyundai
56	Merkur
57	Yugo
58	Infiniti
59	Lexus
60	Daihatsu

SAS Value	Value Text
61	Sterling
62	Land Rover
63	KIA
64	Daewoo
65	Smart
67	Scion
69	Other Import
70	BSA
71	Ducati
72	Harley-Davidson
73	Kawasaki
74	Moto-Guzzi
75	Norton
76	Yamaha
77	Victory
80	Brockway
81	Diamond Reo/Reo
82	Freightliner
83	FWD
84	International Harvester/Navistar
85	Kenworth
86	Mack
87	Peterbilt
88	Iveco/Magirus
89	White/Autocar White/GMC
90	Bluebird
91	Eagle Coach
92	Gillig
93	MCI
94	Thomas Built
97	Not Reported
98	Other Make
99	Unknown Make

VEHICLE MODEL
This variable reports the vehicle's model.

COLUMN Name: MODEL

SAS Value	Value Text
999	Unknown

VEHICLE MODEL YEAR

This variable reports the year the vehicle was built by the manufacturer. This number may not always coincide with the calendar year when it was manufacturer.

COLUMN Name: MODELYR

SAS Value	Value Text
1950-2019	[Actual Value]
9999	Unknown

VEHICLE CLASS

This variable reports the basic body size and classes per the Transportation Research Board's Passenger Car Classification Subcommittee report (1984).

COLUMN Name: VEHCLASS

SAS Value	Value Text
0	Not a motor vehicle
1	Subcompact/mini (wheelbase < 254 cm)
2	Compact (wheelbase 254 but < 265 cm)
3	Intermediate (wheelbase >=265 but < 278 cm)
4	Full size (wheelbase >=278 but < 291 cm)
5	Largest (wheelbase >=291 cm)
9	Unknown passenger car size
14	Compact utility vehicle
15	Large utility vehicle (<=4,536 kgs GVWR)
16	Utility station wagon (<=4,536 kgs GVWR)
19	Unknown utility type
20	Minivan (<=4,536 kgs GVWR)
21	Large van (<=4,536 kgs GVWR)
24	Van based school bus (<=4,536 kgs GVWR)
28	Other van type (<=4,536 kgs GVWR)
29	Unknown van type (<=4,536 kgs GVWR)
30	Compact pickup truck (<=4,536 kgs GVWR)

SAS Value	Value Text
31	Large pickup truck (<=4,536 kgs GVWR)
38	Other pickup truck (<=4,536 kgs GVWR)
39	Unknown pickup truck type (<=4,536 kgs GVWR)
45	Other light truck (<=4,536 kgs GVWR)
48	Unknown light truck type (<=4,536 kgs GVWR)
49	Unknown light vehicle type
50	School bus (excludes van based) (> 4,536 kgs GVWR)
58	Other bus (> 4,536 kgs GVWR)
59	Unknown Bus Type
60	Truck (> 4,536 kgs GVWR)
67	Tractor without trailer
68	Tractor - trailer(s)
78	Unknown medium/heavy truck type
79	Unknown light/medium/heavy truck type
80	Motored cycle
90	Other vehicle
99	Unknown

VEHICLE SPECIAL USE

This variable reports whether this vehicle was functioning, for this trip, in some kind of special activity.

COLUMN Name: SPECUSE

SAS Value	Value Text
0	No Special Function
1	Taxi
2	Vehicle used as school bus
3	Vehicle used as other bus
4	Military
5	Police
6	Ambulance
7	Fire Truck
8	Non-transport Emergency Services Vehicle
9	Incident Response
99	Unknown

WEATHER CONDITIONS

The atmospheric condition just prior to the critical event that had the most effect on the visibility of the driver. This data is collected for all in-transport vehicles.

COLUMN Name: WEATHER

SAS Value	Value Text
1	Clear
2	Rain
3	Sleet or Hail
4	Snow
5	Fog, Smog, Smoke
6	Severe Crosswinds
7	Blowing Sand, Soil, Dirt
8	Cloudy
9	Blowing Snow
10	Freezing Rain or Freezing Drizzle
98	Other, (specify):
99	Unknown

DISTRACT Dataset

Key Identifiers: PSU, CASENO, VEHNO

The DISTRACT table stores information regarding the distractions recorded for this vehicle's driver. Data in this table is populated for all in-transport vehicles where GV.DISTRACT equals 3/"Inattentive or Distracted".

Figure 6 displays the list of all the data elements in the DISTRACT table. Information about the type of each variable, its length, the format, and the label is provided for each data element.

```
Data Set Name        CISS19.DISTRACT            Observations          578
Member Type          DATA                       Variables             10
Engine               V9                         Indexes               0
Created              10/22/2020 13:31:04        Observation Length    56
Last Modified        10/22/2020 13:31:04        Deleted Observations  0
Protection                                      Compressed            NO
Data Set Type                                   Sorted                YES
Label
Data Representation  WINDOWS_32
Encoding             wlatin1  Western (Windows)


                  Alphabetic List of Variables and Attributes

    #    Variable    Type    Len    Format       Informat    Label

    1    CASEID      Num      5     11.          11.         SYSTEM CASE IDENTIFIER
    3    CASENO      Num      3     11.          11.         SEQUENTIAL CASE NUMBER
```

```
4    CASENUMBER   Char   16   $20.          $20.        CASE NUMBER
8    CASEWGT      Num    8    26.20                     CASE WEIGHT
5    CATEGORY     Num    3    11.           11.         CASE CATEGORY
7    DISTRACTN    Num    3    DISTTYPE19F.  11.         DISTRACTION
2    PSU          Num    3    11.           11.         PRIMARY SAMPLING UNIT
9    PSUSTRAT     Num    3    11.           11.         PSU STRATIFICATION
6    VEHNO        Num    3    11.           11.         VEHICLE NUMBER
10   VERSION      Num    3    6.            6.          VERSION NUMBER


                    Sort Information

             Sortedby       PSU CASENO VEHNO
             Validated      YES
             Character Set  ANSI
```

Figure 6.

DISTRACTION
The type of distraction or inattention by the drive prior to realization of impending danger or just prior to impact or impending critical event.

COLUMN Name: DISTRACTN

SAS Value	Value Text
1	Sleepy or fell asleep
2	Inattentive or lost in thought
3	Manually operating an electronic communication device (texting, typing, dialing, etc)
4	Talking on hands-free electronic device
5	Talking on hand-held electronic device
6	Other device brought into the vehicle (navigation, game, video, etc)
7	Device/Control integral to the vehicle
8	Passenger
9	Other inside the vehicle (eating, personal hygiene, smoking, etc)
10	Outside the vehicle (includes unspecified external distractions)
99	Distracted, unknown type

PRE_FHE Dataset

Key Identifiers: PSU, CASENO, VEHNO, SEQUENCE

Figure 7 displays the list of all the data elements in the PRE_FHE table. Information about the type of each variable, its length, the format and the label are displayed. Data for all in-transport vehicles will be found in this dataset when GV.PREFHE equals 1 (Yes).

```
Data Set Name          CISS19.PRE_FHE          Observations          2110
Member Type            DATA                     Variables             11
Engine                 V9                       Indexes               0
Created                10/22/2020 13:31:09      Observation Length    56
Last Modified          10/22/2020 13:31:09      Deleted Observations  0
Protection                                      Compressed            NO
Data Set Type                                   Sorted                YES
Label
Data Representation    WINDOWS_32
Encoding               wlatin1  Western (Windows)


                    Alphabetic List of Variables and Attributes

    #    Variable      Type    Len    Format          Informat    Label

    1    CASEID        Num     5      11.             11.         SYSTEM CASE IDENTIFIER
    3    CASENO        Num     3      11.             11.         SEQUENTIAL CASE NUMBER
    4    CASENUMBER    Char    16     $20.            $20.        CASE NUMBER
    9    CASEWGT       Num     8      26.20                       CASE WEIGHT
    5    CATEGORY      Num     3      11.             11.         CASE CATEGORY
    8    PREEVENT      Num     3      PREFHETYPE19F.  11.         PRE-FIRST HARMFUL EVENT
    2    PSU           Num     3      11.             11.         PRIMARY SAMPLING UNIT
    10   PSUSTRAT      Num     3      11.             11.         PSU STRATIFICATION
    7    SEQUENCE      Num     3      6.              6.          SEQUENCE NUMBER
    6    VEHNO         Num     3      11.             11.         VEHICLE NUMBER
    11   VERSION       Num     3      6.              6.          VERSION NUMBER


                            Sort Information

            Sortedby        PSU CASENO VEHNO SEQUENCE
            Validated       YES
            Character Set   ANSI
```

Figure 7.

SEQUENCE NUMBER
This variable is a sequential number indicating the chronological sequence of a particular vehicle's movement before the first harmful event. This data is only collected for in-transport vehicles.

COLUMN Name: SEQUENCE

PRE-FIRST HARMFUL EVENT
This variable describes lateral vehicle movements along the vehicle's trajectory between the end of the pre-event movement phase and the first harmful event. This data is only collected for in-transport vehicles.

COLUMN Name: PREEVENT

SAS Value	Value Text
0	No driver present
1	No pre first harmful event sequence
2	Lane departure-left side
3	Lane return-left side
4	Lane departure-right side
5	Lane return-right side
6	Roadway departure-left side
7	Roadway return-left side
8	Roadway departure-right side
9	Roadway return-right side
98	Other (specify)
99	Unknown

VEHSPEC Dataset

Key Identifiers: PSU, CASENO, VEHNO

The VEHSPEC table primarily contains original vehicle specifications of the vehicle, as well as additional information regarding the state of the vehicle at the time of the crash. Figure 8 displays the list of all the data elements in the VEHSPEC table. Information about the type of each variable, its length, the format and the label are displayed. One row will be found for each CISS applicable vehicle (BODYTYPE between 1 and 49).

Data Set Name	CISS19.VEHSPEC			Observations		4777	
Member Type	DATA			Variables		23	
Engine	V9			Indexes		0	
Created	10/22/2020 13:31:10			Observation Length		96	
Last Modified	10/22/2020 13:31:10			Deleted Observations		0	
Protection				Compressed		NO	
Data Set Type				Sorted		YES	
Label							
Data Representation	WINDOWS_32						
Encoding	wlatin1 Western (Windows)						

Alphabetic List of Variables and Attributes

#	Variable	Type	Len	Format	Informat	Label
19	ALTVEH	Num	3	ALT19F.	11.	MULTI-STAGE OR ALTERED VEHICLE
1	CASEID	Num	5	11.	11.	SYSTEM CASE IDENTIFIER
3	CASENO	Num	3	11.	11.	SEQUENTIAL CASE NUMBER
4	CASENUMBER	Char	16	$20.	$20.	CASE NUMBER
21	CASEWGT	Num	8	26.20		CASE WEIGHT
5	CATEGORY	Num	3	11.	11.	CASE CATEGORY
10	CURBWT	Num	4	CURBWT19F.	11.	CURB WEIGHT
18	DRVWHEELS	Num	3	DRVWHEELS19F.	11.	DRIVE WHEELS
15	ENG_CYL	Num	3	SPECENG19F.	11.	ENGINE CYLINDERS

```
16    ENG_DISP         Num    8    SPECENGDISP19F.   20.1    ENGINE DISPLACEMENT
 9    MAXWIDTH         Num    3    SPEC19F.          11.     MAXIMUM WIDTH
 8    OAL              Num    3    SPEC19F.          11.     OVERALL LENGTH
12    OVERHANG_FRT     Num    3    SPEC19F.          11.     FRONT OVERHANG
13    OVERHANG_REAR    Num    3    SPEC19F.          11.     REAR OVERHANG
 2    PSU              Num    3    11.               11.     PRIMARY SAMPLING UNIT
22    PSUSTRAT         Num    3    11.               11.     PSU STRATIFICATION
20    SUSPMODS         Num    3    SUSPMODS19F.      11.     SUSPECTED POST MANUFACTURER MODIFICATIONS
11    TRACKWIDTH       Num    3    SPEC19F.          11.     TRACK WIDTH
17    TRANSMISSION     Num    3    TRANSMISSION19F.  11.     TRANSMISSION
14    UEW              Num    3    SPEC19F.          11.     UNDEFORMED END WIDTH
 6    VEHNO            Num    3    11.               11.     VEHICLE NUMBER
23    VERSION          Num    3    6.                6.      VERSION NUMBER
 7    WHEELBASE        Num    3    SPEC19F.          11.     WHEELBASE


                            Sort Information

                    Sortedby       PSU CASENO VEHNO
                    Validated      YES
                    Character Set  ANSI
```

Figure 8.

CURB WEIGHT

This variable reports the weight of the vehicle not considering occupants, cargo, or add-on equipment. The data is expressed in kilograms (kg).

COLUMN Name: CURBWT

SAS Value	Value Text
450 - 4536	[Actual Value]
9999	Unknown

DRIVE WHEELS

This variable reports the type of drive wheels which power the vehicle.

COLUMN Name: DRVWHEELS

SAS Value	Value Text
1	Front Wheel Drive
2	Rear Wheel Drive
3	Four Wheel Drive
4	All Wheel Drive
9	Unknown

ENGINE CYLINDERS

This variable reports the number of cylinders of this vehicle's engine.

COLUMN Name: ENG_CYL

SAS Value	Value Text
2 - 10	[Actual Value]
98	Not Applicable
99	Unknown

ENGINE DISPLACEMENT

This variable reports the displacement of this vehicle's engine, expressed in liters to the nearest tenth.

COLUMN Name: ENG_DISP

SAS Value	Value Text
1.0 - 10.0	[Actual Value]
98	Not Applicable
99	Unknown

FRONT OVERHANG

This variable reports the original longitudinal distance between the vehicle's front axle and the maximum extent of the vehicle's front. The data is expressed in centimeters.

COLUMN Name: OVERHANG_FRT

SAS Value	Value Text
25 - 150	[Actual Value]
999	Unknown

MAXIMUM WIDTH

This variable reports the original lateral distance between the vehicle's side extents. The data is expressed in centimeters.

COLUMN Name: MAXWIDTH

SAS Value	Value Text
100 - 350	[Actual Value]
999	Unknown

MULTI-STAGE OR ALTERED VEHICLE

This variable reports whether the vehicle is a multi-stage or altered vehicle. A positive response for this variable should be supported by an image of the certification label that is required to be affixed to the vehicle.

COLUMN Name: ALTVEH

SAS Value	Value Text
0	No post manufacturer modifications
1	Yes-post manufacturer modifications (specify)
9	Unknown if vehicle is modified

OVERALL LENGTH

This variable reports the original longitudinal distance between the front and rear extents of the vehicle. The data is expressed in centimeters. Any add-on equipment is excluded from the overall length of the vehicle (i.e., a pick-up with an after-market bumper added).

COLUMN Name: OAL

SAS Value	Value Text
100 - 650	[Actual Value]
999	Unknown

REAR OVERHANG

This variable reports the original longitudinal distance between the rear axle and rear extent of the vehicle. The data is expressed in centimeters.

COLUMN Name: OVERHANG_REAR

SAS Value	Value Text
25 - 200	[Actual Value]
999	Unknown

SUSPECTED POST MANUFACTURER MODIFICATIONS

This variable reports whether the crash technician suspects the vehicle has had post-manufacturer modifications which aren't supported by a multi-stage manufacturer placard/label. These modifications are normally modifications accomplished by the vehicle's owner, e.g. lift kits, brush guards, etc.

COLUMN Name: SUSPMODS

SAS Value	Value Text
0	No
1	Yes

TRACK WIDTH

This variable reports the original width between the centers of the vehicle's tires. The data is expressed in centimeters.

COLUMN Name: TRACKWIDTH

SAS Value	Value Text
100 - 200	[Actual Value]
999	Unknown

TRANSMISSION

The variable reports the type of transmission that is in the vehicle.

COLUMN Name: TRANSMISSION

SAS Value	Value Text
1	Manual
2	Automatic
3	Electric Motor Only
9	Unknown

UNDEFORMED END WIDTH

This variable reports the lateral distance between the undamaged dimension of the contacted end plane measured between the apex of both bumper corners. The data is expressed in centimeters.

COLUMN Name: UEW

SAS Value	Value Text
100 - 250	[Actual Value]
999	Unknown

WHEELBASE

This variable reports the original longitudinal distance between the vehicle's front and rear axles. The data is expressed in centimeters.

COLUMN Name: WHEELBASE

SAS Value	Value Text
100 - 650	[Actual Value]
999	Unknown

VINDERIVED Dataset

This table reports various data derived from the vehicle's VIN. A row will be present for all vehicles with a model year of 1981 and forward and having a known VIN which passes the check digit routine without error. Figure 9 displays the list of all the data elements in the VINDERIVED table.

```
Data Set Name          CISS19.VINDERIVED        Observations          4908
Member Type            DATA                     Variables             102
Engine                 V9                       Indexes               0
Created                10/22/2020 13:31:11      Observation Length    2576
Last Modified          10/22/2020 13:31:11      Deleted Observations  0
Protection                                      Compressed            NO
Data Set Type                                   Sorted                YES
Label
Data Representation    WINDOWS_32
Encoding               wlatin1  Western (Windows)
```

```
                       Alphabetic List of Variables and Attributes

   #   Variable                Type   Len   Format    Informat      Label

  29   AdaptiveCruiseControl    Char    20   $500.     $500.         ADAPTIVE CRUISE CONTROL (ACC)
  39   AdaptiveHeadlights       Char    25   $500.     $500.         ADAPTIVE HEADLIGHTS
  89   AirBagLocCurtain         Char    30   $500.     $500.         CURTAIN AIR BAG LOCATIONS
  86   AirBagLocFront           Char    30   $500.     $500.         FRONT AIR BAG LOCATIONS
  87   AirBagLocKnee            Char    30   $500.     $500.         KNEE AIR BAG LOCATIONS
  90   AirBagLocSeatCushion     Char    30   $500.     $500.         CUSHION AIR BAG LOCATIONS
  88   AirBagLocSide            Char    30   $500.     $500.         SIDE AIR BAG LOCATIONS
  33   AntilockBrakeSystem      Char    10   $500.     $500.         ANTI-LOCK BRAKING SYSTEM (ABS)
  34   AutomaticEmergencyBraking Char   20   $500.     $500.         AUTOMATIC EMERGENCY BRAKING (AEB)
  62   AxleConfiguration        Char    25   $500.     $500.         AXLE CONFIGURATION
  61   AxlesCount               Num      3   6.        6.            NUMBER OF AXLES
  66   BatteryCellsPerModule    Num      3   6.        6.            NUMBER OF BATTERY CELLS PER MODULE
  65   BatteryModulesPerPack    Num      3   6.        6.            NUMBER OF BATTERY MODULES PER PACK
  64   BatteryPacksPerVehicle   Num      3   6.        6.            NUMBER OF BATTERY PACKS PER VEHICLE
  67   BatteryType              Char    40   $500.     $500.         BATTERY TYPE
  35   BlindSpotMonitoring      Char    20   $500.     $500.         BLIND SPOT MONITORING SYSTEM
  21   BodyClass                Char    60   $500.     $500.         BODY CLASS
  63   BrakeSystemType          Char    20   $500.     $500.         BRAKE SYSTEM TYPE
  54   BusFloorConfigurationType Char   20   $500.     $500.         BUS FLOOR CONFIGURATION TYPE
  96   BusType                  Char    15   $500.     $500.         BUS TYPE
   1   CASEID                   Num      5   11.       11.           SYSTEM CASE IDENTIFIER
   3   CASENO                   Num      3   11.       11.           SEQUENTIAL CASE NUMBER
   7   CASENUMBER               Char    16   $20.      $20.          CASE NUMBER
 101   CASEWGT                  Num      8   26.20                   CASE WEIGHT
   4   CATEGORY                 Num      3   11.       11.           CASE CATEGORY
  68   ChargerLevel             Char   100   $500.     $500.         CHARGER LEVEL
  69   ChargerPowerKW           Num      3   6.        6.            CHARGER POWER (KW)
  46   CurbWeightLB             Num      3   11.       11.           CURB WEIGHT (LBS.)
```

```
 93    CustomMotorcycleType         Char     25   $500.        $500.          CUSTOM MOTORCYCLE TYPE
 24    DisplacementCC               Char     20   $500.        $500.          ENGINE DISPLACEMENT (CC)
 22    DoorsCount                   Num       3   11.          11.            NUMBER OF DOORS
 60    DriveType                    Char     25   $500.        $500.          DRIVE TYPE
 38    DriverAssist                 Char     25   $500.        $500.          DRIVER ASSIST
 30    ElectronicStabilityControl   Char     10   $500.        $500.          ELECTRONIC STABILITY CONTROL (ESC)
 79    EngineBrakeHP                Num       8   12.2         12.2           ENGINE BRAKE (HP)
 80    EngineBrakeUpToHP            Num       8   12.2         12.2           ENGINE BRAKE UP TO (HP)
 77    EngineConfiguration          Char     40   $500.        $500.          ENGINE CONFIGURATION
 73    EngineCoolingType            Char     10   $500.        $500.          ENGINE COOLING TYPE
 72    EngineCylindersCount         Num       3   6.           6.             ENGINE NUMBER OF CYLINDERS
 82    EngineElectrificationLevel   Char     40   $500.        $500.          ENGINE ELECTRIFICATION LEVEL
 70    EngineManufacturer           Char     30   $500.        $500.          ENGINE MANUFACTURER
 23    EngineModel                  Char    125   $500.        $500.          ENGINE MODEL
 78    EnginePowerKW                Num       8   12.2         12.2           ENGINE POWER (KW)
 71    EngineStrokeCycles           Num       3   6.           6.             ENGINE STROKE CYCLES
 83    EngineTurbo                  Char      5   $500.        $500.          ENGINE TURBO
 81    EngineValveTrainDesign       Char     30   $500.        $500.          ENGINE VALVE TRAIN DESIGN
 31    ForwardCollisionWarning      Char     20   $500.        $500.          FORWARD COLLISION WARNING (FCW)
 76    FuelDeliveryInjectionType    Char     50   $500.        $500.          FUEL DELIVERY / FUEL INJECTION TYPE
 74    FuelTypePrimary              Char     30   $500.        $500.          PRIMARY FUEL TYPE
 75    FuelTypeSecondary            Char     30   $500.        $500.          SECONDARY FUEL TYPE
 45    GrossVehicleWeightRating     Char     60   $500.        $500.          GROSS VEHICLE WEIGHT RATING
 32    LaneDepartureWarning         Char     20   $500.        $500.          LANE DEPARTURE WARNING (LDW)
 36    LaneKeepSystem               Char     20   $500.        $500.          LANE KEEPING SYSTEM (LKS)
 99    MODELYR                      Num       8   11.          11.            MODELYR
 13    Make                         Char     25   $500.        $500.          MAKE
 11    ManufacturerCommonName       Char     60   $500.        $500.          MANUFACTURER COMMON NAME
 10    ManufacturerFullName         Char     60   $500.        $500.          MANUFACTURER FULL NAME
 41    ManufacturerId               Num       5   11.          11.            MANUFACTURER ID
 12    ManufacturerParent           Char     60   $500.        $500.          MANUFACTURER PARENT
 14    Model                        Char     50   $500.        $500.          MODEL
 15    ModelYear                    Num       3   11.          11.            MODEL YEAR
 56    MotorcycleChassisType        Char     50   $500.        $500.          MOTORCYCLE CHASSIS TYPE
 55    MotorcycleSuspensionType     Char     25   $500.        $500.          MOTORCYCLE SUSPENSION TYPE
  2    PSU                          Num       3   11.          11.            PRIMARY SAMPLING UNIT
102    PSUSTRAT                     Num       8   11.          11.            PSU STRATIFICATION
 40    ParkAssist                   Char     20   $500.        $500.          PARKING ASSIST
 26    PlantCity                    Char     50   $500.        $500.          PLANT CITY
 42    PlantCompanyName             Char     55   $500.        $500.          PLANT COMPANY NAME
 28    PlantCountry                 Char     25   $500.        $500.          PLANT COUNTRY
 27    PlantState                   Char     30   $500.        $500.          PLANT STATE
 85    Pretensioner                 Char      5   $500.        $500.          PRETENSIONER
 37    RearVisibilityCamera         Char     20   $500.        $500.          REAR VISIBILITY CAMERA
 84    SeatBeltsType                Char     20   $500.        $500.          SEAT BELTS TYPE
 58    SeatRowsCount                Num       3   6.           6.             NUMBER OF SEAT ROWS
 57    SeatsCount                   Num       3   6.           6.             NUMBER OF SEATS
 17    Series                       Char    200   $500.        $500.          SERIES
 19    Series2                      Char     50   $500.        $500.          SERIES2
 98    TPMS                         Char     10   $500.        $500.          TIRE PRESSURE MONITORING SYSTEM (TPMS)
 44    TrackWidth                   Num       8   12.2         12.2           TRACK WIDTH
 91    TractionControl              Char     10   $500.        $500.          TRACTION CONTROL
 95    TrailerBodyType              Char     25   $500.        $500.          TRAILER BODY TYPE
 53    TrailerLengthFT              Num       8   12.2         12.2           TRAILER LENGTH (FT.)
 52    TrailerTypeConnection        Char     30   $500.        $500.          TRAILER TYPE CONNECTION
 59    TransmissionSpeeds           Num       3   6.           6.             TRANSMISSION SPEEDS
 25    TransmissionStyle            Char     50   $500.        $500.          TRANSMISSION STYLE
 18    Trim                         Char    100   $500.        $500.          TRIM
 20    Trim2                        Char     50   $500.        $500.          TRIM2
 51    TruckBedLengthIN             Num       3   11.          11.            TRUCK BED LENGTH (INCHES)
 50    TruckBedType                 Char     20   $500.        $500.          TRUCK BED TYPE
 94    TruckBodyCabType             Char     40   $500.        $500.          TRUCK BODY CAB TYPE
  5    VEHNO                        Num       3   11.          11.            VEHICLE NUMBER
  6    VERSION                      Num       3   6.           6.             VERSION NUMBER
  8    VIN                          Char     12   $12.         $12.           VEHICLE IDENTIFICATION NUMBER
 92    VINDecodeError               Char     20   $500.        $500.          VIN DECODE ERROR CODE
100    VINDecodedOn                 Num       8   DATETIME16.  DATETIME22.3   VIN DECODED ON
 97    VehicleDescriptor            Char     25   $17.         $17.           VEHICLE DESCRIPTOR
 16    VehicleType                  Char     40   $500.        $500.          VEHICLE TYPE
  9    WMI                          Char      3   $6.          $6.            WORLD MANUFACTURER IDENTIFIER
 47    WheelBaseIN                  Num       8   12.2         12.2           WHEEL BASE (INCHES)
 43    WheelBaseType                Char     15   $500.        $500.          WHEEL BASE TYPE
 48    WheelBaseUpToIN              Num       8   12.2         12.2           WHEEL BASE UPTO (INCHES)
 49    WheelsCount                  Num       3   6.           6.             NUMBER OF WHEELS


                                Sort Information


                        Sortedby      PSU CASENO VEHNO
```

```
                          Validated       YES
                          Character Set   ANSI
```

Figure 9.

The EXTERIOR VEHICLE Data Files

The data for the Exterior Vehicle data files is collected during the inspection of the vehicle. The amount of data collected is based upon whether the vehicle is towed (all data), not towed (all data), or not in-transport (only impact related data) as defined in the individual tables.

CDC Dataset

Key Identifiers: PSU, CASENO, VEHNO, EVENTNO

The CDC table captures the Collision Deformation Classification (CDC) code for each impact, as well as a description and profile/measurements of the damage, and associated delta V information. Normally there will be one CDC per impact, however in rare situations there may be more than one. This data will be present for all inspected vehicles which have a CDC applicable event. Figure 10 displays the list of all the data elements in the CDC table. Information about the type of each variable, its length, the format and the label are displayed.

```
Data Set Name        CISS19.CDC                  Observations          6212
Member Type          DATA                        Variables             56
Engine               V9                          Indexes               0
Created              10/22/2020 13:31:03         Observation Length    944
Last Modified        10/22/2020 13:31:03         Deleted Observations  0
Protection                                       Compressed            NO
Data Set Type                                    Sorted                YES
Label
Data Representation  WINDOWS_32
Encoding             wlatin1  Western (Windows)
```

```
                    Alphabetic List of Variables and Attributes

    #    Variable        Type    Len    Format         Informat    Label

   46    C1              Num      3     UNKNA19F.                  C1 MEASUREMENT
   47    C2              Num      3     UNKNA19F.                  C2 MEASUREMENT
   48    C3              Num      3     UNKNA19F.                  C3 MEASUREMENT
   49    C4              Num      3     UNKNA19F.                  C4 MEASUREMENT
   50    C5              Num      3     UNKNA19F.                  C5 MEASUREMENT
   51    C6              Num      3     UNKNA19F.                  C6 MEASUREMENT
    1    CASEID          Num      5     11.            11.         SYSTEM CASE IDENTIFIER
    3    CASENO          Num      3     11.            11.         SEQUENTIAL CASE NUMBER
    4    CASENUMBER      Char    16     $20.           $20.        CASE NUMBER
   54    CASEWGT         Num      8     26.20                      CASE WEIGHT
    5    CATEGORY        Num      3     11.            11.         CASE CATEGORY
   14    CDC             Char     8     $10.           $10.        CDC
   18    CDCDISTRIB      Char     1     $TDD19F.       $50.        CDC DAMAGE DISTRIBUTION
   19    CDCEXTENT       Char     2     $EXTENT19F.    $50.        CDC DAMAGE EXTENT
   16    CDCLONGLAT      Char     1     $LONGLAT19F.   $50.        CDC LONGITUDINAL/LATERAL LOCATION
   15    CDCPLANE        Char     1     $GAD19F.       $50.        CDC PLANE OF IMPACT
   17    CDCVERTLAT      Char     1     $50.           $50.        CDC VERTICAL/LATERAL LOCATION
   45    CMAX            Num      3     UNKNA19F.                  C MAX MEASUREMENT
   25    CMAXHEIGHT      Num      3     UNKNA19F.      11.         C MAX HEIGHT
   39    CMAXLOCATION    Char   255     $255.          $255.       CRUSH PROFILE C MAX LOCATION
   20    DAMAPILLAR      Num      3     PILLAR19F.     11.         DAMAGE TO A PILLAR
```

```
21    DAMBPILLAR       Num    3    PILLAR19F.      11.      DAMAGE TO B PILLAR
22    DAMCPILLAR       Num    3    PILLAR19F.      11.      DAMAGE TO C PILLAR
23    DAMOTHPILLAR     Num    3    PILLAR19F.      11.      DAMAGE TO OTHER PILLAR
43    DIRECTD          Num    3    UNKNA19F.                DIRECT L D
42    DIRECTL          Num    3    UNKNA19F.       11.      DIRECT L
37    DIRECTLOCATION   Char   255  $255.           $255.    CRUSH PROFILE DIRECT DAMAGE LOCATION
44    DIRECTWIDTH      Num    3    UNKNA19F.                DIRECT DAMAGE WIDTH
26    DOORSILLDIFF     Num    3    UNKNA19F.       11.      DOOR SILL DIFFERENTIAL
34    DVBARRIER        Num    3    BAREQSP19F.     11.      DELTA V BARRIER EQUIVALENT SPEED
27    DVBASIS          Num    3    DVBASIS19F.     11.      DELTA V BASIS
31    DVENERGY         Num    5    ENERGY19F.      11.      DELTA V ENERGY
35    DVESTIMATE       Num    3    DVEST19F.       11.      DELTA V ESTIMATED SEVERITY
30    DVLAT            Num    3    DVLONLAT19F.    11.      DELTA V LATERAL
29    DVLONG           Num    3    DVLONLAT19F.    11.      DELTA V LONGITUDINAL
33    DVMOMENT         Num    3    DVMOMENT19F.    11.      DELTA V MOMENT ARM
36    DVRANK           Num    3    DVRANK19F.      11.      DELTA V RANK
32    DVSPEED          Num    3    DVSPEED19F.     11.      DELTA V IMPACT SPEED
28    DVTOTAL          Num    3    DVTOTAL19F.     11.      DELTA V TOTAL
11    ENDSHIFT         Num    3    SHIFT19F.       11.      END SHIFT
 7    EVENTNO          Num    3    6.              6.       EVENT NUMBER
40    FIELDL           Num    3    UNKNA19F.                FIELD L
41    FIELDLD          Num    3    UNKNA19F.                FIELD L D
38    FIELDLLOCATION   Char   255  $255.           $255.    CRUSH PROFILE FIELD L LOCATION
13    HEADINGANG       Num    3    CDCHDG19F.      11.      HEADING ANGLE AT IMPACT
 8    OBJCONT          Num    3    OBJCONT19F.     11.      OBJECT CONTACTED
10    OCLOCK           Num    3    CLOCK19F.       11.      OCLOCK
12    OVERUNDER        Num    3    UNDERRIDE19F.   11.      OVERRIDE UNDERRIDE
 9    PDOF             Num    3    PDOF19F.        11.      PRINCIPLE DIRECTION OF FORCE
 2    PSU              Num    3    11.             11.      PRIMARY SAMPLING UNIT
55    PSUSTRAT         Num    3    11.             11.      PSU STRATIFICATION
52    ROLLLAT          Num    3    UNKNA19F.       11.      ROLLOVER LATERAL MEASUREMENT
53    ROLLVERT         Num    3    UNKNA19F.       11.      ROLLOVER VERTICAL MEASUREMENT
24    SILLHEIGHT       Num    3    UNKNA19F.       11.      SILL HEIGHT
 6    VEHNO            Num    3    11.             11.      VEHICLE NUMBER
56    VERSION          Num    3    6.              6.       VERSION NUMBER


                         Sort Information

              Sortedby       PSU CASENO VEHNO EVENTNO
              Validated      YES
              Character Set  ANSI
```

Figure 10.

CDC

This variable reports the eight character CDC which gives a gross description of the damage to the vehicle for the mentioned crash event.

COLUMN Name: CDC

OCLOCK

This variable reports the first and second characters of the CDC. It reports the direction of force in terms of clock positions.

COLUMN Name: OCLOCK

SAS Value	Value Text
0	NONHORIZONTAL FORCE
1	1 O`CLOCK
2	2 O`CLOCK

SAS Value	Value Text
3	3 O`CLOCK
4	4 O`CLOCK
5	5 O`CLOCK
6	6 O`CLOCK
7	7 O`CLOCK
8	8 O`CLOCK
9	9 O`CLOCK
10	10 O`CLOCK
11	11 O`CLOCK
12	12 O`CLOCK
99	UNKNOWN DOF
.	NO CDC

CDC PLANE OF IMPACT
This variable reports the third character of the CDC which denotes the plane of impact. This variable will normally match the related GAD variable in the EVENT table for this impact.

COLUMN Name: CDCPLANE

SAS Value	Value Text
F	Front
L	Left Side
R	Right Side
B	Back/Truck Back
T	Top
U	Undercarriage
9	Unknown

CDC LONGITUDINAL/LATERAL LOCATION
This variable reports the fourth character of the CDC which is the Longitudinal (side/top plane impacts) or Lateral (end plane impacts) component.

COLUMN Name: CDCLONGLAT

SAS Value	Value Text
B	Side rear - left or right
C	Center - front or rear
D	Distributed-side or end
F	Side Front - left or right
L	Left - front or rear
P	Side center section - L or R
R	Right - front or rear
Y	Side (F + P) or end (L + C)
Z	Side (P + B) or end (C + R)
9	Unknown

CDC VERTICAL/LATERAL LOCATION

This variable reports the fifth character of the CDC which is the vertical (side/end planes) or lateral (top plane) component.

COLUMN Name: CDCVERTLAT

SAS Value	Value Text
A	All
C	Center
D	Distributed
E	Everything below belt line
G	Belt line and above
H	Top of frame to top
L	Frame - top of frame, frame, bottom of frame (end and side plane impacts only)
L	Left (Top and Undercarriage impacts only)
M	Middle - top of frame to belt line or hood
R	Right
W	Below undercarriage level (wheels and tires only)
Y	Left and Center (L + C)
Z	Right and Center (R + C)
9	Unknown

CDC DAMAGE DISTRIBUTION

This variable reports the sixth character of the CDC which is a description of the damage type.

COLUMN Name: CDCDISTRIB

SAS Value	Value Text
A	Overhanging structure
E	Corner
K	Conversion impact type
N	Narrow impact area
O	Rollover (includes side)
S	Sideswipe
U	No residual deformation
W	Wide impact area
9	Unknown

CDC DAMAGE EXTENT

This variable reports the seventh and eighth character of the CDC which is a gross description of the depth of damage in relation to the CDCPLANE.

COLUMN Name: CDCEXTENT

SAS Value	Value Text
01	One
02	Two
03	Three
04	Four
05	Five
06	Six
07	Seven
08	Eight
09	Nine
99	Unknown

OBJECT CONTACTED

This variable reports the contacting vehicle or object for this impact.

COLUMN Name: OBJCONT

SAS Value	Value Text
1-30	Vehicle #1-30
31	Overturn - rollover (excludes end-over-end)
32	Rollover - end-over-end

SAS Value	Value Text
33	Fire or explosion
34	Jackknife
35	Other intraunit damage (specify):
36	Noncollision injury
38	Other noncollision (specify):
39	Noncollision - details unknown
41	Tree (<= 10 cm in diameter)
42	Tree (> 10 cm in diameter)
43	Shrubbery or bush
44	Embankment
45	Breakaway pole or post (any diameter)
47	Cable barrier guardrail
48	Guardrail Face
49	Guardrail End
50	Nonbreakaway Pole or post (<= 10 cm in diameter)
51	Nonbreakaway Pole or post (> 10 cm but <= 30 cm in diameter)
52	Nonbreakaway Pole or post (> 30 cm in diameter)
53	Nonbreakaway Pole or post (diameter unknown)
54	Concrete traffic barrier
55	Impact attenuator
56	Other traffic barrier (specify):
57	Fence
58	Wall
59	Building
60	Ditch or culvert
61	Ground
62	Fire hydrant
63	Curb
64	Bridge
68	Other fixed object (specify):
69	Unknown fixed object
72	Pedestrian
73	Cyclist or cycle
74	Other nonmotorist or conveyance (specify)
75	Vehicle occupant
76	Animal
77	Railway vehicle
78	Trailer, disconnected in transport
79	Object fell from vehicle in-transport

SAS Value	Value Text
88	Other nonfixed object (specify):
89	Unknown nonfixed object
98	Other event (specify):
99	Unknown event or object

C MAX HEIGHT

The vertical distance between the ground and area of the max crush sustained in the "P" zone. This data is only collected under certain conditions. Please refer to the CISS Coding & Editing manual for further information. The data is expressed in centimeters.

COLUMN Name: CMAXHEIGHT

SAS Value	Value Text
0 - 120	[Actual Value]
888	Not Applicable
999	Unknown

C MAX MEASUREMENT

This variable reports the maximum depth of crush as measured by the crash technician. This field will be blank when CDC Damage Distribution (CDCDISTRIB) equals Rollover (O). The data is expressed in centimeters.

COLUMN Name: CMAX

SAS Value	Value Text
0 - 250	[Actual Value]
888	Not Applicable
999	Unknown

CRUSH PROFILE DIRECT DAMAGE LOCATION

This text variable describes the location of direct damage for this impact.

COLUMN Name: DIRECTLOCATION

CRUSH PROFILE FIELD L LOCATION

This text variable describes the location of the Field L, or the area to be measured for the crush profile.

COLUMN Name: FIELDLLOCATION

CRUSH PROFILE C MAX LOCATION
This text variable describes the location of the maximum crush for this impact.

COLUMN Name: CMAXLOCATION

C1 MEASUREMENT
This variable reports the first crush measurement of the Field L as measured by the crash technician. This field will be blank when CDC Damage Distribution (CDCDISTRIB) equals Rollover (O). The data is expressed in centimeters.

COLUMN Name: C1

SAS Value	Value Text
0 - 250	[Actual Value]
888	Not Applicable
999	Unknown

C2 MEASUREMENT
This variable reports the second crush measurement of the Field L as measured by the crash technician. This field will be blank when CDC Damage Distribution (CDCDISTRIB) equals Rollover (O). The data is expressed in centimeters.

COLUMN Name: C2

SAS Value	Value Text
0 - 250	[Actual Value]
888	Not Applicable
999	Unknown

C3 MEASUREMENT
This variable reports the third crush measurement of the Field L as measured by the crash technician. This field will be blank when CDC Damage Distribution (CDCDISTRIB) equals Rollover (O). The data is expressed in centimeters.

COLUMN Name: C3

SAS Value	Value Text
0 - 250	[Actual Value]
888	Not Applicable
999	Unknown

C4 MEASUREMENT

This variable reports the fourth crush measurement of the Field L as measured by the crash technician. This field will be blank when CDC Damage Distribution (CDCDISTRIB) equals Rollover (O). The data is expressed in centimeters.

COLUMN Name: C4

SAS Value	Value Text
0 - 250	[Actual Value]
888	Not Applicable
999	Unknown

C5 MEASUREMENT

This variable reports the fifth crush measurement of the Field L as measured by the crash technician. This field will be blank when CDC Damage Distribution (CDCDISTRIB) equals Rollover (O). The data is expressed in centimeters.

COLUMN Name: C5

SAS Value	Value Text
0 - 250	[Actual Value]
888	Not Applicable
999	Unknown

C6 MEASUREMENT

This variable reports the sixth crush measurement of the Field L as measured by the crash technician. This field will be blank when CDC Damage Distribution (CDCDISTRIB) equals Rollover (O). The data is expressed in centimeters.

COLUMN Name: C6

SAS Value	Value Text
0 - 250	[Actual Value]
888	Not Applicable
999	Unknown

DAMAGE TO A PILLAR

This variable reports if there was any damage to the A-pillar from this impact. This data is only collected under certain conditions. Please refer to the CISS Coding & Editing manual for further information.

COLUMN Name: DAMAPILLAR

SAS Value	Value Text
0	None
1	Yes
8	Not Applicable
9	Unknown

DAMAGE TO B PILLAR

This variable reports if there was any damage to the B-pillar from this impact. This data is only collected under certain conditions. Please refer to the CISS Coding & Editing manual for further information.

COLUMN Name: DAMBPILLAR

SAS Value	Value Text
0	None
1	Yes
8	Not Applicable
9	Unknown

DAMAGE TO C PILLAR

This variable reports if there was any damage to the C-pillar from this impact. This data is only collected under certain conditions. Please refer to the CISS Coding & Editing manual for further information.

COLUMN Name: DAMCPILLAR

SAS Value	Value Text
0	None
1	Yes
8	Not Applicable
9	Unknown

DAMAGE TO OTHER PILLAR

This variable reports if there was any damage to any other pillar other than the A, B or C pillars from this impact. This data is only collected under certain conditions. Please refer to the CISS Coding & Editing manual for further information.

COLUMN Name: DAMOTHPILLAR

SAS Value	Value Text
0	None
1	Yes
8	Not Applicable
9	Unknown

DOOR SILL DIFFERENTIAL

This variable reports the difference in crush between the door sill and the door structure. This data is only collected under certain conditions. The data is expressed in centimeters. Please refer to the CISS Coding & Editing manual for further information.

COLUMN Name: DOORSILLDIFF

SAS Value	Value Text
0 - 100	[Actual Value]
888	Not Applicable
999	Unknown

DELTA V BASIS

This variable is used to indicate: (1) which CISSWeb WinSMASH algorythm was used to compute this CDC's delta V or (2) the reason a CISSWeb WinSMASH routine was not applied to this impact.

COLUMN Name: DVBASIS

SAS Value	Value Text
0	Not Inspected
1	SMASH - Damage only
2	SMASH - Damage and trajectory
3	SMASH - Missing vehicle
4	SMASH - Damage with CDC only
5	At least one vehicle is beyond the scope of SMASH
6	Rollover
7	Other non-horizontal forces
8	Sideswipe type damage
9	Severe override
10	Yielding object
11	Overlapping damage
12	Insufficient data (specify)
98	Other (specify)
99	Unknown

DELTA V BARRIER EQUIVALENT SPEED

The Barrier Equivalent speed is automatically generated by WinSMASH for this impact. The BES is defined as the speed with which a vehicle would have to collide with a fixed barrier in order to absorb the same amount of energy or produce the same amount of crush as in this crash. The data is stored in kilometers per hour (kmph).

COLUMN Name: DVBARRIER

SAS Value	Value Text
0 - 160	[Actual Value]
999	Unknown

DELTA V ESTIMATED SEVERITY

The purpose of this variable is to record an estimate of the Delta V for those situations where the WinSMASH program (including the Barrier Equivalent Speed) cannot be properly utilized (*e.g.*, overlapping damage, crush profile not measured, severe underride/override, swiping, or rollover type impacts).

COLUMN Name: DVESTIMATE

SAS Value	Value Text
0	Reconstruction Delta V coded
1	Less than 10 kmph
2	10 kmph < 25 kmph
3	25 kmph < 40 kmph
4	40 kmph < 55 kmph
5	>= 55 kmph
6	Minor
7	Moderate
8	Severe
9	Unknown

DELTA V ENERGY

This variable reports the energy absorption for this impact as generated by the WinSMASH program. The data is expressed in joules.

COLUMN Name: DVENERGY

SAS Value	Value Text
40 - 1000000	[Actual Value]
9999999	Unknown

DELTA V IMPACT SPEED

The Impact Speed is generated by the WinSMASH damage and trajectory program for this impact. The data is expressed in kilometers per hour (kmph). NOTE: The Damage and Trajectory algorithm is rarely used in CISS.

COLUMN Name: DVSPEED

SAS Value	Value Text
0 - 160	[Actual Value]
998	Damage and Trajectory run not made
999	Unknown

DELTA V LONGITUDINAL

The Longitudinal Component of Delta V is generated by the WinSMASH program for this impact. The data is expressed in kilometers per hour (kmph).

COLUMN Name: DVLONG

SAS Value	Value Text
-160 - +160	[Actual Value]
999	Unknown

DELTA V LATERAL

The Lateral Component of Delta V is generated by the WinSMASH program for this impact. This data is expressed in kilometers per hour (kmph).

COLUMN Name: DVLAT

SAS Value	Value Text
-160 - +160	[Actual Value]
999	Unknown

DELTA V MOMENT ARM

The moment arm of Principal Force is the perpendicular distance between the principal direction of force and the Center of Gravity (c.g.) of the vehicle. The moment arm is generated by the WinSMASH program and is expressed in centimeters.

COLUMN Name: DVMOMENT

SAS Value	Value Text
0 - 400	[Actual Value]
999	Unknown

DELTA V RANK

The Rank of an event is based on the Total Delta-V and the Estimated Severity coded in the Estimated Severity. Only the top two highest delta V are ranked. All others are coded 8/"Other Delta V".

COLUMN Name: DVRANK

SAS Value	Value Text
1	Highest Delta V
2	Second Highest Delta V
8	Other Delta V

DELTA V TOTAL

The Total Delta V is generated by the WinSMASH program for this impact. The data is expressed in kilometers per hour (kmph).

COLUMN Name: DVTOTAL

SAS Value	Value Text
1 - 160	[Actual Value]
999	Unknown

DIRECT DAMAGE WIDTH

The direct damage width is measured on the vehicle from one end of the direct damage to the other, along the damaged area and not necessarily along the damage plane. The value will be 888/"Not Applicable" for rollover impacts. The data is expressed in centimeters.

COLUMN Name: DIRECTWIDTH

SAS Value	Value Text
1 - 659	[Actual Value]
888	Not Applicable
999	Unknown

DIRECT L

The Direct L is the measured length used for calculating WinSMASH results. On side planes it will normally be the Field L value, however for end planes it will normally be the Underformed End Width. This value will be 888/"Not Applicable" for rollover impacts. The data is expressed in centimeters.

COLUMN Name: DIRECTL

SAS Value	Value Text
0 - 650	[Actual Value]
888	Not Applicable
999	Unknown

DIRECT L D

This is the Direct +/- D that will be used for the WinSMASH program. It is the measurement from the damaged center of the end plane or damaged wheelbase to the center of the direct damage, measured in the field on the damaged vehicle. This value can be positive or negative based upon its relationship to the vehicle's center of gravity. The value will be 888/"Not Applicable" for rollover impacts. The data is expressed in centimeters.

COLUMN Name: DIRECTD

SAS Value	Value Text
-390 - +299	[Actual Value]
888	Not Applicable
999	Unknown

END SHIFT

This variable captures instances where the impact resulted in the shifting of the end structure.

COLUMN Name: ENDSHIFT

SAS Value	Value Text
0	No
1	Yes
9	Unknown

EVENT NUMBER

This variable captures the event number associated with this CDC. This variable can be used to merge with other datasets.

COLUMN Name: EVENTNO

SAS Value	Value Text
1-30	[Actual Value]

FIELD L

The Field L represents both direct and induced damage as measured perpendicular to the damaged plane. The value will be 888/"Not Applicable" for rollover impacts. The data is expressed in centimeters.

COLUMN Name: FIELDL

SAS Value	Value Text
1 - 1000	[Actual Value]
888	Not Applicable
999	Unknown

FIELD L D

This is the measurement from the center of the damaged end plane or wheelbase to the center of the Field L, measured in the field on the damaged vehicle. This value can be positive or negative based upon its relationship to the vehicle's center of gravity. The value will be 888/"Not Applicable" for rollover impacts. The data is expressed in centimeters.

COLUMN Name: FIELDLD

SAS Value	Value Text
-500 - +500	[Actual Value]
888	Not Applicable
999	Unknown

HEADING ANGLE AT IMPACT

This variable reports this vehicle's heading angle at the time of impact. It is only completed for vehicle-to-vehicle impacts. This data is captured to the nearest five degree increment.

COLUMN Name: HEADINGANG

SAS Value	Value Text
0 - 355	[Actual Value]
888	Not Applicable
999	Unknown

OVERRIDE UNDERRIDE

This variable reports whether the vehicle experienced an override/underride situation for this impact.

COLUMN Name: OVERUNDER

SAS Value	Value Text
0	None
1	Override
2	Underride
7	Medium/heavy truck or bus override
9	Unknown

PRINCIPLE DIRECTION OF FORCE

This variable reports the refined PDOF to the nearest 10 degrees.

COLUMN Name: PDOF

SAS Value	Value Text
0 - 350	[Actual Value]
998	Non-Horizontal Force
999	Unknown

ROLLOVER LATERAL MEASUREMENT

This variable reports the greatest lateral crush to one of the roof structures of the vehicle during this impact's rollover. This data is expressed in centimeters.

COLUMN Name: ROLLLAT

SAS Value	Value Text
0 - 100	[Actual Value]
888	Not Applicable
999	Unknown

ROLLOVER VERTICAL MEASUREMENT

This variable reports the greatest vertical crush to one of the roof structures of the vehicle during this impact's rollover. This data is expressed in centimeters.

COLUMN Name: ROLLVERT

SAS Value	Value Text
0 - 100	[Actual Value]
888	Not Applicable
999	Unknown

SILL HEIGHT

The original vertical distance between the ground and the sill where it meets the door seam at or as near as possible to the B-pillar. This data is expressed in centimeters.

COLUMN Name: SILLHEIGHT

SAS Value	Value Text
5 - 110	[Actual Value]
888	Not Applicable
999	Unknown

TIREPLAC Dataset

Key Identifiers: PSU, CASENO, VEHNO

The TIREPLAC table collects information normally taken from the vehicle's Tire Placard found on the vehicle. This data is only collected for in-transport inspected CISS applicable vehicles. Figure 11 displays the list of all the data elements in the TIREPLAC table. Information about the type of each variable, its length, the format, and the label is provided for each data element.

```
Data Set Name          CISS19.TIREPLAC          Observations           3806
Member Type            DATA                      Variables              24
Engine                 V9                        Indexes                0
Created                10/22/2020 13:31:10       Observation Length     168
Last Modified          10/22/2020 13:31:10       Deleted Observations   0
Protection                                       Compressed             NO
Data Set Type                                    Sorted                 YES
Label
Data Representation  WINDOWS_32
Encoding               wlatin1  Western (Windows)
```

Alphabetic List of Variables and Attributes

#	Variable	Type	Len	Format	Informat	Label
1	CASEID	Num	5	11.	11.	SYSTEM CASE IDENTIFIER
3	CASENO	Num	3	11.	11.	SEQUENTIAL CASE NUMBER
4	CASENUMBER	Char	16	$20.	$20.	CASE NUMBER
22	CASEWGT	Num	8	26.20		CASE WEIGHT
5	CATEGORY	Num	3	11.	11.	CASE CATEGORY
8	GAWRFRONT	Num	4	GWR19F.	11.	GROSS AXLE WEIGHT RATING - FRONT
9	GAWRREAR	Num	4	GWR19F.	11.	GROSS AXLE WEIGHT RATING - REAR
7	GVWR	Num	4	GWR19F.	11.	GROSS VEHICLE WEIGHT RATING
2	PSU	Num	3	11.	11.	PRIMARY SAMPLING UNIT
23	PSUSTRAT	Num	3	11.	11.	PSU STRATIFICATION
10	RECFRONT1	Char	15	$50.	$50.	RECOMMENDED FRONT TIRE SIZE 1
14	RECFRONT2	Char	15	$50.	$50.	RECOMMENDED FRONT TIRE SIZE 2
18	RECFRONT3	Char	15	$50.	$50.	RECOMMENDED FRONT TIRE SIZE 3
11	RECFRPRESS1	Num	3	RECPRESS19F.	11.	RECOMMENDED FRONT PRESSURE 1
15	RECFRPRESS2	Num	3	RECPRESS19F.	11.	RECOMMENDED FRONT PRESSURE 2
19	RECFRPRESS3	Num	3	RECPRESS19F.	11.	RECOMMENDED FRONT PRESSURE 3
12	RECREAR1	Char	15	$50.	$50.	RECOMMENDED TIRE SIZE REAR 1
16	RECREAR2	Char	15	$50.	$50.	RECOMMENDED TIRE SIZE REAR 2
20	RECREAR3	Char	15	$50.	$50.	RECOMMENDED TIRE SIZE REAR 3
13	RECRRPRESS1	Num	3	RECPRESS19F.	11.	RECOMMENDED REAR PRESSURE 1
17	RECRRPRESS2	Num	3	RECPRESS19F.	11.	RECOMMENDED REAR PRESSURE 2
21	RECRRPRESS3	Num	3	RECPRESS19F.	11.	RECOMMENDED REAR PRESSURE 3
6	VEHNO	Num	3	11.	11.	VEHICLE NUMBER
24	VERSION	Num	3	6.	6.	VERSION NUMBER

Sort Information

```
Sortedby        PSU CASENO VEHNO
Validated       YES
Character Set  ANSI
```

Figure 11.

GROSS VEHICLE WEIGHT RATING

The Gross Vehicle Weight Rating (GVWR) is the maximum permissible total weight of the unit in kilograms (kgs), including the vehicle itself plus all fluids, optional equipment, accessories, all cargo, driver and passengers.

COLUMN Name: GVWR

SAS Value	Value Text
600 - 6000	[Actual Value]
9999	Unknown

GROSS AXLE WEIGHT RATING - FRONT

The Front Gross Axle Weight Rating (GAWR) is the maximum weight in kilograms (kgs) that the front axle, suspension and tire system is designed to carry.

COLUMN Name: GAWRFRONT

SAS Value	Value Text
440 - 3742	[Actual Value]
9999	Unknown

GROSS AXLE WEIGHT RATING - REAR

The Rear Gross Axle Weight Rating (GAWR) is the maximum weight in kilograms (kgs) that the front axle, suspension and tire system is designed to carry.

COLUMN Name: GAWRREAR

SAS Value	Value Text
440 - 4300	[Actual Value]
9999	Unknown

RECOMMENDED FRONT TIRE SIZE 1

This text field reports the first Manufacturer's Recommended Front Tire Size as reported on the placard. 9999999999 is used for Unknown.

COLUMN Name: RECFRONT1

RECOMMENDED FRONT PRESSURE 1

This field reports the first Manufacturer Recommended COLD Tire Pressure Front in kilopascals (kPa).

COLUMN Name: RECFRPRESS1

SAS Value	Value Text
69 - 552	[Actual Value]
999	Unknown

RECOMMENDED TIRE SIZE REAR 1

This text field reports the first Manufacturer's Recommended Rear Tire Size. 9999999999 is used for Unknown.

COLUMN Name: RECREAR1

RECOMMENDED REAR PRESSURE 1

This field reports the first Manufacturer Recommended COLD Tire Pressure Rear in kilopascals (kPa).

COLUMN Name: RECRRPRESS1

SAS Value	Value Text
69 - 552	[Actual Value]
999	Unknown

RECOMMENDED FRONT TIRE SIZE 2

This text field reports the second Manufacturer's Recommended Front Tire Size.

COLUMN Name: RECFRONT2

RECOMMENDED FRONT PRESSURE 2

This field reports the second Manufacturer Recommended COLD Tire Pressure Front in kilopascals (kPa).

COLUMN Name: RECFRPRESS2

SAS Value	Value Text
69 - 552	[Actual Value]
999	Unknown

RECOMMENDED TIRE SIZE REAR 2
This text field reports the second Manufacturer's Recommended Rear Tire Size.

COLUMN Name: RECREAR2

RECOMMENDED REAR PRESSURE 2
This field reports the second Manufacturer Recommended COLD Tire Pressure Rear in kilopascals (kPa).

COLUMN Name: RECRRPRESS2

SAS Value	Value Text
69 - 552	[Actual Value]
999	Unknown

RECOMMENDED FRONT TIRE SIZE 3
This text field reports the third Manufacturer's Recommended Front Tire Size.

COLUMN Name: RECFRONT3

RECOMMENDED FRONT PRESSURE 3
This field reports the third Manufacturer Recommended COLD Tire Pressure Front in kilopascals (kPa).

COLUMN Name: RECFRPRESS3

SAS Value	Value Text
69 - 552	[Actual Value]
999	Unknown

RECOMMENDED TIRE SIZE REAR 3
This text field reports the third Manufacturer's Recommended Rear Tire Size.

COLUMN Name: RECREAR3

RECOMMENDED REAR PRESSURE 3
This field reports the third Manufacturer Recommended COLD Tire Pressure Rear in kilopascals (kPa).

COLUMN Name: RECRRPRESS3

SAS Value	Value Text
69 - 552	[Actual Value]
999	Unknown

TIRE Dataset

Key Identifiers: PSU, CASENO, VEHNO, TIRELOC

This dataset contains information regarding the Tires on the vehicle. There are 4 rows per vehicle. This data is only collected for in-transport inspected CISS applicable vehicles. Figure 12 displays the list of all the data elements in the TIRE table. Information about the type of each variable, its length, the format, and the label is provided for each data element.

```
Data Set Name          CISS19.TIRE              Observations          15224
Member Type            DATA                     Variables             17
Engine                 V9                       Indexes               0
Created                10/22/2020 13:31:10      Observation Length    152
Last Modified          10/22/2020 13:31:10      Deleted Observations  0
Protection                                      Compressed            NO
Data Set Type                                   Sorted                YES
Label
Data Representation   WINDOWS_32
Encoding               wlatin1  Western (Windows)


                 Alphabetic List of Variables and Attributes

  #    Variable       Type   Len   Format          Informat     Label

  1    CASEID         Num     5    11.             11.          SYSTEM CASE IDENTIFIER
  3    CASENO         Num     3    11.             11.          SEQUENTIAL CASE NUMBER
  4    CASENUMBER     Char   16    $20.            $20.         CASE NUMBER
 15    CASEWGT        Num     8    26.20                        CASE WEIGHT
  5    CATEGORY       Num     3    11.             11.          CASE CATEGORY
  2    PSU            Num     3    11.             11.          PRIMARY SAMPLING UNIT
 16    PSUSTRAT       Num     3    11.             11.          PSU STRATIFICATION
  7    TIRELOC        Char    2    $10.            $10.         TIRE LOCATION
  8    TIREMANUF      Num     3    TIREMAKE19F.    11.          TIRE MANUFACTURER
  9    TIREMODEL      Char   50    $50.            $50.         TIRE MODEL
 13    TIRERESTR      Num     3    TIRERESTR19F.   11.          TIRE RESTRICTION
 10    TIRESIZE       Char   15    $20.            $20.         TIRE SIZE
 14    TIRESIZETYPE   Num     3    SIZETYPE19F.    11.          TIRE SIZE TYPE
 11    TIRETIN        Char   20    $TIRETIN19F.    $20.         TIRE TIN
 12    TIRETREAD      Num     3    TREADDEPTH19F.  11.          TIRE TREAD DEPTH
  6    VEHNO          Num     3    11.             11.          VEHICLE NUMBER
 17    VERSION        Num     3    6.              6.           VERSION NUMBER


                         Sort Information

          Sortedby      PSU CASENO VEHNO TIRELOC
          Validated     YES
          Character Set  ANSI
```

Figure 12.

TIRE LOCATION
This variable represents the tire's location on the vehicle. Only the main locations are represented (i.e. LF, RF, LR, RR). If there are dual tires on the rear axle, only the outer tire is recorded.

COLUMN Name: TIRELOC

SAS Value	Value Text
LF	Left Front
LR	Left Rear
RF	Right Front
RR	Right Rear

TIRE MANUFACTURER
This variable records the tire's manufacturer.

COLUMN Name: TIREMANUF

SAS Value	Value Text
1	AKURET
2	ALLEGIANCEIV
3	AMERICAN
4	AMERICAN RADIAL
5	APACHE
6	ARIZONIAN
7	ARMSTRONG
8	ASTRO
9	ATLAS
10	AURORA
11	AVON
12	BARUM
13	BFGOODRICH
14	BIG O
15	BILT-MOR
16	BRADLEY
17	BRIDGESTONE
18	BRIGADIER
19	BRUNSWICK
20	CARQUEST
21	CASCADE

SAS Value	Value Text
22	CAVALIER
23	CEAT
24	CENTENNIAL
25	CHENG SHIN
26	CONCORDE
27	CONTENTAL/TAG
28	CONTINENTAL
29	CO-OP
30	COOPER
31	COOPER-EXPORT
32	CORDOVAN
33	CORNELL
34	COSMO
35	CRESTWOOD
36	CROWN
37	DANZIG
38	DAYTON
39	DEAN
40	DEFINITY
41	DELTA
42	DENMAN
43	DIAMOND
44	DOMINATOR
45	DORAL
46	DOUBLE COIN
47	DOUGLAS
48	DUNLOP
49	DURALON
50	DYNASTAR
51	ELDORADO
52	ELECTRA
53	EMBASSY
54	ESCORT
55	EUROTECH
56	EXXON
57	FALKEN
58	FEDERAL
59	FIRESTONE
60	FISK
61	FORMULA

SAS Value	Value Text
62	FRONTIER
63	FULDA
64	FUTURA
65	FUZION
66	GENERAL
67	GILLETE
68	GISLAVED
69	GOODRICH
70	GOODYEAR
71	GT TIRE
72	GT TIRE US
73	GUARDIAN
74	GUARDSMAN
75	HALLMARK
76	HANKOOK
77	HERCULES
78	HIGH COUNTRY
79	HOOD
80	HOOSIER
81	JETZON
82	JUPITER
83	KELLY
84	KELLY-SPRINGFIELD
85	KINGSTAR
86	KIRKLAND
87	KIRKWOOD
88	K-MART
89	KUMHO
90	LARAMIE
91	LASSA
92	LEE
93	LEMANS
94	LIBERATOR
95	M&H
96	MABOR
97	MARSHAL
98	MASTERCRAFT
99	MAXXIS
100	MEDALIST
101	MENTOR

SAS Value	Value Text
102	MERIT
103	MICHELIN
104	MICKEY THOMPSON
105	MILLER
106	MITAS
107	MODI
108	MOHAWK
109	MONARCH
110	MONTGOMERY WARD
111	MRF
112	MULTI-MILE
113	NANKANG/BRADLEY
114	NATIONAL
115	NEXEN
116	NITTO
117	NOKIAN
118	NTB
119	OHTSU
120	PACEMARK
121	PANTHER
122	PARKWAY
123	PARNELLI
124	PATHFINDER
125	PATRIOT
126	PEERLESS
127	PENSKE
128	PHILLIPS
129	PIRELLI
130	POLARIS
131	POS-A-TRAC
132	POS-A-TRACTION
133	PRIMEWELL
134	REGUL
135	RELIANT
136	REMINGTON
137	REPUBLIC
138	REYNOLDS
139	RIKEN
140	ROAD KING
141	ROADMASTER

SAS Value	Value Text
142	ROADPRO
143	RUNWAY
144	SEARS
145	SEMPERIT
146	SHELL
147	SIDEWINDER
148	SIEBERLING
149	SIGMA
150	SOLO-TECH
151	SONIC
152	SPARTAN
153	SPORT IV
154	STAR
155	STARFIRE
156	SUMITOMO
157	SUMMIT
158	SUPER SPORT
159	TACOMA
160	TBC
161	TELSTAR
162	TEMCO
163	TIGAR
164	TNT
165	TOSCO 76
166	TOURING SUPREME
167	TOYO
168	TREDTECH
169	TRIBUNE
170	TURNPIKE USA
171	ULTRA-TECH
172	UNION 76
173	UNIROYAL
174	UNIVERSAL
175	VANDERBILT
176	VIKING
177	VISA
178	VOGUE
179	VREDESTEIN
180	WANLI
181	WESTERN AUTO

SAS Value	Value Text
182	WESTLAKE
183	WINSTON
184	WOOSUNG
185	WYNSTAR
186	YKS
187	YOKOHAMA
188	ANTARES
189	AUTOGRIP
190	BLACKLION
191	DEXTERO
192	JINYU
193	LEAO
194	LING LONG
195	PEGASUS
196	PROMETER
197	ROADCLAW
198	ROAD HUGGER
199	SAILUN
200	VELOOZA
887	TIRE MISSING
998	Other (specify)
999	Unknown

TIRE MODEL
This variable records the model of the tire.

COLUMN Name: TIREMODEL

TIRE SIZE
This variable records the size of the tire as found on the sidewall of the tire.

COLUMN Name: TIRESIZE

TIRE TIN
The tire identification number is used to identify the tire manufacturer, tire size, and week of manufacture. The pound sign ("#") is used for unreadable characters, while all "9"s are used for totally unknown Tire TINs.

COLUMN Name: TIRETIN

TIRE TREAD DEPTH

This variable records the minimum tread depth of the tire as recorded in millimeters.

COLUMN Name: TIRETREAD

SAS Value	Value Text
0 - 25	[Actual Value]
99	Unknown

TIRE RESTRICTION

This variable records whether the tire/wheel was restricted as a result of damage during the crash.

COLUMN Name: TIRERESTR

SAS Value	Value Text
0	No
1	Yes
8	Not applicable
9	Unknown

TIRE SIZE TYPE

This vehicle records the size type of the tire based upon the Tire Size (TIRESIZE). This variable basically serves to determine which mask should be used for coding the Tire Size.

COLUMN Name: TIRESIZETYPE

SAS Value	Value Text
1	P-Metric
2	Light Truck Metric
3	Light Truck Numeric
4	Light Truck High Flotation
8	Other
9	Unknown

TIREDAMAGE Dataset

Key Identifiers: PSU, CASENO, VEHNO, TIRELOC

The TIREDAMAGE table collects information regarding any damage found on the tire. There may be more than one row per tire. This data is only collected for in-transport inspected CISS applicable vehicles. Figure 13 displays the list of all the data elements in the TIREDAMAGE table. Information about the type of each variable, its length, the format, and the label is provided for each data element.

```
Data Set Name          CISS19.TIREDAMAGE          Observations          15847
Member Type            DATA                       Variables             11
Engine                 V9                         Indexes               0
Created                10/22/2020 13:31:10        Observation Length    56
Last Modified          10/22/2020 13:31:10        Deleted Observations  0
Protection                                        Compressed            NO
Data Set Type                                     Sorted                YES
Label
Data Representation  WINDOWS_32
Encoding               wlatin1  Western (Windows)


                    Alphabetic List of Variables and Attributes

    #     Variable     Type   Len    Format        Informat     Label

    1     CASEID       Num    5      11.           11.          SYSTEM CASE IDENTIFIER
    3     CASENO       Num    3      11.           11.          SEQUENTIAL CASE NUMBER
    4     CASENUMBER   Char   16     $20.          $20.         CASE NUMBER
    9     CASEWGT      Num    8      26.20                      CASE WEIGHT
    5     CATEGORY     Num    3      11.           11.          CRASH CATEGORY
    8     DAMAGE       Num    3      DAMAGE19F.    11.          TIRE DAMAGE
    2     PSU          Num    3      11.           11.          PRIMARY SAMPLING UNIT
    10    PSUSTRAT     Num    3      11.           11.          PSU STRATIFICATION
    7     TIRELOC      Char   2      $2.           $2.          TIRE LOCATION
    6     VEHNO        Num    3      11.           11.          VEHICLE NUMBER
    11    VERSION      Num    3      6.            6.           VERSION NUMBER


                          Sort Information

          Sortedby       PSU CASENO VEHNO TIRELOC
          Validated      YES
          Character Set  ANSI
```

Figure 13.

TIRE LOCATION
The location of the tire being examined.

COLUMN Name: TIRELOC

SAS Value	Value Text
LF	Left Front
LR	Left Rear
RF	Right Front
RR	Right Rear

TIRE DAMAGE

This field reports the type of damage experienced by the tire.

COLUMN Name: DAMAGE

SAS Value	Value Text
0	None
1	Tread separation
2	Sidewall separation
3	Tire puncture in tread
4	Tire puncture in sidewall
5	Tire cut/torn
6	Tire rotted
7	De-beaded
8	Other (specify)
9	Unknown

AVOID Dataset

Key Identifiers: PSU, CASENO, VEHNO

This table reports the vehicle's crash avoidance features which may be installed in the vehicle. This data is only collected for in-transport inspected CISS applicable vehicles whose Model Year (GV.MODELYR) is equal to or greater than 2010. Figure 14 displays the list of all the data elements in the AVOID table. Information about the type of each variable, its length, the format and the label are displayed.

```
Data Set Name          CISS19.AVOID              Observations          30180
Member Type            DATA                      Variables             12
Engine                 V9                        Indexes               0
Created                10/22/2020 13:31:03       Observation Length    56
Last Modified          10/22/2020 13:31:03       Deleted Observations  0
Protection                                       Compressed            NO
Data Set Type                                    Sorted                YES
Label
Data Representation  WINDOWS_32
Encoding               wlatin1  Western (Windows)


                    Alphabetic List of Variables and Attributes

  #    Variable     Type   Len    Format        Informat    Label

  9    ACTIVATE     Num     3     ACTIVATE19F.  11.         EQUIPMENT ACTIVATED
  8    AVAIL        Num     3     AVAIL19F.     11.         EQUIPMENT AVAILABLE
  1    CASEID       Num     5     11.           11.         SYSTEM CASE IDENTIFIER
  3    CASENO       Num     3     11.           11.         SEQUENTIAL CASE NUMBER
  4    CASENUMBER   Char   16     $20.          $20.        CASE NUMBER
 10    CASEWGT      Num     8     26.20                     CASE WEIGHT
  5    CATEGORY     Num     3     11.           11.         CASE CATEGORY
  7    EQUIP        Num     3     EQUIP19F.     11.         AVOIDANCE EQUIPMENT
  2    PSU          Num     3     11.           11.         PRIMARY SAMPLING UNIT
 11    PSUSTRAT     Num     3     11.           11.         PSU STRATIFICATION
```

```
      6    VEHNO        Num     3   11.         11.        VEHICLE NUMBER
     12    VERSION      Num     3   6.          6.         VERSION NUMBER


                              Sort Information

                 Sortedby      PSU CASENO VEHNO EQUIP
                 Validated     YES
                 Character Set ANSI
```

Figure 14.

AVOIDANCE EQUIPMENT

This variable reports the type of crash avoidance feature.

COLUMN Name: EQUIP

SAS VALUE	VALUE TEXT
1	Lane Keeping Support
2	Automatic Crash Notification
3	Blind Spot Detection
4	Daytime Running Lamps
5	Rearview Video System
6	Dynamic Brake Support
7	Pedestrian Automatic Emergency Braking
8	Advanced Lighting
9	Adaptive Cruise Control
10	Lane Departure Warning
11	Crash Imminent Braking
12	Forward Collision Warning

EQUIPMENT AVAILABLE

This variable stores the availability of the equipment mentioned in the EQUIP field. Note: This variable is only collected for model year vehicles 2010 and newer, 8/NA otherwise.

COLUMN Name: AVAIL

SAS Value	Value Text
0	No
1	Yes
8	NA
9	Unk

EQUIPMENT ACTIVATED

This variable stores the activation status of the equipment mentioned in the EQUIP field. Note: This variable is only collected for model year vehicles 2010 and newer, 8/NA otherwise.

COLUMN Name: ACTIVATE

SAS Value	Value Text
1	Yes
2	No
3	No (Disabled)
8	NA
9	Unk

FUEL Dataset

Key Identifiers: PSU, CASENO, VEHNO, FUELNO

This dataset contains information regarding the fuel sources of the vehicle (liquid or electric). There may be more than one row per vehicle. While most vehicles will have one source, some vehicles may have two (e.g. hybrid vehicles). This data is only collected for in-transport inspected CISS applicable vehicles. Full information is only collected when the system suffered a leakage, damage, or a fire event (FIRE.FIRE equals 1 or 2), otherwise only FUELTYPE, CELLDAM, and FUELLEAK are collected. Figure 15 displays the list of all the data elements in the FUEL table. Information about the type of each variable, its length, the format, and the label is provided for each data element.

```
Data Set Name          CISS19.FUEL                Observations         3855
Member Type            DATA                       Variables            17
Engine                 V9                         Indexes              0
Created                10/22/2020 13:31:07        Observation Length   72
Last Modified          10/22/2020 13:31:07        Deleted Observations 0
Protection                                        Compressed           NO
Data Set Type                                     Sorted               YES
Label
Data Representation  WINDOWS_32
Encoding               wlatin1  Western (Windows)


                    Alphabetic List of Variables and Attributes

   #   Variable    Type   Len    Format        Informat    Label

   1   CASEID      Num     5    11.            11.         SYSTEM CASE IDENTIFIER
   3   CASENO      Num     3    11.            11.         SEQUENTIAL CASE NUMBER
   4   CASENUMBER  Char   16    $20.           $20.        CASE NUMBER
  15   CASEWGT     Num     8    26.20                      CASE WEIGHT
   5   CATEGORY    Num     3    11.            11.         CASE CATEGORY
   9   CELLDAM     Num     3    CELLDAM19F.    11.         DAMAGE TO FUEL CELL
  13   FILLCAP     Num     3    FILLCAP19F.    11.         LOCATION OF FILLER CAP
  12   FUELCELL    Num     3    CELLTYPE19F.   11.         TYPE OF FUEL CELL
  14   FUELCOND    Num     3    FUELCOND19F.   11.         PRE-CRASH CONDITION
  10   FUELEAK     Num     3    FUELLEAK19F.   11.         FUEL LEAKAGE LOCATION
```

```
11    FUELLOC      Num    3    CELLLOC19F.    11.        LOCATION OF FUEL CELL
 7    FUELNO       Num    3    11.            11.        FUEL SYSTEM NUMBER
 8    FUELTYPE     Num    3    FUELTYPE19F.   11.        FUEL SYSTEM TYPE
 2    PSU          Num    3    11.            11.        PRIMARY SAMPLING UNIT
16    PSUSTRAT     Num    3    11.            11.        PSU STRATIFICATION
 6    VEHNO        Num    3    11.            11.        VEHICLE NUMBER
17    VERSION      Num    3    6.             6.         VERSION NUMBER


                        Sort Information

          Sortedby       PSU CASENO VEHNO FUELNO
          Validated      YES
          Character Set  ANSI
```

Figure 15.

FUEL SYSTEM NUMBER
Fuel systems are sequentially numbered beginning with one.

COLUMN Name: FUELNO

FUEL SYSTEM TYPE
This variable records the fuel type available for this system.

COLUMN Name: FUELTYPE

SAS Value	Value Text
1	Gasoline
2	Gasoline/Ethanol (E85)
3	Gasoline/Methanol (M85)
4	Diesel
5	CNG (Compressed Natural Gas)
6	LPG (Liquid Petroleum Gas) also known as Propane
7	LNG (Liquid Natural Gas)
8	Ethanol (E100)
9	Methanol (M100)
10	Hydrogen Fuel Cell
11	Lithium-ion Battery
12	Nickel-Metal Hydride (NiMH)
98	Other (specify):
99	Unknown fuel type

DAMAGE TO FUEL CELL
This variable records the damage, if any, to the fuel cell that occurred during the crash events.

COLUMN Name: CELLDAM

SAS Value	Value Text
1	No damage to cell
2	Deformed, no seam separation
3	Deformed, with a seam separation
4	Punctured
5	Lacerated (ripped)
6	Abraded (scraped)
7	Filler neck separation from the fuel cell
8	Other damage (specify):
9	Unknown

FUEL LEAKAGE LOCATION
This variable records the location of any leakage to the fuel system.

COLUMN Name: FUELEAK

SAS Value	Value Text
1	No fuel leakage
2	Cell
3	Filler neck
4	Cap
5	Lines/pump/filter
6	Vent/emission recovery
7	Other (specify):
9	Unknown

LOCATION OF FUEL CELL
This variable identifies the location of this fuel cell.

COLUMN Name: FUELLOC

SAS Value	Value Text
1	Aft of rear axle centered
2	Aft of rear axle left side

SAS Value	Value Text
3	Aft of rear axle right side
4	Forward of rear axle centered
5	Forward of rear axle left side
6	Forward of rear axle right side
7	Over the rear axle
8	Other (specify):
88	Not Applicable
99	Unknown

TYPE OF FUEL CELL

This variable records the composition of the fuel cell.

COLUMN Name: FUELCELL

SAS Value	Value Text
0	Electric/solar Powered
1	Metallic
2	Non-Metallic
8	Not Applicable
9	Unknown

LOCATION OF FILLER CAP

This variable records the location of the fuel systems filler cap.

COLUMN Name: FILLCAP

SAS Value	Value Text
1	On back plane
2	Over the rear axle on left side plane
3	Over the rear axle on right side plane
4	Aft of rear axle on left side plane
5	Aft of rear axle on right side plane
6	Forward of rear axle on left side plane
7	Forward of rear axle on right side plane
8	Other (specify):
77	Electric/solar powered
88	Not Applicable
99	Unknown

PRE-CRASH CONDITION
This variable records the pre-crash condition of the fuel cell prior to the crash.

COLUMN Name: FUELCOND

SAS Value	Value Text
0	Electric/solar powered
1	No damage
2	Corroded
3	Leaking
4	Abraded
7	Other (specify):
8	Not Applicable
9	Unknown

FIRE Dataset

Key Identifiers: PSU, CASENO, VEHNO

This dataset contains basic information about the existence of any fire event. This data is only collected for in-transport inspected CISS applicable vehicles. Figure 16 displays the list of all the data elements in the FIRE table Information about the type of each variable, its length, the format, and the label is provided for each data element.

```
Data Set Name        CISS19.FIRE            Observations          3806
Member Type          DATA                   Variables             11
Engine               V9                     Indexes               0
Created              10/22/2020 13:31:06    Observation Length    56
Last Modified        10/22/2020 13:31:06    Deleted Observations  0
Protection                                  Compressed            NO
Data Set Type                               Sorted                YES
Label
Data Representation  WINDOWS_32
Encoding             wlatin1  Western (Windows)


              Alphabetic List of Variables and Attributes

 #    Variable     Type    Len    Format        Informat    Label

 1    CASEID       Num      5     11.           11.         SYSTEM CASE IDENTIFIER
 3    CASENO       Num      3     11.           11.         SEQUENTIAL CASE NUMBER
 4    CASENUMBER   Char    16     $20.          $20.        CASE NUMBER
 9    CASEWGT      Num      8     26.20                     CASE WEIGHT
 5    CATEGORY     Num      3     11.           11.         CASE CATEGORY
 7    FIRE         Num      3     FIRE19F.      11.         FIRE OCCURRENCE
 8    FIREORGIN    Num      3     FIREORIG19F.  11.         FIRE ORIGIN
 2    PSU          Num      3     11.           11.         PRIMARY SAMPLING UNIT
10    PSUSTRAT     Num      3     11.           11.         PSU STRATIFICATION
 6    VEHNO        Num      3     11.           11.         VEHICLE NUMBER
11    VERSION      Num      3     6.            6.          VERSION NUMBER
```

```
                     Sort Information

        Sortedby     PSU CASENO VEHNO FIRE
        Validated    YES
        Character Set  ANSI
```

Figure 16.

FIRE OCCURRENCE
This variable reports the existence, and magnitude, of any fire event.

COLUMN Name: FIRE

SAS Value	Value Text
0	No fire
1	Minor fire
2	Major fire
9	Unknown

FIRE ORIGIN
This variable identifies the location of fire initiation.

COLUMN Name: FIREORIGIN

SAS Value	Value Text
0	No fire
1	Vehicle exterior (front, side, back, top)
2	Exhaust system
3	Fuel tank (and other fuel retention system parts)
4	Engine compartment
5	Cargo/trunk compartment
6	Instrument panel
7	Passenger compartment area
8	Other location (specify):
9	Unknown

EDRCOLLECT Dataset

Key Identifiers: PSU, CASENO, VEHNO

Data in this table is populated for all inspected CISS applicable vehicles which are in-transport or are working vehicles. Figure 17 displays the list of all the data elements in the EDRCOLLECT table. Information about the type of each variable, its length, the format, and the label is provided for each data element.

EDR is an event data recorder or a device installed in some vehicles to record technical vehicle information for a brief period of time (milliseconds or seconds, not minutes) before and during a crash.

The EDR data collected in CISS differs somewhat from the data collected in NASS-CDS. CISS is primarily collecting that data mentioned in Table 1 and 2 of 49 CFR Part 563.7, although there are several variables completed by the technician which aren't captured by the EDR, e.g. EDR Imaging Method.

When crash technicians are able to image the EDR or otherwise obtain a copy of the CDRx file from a third party, the data variables are translated and entered into the database in an automated fashion. If the file is obtained as a PDF file, the crash technician transcribes the information into the database.

```
Data Set Name          CISS19.EDRCOLLECT          Observations          3806
Member Type            DATA                       Variables             11
Engine                 V9                         Indexes               0
Created                10/22/2020 13:31:04        Observation Length    56
Last Modified          10/22/2020 13:31:04        Deleted Observations  0
Protection                                        Compressed            NO
Data Set Type                                     Sorted                YES
Label
Data Representation    WINDOWS_32
Encoding               wlatin1  Western (Windows)


                   Alphabetic List of Variables and Attributes

   #    Variable      Type    Len    Format        Informat     Label

   1    CASEID        Num      5     11.           11.          SYSTEM CASE IDENTIFIER
   3    CASENO        Num      3     11.           11.          SEQUENTIAL CASE NUMBER
   4    CASENUMBER    Char    16     $20.          $20.         CASE NUMBER
   9    CASEWGT       Num      8     26.20                      CASE WEIGHT
   5    CATEGORY      Num      3     11.           11.          CASE CATEGORY
   8    EDRMETHOD     Num      3     EDRMETH19F.   11.          EDR IMAGING METHOD
   7    EDROBTAINED   Num      3     EDROBT19F.    11.          WAS EDR INFORMATION OBTAINED
   2    PSU           Num      3     11.           11.          PRIMARY SAMPLING UNIT
  10    PSUSTRAT      Num      3     11.           11.          PSU STRATIFICATION
   6    VEHNO         Num      3     11.           11.          VEHICLE NUMBER
  11    VERSION       Num      3     6.            6.           VERSION NUMBER


                        Sort Information

                   Sortedby        PSU CASENO VEHNO
                   Validated       YES
                   Character Set   ANSI
```

Figure 17.

EDR IMAGING METHOD

This variable captures the method used to image the EDR data from the vehicle.

COLUMN Name: EDRMETHOD

SAS Value	Value Text
1	DLC
2	Fuse Block
3	Direct to Module
4	Third Party

WAS EDR INFORMATION OBTAINED

This variable captures whether the EDR data was able to be imaged from the vehicle. If it was not, a detailed list of attributes capture the reason.

COLUMN Name: EDROBTAINED

SAS Value	Value Text
1	Yes - Data entered
2	Yes - No event recorded
3	EDR information not obtained - Vehicle make/model not supported by software or hardware.
4	EDR information not obtained - Vehicle damage prevents accessing EDR data.
5	EDR information not obtained - Permission not received (specify)
6	EDR information not obtained - Hardware issue (specify)
7	EDR information not obtained - Software issue (specify)
8	EDR information not obtained - EDR submitted to manufacturer
9	EDR information not obtained - Other reasons (specify)
99	Unknown

EDRSUMM Dataset

Key Identifiers: PSU, CASENO, VEHNO, EDRSUMMNO

This table contains one row per EDR file imaged from the vehicle (EDRCOLLECT.EDROBTAINED = 1 (Yes - Data entered) or 2 (Yes - No event recorded)). Figure 18 displays the list of all the data elements in the EDRSUMM table. Information about the type of each variable, its length, the format, and the label is provided for each data element.

The EDR data collected in CISS differs somewhat from the data collected in NASS-CDS. CISS is primarily collecting that data mentioned in Table 1 and 2 of 49 CFR Part 563.7, although there are several variables completed by the technician which aren't captured by the EDR, e.g. EDR Imaging Method.

When crash technicians are able to image the EDR or otherwise obtain a copy of the CDRx file from a third party, the data variables are translated and entered into the database in an automated fashion. If the file is obtained as a PDF file, the crash technician transcribes the information into the database.

```
Data Set Name          CISS19.EDRSUMM            Observations          2072
Member Type            DATA                      Variables             15
Engine                 V9                        Indexes               0
Created                10/22/2020 13:31:06       Observation Length    168
Last Modified          10/22/2020 13:31:06       Deleted Observations  0
Protection                                       Compressed            NO
Data Set Type                                    Sorted                YES
Label
Data Representation  WINDOWS_32
Encoding               wlatin1  Western (Windows)


                     Alphabetic List of Variables and Attributes

    #    Variable    Type   Len    Format        Informat    Label

    1    CASEID      Num     5    11.            11.         SYSTEM CASE IDENTIFIER
    3    CASENO      Num     3    11.            11.         SEQUENTIAL CASE NUMBER
    4    CASENUMBER  Char   16    $20.           $20.        CASE NUMBER
   13    CASEWGT     Num     8    26.20                      CASE WEIGHT
    5    CATEGORY    Num     3    11.            11.         CASE CATEGORY
    9    CDRVERCOLL  Char   50    $50.           $50.        CDR VERSION COLLECTED
   10    CDRVERREPT  Char   50    $50.           $50.        CDR VERSION REPORTED
    7    EDRSUMMNO   Num     3    20.            20.         EDR SUMMARY NUMBER
   12    IGCYCDOWN   Num     4    IGCYCLE19F.    11.         IGNITION CYCLE DOWNLOAD
   11    MODTYPE     Num     3    MODTYPE19F.    11.         CDR MODULE TYPE
    8    NUMEVENTS   Num     5    11.            11.         NUMBER OF EDR EVENTS
    2    PSU         Num     3    11.            11.         PRIMARY SAMPLING UNIT
   14    PSUSTRAT    Num     3    11.            11.         PSU STRATIFICATION
    6    VEHNO       Num     3    11.            11.         VEHICLE NUMBER
   15    VERSION     Num     3    6.             6.          VERSION NUMBER


                          Sort Information

           Sortedby       PSU CASENO VEHNO EDRSUMMNO
           Validated      YES
           Character Set  ANSI
```

Figure 18.

EDR SUMMARY NUMBER
This variable is a sequential number and key variable for the table.

COLUMN Name: EDRSUMMNO

CDR VERSION COLLECTED
The Bosch CDR software version used to download the EDR data.

COLUMN Name: CDRVERCOLL

CDR VERSION REPORTED
The Bosch CDR software version used to report the EDR data.

COLUMN Name: CDRVERREPT

CDR MODULE TYPE
Type of module that the record was obtained from.

COLUMN Name: MODTYPE

SAS Value	Value Text
1	Air Bag Control Module
2	Powertrain Control Module
3	Rollover Sensor
4	Pedestrian Protection Module
7	Not reported
8	Reported - Data Not Valid

IGNITION CYCLE DOWNLOAD
The number of power cycles applied to the recording device at the time when the data was downloaded since the first use of the EDR.

COLUMN Name: IGCYCDOWN

SAS Value	Value Text
1-120000	[Actual Value]
999997	Reported - Data Not Valid
999998	Not reported

NUMBER OF EDR EVENTS
This variable reports the number of events captured by the EDR.

COLUMN Name: NUMEVENTS

EDREVENT Dataset

Key Identifiers: PSU, CASENO, VEHNO, EDRSUMMNO, EDREVENTNO

This table will have one row for each event recorded by the EDR for a particular vehicle, i.e. EDRSUMM.NUMEVENTS is greater than 0. Only inspected CISS applicable vehicles with imaged EDRs will have rows. Users should note that a vehicle may have more than one EDR file (EDRSUMMARY) and each file may have more than one event (EDREVENT). Figure 19 displays the list of all the data elements in the EDREVENT table. Information about the type of each variable, its length, the format, and the label is provided for each data element.

The EDR data collected in CISS differs somewhat from the data collected in NASS-CDS. CISS is primarily collecting that data mentioned in Table 1 and 2 of 49 CFR Part 563.7, although there are several variables completed by the technician which aren't captured by the EDR, e.g. EDR Imaging Method.

When crash technicians are able to image the EDR or otherwise obtain a copy of the CDRx file from a third party, the data variables are translated and entered into the database in an automated fashion. If the file is obtained as a PDF file, the crash technician transcribes the information into the database.

```
Data Set Name          CISS19.EDREVENT           Observations            3134
Member Type            DATA                       Variables               23
Engine                 V9                         Indexes                 0
Created                10/22/2020 13:31:04        Observation Length      176
Last Modified          10/22/2020 13:31:04        Deleted Observations    0
Protection                                        Compressed              NO
Data Set Type                                     Sorted                  YES
Label
Data Representation    WINDOWS_32
Encoding               wlatin1  Western (Windows)
```

```
                    Alphabetic List of Variables and Attributes

   #   Variable      Type   Len    Format        Informat    Label

   1   CASEID        Num    5      11.           11.         SYSTEM CASE IDENTIFIER
   3   CASENO        Num    3      11.           11.         SEQUENTIAL CASE NUMBER
   4   CASENUMBER    Char   16     $20.          $20.        CASE NUMBER
  21   CASEWGT       Num    8      26.20                     CASE WEIGHT
   5   CATEGORY      Num    3      11.           11.         CASE CATEGORY
  10   CDCEVENT      Num    3      CDCEVENT19F.  6.          RELATED CDC EVENT
   8   EDREVENTNO    Num    3      11.           11.         EDR EVENT NUMBER
   7   EDRSUMMNO     Num    3      20.           20.         EDR SUMMARY NUMBER
  14   EVENT1TO2     Num    8      EDRTIME19F.   14.4        TIME FROM EVENT 1 TO 2
   9   EVENTDESC     Char   50     $50.          $50.        EDR EVENT DESCRIPTION
  15   FILEREC       Num    3      FILEREC19F.   11.         COMPLETE FILE RECORDED
  11   IGCYCRASH     Num    4      IGCYCLE19F.   11.         IGNITION CYCLE - CRASH
  19   MAXDVLAT      Num    8      EDRDV19F.     14.4        MAX DELTA V - LATERAL
```

```
20    MAXDVLATTIME    Num    8    EDRTIME19F.    14.4    TIME TO MAX DELTA V - LATERAL
17    MAXDVLONG       Num    8    EDRDV19F.      14.4    MAX DELTA V - LONGITUDINAL
18    MAXDVLONGTIME   Num    8    EDRTIME19F.    14.4    TIME TO MAX DELTA V - LONGITUDINAL
16    MAXDVRESTIME    Num    8    EDRTIME19F.    14.4    TIME TO MAX DELTA V - RESULTANT
13    NUMEVENTS       Num    5    11.            11.     MULTI-EVENT, NUMBER OF EVENTS
 2    PSU             Num    3    11.            11.     PRIMARY SAMPLING UNIT
22    PSUSTRAT        Num    3    11.            11.     PSU STRATIFICATION
 6    VEHNO           Num    3    11.            11.     VEHICLE NUMBER
23    VERSION         Num    3    6.             6.      VERSION NUMBER
12    WARNLAMP        Num    3    WARNLAMP19F.   11.     FRONTAL AIR BAG WARNING LAMP STATUS


                              Sort Information

           Sortedby       PSU CASENO VEHNO EDRSUMMNO EDREVENTNO
           Validated      YES
           Character Set  ANSI
```

Figure 19.

COMPLETE FILE RECORDED

Indicates whether the process imaging EDR data into a non-volatile memory for subsequent retrieval was completed successfully. This data is captured by the EDR module but augmented with additional codes (7,8) when data isn't part of the EDR file or falls outside of the normal range.

COLUMN Name: FILEREC

SAS Value	Value Text
0	No
1	Yes
7	Not reported
8	Reported - Data Not Valid

EDR SUMMARY NUMBER

This variable provides a link back to the EDRSUMM dataset, along with other key data elements.

COLUMN Name: EDRSUMMNO

EDR EVENT NUMBER

A unique sequential number assigned for the EDR event.

COLUMN Name: EDREVENTNO

EDR EVENT DESCRIPTION

An text explanation given about the event that happened in the crash.

COLUMN Name: EVENTDESC

RELATED CDC EVENT
This variable reports the event number associated with the EDR data as determined by the data coder.

COLUMN Name: CDCEVENT

SAS Value	Value Text
1-30	[Actual Value]
95	Related, unknown event
97	Event not related to this crash
99	Unknown

FRONTAL AIR BAG WARNING LAMP STATUS
This variable indicates whether the warning lamp required by FMVSS No. 208 is on or off.

COLUMN Name: WARNLAMP

SAS Value	Value Text
0	Off
1	On
7	Not reported
8	Reported - Data Not Valid

IGNITION CYCLE - CRASH
The number of power cycles applied to the recording device at the time when the data was downloaded since the first use of the EDR.

COLUMN Name: IGCYCRASH

SAS Value	Value Text
0-120000	[Actual Value]
999997	Reported - Data Not Valid
999998	Not reported

MAX DELTA V - LATERAL
The maximum value of the cumulative change in velocity, as recorded by the EDR, of the vehicle along the lateral axis. This data is reported in kilometers (kmph).

COLUMN Name: MAXDVLAT

SAS Value	Value Text
-150 - +150	[Actual Value]
888	Reported - Data Not Valid
997	Not reported

MAX DELTA V - LONGITUDINAL
The maximum value of the cumulative change in velocity, as recorded by the EDR, along the longitudinal axis. This data is reported in kilometers (kmph).

COLUMN Name: MAXDVLONG

SAS Value	Value Text
-150 - +150	[Actual Value]
888	Reported - Data Not Valid
997	Not reported

MULTI-EVENT, NUMBER OF EVENTS
The occurrence of 2+ events, the first and last of which begin not more than 5 seconds apart.

COLUMN Name: NUMEVENTS

SAS Value	Value Text
0-10	[Actual Value]

RELATED CDC EVENT
This variable reports the event associated with the air bag's deployment.

COLUMN Name: CDCEVENT

SAS Value	Value Text
1-30	[Actual Value]
95	Related, unknown event
97	Event not related to this crash
99	Unknown

TIME FROM EVENT 1 TO 2

The elapsed time from time zero of the first event to time zero of the second event.

COLUMN Name: EVENT1TO2

SAS Value	Value Text
0-5	[Actual Value]
8888	Reported - Data Not Valid
9995	Time between events exceeds 5.0 seconds
9997	Not reported

TIME TO MAX DELTA V - RESULTANT

The time from crash time zero to the point where the maximum delta-V resultant occurs, as recorded by the EDR or processed during data download.

COLUMN Name: MAXDVRESTIME

SAS Value	Value Text
0-600	[Actual Value]
8888	Reported - Data Not Valid
9995	Time between events exceeds 5.0 seconds
9997	Not reported

TIME TO MAX DELTA V - LONGITUDINAL

The time from crash time zero to the point where the maximum value of the cumulative change in velocity is found, as recorded by the EDR, along the longitudinal axis.

COLUMN Name: MAXDVLONGTIME

SAS Value	Value Text
0-670	[Actual Value]
8888	Reported - Data Not Valid
9995	Time between events exceeds 5.0 seconds
9997	Not reported

TIME TO MAX DELTA V - LATERAL

The time from crash time zero to the point where the maximum value of the cumulative change in velocity is found, as recorded by the EDR, along the lateral axis. This data is expressed in kilometers per hour (kmph).

COLUMN Name: MAXDVLATTIME

SAS Value	Value Text
0-670	[Actual Value]
8888	Reported - Data Not Valid
9995	Time between events exceeds 5.0 seconds
9997	Not reported

EDRREST Dataset

Key Identifiers: PSU, CASENO, VEHNO, EDRSUMMNO, EDREVENTNO

This table will contain one row for each row in the EDREVENT table when EDRSUMM.MODTYPE equals 'Air Bag Control Module' (1), 'Rollover Sensor' (3), or 'Pedestrian Protection Module' (4). The table contains information regarding the front outboard restraints (air bags and seat belts) in the vehicle. Figure 20 displays the list of all the data elements in the EDRREST table Information about the type of each variable, its length, the format, and the label is provided for each data element.

The EDR data collected in CISS differs somewhat from the data collected in NASS-CDS. CISS is primarily collecting that data mentioned in Table 1 and 2 of 49 CFR Part 563.7, although there are several variables completed by the technician which aren't captured by the EDR, e.g. EDR Imaging Method.

When crash technicians are able to image the EDR or otherwise obtain a copy of the CDRx file from a third party, the data variables are translated and entered into the database in an automated fashion. If the file is obtained as a PDF file, the crash technician transcribes the information into the database.

```
Data Set Name         CISS19.EDRREST              Observations         3124
Member Type           DATA                        Variables            37
Engine                V9                          Indexes              0
Created               10/22/2020 13:31:06         Observation Length   208
Last Modified         10/22/2020 13:31:06         Deleted Observations 0
Protection                                        Compressed           NO
Data Set Type                                     Sorted               YES
Label
Data Representation    WINDOWS_32
Encoding              wlatin1  Western (Windows)
```

Alphabetic List of Variables and Attributes

#	Variable	Type	Len	Format	Informat	Label
1	CASEID	Num	5	11.	11.	SYSTEM CASE IDENTIFIER
3	CASENO	Num	3	11.	11.	SEQUENTIAL CASE NUMBER
4	CASENUMBER	Char	16	$20.	$20.	CASE NUMBER
35	CASEWGT	Num	8	26.20		CASE WEIGHT
5	CATEGORY	Num	3	11.	11.	CASE CATEGORY
8	EDREVENTNO	Num	3	11.	11.	EDR EVENT NUMBER
7	EDRSUMMNO	Num	3	20.	20.	EDR SUMMARY NUMBER
10	LF1STAGEDEP	Num	8	EDRSTAG119F.	14.2	DRIVER TIME TO STAGE 1 FRONTAL DEPLOYMENT
11	LF2STAGEDEP	Num	8	EDRSTAG219F.	14.2	DRIVER TIME TO STAGE 2 FRONTAL DEPLOYMENT
9	LFBELT	Num	3	EDRBELT19F.	11.	DRIVER BELT STATUS
18	LFBUCKDEPTIME	Num	8	EDRTIMEPRET19F.	14.2	DRIVER TIME TO BUCKLE PRETENSIONER DEPLOYMENT
15	LFCURTDEPTIME	Num	8	EDRTIMECUR19F.	14.2	DRIVER TIME TO CURTAIN/TUBE BAG DEPLOYMENT
13	LFDISPOSAL	Num	3	EDRDISPOSAL19F.	11.	DRIVER AIR BAG DISPOSAL
21	LFOCCPOS	Num	3	OCCPOS19F.	11.	DRIVER OUT OF POSITION
20	LFOCCSIZE	Num	3	OCCSIZE19F.	11.	DRIVER OCCUPANT SIZE CLASSIFICATION
16	LFPRETENDEPTIME	Num	8	EDRTIMEPRET19F.	14.2	DRIVER TIME TO PRETENSIONER DEPLOYMENT
17	LFRETRACTDEPTIME	Num	8	EDRTIMEBUCK19F.	14.2	DRIVER TIME TO RETRACTOR DEPLOYMENT
14	LFSIDEDEPTIME	Num	8	EDRTIMESIDE19F.	14.2	DRIVER TIME TO SIDE AIR BAG DEPLOYMENT
12	LFSWITCH	Num	3	EDRSWITCH19F.	11.	DRIVER AIR BAG SUPPRESSION SWITCH STATUS
19	LFTRACKPOS	Num	3	TRACKPOS19F.	11.	DRIVER SEAT TRACK POSITION, FOREMOST
2	PSU	Num	3	11.	11.	PRIMARY SAMPLING UNIT
36	PSUSTRAT	Num	3	11.	11.	PSU STRATIFICATION
23	RF1STAGEDEP	Num	8	EDRSTAG119F.	14.2	PASSENGER TIME TO STAGE 1 FRONTAL DEPLOYMENT
24	RF2STAGEDEP	Num	8	EDRSTAG219F.	14.2	PASSENGER TIME TO STAGE 2 FRONTAL DEPLOYMENT
22	RFBELT	Num	3	EDRBELT19F.	11.	PASSENGER BELT STATUS
31	RFBUCKDEPTIME	Num	8	EDRTIMEPRET19F.	14.2	PASSENGER TIME TO BUCKLE PRETENSIONER DEPLOYMENT
28	RFCURTDEPTIME	Num	8	EDRTIMECUR19F.	14.2	PASSENGER TIME TO CURTAIN/TUBE BAG DEPLOYMENT
26	RFDISPOSAL	Num	3	EDRDISPOSAL19F.	11.	PASSENGER AIR BAG DISPOSAL
34	RFOCCPOS	Num	3	OCCPOS19F.	11.	PASSENGER OUT OF POSITION
33	RFOCCSIZE	Num	3	OCCSIZE19F.	11.	PASSENGER OCCUPANT SIZE CLASSIFICATION
29	RFPRETENDEPTIME	Num	8	EDRTIMEPRET19F.	14.2	PASSENGER TIME TO PRETENSIONER DEPLOYMENT
30	RFRETRACTDEPTIME	Num	8	EDRTIMEBUCK19F.	14.2	PASSENGER TIME TO RETRACTOR DEPLOYMENT
27	RFSIDEDEPTIME	Num	8	EDRTIMESIDE19F.	14.2	PASSENGER TIME TO SIDE AIR BAG DEPLOYMENT
25	RFSWITCH	Num	3	EDRSWITCH19F.	11.	PASSENGER AIR BAG SUPPRESSION SWITCH STATUS
32	RFTRACKPOS	Num	3	TRACKPOS19F.	11.	PASSENGER SEAT TRACK POSITION, FOREMOST
6	VEHNO	Num	3	11.	11.	VEHICLE NUMBER
37	VERSION	Num	3	6.	6.	VERSION NUMBER

Sort Information

```
Sortedby        PSU CASENO VEHNO EDRSUMMNO EDREVENTNO
Validated       YES
Character Set   ANSI
```

Figure 20.

EDR SUMMARY NUMBER
This variable provides a link back to the EDRSUMM dataset, along with other key data elements.

COLUMN Name: EDRSUMMNO

EDR EVENT NUMBER
This variable provides a link back to the EDREVENT dataset, along with other key data elements.

COLUMN Name: EDREVENTNO

DRIVER AIR BAG SUPPRESSION SWITCH STATUS
The status of the switch indicating whether an air bag suppression system is on or off.

COLUMN Name: LFSWITCH

SAS Value	Value Text
0	Off
1	On
2	Auto
6	No event recorded
7	Not reported
8	Reported - Data Not Valid

DRIVER AIR BAG DISPOSAL
Indicates whether the deployment command of the second (or higher, if present) stage of a frontal air bag for the purpose of disposing the propellant from the air bag device.

COLUMN Name: LFDISPOSAL

SAS Value	Value Text
0	Second stage deployment was not for the purpose of disposal
1	Second stage deployment was a disposal
6	No event recorded
7	Not reported
8	Reported - Data Not Valid

DRIVER BELT STATUS

The signal from the safety system that is used to determine that a driver's safety belt (for both driver and right front passenger) is buckled or not buckled.

COLUMN Name: LFBELT

SAS Value	Value Text
0	Unbuckled
1	Buckled
6	No event recorded
7	Not reported
8	Reported - Data Not Valid

DRIVER OCCUPANT SIZE CLASSIFICATION

Classifies the driver occupant size.

COLUMN Name: LFOCCSIZE

SAS Value	Value Text
0	Empty
1	Child
2	5th percentile female
3	Larger than 5th percentile female
4	Child or Empty
5	Adult, size not specified
6	No event recorded
7	Not reported
8	Reported - Data Not Valid

DRIVER OUT OF POSITION

The classification indicating that the seating posture of a front outboard is determined as being out-of-position.

COLUMN Name: LFOCCPOS

SAS Value	Value Text
0	No
1	Yes
6	No event recorded

SAS Value	Value Text
7	Not reported
8	Reported - Data Not Valid

DRIVER SEAT TRACK POSITION, FOREMOST

COLUMN Name: LFTRACKPOS

SAS Value	Value Text
0	No
1	Yes
6	No event recorded
7	Not reported
8	Reported - Data Not Valid

DRIVER TIME TO STAGE 1 FRONTAL DEPLOYMENT
The elapsed time between time zero and the time when the first stage of a frontal air bag was commanded to deploy.

COLUMN Name: LF1STAGEDEP

SAS Value	Value Text
0-3000	[Actual Value]
8888	Reported - Data Not Valid
9994	Frontal air bag deployed, no time specified
9995	Frontal air bag not deployed
9996	No event recorded
9997	Not reported

DRIVER TIME TO STAGE 2 FRONTAL DEPLOYMENT
The elapsed time from crash time zero to the deployment command for the 2nd stage of a frontal air bag. All vehicles assumed to have only two stages.

COLUMN Name: LF2STAGEDEP

SAS Value	Value Text
0-3000	[Actual Value]
8888	Reported - Data Not Valid

SAS Value	Value Text
9994	Frontal air bag second stage fired, no time specified
9995	Frontal air bag second stage not fired
9996	No event recorded
9997	Not reported

DRIVER TIME TO SIDE AIR BAG DEPLOYMENT
The elapsed time from crash time zero to the deployment command for a curtain air bag.

COLUMN Name: LFSIDEDEPTIME

SAS Value	Value Text
0-3000	[Actual Value]
8888	Reported - Data Not Valid
9994	Side air bag deployed, no time specified
9995	Side air bag not deployed
9996	No event recorded
9997	Not reported

DRIVER TIME TO CURTAIN/TUBE BAG DEPLOYMENT
The elapsed time from crash time zero to the deployment command for a curtain air bag.

COLUMN Name: LFCURTDEPTIME

SAS Value	Value Text
0-2000	[Actual Value]
8888	Reported - Data Not Valid
9994	Curtain air bag deployed, no time specified
9995	Curtain air bag not deployed
9996	No event recorded
9997	Not reported

DRIVER TIME TO PRETENSIONER DEPLOYMENT

The elapsed time from crash time zero to the deployment command for the safety belt pretensioner. If multiple pretensioner locations provide time to deployment, the smallest time is reported. EDR modules that report multiple pretensioner locations do not necessarily report the same time to deployment. The lowest time to deployment is reported.

COLUMN Name: LFPRETENDEPTIME

SAS Value	Value Text
0-2000	[Actual Value]
8888	Reported - Data Not Valid
9994	Pretensioner deployed, no time specified
9995	Pretensioner not deployed
9996	No event recorded
9997	Not reported

DRIVER TIME TO RETRACTOR DEPLOYMENT

This variable reports the time at which the driver's restraint retractor deployed.

COLUMN Name: LFRETRACTDEPTIME

SAS Value	Value Text
0-2000	[Actual Value]
8888	Reported - Data Not Valid
9995	Pretensioner not deployed
9996	No event recorded
9997	Not reported
9999	Pretensioner deployed, no time specified

DRIVER TIME TO BUCKLE PRETENSIONER DEPLOYMENT

The elapsed time from crash time zero to the deployment command for the safety belt pretensioner. If multiple pretensioner locations provide time to deployment, the smallest time is reported.

COLUMN Name: LFBUCKDEPTIME

SAS Value	Value Text
0-2000	[Actual Value]
8888	Reported - Data Not Valid

SAS Value	Value Text
9994	Pretensioner deployed, no time specified
9995	Pretensioner not deployed
9996	No event recorded
9997	Not reported

PASSENGER AIR BAG SUPPRESSION SWITCH STATUS
The status of the switch indicating whether an air bag suppression system is on or off.

COLUMN Name: RFSWITCH

SAS Value	Value Text
0	Off
1	On
2	Auto
6	No event recorded
7	Not reported
8	Reported - Data Not Valid

PASSENGER AIR BAG DISPOSAL
Indicates whether the deployment command of the second (or higher, if present) stage of a frontal air bag for the purpose of disposing the propellant from the air bag device.

COLUMN Name: RFDISPOSAL

SAS Value	Value Text
0	Second stage deployment was not for the purpose of disposal
1	Second stage deployment was a disposal
6	No event recorded
7	Not reported
8	Reported - Data Not Valid

PASSENGER BELT STATUS
The signal from the safety system that is used to determine that an occupant's safety belt (for both driver and right front passenger) is buckled or not buckled.

COLUMN Name: RFBELT

SAS Value	Value Text
0	Unbuckled
1	Buckled
6	No event recorded
7	Not reported
8	Reported - Data Not Valid

PASSENGER OCCUPANT SIZE CLASSIFICATION
Classifies the occupant size.

COLUMN Name: RFOCCSIZE

SAS Value	Value Text
0	Empty
1	Child
2	5th percentile female
3	Larger than 5th percentile female
4	Child or Empty
5	Adult, size not specified
6	No event recorded
7	Not reported
8	Reported - Data Not Valid

PASSENGER OUT OF POSITION
The classification indicating that the seating posture of a front outboard is determined as being out-of-position.

COLUMN Name: RFOCCPOS

SAS Value	Value Text
0	No
1	Yes
6	No event recorded
7	Not reported
8	Reported - Data Not Valid

PASSENGER SEAT TRACK POSITION, FOREMOST

COLUMN Name: RFTRACKPOS

SAS Value	Value Text
0	No
1	Yes
6	No event recorded
7	Not reported
8	Reported - Data Not Valid

PASSENGER TIME TO STAGE 1 FRONTAL DEPLOYMENT

The elapsed time between time zero and the time when the first stage of a frontal air bag was commanded to deploy.

COLUMN Name: RF1STAGEDEP

SAS Value	Value Text
0-3000	[Actual Value]
8888	Reported - Data Not Valid
9994	Frontal air bag deployed, no time specified
9995	Frontal air bag not deployed
9996	No event recorded
9997	Not reported

PASSENGER TIME TO STAGE 2 FRONTAL DEPLOYMENT

The elapsed time from crash time zero to the deployment command for the 2nd stage of a frontal air bag.

COLUMN Name: RF2STAGEDEP

SAS Value	Value Text
0-3000	[Actual Value]
8888	Reported - Data Not Valid
9994	Frontal air bag second stage fired, no time specified
9995	Frontal air bag second stage not fired
9996	No event recorded
9997	Not reported

PASSENGER TIME TO SIDE AIR BAG DEPLOYMENT
The elapsed time from crash time zero to the deployment command for a side air bag.

COLUMN Name: RFSIDEDEPTIME

SAS Value	Value Text
0-3000	[Actual Value]
8888	Reported - Data Not Valid
9994	Side air bag deployed, no time specified
9995	Side air bag not deployed
9996	No event recorded
9997	Not reported

PASSENGER TIME TO CURTAIN/TUBE BAG DEPLOYMENT
The elapsed time from crash time zero to the deployment command for a curtain air bag.

COLUMN Name: RFCURTDEPTIME

SAS Value	Value Text
0-2000	[Actual Value]
8888	Reported - Data Not Valid
9994	Curtain air bag deployed, no time specified
9995	Curtain air bag not deployed
9996	No event recorded
9997	Not reported

PASSENGER TIME TO PRETENSIONER DEPLOYMENT
The elapsed time from crash time zero to the deployment command for the safety belt pretensioner. If multiple pretensioner locations provide time to deployment, the smallest time is reported.

COLUMN Name: RFPRETENDEPTIME

SAS Value	Value Text
0-2000	[Actual Value]
8888	Reported - Data Not Valid
9994	Pretensioner deployed, no time specified
9995	Pretensioner not deployed

SAS Value	Value Text
9996	No event recorded
9997	Not reported

PASSENGER TIME TO RETRACTOR DEPLOYMENT
This variable reports the time at which the passenger's restraint retractor deployed.

COLUMN Name: RFRETRACTDEPTIME

SAS Value	Value Text
0-2000	[Actual Value]
8888	Reported - Data Not Valid
9995	Pretensioner not deployed
9996	No event recorded
9997	Not reported
9999	Pretensioner deployed, no time specified

PASSENGER TIME TO BUCKLE PRETENSIONER DEPLOYMENT
The elapsed time from crash time zero to the deployment command for the safety belt pretensioner. If multiple pretensioner locations provide time to deployment, the smallest time is reported.

COLUMN Name: RFBUCKDEPTIME

SAS Value	Value Text
0-2000	[Actual Value]
8888	Reported - Data Not Valid
9994	Pretensioner deployed, no time specified
9995	Pretensioner not deployed
9996	No event recorded
9997	Not reported

EDRPRECRASH Dataset

Key Identifiers: PSU, CASENO, VEHNO, EDRSUMMNO, EDREVENTNO

This table will contain one row per recorded time value of each recorded point code type as recorded by the EDR. There may be one or more rows per point code type. Figure 21 displays the list of all the data elements in the EDRPRECRASH table. Information about the type of each variable, its length, the format, and the label is provided for each data element.

The EDR data collected in CISS differs somewhat from the data collected in NASS-CDS. CISS is primarily collecting that data mentioned in Table 1 and 2 of 49 CFR Part 563.7, although there are several variables completed by the technician which aren't captured by the EDR, e.g. EDR Imaging Method.

When crash technicians are able to image the EDR or otherwise obtain a copy of the CDRx file from a third party, the data variables are translated and entered into the database in an automated fashion. If the file is obtained as a PDF file, the crash technician transcribes the information into the database.

```
Data Set Name        CISS19.EDRPRECRASH        Observations          246597
Member Type          DATA                      Variables             14
Engine               V9                        Indexes               0
Created              10/22/2020 13:31:05       Observation Length    72
Last Modified        10/22/2020 13:31:05       Deleted Observations  0
Protection                                     Compressed            NO
Data Set Type                                  Sorted                YES
Label
Data Representation  WINDOWS_32
Encoding             wlatin1  Western (Windows)


                    Alphabetic List of Variables and Attributes

    #   Variable     Type   Len   Format        Informat    Label

    1   CASEID       Num     5    11.           11.         SYSTEM CASE IDENTIFIER
    3   CASENO       Num     3    11.           11.         SEQUENTIAL CASE NUMBER
    4   CASENUMBER   Char   16    $20.          $20.        CASE NUMBER
   12   CASEWGT      Num     8    26.20                     CASE WEIGHT
    5   CATEGORY     Num     3    11.           11.         CASE CATEGORY
    8   EDREVENTNO   Num     3    11.           11.         EDR EVENT NUMBER
    7   EDRSUMMNO    Num     3    20.           20.         EDR SUMMARY NUMBER
    9   PCODE        Num     3    CODETYPE19F.  11.         EDR POINT TYPE
    2   PSU          Num     3    11.           11.         PRIMARY SAMPLING UNIT
   13   PSUSTRAT     Num     3    11.           11.         PSU STRATIFICATION
   10   PTIME        Num     8    PTIME19F.     14.4        EDR POINT TIME
   11   PVALUE       Num     8    10.4          14.4        EDR POINT VALUE
    6   VEHNO        Num     3    11.           11.         VEHICLE NUMBER
   14   VERSION      Num     3    6.            6.          VERSION NUMBER


                              Sort Information

        Sortedby        PSU CASENO VEHNO EDRSUMMNO EDREVENTNO PCODE PTIME
        Validated       YES
        Character Set   ANSI
```

Figure 21.

EDR SUMMARY NUMBER

This variable provides a link back to the EDRSUMM dataset, along with other key data elements.

COLUMN Name: EDRSUMMNO

EDR EVENT NUMBER

This variable provides a link back to the EDREVENT dataset, along with other key data elements.

COLUMN Name: EDREVENTNO

EDR POINT TYPE

This variable identifies which type of data is being recorded.

COLUMN Name: PCODE

SAS Value	Value Text
1010	Vehicle Speed
1020	Engine Throttle (% full)
1030	Accelerator Pedal (% full)
1040	Service Brake
1050	Engine RPM
1060	ABS Activity
1070	Stability Control
1080	Steering input (deg)

EDR POINT TIME

This variable identifies the time at which the data was recorded. The actual value will vary based upon the type of point.

COLUMN Name: PTIME

SAS Value	Value Text
9996	Reported - Data Not Valid
9997	Not reported

EDR POINT VALUE

This variable identifies the actual value recorded for the particular type and time. The actual value will vary based upon the type of point.

COLUMN Name: PVALUE

SAS Value	Value Text
99996	Reported, data not valid
99997	Not reported

EDRPOSTCRASH Dataset

Key Identifiers: PSU, CASENO, VEHNO, EDRSUMMNO, EDREVENTNO

This table will contain one row per recorded time value of each recorded point code type as recorded by the EDR. There may be one or more rows per point code type. Figure 22 displays the list of all the data elements in the EDRPOSTCRASH table. Information about the type of each variable, its length, the format, and the label is provided for each data element.

The EDR data collected in CISS differs somewhat from the data collected in NASS-CDS. CISS is primarily collecting that data mentioned in Table 1 and 2 of 49 CFR Part 563.7, although there are several variables completed by the technician which aren't captured by the EDR, e.g. EDR Imaging Method.

When crash technicians are able to image the EDR or otherwise obtain a copy of the CDRx file from a third party, the data variables are translated and entered into the database in an automated fashion. If the file is obtained as a PDF file, the crash technician transcribes the information into the database.

```
Data Set Name        CISS19.EDRPOSTCRASH        Observations          351973
Member Type          DATA                       Variables             14
Engine               V9                         Indexes               0
Created              10/22/2020 13:31:05        Observation Length    72
Last Modified        10/22/2020 13:31:05        Deleted Observations  0
Protection                                      Compressed            NO
Data Set Type                                   Sorted                YES
Label
Data Representation  WINDOWS_32
Encoding             wlatin1  Western (Windows)


                    Alphabetic List of Variables and Attributes

   #    Variable     Type   Len   Format        Informat     Label

   1    CASEID       Num     5    11.           11.          SYSTEM CASE IDENTIFIER
   3    CASENO       Num     3    11.           11.          SEQUENTIAL CASE NUMBER
   4    CASENUMBER   Char   16    $20.          $20.         CASE NUMBER
  12    CASEWGT      Num     8    26.20                      CASE WEIGHT
   5    CATEGORY     Num     3    11.           11.          CASE CATEGORY
   8    EDREVENTNO   Num     3    11.           11.          EDR EVENT NUMBER
```

```
7    EDRSUMMNO   Num    3    20.            20.        EDR SUMMARY NUMBER
9    PCODE       Num    3    CODETYPE19F.   11.        EDR POINT TYPE
2    PSU         Num    3    11.            11.        PRIMARY SAMPLING UNIT
13   PSUSTRAT    Num    3    11.            11.        PSU STRATIFICATION
10   PTIME       Num    8    PTIME19F.      14.4       EDR POINT TIME
11   PVALUE      Num    8    9.4            14.4       EDR POINT VALUE
6    VEHNO       Num    3    11.            11.        VEHICLE NUMBER
14   VERSION     Num    3    6.             6.         VERSION NUMBER


                         Sort Information

     Sortedby        PSU CASENO VEHNO EDRSUMMNO EDREVENTNO PCODE PTIME
     Validated       YES
     Character Set   ANSI
```

Figure 22.

EDR SUMMARY NUMBER
This variable provides a link back to the EDRSUMM dataset, along with other key data elements.

COLUMN Name: EDRSUMMNO

EDR EVENT NUMBER
This variable provides a link back to the EDREVENT dataset, along with other key data elements.

COLUMN Name: EDREVENTNO

EDR POINT TYPE
This variable identifies which type of data is being recorded.

COLUMN Name: PCODE

SAS Value	Value Text
2010	Delta-V, Longitudinal
2020	Delta-V, Lateral
2030	Acceleration, Longitudinal (g)
2040	Acceleration, Lateral (g)
2050	Acceleration, Normal (g)
2060	Roll Angle (deg)

EDR POINT TIME

This variable identifies the time at which the data was recorded. The actual value will vary based upon the type of point.

COLUMN Name: PTIME

SAS Value	Value Text
9996	Reported - Data Not Valid
9997	Not reported

EDR POINT VALUE

This variable identifies the actual value recorded for the particular type and time. The actual value will vary based upon the type of point.

COLUMN Name: PVALUE

VEHMEAS Dataset

Key Identifiers: PSU, CASENO, VEHNO

The VEHMEAS dataset captures two types of measurements: 1) post-crash measurements taken from the vehicle during inspection, and 2) original dimension measurements of some sections of the vehicle used for determining CDC extent zones. These measurements will only be found for inspected vehicles, and not all measurements will necessarily be taken. The presence of some data will be dependent upon the damaged plane and the accessibility of the vehicle at the inspection site. There will be only one row per vehicle. Figure 23 displays the list of all the data elements in the VEHMEAS dataset. Information about the type of each variable, its length, the format and the label are displayed.

```
Data Set Name          CISS19.VEHMEAS              Observations          3873
Member Type            DATA                        Variables             37
Engine                 V9                          Indexes               0
Created                10/22/2020 13:31:10         Observation Length    136
Last Modified          10/22/2020 13:31:10         Deleted Observations  0
Protection                                         Compressed            NO
Data Set Type                                      Sorted                YES
Label
Data Representation    WINDOWS_32
Encoding               wlatin1  Western (Windows)


                    Alphabetic List of Variables and Attributes

    #    Variable     Type    Len    Format          Informat    Label

    26   BACKBPILL    Num     3      MEASUNKNA19F.   11.         BACK EXTENT - B PILLAR
    25   BACKLIGHT    Num     3      MEASUNKNA19F.   11.         BACK EXTENT - BACKLIGHT
    33   BACKPICKUP   Num     3      MEASUNKNA19F.   11.         PICK-UP REAR EXTENT
    24   BACKTRUNK    Num     3      MEASUNKNA19F.   11.         BACK EXTENT - TRUNK
    1    CASEID       Num     5      11.             11.         SYSTEM CASE IDENTIFIER
```

```
   3    CASENO        Num     3    11.            11.         SEQUENTIAL CASE NUMBER
   4    CASENUMBER    Char    16   $20.           $20.        CASE NUMBER
  35    CASEWGT       Num     8                               CASE WEIGHT
   5    CATEGORY      Num     3    11.            11.         CASE CATEGORY
  17    FRNTBUMP      Num     3    MEASUNKNA19F.  11.         FRONT BUMPER HEIGHT
  21    FRNTHOOD      Num     3    MEASUNKNA19F.  11.         FRONT EXTENT - HOOD
  23    FRNTPILL      Num     3    MEASUNKNA19F.  11.         FRONT EXTENT - PILLAR
  19    FRNTTRACK     Num     3    MEASUNKNA19F.  11.         FRONT TRACK WIDTH
  22    FRNTWIND      Num     3    MEASUNKNA19F.  11.         FRONT EXTENT - WINDSHIELD
   8    LFBC          Num     3    MEASUNKNA19F.  11.         LEFT FRONT BUMPER CORNER
   7    LFOH          Num     3    MEASUNKNA19F.  11.         LEFT FRONT OVERHANG
  10    LRBC          Num     3    MEASUNKNA19F.  11.         LEFT REAR BUMPER CORNER
  11    LROH          Num     3    MEASUNKNA19F.  11.         LEFT REAR OVERHANG
  34    PBED          Num     3    MEASUNKNA19F.  11.         PICK-UP BED LENGTH
   2    PSU           Num     3    11.            11.         PRIMARY SAMPLING UNIT
  36    PSUSTRAT      Num     3    11.            11.         PSU STRATIFICATION
  18    REARBUMP      Num     3    MEASUNKNA19F.  11.         REAR BUMPER HEIGHT
  20    REARTRACK     Num     3    MEASUNKNA19F.  11.         REAR TRACK WIDTH
  13    RFBC          Num     3    MEASUNKNA19F.  11.         RIGHT FRONT BUMPER CORNER
  12    RFOH          Num     3    MEASUNKNA19F.  11.         RIGHT FRONT OVERHANG
  15    RRBC          Num     3    MEASUNKNA19F.  11.         RIGHT REAR BUMPER CORNER
  16    RROH          Num     3    MEASUNKNA19F.  11.         RIGHT REAR OVERHANG
  27    SIDEDOOR      Num     3    MEASUNKNA19F.  11.         SIDE EXTENT - DOOR
  28    SIDEGLAZ      Num     3    MEASUNKNA19F.  11.         SIDE EXTENT - GLAZING
  29    SIDEROOF      Num     3    MEASUNKNA19F.  11.         SIDE EXTENT - ROOF
   6    VEHNO         Num     3    11.            11.         VEHICLE NUMBER
  37    VERSION       Num     3    6.             6.          VERSION NUMBER
  32    VERTDOOR      Num     3    MEASUNKNA19F.  11.         VERTICAL EXTENT - DOOR
  31    VERTGLAZ      Num     3    MEASUNKNA19F.  11.         VERTICAL EXTENT - GLAZING
  30    VERTROOF      Num     3    MEASUNKNA19F.  11.         VERTICAL EXTENT - ROOF
   9    WBLEFT        Num     3    MEASUNKNA19F.  11.         WHEELBASE - LEFT
  14    WBRIGHT       Num     3    MEASUNKNA19F.  11.         WHEELBASE - RIGHT


                        Sort Information

              Sortedby        PSU CASENO VEHNO
              Validated       YES
              Character Set   ANSI
```

Figure 23.

LEFT FRONT OVERHANG

This variable stores the post-crash longitudinal measurement between the left front axle and the front extent of the vehicle. The data is expressed in centimeters.

COLUMN Name: LFOH

SAS Value	Value Text
25 - 250	[Actual Value]
887	Not Applicable
999	Unknown

LEFT FRONT BUMPER CORNER

This variable stores the post-crash longitudinal measurement between the left front axle and the left front bumper corner. This data is expressed in centimeters.

COLUMN Name: LFBC

SAS Value	Value Text
0 - 250	[Actual Value]
887	Not Applicable
999	Unknown

WHEELBASE - LEFT
This variable stores the post-crash distance between the left side rear axle and the front axle. The data is expressed in centimeters.

COLUMN Name: WBLEFT

SAS Value	Value Text
50 - 650	[Actual Value]
887	Not Applicable
999	Unknown

LEFT REAR BUMPER CORNER
This variable stores the post-crash longitudinal measurement between the left rear axle and the left rear bumper corner. This data is expressed in centimeters.

COLUMN Name: LRBC

SAS Value	Value Text
0 - 450	[Actual Value]
887	Not Applicable
999	Unknown

LEFT REAR OVERHANG
This variable stores the post-crash longitudinal measurement between the left rear axle and the rear extent of the vehicle. This data is expressed in centimeters.

COLUMN Name: LROH

SAS Value	Value Text
50 - 450	[Actual Value]
887	Not Applicable
999	Unknown

RIGHT FRONT OVERHANG

This variable stores the post-crash longitudinal distance between the right front axle and the frontal extent of the vehicle. The data is expressed in centimeters.

COLUMN Name: RFOH

SAS Value	Value Text
25 - 250	[Actual Value]
887	Not Applicable
999	Unknown

RIGHT FRONT BUMPER CORNER

This variable stores the post-crash longitudinal distance between the right front axle and the right front bumper corner. The data is expressed in centimeters.

COLUMN Name: RFBC

SAS Value	Value Text
0 - 250	[Actual Value]
887	Not Applicable
999	Unknown

WHEELBASE - RIGHT

This variable stores the post-crash distance between the right side rear axle and the front axle. The data is expressed in centimeters.

COLUMN Name: WBRIGHT

SAS Value	Value Text
50 - 650	[Actual Value]
887	Not Applicable
999	Unknown

RIGHT REAR BUMPER CORNER
This variable stores the post-crash longitudinal distance between the right rear axle and the right rear bumper corner. The data is expressed in centimeters.

COLUMN Name: RRBC

SAS Value	Value Text
0 - 250	[Actual Value]
887	Not Applicable
999	Unknown

RIGHT REAR OVERHANG
This variable stores the post-crash longitudinal distance between the right rear axle and the rear extent of the vehicle. The data is expressed in centimeters.

COLUMN Name: RROH

SAS Value	Value Text
50 - 450	[Actual Value]
887	Not Applicable
999	Unknown

FRONT EXTENT - HOOD
This variable stores the original longitudinal measurement between the front extent of the vehicle to the base of the windshield. The data is expressed in centimeters.

COLUMN Name: FRNTHOOD

SAS Value	Value Text
15 - 225	[Actual Value]
887	Not Applicable
999	Unknown

FRONT EXTENT - WINDSHIELD
This variable stores the original longitudinal measurement between the base of the windshield and the top of the windshield. The data is expressed in centimeters.

COLUMN Name: FRNTWIND

SAS Value	Value Text
1 - 150	[Actual Value]
887	Not Applicable
999	Unknown

FRONT EXTENT - PILLAR
This variable stores the original longitudinal measurement between the top of the windshield and the B-pillar. The data is expressed in centimeters.

COLUMN Name: FRNTPILL

SAS Value	Value Text
10 - 150	[Actual Value]
887	Not Applicable
999	Unknown

SIDE EXTENT - DOOR
This variable stores the original lateral distance between the outer side extent of the vehicle to the base of the side glazing. The data is expressed in centimeters.

COLUMN Name: SIDEDOOR

SAS Value	Value Text
2 - 25	[Actual Value]
887	Not Applicable
999	Unknown

SIDE EXTENT - GLAZING
This variable stores the original lateral distance between the base of the side glazing to the top of the side glazing. The data is expressed in centimeters.

COLUMN Name: SIDEGLAZ

SAS Value	Value Text
1 - 35	[Actual Value]
887	Not Applicable
999	Unknown

SIDE EXTENT - ROOF

This variable stores the original lateral distance between the top of the left side glazing to the top of the right side glazing. The data is expressed in centimeters.

COLUMN Name: SIDEROOF

SAS Value	Value Text
70 - 205	[Actual Value]
887	Not Applicable
999	Unknown

BACK EXTENT - TRUNK

This variable stores the original longitudinal measurement between the rear extent of the vehicle and the base of the backlight. The data is expressed in centimeters.

COLUMN Name: BACKTRUNK

SAS Value	Value Text
10 - 145	[Actual Value]
887	Not Applicable
999	Unknown

BACK EXTENT - BACKLIGHT

This variable stores the original longitudinal measurement between the base of the backlight to the top of the backlight. The data is expressed in centimeters.

COLUMN Name: BACKLIGHT

SAS Value	Value Text
1 - 150	[Actual Value]
887	Not Applicable
999	Unknown

BACK EXTENT - B PILLAR

This variable stores the original longitudinal measurement between the top of the backlight to the B-pillar. The data is expressed in centimeters.

COLUMN Name: BACKBPILL

SAS Value	Value Text
0 - 300	[Actual Value]
887	Not Applicable
999	Unknown

PICK-UP REAR EXTENT

This variable stores the original longitudinal distance between the rear extent of the pick-up to the vehicle's B-Pillar, representing the CDC rear extent. The data is expressed in centimeters.

COLUMN Name: BACKPICKUP

SAS Value	Value Text
90 - 400	[Actual Value]
887	Not Applicable
999	Unknown

VERTICAL EXTENT - DOOR

This variable stores the original vertical distance between the bottom of the door sill to the bottom of the door's side glazing. The data is expressed in centimeters.

COLUMN Name: VERTDOOR

SAS Value	Value Text
40 - 135	[Actual Value]
887	Not Applicable
999	Unknown

VERTICAL EXTENT - GLAZING

This variable stores the original vertical distance between the bottom of the side glazing to the top of the side glazing. The data is expressed in centimeters.

COLUMN Name: VERTGLAZ

SAS Value	Value Text
15 - 85	[Actual Value]
887	Not Applicable
999	Unknown

VERTICAL EXTENT - ROOF

This variable stores the original vertical distance between the top of the side glazing to the top of the roof. The data is expressed in centimeters.

COLUMN Name: VERTROOF

SAS Value	Value Text
0 - 30	[Actual Value]
887	Not Applicable
999	Unknown

FRONT TRACK WIDTH

This variable stores the post-crash lateral measurement between the center of the left front tire to the right front tire. The data is expressed in centimeters.

COLUMN Name: FRNTTRACK

SAS Value	Value Text
100 - 200	[Actual Value]
887	Not Applicable
999	Unknown

REAR TRACK WIDTH

This variable stores the post-crash lateral measurement between the center of the left rear tire to the right rear tire. The data is expressed in centimeters.

COLUMN Name: REARTRACK

SAS Value	Value Text
100 - 200	[Actual Value]
887	Not Applicable
999	Unknown

FRONT BUMPER HEIGHT

This variable stores the original height of the front bumper from the ground to the bottom of the bumper. The data is expressed in centimeters.

COLUMN Name: FRNTBUMP

SAS Value	Value Text
10 - 150	[Actual Value]
887	Not Applicable
999	Unknown

REAR BUMPER HEIGHT

This variable stores the original height of the bumper from the ground to the bottom of the bumper. The data is expressed in centimeters.

COLUMN Name: REARBUMP

SAS Value	Value Text
10 - 150	[Actual Value]
887	Not Applicable
999	Unknown

The INTERIOR VEHICLE Data Files

The data for the Interior Vehicle data files is collected during the inspection of the vehicle. This data is only collected for inspected in-transport towed CISS applicable vehicles. The Interior Vehicle data files contain **the Key Data Elements**, which are described in the beginning of the **Data Element Definitions and Codes** section. The Interior Vehicle data files also contain the data elements on the following pages.

ADAPT Dataset

Key Identifiers: PSU, CASENO, VEHNO

The Adapt dataset records any equipment whose primary purpose is to assist persons with disabilities in the operation of a vehicle. This variable is designed to capture those vehicles that have this type of after-market adaptive driving equipment installed. Use of the equipment at the time of the crash is irrelevant. At least one row can be found in this dataset whenever INTERIOR.ADAPTEQUIP equals one (1). Figure 24 displays the list

of all the data elements in the ADAPT table. Information about the type of each variable, its length, the format, and the label is provided for each data element.

```
Data Set Name          CISS19.ADAPT              Observations          21
Member Type            DATA                      Variables             10
Engine                 V9                        Indexes               0
Created                10/22/2020 13:31:03       Observation Length    56
Last Modified          10/22/2020 13:31:03       Deleted Observations  0
Protection                                       Compressed            NO
Data Set Type                                    Sorted                YES
Label
Data Representation  WINDOWS_32
Encoding               wlatin1  Western (Windows)


                   Alphabetic List of Variables and Attributes

     #     Variable      Type   Len    Format      Informat    Label

     7     ADAPT         Num     3     ADAPT19F.   11.         ADAPTIVE EQUIPMENT
     1     CASEID        Num     5     11.         11.         SYSTEM CASE IDENTIFIER
     3     CASENO        Num     3     11.         11.         SEQUENTIAL CASE NUMBER
     4     CASENUMBER    Char   16     $20.        $20.        CASE NUMBER
     8     CASEWGT       Num     8     24.20                   CASE WEIGHT
     5     CATEGORY      Num     3     11.         11.         CASE CATEGORY
     2     PSU           Num     3     11.         11.         PRIMARY SAMPLING UNIT
     9     PSUSTRAT      Num     3     11.         11.         PSU STRATIFICATION
     6     VEHNO         Num     3     11.         11.         VEHICLE NUMBER
    10     VERSION       Num     3     6.          6.          VERSION NUMBER


                          Sort Information

         Sortedby        PSU CASENO VEHNO ADAPT
         Validated       YES
         Character Set   ANSI
```

Figure 24.

ADAPTIVE EQUIPMENT
This variable captures those vehicles that have this type of after-market adaptive driving equipment installed.

COLUMN Name: ADAPT

Attribute Codes

SAS Value	Value Text
1	Hand controls for braking/acceleration
2	Steering control devices (attached to OEM steering wheel)
3	Steering knob attached to steering wheel
4	Low effort power steering (unit or device)
5	Replacement steering wheel (i.e. reduced diameter)
6	Joy-stick steering controls
7	Wheelchair tie-downs
8	Modifications to seat belts (specify)

SAS Value	Value Text
9	Additional or relocated switches (specify)
10	Raised roof
11	Wall mounted head rest (used behind wheelchair)
12	Pedal extender
19	Unknown type of adaptive device
98	Other adaptive device (specify)

GLAZING Dataset

Key Identifiers: PSU, CASENO, VEHNO, GLAZLOC

The Glazing dataset reports the status of the vehicle's glazings. This data only reports glazings which have been contacted by an occupant, or ALL glazings if there was a suspected occupant ejection. This data has information when INTERIOR.GALZINGCONT=1. Figure 25 displays the list of all the data elements in the GLAZING table. Information about the type of each variable, its length, the format, and the label is provided for each data element.

```
Data Set Name           CISS19.GLAZING              Observations          849
Member Type             DATA                        Variables             14
Engine                  V9                          Indexes               0
Created                 10/22/2020 13:31:07         Observation Length    64
Last Modified           10/22/2020 13:31:07         Deleted Observations  0
Protection                                          Compressed            NO
Data Set Type                                       Sorted                YES
Label
Data Representation      WINDOWS_32
Encoding                wlatin1  Western (Windows)


                        Alphabetic List of Variables and Attributes

     #   Variable      Type   Len   Format       Informat   Label

     1   CASEID        Num     5    11.          11.        SYSTEM CASE IDENTIFIER
     3   CASENO        Num     3    11.          11.        SEQUENTIAL CASE NUMBER
     4   CASENUMBER    Char   16    $20.         $20.       CASE NUMBER
    12   CASEWGT       Num     8    25.20                   CASE WEIGHT
     5   CATEGORY      Num     3    11.          11.        CASE CATEGORY
    10   GLAZIMP       Num     3    GLIMP19F.    11.        GLAZING IMPACT DAMAGE
     7   GLAZLOC       Num     3    GLLOC19F.    11.        GLAZING LOCATION
    11   GLAZOCC       Num     3    GLOCC19F.    11.        GLAZING OCCUPANT DAMAGE
     9   GLAZPRE       Num     3    GLPRE19F.    11.        GLAZING PRE-CRASH STATUS
     8   GLAZTYPE      Num     3    GLTYPE19F.   11.        GLAZING TYPE
     2   PSU           Num     3    11.          11.        PRIMARY SAMPLING UNIT
    13   PSUSTRAT      Num     3    11.          11.        PSU STRATIFICATION
     6   VEHNO         Num     3    11.          11.        VEHICLE NUMBER
    14   VERSION       Num     3    6.           6.         VERSION NUMBER


                             Sort Information

              Sortedby       PSU CASENO VEHNO GLAZLOC
              Validated      YES
              Character Set  ANSI
```

Figure 25.

GLAZING IMPACT DAMAGE
The damage to the glazing as a result of impact forces and/or vehicle damage (including damage from interior loose objects).

COLUMN Name: GLAZIMP

SAS Value	Value Text
1	No glazing damage from impact forces
2	Glazing in place and cracked from impact forces
3	Glazing in place and holed from impact forces
4	Glazing out-of-place (cracked or not) and not holed from impact forces
5	Glazing out-of-place and holed from impact forces
6	Glazing disintegrated from impact forces
7	Glazing removed prior to crash
9	Unknown if damaged

GLAZING OCCUPANT DAMAGE
This variable reports direct occupant contact to the glazing during the crash sequence.

COLUMN Name: GLAZOCC

SAS Value	Value Text
1	No occupant contact
2	Glazing contacted by occupant but no glazing damage
3	Glazing in place and cracked by occupant contact
4	Glazing in place and holed by occupant contact
5	Glazing out-of-place (cracked or not) by occupant contact and not holed by occupant contact
6	Glazing out-of-place by occupant contact and holed by occupant contact
7	Glazing removed prior to crash
8	Glazing disintegrated by occupant contact
9	Unknown if contacted by occupant

GLAZING LOCATION
This variable reports the location of a particular glazing.

COLUMN Name: GLAZLOC

SAS Value	Value Text
1	Windshield (WS)
2	Left front window (driver`s window) (LF)
3	Right front window (RF)
4	Left rear window (adjacent to LF window) (LR)
5	2nd left rear window (adjacent to LR window) (LR2)
6	3rd left rear window (adjacent to LR2 window) LR3
7	Right rear window (adjacent to RF window) (RR)
8	2nd right rear window (adjacent to RR window) RR2
9	3rd right rear window (adjacent to RR2 window) RR3
10	Backlight, tailgate/hatchback/liftgate window (BL)
11	Left backlight (left side of a divided backlight, i.e., rear doors on some vans)(LBL)
12	Right backlight (right side of a divided backlight, i.e., rear doors on some vans) (RBL)
13	Sun roof, moon roof, "T" roof, etc. (Roof)
98	Other sidelights, door wing windows, and any other light not identified above (Other)

GLAZING PRE-CRASH STATUS
This variable records the operational modes of the glazing prior to the crash.

COLUMN Name: GLAZPRE

SAS Value	Value Text
1	Fixed
2	Closed
3	Partially opened
4	Fully opened
7	Glazing removed prior to crash
9	Unknown

GLAZING TYPE
This variable reports the type of glazing as identified by unique AS (American Standard) numbers which are etched in the glazing surface.

COLUMN Name: GLAZTYPE

SAS Value	Value Text
1	AS-1 - Laminated
2	AS-2 - Tempered
3	AS-2 - Laminated
4	AS-2 - Laminated-with after market tint
5	AS-2 - Tempered-with after market tint
6	AS-3 - Tempered-tinted (original)
7	AS-3 - Laminated tinted (original)
8	AS-3 - Laminated tinted (with additional after market tint)
9	AS-3 - Tempered-tinted (with additional after market tint)
10	AS-6 - Flexible plastic safety glazing
11	Glazing removed prior to crash
98	Other (specify):
99	Unknown

INTEGRITY Dataset

Key Identifiers: PSU, CASENO, VEHNO

The INTEGRITY dataset stores information regarding the structural integrity of the vehicle. Consider the passenger compartment as a "package" which is designed to contain the occupant. If an opening occurs of sufficient magnitude through which an occupant could have been ejected totally or partially (although it is not necessary for an occupant to have been ejected), the integrity of the compartment is considered to have been lost. Figure 26 displays the list of all the data elements in the INTEGRITY table.

There will be at least one row per towed in-transport inspected CISS applicable vehicle.

```
Data Set Name          CISS19.INTEGRITY            Observations           4148
Member Type            DATA                        Variables              10
Engine                 V9                          Indexes                0
Created                10/22/2020 13:31:04         Observation Length     45
Last Modified          10/22/2020 13:31:04         Deleted Observations   0
Protection                                         Compressed             NO
Data Set Type                                      Sorted                 YES
Label
Data Representation    WINDOWS_32
Encoding               wlatin1  Western (Windows)


                       Alphabetic List of Variables and Attributes

     #    Variable     Type   Len   Format        Informat     Label

     1    CASEID       Num     5    11.           11.          SYSTEM CASE IDENTIFIER
     3    CASENO       Num     3    11.           11.          SEQUENTIAL CASE NUMBER
     4    CASENUMBER   Char   16    $20.          $20.         CASE NUMBER
     8    CASEWGT      Num     3    26.20                      CASE WEIGHT
     5    CATEGORY     Num     3    11.           11.          CRASH CATEGORY
     7    INTEGRITY    Num     3    INTEGRITY19F. 11.          COMPARTMENT INTEGRITY
```

```
     2    PSU         Num    3    11.          11.          PRIMARY SAMPLING UNIT
     9    PSUSTRAT    Num    3    11.          11.          PSU STRATIFICATION
     6    VEHNO       Num    3    11.          11.          VEHICLE NUMBER
    10    VERSION     Num    3    6.           6.           VERSION NUMBER


                              Sort Information

               Sortedby       PSU CASENO VEHNO INTEGRITY
               Validated      YES
               Character Set  ANSI
```

Figure 26.

COMPARTMENT INTEGRITY

This variable reports the type of integrity loss experienced during the crash. Damage which is not impact related (*e.g.*, fire, extrication) is not captured.

COLUMN Name: INTEGRITY

SAS Value	Value Text
0	No Integrity Loss
1	Windshield
2	Door (side)
3	Door/hatch (back door)
4	Roof
5	Roof glass
6	Side window
7	Rear window (backlight)
9	Unknown

INTERIOR Dataset

Key Identifiers: PSU, CASENO, VEHNO

The Interior dataset includes various data regarding the interior the vehicle. This includes the status of any doors, steering wheel, row widths, etc. It also serves as a gateway to the Glazing and Adaptive Equipment datasets. This data has information for all inspected towed in-transport CISS applicable vehicles. Figure 27 displays the list of all the data elements in the INTERIOR table. Information about the type of each variable, its length, the format, and the label is provided for each data element.

```
        Data Set Name        CISS19.INTERIOR          Observations          3529
        Member Type          DATA                     Variables             32
        Engine               V9                       Indexes               0
        Created              10/22/2020 13:31:08      Observation Length    120
        Last Modified        10/22/2020 13:31:08      Deleted Observations  0
        Protection                                    Compressed            NO
        Data Set Type                                 Sorted                YES
        Label
```

```
                 Data Representation   WINDOWS_32
                 Encoding              wlatin1  Western (Windows)


                       Alphabetic List of Variables and Attributes

      #    Variable        Type   Len   Format        Informat    Label

     24    ADAPTEQUIP      Num     3    ADAPTEQ19F.    11.         ADAPTIVE EQUIPMENT PRESENCE
      1    CASEID          Num     5    11.            11.         SYSTEM CASE IDENTIFIER
      3    CASENO          Num     3    11.            11.         SEQUENTIAL CASE NUMBER
      4    CASENUMBER      Char   16    $20.           $20.        CASE NUMBER
     30    CASEWGT         Num     8    26.20                      CASE WEIGHT
      5    CATEGORY        Num     3    11.            11.         CASE CATEGORY
     13    DAMAGELF        Num     3    DRDAM19F.      11.         LF DOOR DAMAGE
     14    DAMAGELR        Num     3    DRDAM19F.      11.         LR DOOR DAMAGE
     15    DAMAGERF        Num     3    DRDAM19F.      11.         RF DOOR DAMAGE
     16    DAMAGERR        Num     3    DRDAM19F.      11.         RR DOOR DAMAGE
     17    DAMAGETG        Num     3    DRDAM19F.      11.         TAILGATE/HATCH DAMAGE
     18    GLAZINGCONT     Num     3    IVGLAZE19F.    11.         EJECTION OR GLAZING CONTACT
      8    OPENLF          Num     3    DROPEN19F.     11.         LF DOOR OPENING
      9    OPENLR          Num     3    DROPEN19F.     11.         LR DOOR OPENING
     10    OPENRF          Num     3    DROPEN19F.     11.         RF DOOR OPENING
     11    OPENRR          Num     3    DROPEN19F.     11.         RR DOOR OPENING
     12    OPENTG          Num     3    DROPEN19F.     11.         TAILGATE/HATCH OPENING
      7    POSTINTEGLOSS   Num     3    YESNO19F.      11.         POST-CRASH INTEGRITY LOSS
      2    PSU             Num     3    11.            11.         PRIMARY SAMPLING UNIT
     31    PSUSTRAT        Num     3    11.            11.         PSU STRATIFICATION
     29    RIMDEF          Num     3    RIMDEF19F.     11.         RIM DEFORMATION MEASUREMENT
     28    RIMDEFLOC       Num     3    RIMLOC19F.     11.         RIM DEFORMATION LOCATION
     19    ROWIDTH1        Num     3    IVROW19F.      11.         FRONT ROW WIDTH
     20    ROWIDTH2        Num     3    IVROW19F.      11.         SECOND ROW WIDTH
     21    ROWIDTH3        Num     3    IVROW19F.      11.         THIRD ROW WIDTH
     22    ROWIDTH4        Num     3    IVROW19F.      11.         FOURTH ROW WIDTH
     23    ROWIDTH5        Num     3    IVROW19F.      11.         FIFTH ROW WIDTH
     25    STEERINGTYPE    Num     3    COLMTYPE19F.   11.         STEERING COLUMN TYPE
     27    STEERTELEADJ    Num     3    COLMTELE19F.   11.         TELESCOPING STEERING COLUMN ADJUSTMENT
     26    STEERTILTADJ    Num     3    COLMTILT19F.   11.         TILT STEERING COLUMN ADJUSTMENT
      6    VEHNO           Num     3    11.            11.         VEHICLE NUMBER
     32    VERSION         Num     3    6.             6.          VERSION NUMBER


                                Sort Information

                        Sortedby       PSU CASENO VEHNO
                        Validated      YES
                        Character Set  ANSI
```

Figure 27.

ADAPTIVE EQUIPMENT PRESENCE

This variable serves as a gateway to the ADAPT dataset. If ADAPTEQUIP equals 1, at least one row will exist in the ADAPT dataset. Adaptive driving equipment is defined as equipment whose primary purpose is to assist persons with disabilities in the operation of a vehicle. This variable is designed to capture those vehicles that have this type of after-market adaptive driving equipment installed.

COLUMN Name: ADAPTEQUIP

SAS Value	Value Text
0	No adaptive driving equipment
1	Yes, adaptive driving equipment installed
9	Unknown

EJECTION OR GLAZING CONTACT

This variable serves as a gateway to the GLAZING dataset. If GLAZINGCONT equals 1, at least on row will exist in the GLAZING dataset.

COLUMN Name: GLAZINGCONT

SAS Value	Value Text
0	No
1	Yes
9	Unknown

FOURTH ROW WIDTH

This variable reports the width of the vehicle's fourth row. The data is expressed in centimeters.

COLUMN Name: ROWIDTH4

SAS Value	Value Text
110 - 190	[Actual Value]
888	Not Applicable
999	Unknown

FIFTH ROW WIDTH

This variable reports the width of the vehicle's fifth row. The data is expressed in centimeters.

COLUMN Name: ROWIDTH5

SAS Value	Value Text
110 - 190	[Actual Value]
888	Not Applicable
999	Unknown

FRONT ROW WIDTH

This variable reports the width of the vehicle's first row. The data is expressed in centimeters.

COLUMN Name: ROWIDTH1

SAS Value	Value Text
110 - 190	[Actual Value]
888	Not Applicable
999	Unknown

LF DOOR OPENING
This variable reports the operational status of the left front door as a result of the crash.

COLUMN Name: OPENLF

SAS Value	Value Text
0	No door/gate/hatch
1	Door/gate/hatch remained closed and operational
2	Door/gate/hatch jammed shut
3	Door/gate/hatch came open during collision
8	Others (specify):
9	Unknown

LR DOOR OPENING
This variable reports the operational status of the left rear door as a result of the crash.

COLUMN Name: OPENLR

SAS Value	Value Text
0	No door/gate/hatch
1	Door/gate/hatch remained closed and operational
2	Door/gate/hatch jammed shut
3	Door/gate/hatch came open during collision
8	Others (specify):
9	Unknown

LF DOOR DAMAGE
This variable is designed to capture the reason the left front door opened during the collision sequence.

COLUMN Name: DAMAGELF

SAS Value	Value Text
0	No door/gate/hatch
1	Door not opened
2	Door operational
3	Latch/striker separation due to damage
4	Hinge separation due to damage
5	Door structure separation due to damage
6	Door support (i.e., pillar, sill, roof side rail, etc.) separation due to damage
7	Latch/striker and hinge separation due to damage
8	Other separation (specify):
99	Unknown

LR DOOR DAMAGE

This variable is designed to capture the reason the left rear door opened during the collision sequence.

COLUMN Name: DAMAGELR

SAS Value	Value Text
0	No door/gate/hatch
1	Door not opened
2	Door operational
3	Latch/striker separation due to damage
4	Hinge separation due to damage
5	Door structure separation due to damage
6	Door support (i.e., pillar, sill, roof side rail, etc.) separation due to damage
7	Latch/striker and hinge separation due to damage
8	Other separation (specify):
99	Unknown

POST-CRASH INTEGRITY LOSS

This variable reports the presence of any integrity loss that is caused post-crash. Examples include Fire/EMS extrication damage.

COLUMN Name: POSTINTEGLOSS

RF DOOR DAMAGE

This variable reports the operational status of the right front door as a result of the crash.

COLUMN Name: DAMAGERF

SAS Value	Value Text
0	No door/gate/hatch
1	Door not opened
2	Door operational
3	Latch/striker separation due to damage
4	Hinge separation due to damage
5	Door structure separation due to damage
6	Door support (i.e., pillar, sill, roof side rail, etc.) separation due to damage
7	Latch/striker and hinge separation due to damage
8	Other separation (specify):
99	Unknown

RR DOOR DAMAGE

This variable reports the operational status of the right rear door as a result of the crash.

COLUMN Name: DAMAGERR

SAS Value	Value Text
0	No door/gate/hatch
1	Door not opened
2	Door operational
3	Latch/striker separation due to damage
4	Hinge separation due to damage
5	Door structure separation due to damage
6	Door support (i.e., pillar, sill, roof side rail, etc.) separation due to damage
7	Latch/striker and hinge separation due to damage
8	Other separation (specify):
99	Unknown

RF DOOR OPENING

This variable reports the operational status of the right front door as a result of the crash.

COLUMN Name: OPENRF

SAS Value	Value Text
0	No door/gate/hatch
1	Door/gate/hatch remained closed and operational
2	Door/gate/hatch jammed shut
3	Door/gate/hatch came open during collision
8	Others (specify):
9	Unknown

RR DOOR OPENING

This variable reports the operational status of the right rear door as a result of the crash.

COLUMN Name: OPENRR

SAS Value	Value Text
0	No door/gate/hatch
1	Door/gate/hatch remained closed and operational
2	Door/gate/hatch jammed shut
3	Door/gate/hatch came open during collision
8	Others (specify):
9	Unknown

RIM DEFORMATION LOCATION

This variable reports the location of the deformation to the steering rim as a result of occupant contact. The steering wheel rim is divided into four quarter sections (A through D) and four half sections (upper half, lower half, left half, right half).

COLUMN Name: RIMDEFLOC

SAS Value	Value Text
0	No steering rim deformation
1	Section A
2	Section B
3	Section C
4	Section D
5	Upper half of rim/spoke
6	Lower half of rim/spoke
7	Left half of rim/spoke
8	Right half of rim/spoke

SAS Value	Value Text
9	Complete steering wheel collapse
10	Undetermined location
99	Unknown

RIM DEFORMATION MEASUREMENT

This variable captures the amount of deformation to the steering wheel as a result of occupant contact. The data is expressed in centimeters.

COLUMN Name: RIMDEF

SAS Value	Value Text
0 - 20	[Actual Value]
88	Not applicable
99	Unknown

SECOND ROW WIDTH

This variable reports the width of the vehicle's second row. The data is expressed in centimeters. The data is expressed in centimeters.

COLUMN Name: ROWIDTH2

SAS Value	Value Text
110 - 190	[Actual Value]
888	Not Applicable
999	Unknown

STEERING COLUMN TYPE

This variable reports the type of steering wheel.

COLUMN Name: STEERINGTYPE

SAS Value	Value Text
1	Fixed column
2	Tilt column
3	Telescoping column
4	Tilt and telescoping column
8	Other column type (specify):
9	Unknown

TAILGATE/HATCH DAMAGE

This variable is designed to capture the reason the left front door opened during the collision sequence.

COLUMN Name: DAMAGETG

SAS Value	Value Text
0	No door/gate/hatch
1	Door not opened
2	Door operational
3	Latch/striker separation due to damage
4	Hinge separation due to damage
5	Door structure separation due to damage
6	Door support (i.e., pillar, sill, roof side rail, etc.) separation due to damage
7	Latch/striker and hinge separation due to damage
8	Other separation (specify):
99	Unknown

TAILGATE/HATCH OPENING

This variable reports the operational status of the left rear door as a result of the crash.

COLUMN Name: OPENTG

SAS Value	Value Text
0	No door/gate/hatch
1	Door/gate/hatch remained closed and operational
2	Door/gate/hatch jammed shut
3	Door/gate/hatch came open during collision
8	Others (specify):
9	Unknown

TELESCOPING STEERING COLUMN ADJUSTMENT

This variable is used to describe the pre-impact telescoping position of adjustable steering columns.

COLUMN Name: STEERTELEADJ

SAS Value	Value Text
0	No telescoping steering column
1	Full back
2	Between full back and midpoint
3	Midpoint
4	Between midpoint and full forward
5	Full forward
9	Unknown

TILT STEERING COLUMN ADJUSTMENT

This variable is used to describe the pre-impact tilt position of adjustable steering columns.

COLUMN Name: STEERTILTADJ

SAS Value	Value Text
0	No tilt steering column
1	Full up
2	Between full up and center
3	Center
4	Between center and full down
5	Full down
9	Unknown

THIRD ROW WIDTH

This variable reports the width of the vehicle's third row. The data is expressed in centimeters.

COLUMN Name: ROWIDTH3

SAS Value	Value Text
110 - 190	[Actual Value]
888	Not Applicable
999	Unknown

INTRUSION Dataset

Key Identifiers: PSU, CASENO, VEHNO, INTRUNO, SEATLOC

The Intrusion table reports any intrusion experienced by the vehicle during the crash. Intrusion results whenever the internal boundary surface of the passenger compartment is moved inward due to direct or indirect damage resulting from the application of a crushing force to the exterior surface of a vehicle. An exterior component can intrude into the passenger compartment.

A passenger compartment is defined as that interior occupant space which is normally available for occupant seating, based upon both the vehicle design and seat configuration at the time of the crash. Adjacent cargo areas and other enclosed areas open to the passenger compartment are included. Intrusion can occur from the vertical, longitudinal, or lateral direction. Intrusion can also occur from the displacement of interior seatbacks and/or seat cushions. Figure 28 displays the list of all the data elements in the INTRUSION table Information about the type of each variable, its length, the format, and the label is provided for each data element.

```
Data Set Name        CISS19.INTRUSION        Observations          5250
Member Type          DATA                    Variables             15
Engine               V9                      Indexes               0
Created              10/22/2020 13:31:08     Observation Length    72
Last Modified        10/22/2020 13:31:08     Deleted Observations  0
Protection                                   Compressed            NO
Data Set Type                                Sorted                YES
Label
Data Representation  WINDOWS_32
Encoding             wlatin1  Western (Windows)


                  Alphabetic List of Variables and Attributes

  #     Variable     Type    Len    Format       Informat    Label

  1     CASEID       Num      5     11.          11.         SYSTEM CASE IDENTIFIER
  3     CASENO       Num      3     11.          11.         SEQUENTIAL CASE NUMBER
  4     CASENUMBER   Char    16     $20.         $20.        CASE NUMBER
 12     CASEWGT      Num      8     26.20                    CASE WEIGHT
  5     CATEGORY     Num      3     11.          11.         CASE CATEGORY
  8     INTCOMP      Num      3     INCOMP19F.   11.         INTRUSION COMPONENT
 11     INTDIRECT    Num      3     INDIR19F.    11.         INTRUSION DIRECTION
 10     INTMAG       Num      3     INMAG19F.    11.         INTRUSION MAGNITUDE
  7     INTRUNO      Num      3     11.          11.         INTRUSION NUMBER
  9     INTRUSION    Num      3     UNKNA19F.    11.         INTRUDED VALUE
  2     PSU          Num      3     11.          11.         PRIMARY SAMPLING UNIT
 13     PSUSTRAT     Num      3     11.          11.         PSU STRATIFICATION
 15     SEATLOC      Num      8     SEATPOS19F.  11.         SEAT LOCATION
  6     VEHNO        Num      3     11.          11.         VEHICLE NUMBER
 14     VERSION      Num      3     6.           6.          VERSION NUMBER


                        Sort Information

        Sortedby        PSU CASENO VEHNO INTRUNO
        Validated       YES
        Character Set   ANSI
```

Figure 28.

SEAT LOCATION

This key variable reports the seating position in the vehicle. This is a 2 digit field where the first digit denotes the row of the vehicle, and the second digit denotes the lateral location of the seat. Seat rows are numbered longitudinally from the driver's row backwards. The seat locations are numbered from left to right and is normally three positions although there could be up to four seating locations in a particular row.

COLUMN Name: SEATLOC

SAS Value	Value Text
11	Front Left
12	Front Middle
13	Front Right
21	Second Left
22	Second Middle
23	Second Right
31	Third Left
32	Third Middle
33	Third Right
41	Fourth Left
42	Fourth Middle
43	Fourth Right
51	Fifth Left
52	Fifth Middle
53	Fifth Right
97	In or on unenclosed area
98	Other enclosed area
99	Unknown

INTRUSION COMPONENT

This variable reports the component that intruded.

COLUMN Name: INTCOMP

SAS Value	Value Text
1	Steering assembly
2	Instrument panel left
3	Instrument panel center
4	Instrument panel right
5	Toe pan
6	Floor pan (includes sill)
7	A (A1/A2)-pillar

SAS Value	Value Text
8	B-pillar
9	C-pillar
10	D-pillar
11	Grab Handles
12	Side panel - forward of the A1/A2-pillar
13	Side panel - rear of the Bpillar
14	Door/Forward upper quadrant
15	Door/Forward lower quadrant
16	Door/Rear upper quadrant
17	Door/Rear lower quadrant
18	Door-Undetermined Location
19	Roof (or convertible top)
20	Roof side rail
21	Windshield
22	Windshield header
23	Window frame
24	Front seat back
25	Second seat back
26	Third seat back
27	Fourth seat back
28	Fifth seat back
29	Seat cushion
30	Backlight header
31	Back door/panel (e.g., tailgate)
32	Other interior component (specify):
33	Hood
34	Outside surface of this vehicle (specify):
35	Other exterior object in the environment (specify):
36	Unknown exterior object
96	Multiple/Other severe intrusions
97	Catastrophic
98	Intrusion of unlisted component(s)
99	Unknown

INTRUSION DIRECTION

This variable assesses the direction of displacement for the intruded component. The direction of movement is determined independently from the PDOF applied to the vehicle.

COLUMN Name: INTDIRECT

SAS Value	Value Text
1	Vertical
2	Longitudinal
3	Lateral
7	Catastrophic
8	Multiple/Other Severe Intrusions
9	Unknown

INTRUSION MAGNITUDE

This variable reports the magnitude of the components intrusion put into a range of values. This range can be estimated by the technician or determined based upon an exact measurement.

COLUMN Name: INTMAG

SAS Value	Value Text
0	<= 2 cm
1	>= 3 cm but < 8 cm
2	>= 8 cm but < 15 cm
3	>= 15 cm but < 30 cm
4	>= 30 cm but < 46 cm
5	>= 46 cm but < 61 cm
6	>=61 cm
7	Catastrophic
8	Multiple/Other Severe Intrusions
9	Unknown

INTRUDED VALUE

This variable reports the amount of intrusion as documented by the crash technician. The data is expressed in centimeters.

COLUMN Name: INTRUSION

SAS Value	Value Text
1 - 160	[Actual Value]
888	Not Applicable
997	Catastrophic
999	Unknown

OCCONTACT Dataset

Key Identifiers: PSU, CASENO, VEHNO, OCCNO, CONTACT

This table contains information regarding occupant contacts documented by the crash technician during the vehicle inspection. Only those contacts attributed to occupants are coded. This table will only be populated when there is an interior vehicle inspection and at least one contact is identified. Figure 29 displays the list of all the data elements in the OCCONTACT table. Information about the type of each variable, its length, the format, and the label is provided for each data element.

```
Data Set Name         CISS19.OCCONTACT       Observations          8173
Member Type           DATA                   Variables             16
Engine                V9                     Indexes               0
Created               10/22/2020 13:31:09    Observation Length    72
Last Modified         10/22/2020 13:31:09    Deleted Observations  0
Protection                                   Compressed            NO
Data Set Type                                Sorted                YES
Label
Data Representation   WINDOWS_32
Encoding              wlatin1  Western (Windows)


                      Alphabetic List of Variables and Attributes

     #    Variable      Type    Len    Format        Informat     Label

    11    BODYREGION    Num      3     CONTBODY19F.   11.          BODY REGION CONTACTED
     1    CASEID        Num      5     11.            11.          SYSTEM CASE IDENTIFIER
     3    CASENO        Num      3     11.            11.          SEQUENTIAL CASE NUMBER
     4    CASENUMBER    Char    16     $20.           $20.         CASE NUMBER
    14    CASEWGT       Num      8     26.20                       CASE WEIGHT
     5    CATEGORY      Num      3     11.            11.          CASE CATEGORY
    13    CONFIDENCE    Num      3     CONTCONF19F.   11.          CONFIDENCE IN CONTACT
     7    CONTACT       Char     3     $10.           $10.         CONTACT REFERENCE
     8    CONTAREA      Num      3     CONTAREA19F.   11.          CONTACTED COMPONENT AREA
     9    CONTCOMP      Num      3     CONTCOMP19F.   11.          CONTACTED COMPONENT
    12    EVIDENCE      Num      3     CONTEVID19F.   11.          EVIDENCE OF CONTACT
    10    OCCNO         Num      3     6.             6.           OCCUPANT NUMBER
     2    PSU           Num      3     11.            11.          PRIMARY SAMPLING UNIT
    15    PSUSTRAT      Num      3     11.            11.          PSU STRATIFICATION
     6    VEHNO         Num      3     11.            11.          VEHICLE NUMBER
    16    VERSION       Num      3     6.             6.           VERSION NUMBER


                              Sort Information

              Sortedby        PSU CASENO VEHNO OCCNO CONTACT
              Validated       YES
              Character Set   ANSI
```

Figure 29.

OCCUPANT NUMBER

This variable reports the occupant attributed to this contact. All contacts are required to be linked to an occupant.

COLUMN Name: OCCNO

BODY REGION CONTACTED

This variable reports the suspected body region which made contact to the Contacting Component.

COLUMN Name: BODYREGION

SAS Value	Value Text
101	Head
201	Face
301	Neck
401	Chest
501	Abdomen
511	Flank - Left
512	Flank - Right
519	Flank - Unknown
521	Genitals
601	Back
711	Shoulder - Left
712	Shoulder - Right
719	Shoulder - Unknown
721	Upper Arm - Left
722	Upper Arm - Right
729	Upper Arm - Unknown
731	Elbow - Left
732	Elbow - Right
739	Elbow - Unknown
741	Lower Arm - Left
742	Lower Arm - Right
749	Lower Arm - Unknown
751	Wrist - Left
752	Wrist - Right
759	Wrist - Unknown
761	Hand - Left

SAS Value	Value Text
762	Hand - Right
769	Hand - Unknown
811	Hip-Left
812	Hip - Right
813	Hips-Both
814	Pelvis
819	Hip - Unknown
821	Buttock - Left
822	Buttock - Right
823	Buttock - Both
829	Buttock - Unknown
831	Thigh - Left
832	Thigh - Right
839	Thigh - Unknown
841	Knee - Left
842	Knee - Right
849	Knee - Unknown
851	Lower Leg - Left
852	Lower Leg - Right
859	Lower Leg - Unknown
861	Foot - Left
862	Foot - Right
869	Foot - Unknown
871	Ankle - Left
872	Ankle - Right
879	Ankle - Unknown
999	Unknown

CONFIDENCE IN CONTACT

This variable reports the crash technician's confidence in the information presented for this row.

COLUMN Name: CONFIDENCE

SAS Value	Value Text
1	Certain
2	Probable
3	Possible
9	Unknown

CONTACT REFERENCE

This variable is a key variable for the table, and the reported attribute is unique for this vehicle. The attributes are assigned alphabetically beginning with "A".

COLUMN Name: CONTACT

CONTACTED COMPONENT

This variable reports the vehicle component the occupant is suspected to have contacted.

COLUMN Name: CONTCOMP

SAS Value	Value Text
1	Windshield
2	Mirror
3	Sunvisor
4	Steering wheel rim
5	Steering wheel hub/spoke
6	Steering wheel rim/hub/spoke
7	Steering column, transmission selector lever, other attachment
8	Cellular telephone or CB radio
9	Add on equipment (e.g., tape deck, air conditioner)
13	Glove compartment door
15	[Dr only] WS incl 1/+: fr hdr, A pill, instr pnl, mirror, or steering assembly
16	[Pass only] WS incl 1/+: fr hdr, A pill, instr pnl, or mirror
17	Windshield reinforced by exterior object (specify)
19	Other front object (specify):
20	Sunvisor reinforced by front header
21	Left instrument panel
22	Center instrument panel
23	Right instrument panel

SAS Value	Value Text
24	Left lower instrument panel (includes knee bolster)
25	Center lower instrument panel (includes knee bolster)
26	Right lower instrument panel (includes knee bolster)
53	Left A (A1/A2)-pillar
54	Left B-pillar
55	Other left pillar (specify):
56	Left side window glass
57	Left side window frame
58	Left side window sill
59	Lt side glass +: frame, win sill, A pill, B pill, or roof side rail
60	Left side glass (Laminated) reinforced by exterior object (specify)
61	Other left side object (specify):
62	LeftSide panel forward A1/A2 pillar
63	Left Side panel rear of Bpillar
103	Right A (A1/A2) Pillar
104	Right B-pillar
105	Other right pillar (specify):
106	Right side window glass
107	Right side window frame
108	Right side window sill
109	Rt side glass +: frame, win sill, A pill, B pill, or roof side rail
110	Right side glass (Laminated) reinforced by exterior object (specify)
111	Other right side object (specify):
112	Right Side panel forward A1/A2 pillar
113	Right Side panel rear of Bpillar
151	Seat, back support
152	Belt restraint webbing/buckle
153	Belt restraint B-pillar or door frame attachment point
154	Other restraint system component (specify):
155	Head restraint system
161	Interior loose object (specify)
162	Other interior object (specify):
163	Center console first row
164	Center console second row
165	Center console other row
166	Fold down armrest first row
167	Fold down armrest second row

SAS Value	Value Text
168	Fold down armrest other row
201	Front header
202	Rear header
203	Roof left side rail
204	Roof right side rail
205	Roof or convertible top
206	Roof maplight/console
207	Sunroof/components
208	Roll bar
251	Floor (including toe pan)
252	Floor or console mounted transmission lever, including console
253	Parking brake handle
254	Foot controls including parking brake
301	Backlight (rear window)
302	Backlight storage rack, door, etc.
303	Other rear object (specify):
401	Hand controls for braking /acceleration
402	Steering control devices (attached to OEM steering wheel)
403	Steering knob attached to steering wheel
404	Replacement steering wheel (i.e.,reduced diameter)
406	Joy stick steering controls
407	Wheelchair tie-downs
408	Modification to seat belts,(specify):
409	Additional or relocated switches,(specify):
410	Raised roof
411	Wall mounted head rest (used behind wheel chair)
412	Other adaptive device (specify):
571	Cargo in vehicle
572	Seat LATCH points for child restraints
573	Grab handles
574	Engine shroud/cover
575	Seatback trays
576	Left forward upper quadrant
577	Left forward lower quadrant
578	Left rear upper quadrant
579	Left rear lower quadrant
580	Left armrest/hardware forward upper quadrant
581	Left armrest/hardware forward lower quadrant

SAS Value	Value Text
582	Left armrest/hardware rear upper quadrant
583	Left armrest/hardware rear lower quadrant
584	Right door panel forward upper quadrant
585	Right door panel forward lower quadrant
586	Right door panel rear upper quadrant
587	Right door panel rear lower quadrant
588	Right armrest/hardware forward upper quadrant
589	Right armrest/hardware forward lower
590	Right armrest/hardware rear upper quadrant
591	Right armrest/hardware rear lower quadrant
592	Child safety seat shell
593	Child safety seat harness
594	Unknown child safety seat component
611	Steering wheel hub
612	Steering wheel hub compartment cover
615	Left bottom instrument panel
616	Left bottom instrument panel compartment cover
617	Left seat back
618	Left door/panel
619	Left roof side rail
620	Left seat belt
621	Left other (specify)
631	Right top instrument panel
632	Right top instrument panel cover
633	Right middle instrument panel
634	Right middle instrument panel cover
635	Right bottom instrument panel
636	Right bottom instrument panel cover
637	Right seat back
638	Right door/panel
639	Right roof side rail
640	Right seat belt
641	Right other (specify)

CONTACTED COMPONENT AREA

This variable serves as a filter variable for Contacted Component and reports a basic area of the vehicle contacted by the occupant.

COLUMN Name: CONTAREA

SAS Value	Value Text
1	Front
2	Left Side
3	Left Door Panel
4	Left Air Bag
5	Right Side
6	Right Door Panel
7	Right Air Bag
8	Interior
9	Floor
10	Roof
11	Rear
12	Adaptive (Assistive) Driving Equipment

EVIDENCE OF CONTACT

This variable reports the evidence in the vehicle which led the crash technician to believe the occupant contacted the component.

COLUMN Name: EVIDENCE

SAS Value	Value Text
1	Bent
2	Cracked
3	Scuffed
4	Transfer (specify)
5	Deformed
6	Blood
7	Hair
8	Stretched
9	Scratched
10	Teeth marks
11	Imprint
12	Spider Web
96	Combination (specify)
98	Other (specify)

The Person Data Files contain information regarding the occupants of in-transport towed CISS applicable vehicles. The files also contain **Key Data Elements**, which are described in the beginning of the **Data Element Definitions and Codes** section.

OCC Dataset

Key Identifiers: PSU, CASENO, VEHNO, OCCNO

This dataset contains information regarding all the occupants of in-transport towed CISS applicable vehicles. Figure 30 displays the list of all the data elements in the OCC table. Information about the type of each variable, its length, the format, and the label is provided for each data element.

```
Data Set Name          CISS19.OCC              Observations         5641
Member Type            DATA                    Variables            87
Engine                 V9                      Indexes              0
Created                10/22/2020 13:31:09     Observation Length   296
Last Modified          10/22/2020 13:31:09     Deleted Observations 0
Protection                                     Compressed           NO
Data Set Type                                  Sorted               YES
Label
Data Representation    WINDOWS_32
Encoding               wlatin1  Western (Windows)
```

```
                        Alphabetic List of Variables and Attributes

    #    Variable         Type    Len    Format           Informat    Label

    9    AGE              Num     3      AGE19F.          11.         OCCUPANT`S AGE
   29    BELTANCHOR       Num     3      BELTANCHOR19F.   11.         BELT ANCHORAGE ADJUSTMENT
   24    BELTAVAIL        Num     3      BELTAVAIL19F.    11.         BELT AVAILABILITY
   33    BELTGUIDE        Num     3      BELTGUIDE19F.    11.         BELT GUIDE ROUTING
   26    BELTLAPPOS       Num     3      BELTLAP19F.      11.         LAP BELT POSITION
   28    BELTMALF         Num     3      BELTMALF19F.     11.         BELT MALFUNCTION
   31    BELTPOSDEVPRES   Num     3      BELTPOSPRES19F.  11.         BELT POSITIONING DEVICE PRESENCE
   32    BELTPOSDEVUSE    Num     3      BELTPOSUSE19F.   11.         BELT POSITIONING DEVICE USE
   27    BELTSHLPOS       Num     3      BELTSHLDR19F.    11.         SHOULDER BELT POSITION
   25    BELTUSE          Num     3      BELTUSE19F.      11.         BELT USE DETERMINATION
   30    BELTUSESRC       Num     3      BELTSOURCE19F.   11.         SOURCE OF BELT USE
   45    BMI              Num     8      BMI19F.          17.1        COMPUTED BODY MASS INDEX
   50    CARDIOCOND       Num     3      COMORBIDITY19F.  11.         COMORBIDITY - CARDIOVASCULAR CONDITION
    1    CASEID           Num     5      11.              11.         SYSTEM CASE IDENTIFIER
    3    CASENO           Num     3      11.              11.         SEQUENTIAL CASE NUMBER
    4    CASENUMBER       Char    16     $20.             $20.        CASE NUMBER
   85    CASEWGT          Num     8      26.20                        CASE WEIGHT
    5    CATEGORY         Num     3      11.              11.         CASE CATEGORY
   55    CAUSE1           Num     3      CAUSE19F.        11.         1ST MEDICALLY REPORTED CAUSE OF DEATH
   56    CAUSE2           Num     3      CAUSE19F.        11.         2ND MEDICALLY REPORTED CAUSE OF DEATH
   57    CAUSE3           Num     3      CAUSE19F.        11.         3RD MEDICALLY REPORTED CAUSE OF DEATH
   34    CHILDSEATUSE     Num     3      YESNOUNK19F.     11.         CHILD SEAT USE BY THIS OCCUPANT
   54    COMORBOTH        Num     3      COMORBIDITY19F.  11.         COMORBIDITY - OTHER
   41    DEATH            Num     3      DEATH19F.        11.         ELAPSED TIME FROM CRASH TO TIME OF DEATH
   46    EMSDATA          Num     3      EMSDATA19F.      11.         WAS EMS DATA OBTAINED
   75    EMSDIASTOLIC     Num     3      HEART19F.        11.         EMS DIASTOLIC RATE
   80    EMSGCS           Num     3      GCSTOTAL19F.     11.         EMS OBSERVED GCS
   81    EMSGCSEYE        Num     3      GCSEYE19F.       11.         EMS GCS EYE SCORE
   79    EMSGCSLOC        Num     3      EMSLOCATION19F.  11.         LOCATION EMS GCS DATA OBSERVED
   84    EMSGCSMOD        Num     3      GCSMOD19F.       11.         EMS GCS MODIFIER
   83    EMSGCSMOTOR      Num     3      GCSMOTOR19F.     11.         EMS GCS MOTOR SCORE
   78    EMSGCSTIME       Num     5      ELAPSEDTIME19F.  11.         ELAPSED TIME FROM CRASH EMS GCS OBSERVED
   82    EMSGCSVERB       Num     3      GCSVERB19F.      11.         EMS GCS VERBAL SCORE
   73    EMSPULSE         Num     3      HEART19F.        11.         EMS PULSE RATE
   76    EMSRESPRATE      Num     3      RESPIRATORY19F.  11.         EMS RESPIRATORY RATE
```

```
74    EMSSYSTOLIC      Num    3    HEART19F.          11.    EMS SYSTOLIC RATE
77    EMSVITALSRC      Num    3    EMSSOURCE19F.      11.    SOURCE OF EMS VITALS DATA
72    EMSVITALTIME     Num    3    ELAPSEDTIME19F.    11.    ELAPSED TIME FROM CRASH EMS VITALS WERE TAKEN
21    ENTRAP           Num    3    ENTRAP19F.         11.    WAS THE OCCUPANT ENTRAPPED
16    ETHNICITY        Num    3    ETHNIC19F.         11.    ETHNICITY OF OCCUPANT
17    EYEWEAR          Num    3    EYEWEAR19F.        11.    WAS THE OCCUPANT WEARING EYEWEAR
13    FETALMORT        Num    3    FETALMORT19F.      11.    FETAL MORTALITY
64    GCSOBTAINED      Num    3    11.                11.    GCS OBTAINED
10    HEIGHT           Num    3    HEIGHT19F.         11.    OCCUPANT`S HEIGHT
61    HOSPDIASTOLIC    Num    3    HEART19F.          11.    HOSPITAL DIASTOLIC RATE
67    HOSPGCS          Num    3    GCSTOTAL19F.       11.    HOSPITAL OBSERVED GCS
68    HOSPGCSEYE       Num    3    GCSEYE19F.         11.    HOSPITAL GCS EYE SCORE
66    HOSPGCSLOC       Num    3    GCSLOC19F.         11.    LOCATION HOSPITAL GCS DATA OBSERVED
71    HOSPGCSMOD       Num    3    GCSMODIFIER19F.    11.    HOSPITAL GCS MODIFIER
70    HOSPGCSMOTOR     Num    3    GCSMOTOR19F.       11.    HOSPITAL GCS MOTOR SCORE
65    HOSPGCSTIME      Num    5    ELAPSEDTIME19F.    11.    ELAPSED TIME FROM CRASH HOSPITAL GCS OBSERVED
69    HOSPGCSVERB      Num    3    GCSVERB19F.        11.    HOSPITAL GCS VERBAL SCORE
59    HOSPPULSE        Num    3    HEART19F.          11.    HOSPITAL PULSE RATE
62    HOSPRESPRATE     Num    3    RESPIRATORY19F.    11.    HOSPITAL RESPIRATORY RATE
38    HOSPSTAY         Num    3    HOSPSTAY19F.       11.    HOSPITAL STAY
60    HOSPSYSTOLIC     Num    3    HEART19F.          11.    HOSPITAL SYSTOLIC RATE
63    HOSPVITALSRC     Num    3    HOSPSOURCE19F.     11.    SOURCE OF HOSPITAL VITALS DATA
58    HOSPVITALTIME    Num    4    ELAPSEDTIME19F.    11.    ELAPSED TIME FROM CRASH HOSPITAL VITALS WERE TAKEN
47    IMPAIREDCOAG     Num    3    COMORBIDITY19F.    11.    COMORBIDITY - IMPAIRED COAGULATION
49    IMPLANTFUS       Num    3    COMORBIDITY19F.    11.    COMORBIDITY - HISTORY OF IMPLANT, SURG, FUSION
42    INJNUM           Num    3    11.                11.    NUMBER OF CODED INJURIES FOR THIS OCCUPANT
40    INJSTATUS        Num    3    INJSTAT19F.        11.    INJURED STATUS
44    ISS              Num    3    ISS19F.            11.    INJURY SEVERITY SCORE
43    MAIS             Num    3    MAIS19F.           11.    MAXIMUM AIS
37    MEDFACILITY      Num    3    MEDFACIL19F.       11.    TYPE OF FACILITY FOR INITIAL TREATMENT
22    MOBILITY         Num    3    MOBIL19F.          11.    OCCUPANT MOBILITY
35    MORTALITY        Num    3    MORTALITY19F.      11.    OCCUPANT MORTALITY
53    OBESITY          Num    3    COMORBIDITY19F.    11.    COMORBIDITY - OBESITY
 7    OCCNO            Num    3    6.                 6.     OCCUPANT NUMBER
51    OSTEOCOND        Num    3    COMORBIDITY19F.    11.    COMORBIDITY - OSTEOPOROSIS OR OSTEOPENIA
19    PARAIRBAG        Num    3    PARBAG19F.         11.    POLICE REPORTED AIR BAG AVAILABILITY
18    PARBELTUSE       Num    3    PARBELT19F.        11.    POLICE REPORTED BELT USE
20    PARINJSEV        Num    3    PARSEV19F.         11.    POLICE REPORTED INJURY SEVERITY
23    POSTURE          Num    3    POSTURE19F.        11.    OCCUPANT`S POSTURE
48    PREGNANT         Num    3    COMORBIDITY19F.    11.    COMORBIDITY - PREGNANCY
 2    PSU              Num    3    11.                11.    PRIMARY SAMPLING UNIT
86    PSUSTRAT         Num    3    11.                11.    PSU STRATIFICATION
15    RACE             Num    3    RACE19F.           11.    RACE OF OCCUPANT
14    ROLE             Num    3    ROLE19F.           11.    OCCUPANT`S ROLE
 8    SEATLOC          Num    3    SEATPOS19F.        11.    SEAT LOCATION
12    SEX              Num    3    SEX19F.            11.    OCCUPANT`S SEX
52    SPINEDEGEN       Num    3    COMORBIDITY19F.    11.    COMORBIDITY - DEGENERATIVE SPINAL CONDITION
36    TREATMENT        Num    3    TREATMENT19F.      11.    OCCUPANT TREATMENT
 6    VEHNO            Num    3    11.                11.    VEHICLE NUMBER
87    VERSION          Num    3    6.                 6.     VERSION NUMBER
11    WEIGHT           Num    3    WEIGHT19F.         11.    OCCUPANT`S WEIGHT
39    WORKDAYS         Num    3    WORKDAYS19F.       11.    WORK DAYS LOST
```

```
                              Sort Information

            Sortedby       PSU CASENO VEHNO OCCNO
            Validated      YES
            Character Set  ANSI
```

Figure 30.

OCCUPANT`S AGE

This variable reports the age of the occupant in years. The occupant's age at the time of the crash is recorded with respect to the occupant's last birthday. Zero (0) is used for occupants less than one year old. The associated AGETEXT field will contain the age with a suffix of "y" for ages in years, and "m" for ages in months for those occupants less than 24 months.

COLUMN Name: AGE

SAS Value	Value Text
0	Less than 1 year old
1 - 120	[Actual Value]
999	Unknown

OCCUPANT`S HEIGHT

This variable reports the occupant's height. Data is reported in centimeters.

COLUMN Name: HEIGHT

SAS Value	Value Text
30 - 220	[Actual Value]
999	Unknown

OCCUPANT`S WEIGHT

This variable reports the occupant's weight. Coded to the nearest kilogram.

COLUMN Name: WEIGHT

SAS Value	Value Text
2 - 275	[Actual Value]
999	Unknown

OCCUPANT`S SEX

This variable reports the occupant's sex. In addition, if the occupant is pregnant it reports the semester of the pregnancy.

COLUMN Name: SEX

SAS Value	Value Text
1	Male
2	Female
3	Female, pregnant - 1st trimester (1st-3rd month)
4	Female, pregnant - 2nd trimester (4th-6th month)
5	Female, pregnant - 3rd trimester (7th-9th month)

SAS Value	Value Text
6	Female, pregnant - trimester unknown
9	Unknown

FETAL MORTALITY

This variable reports the mortality of the occupant's fetus. A fetal fatality is indicated when fetal death occurs within 30 days of the crash. The death must have occurred as a consequence of the crash.

COLUMN Name: FETALMORT

SAS Value	Value Text
0	No
1	Yes
8	Not Applicable

OCCUPANT`S ROLE

This variable reports the role of the occupant (i.e. driver or passenger).

COLUMN Name: ROLE

SAS Value	Value Text
1	Driver
2	Passenger
9	Unknown

SEAT LOCATION

This is a 2 digit field where the first digit denotes the row of the vehicle, and the second digit denotes the later location of the seat. Seat rows are numbered longitudinally from the driver's row backwards. The Seat locations are numbered from left to right and is normally three positions although there could be up to four seating locations in a particular row.

COLUMN Name: SEATLOC

Front Row
11 Left side
12 Middle
13 Right side
14 Other

Second Row
21 Left side
22 Middle
23 Right side
24 Other

Fifth Row
51 Left side
52 Middle
53 Right side
54 Other

Third Row
31 Left side
32 Middle
33 Right side
34 Other

Fourth Row
41 Left side
42 Middle
43 Right side
44 Other

Other Rows
97 In or on Unenclosed Area
98 Cargo Area
99 Unknown

OCCUPANT`S POSTURE

This variable is designed to capture those instances where an occupant was not in the usual upright, forward facing seated position.

COLUMN Name: POSTURE

SAS Value	Value Text
0	Normal posture
1	Kneeling or standing on seat
2	Lying on or across seat
3	Kneeling, standing or sitting in front of seat
4	Sitting sideways or turned
5	Sitting on a console
6	Lying back in a reclined seat position
7	Bracing with feet or hands on a surface of the vehicle
8	In the lap of another occupant
9	Sharing a seat-sitting side by side
10	In a child seat
98	Other posture (specify):
99	Unknown

RACE OF OCCUPANT
This variable reports the race of the occupant. This field is a self-identification field and the primary source of the data is the interview.

COLUMN Name: RACE

SAS Value	Value Text
1	White
2	Black or African American
3	Asian
4	Native Hawaiian or Other Pacific Islander
5	American Indian or Alaska Native
7	Other (specify):
8	No driver present
9	Unknown

ETHNICITY OF OCCUPANT
This variable reports the ethnicity of the occupant. This field is a self-identification field and the primary source of the data is the interview.

COLUMN Name: ETHNICITY

SAS Value	Value Text
1	Hispanic or Latino
2	Not Hispanic or Latino
8	No driver present
9	Unknown

OCCUPANT MOBILITY
This variable reports the way the occupant exited or was removed from the vehicle after the crash.

COLUMN Name: MOBILITY

SAS Value	Value Text
1	Exited from vehicle under own power
2	Exited from vehicle with some assistance

SAS Value	Value Text
3	Removed from vehicle due to perceived serious injuries
4	Removed from vehicle while unconscious or not oriented to time or place
5	Occupant fatal before removed from vehicle
6	Occupant fully ejected
8	Removed from vehicle for other reasons (specify):
9	Unknown

BELT AVAILABILITY
This variable reports the availability of belt restraints for this seating position.

COLUMN Name: BELTAVAIL

SAS Value	Value Text
0	None available
1	Belt removed/destroyed
2	Shoulder belt
3	Lap belt
4	Lap and shoulder belt
5	Belt available - type unknown
6	Shoulder belt (lap belt destroyed/removed)
7	Lap belt (shoulder belt destroyed/removed)
8	Other belt (specify)
9	Unknown

BELT ANCHORAGE ADJUSTMENT
This variable captures the position of the shoulder belt anchorage adjuster found on the upper B-pillar.

COLUMN Name: BELTANCHOR

SAS Value	Value Text
0	No manual shoulder belt
1	None for manual shoulder belt
2	In full up position
3	In mid position
4	In full down position

SAS Value	Value Text
5	Position unknown
9	Unknown if adjuster present

BELT GUIDE ROUTING

This variable reports whether the seat belt was routed thru a belt guide.

COLUMN Name: BELTGUIDE

SAS Value	Value Text
0	Not Applicable
1	Yes
2	No
9	Unknown

BELT MALFUNCTION

This variable reports if there was any evidence of a belt malfunction during the crash. This data is captured during the vehicle inspection.

COLUMN Name: BELTMALF

SAS Value	Value Text
0	None used/not available/removed or destroyed
1	No belt malfunction(s)
2	Torn webbing (stretched webbing not included)
3	Broken buckle or latch plate
4	Upper anchorage separated
5	Other anchorage separated (specify)
6	Broken retractor
7	Combination of above (specify)
8	Other belt malfunction (specify)
9	Unknown

SHOULDER BELT POSITION
This variable reports the position of the shoulder belt on the occupant.

COLUMN Name: BELTSHLPOS

SAS Value	Value Text
0	Not equipped/not available/not used
1	Snugly across the collarbone and over shoulder
2	Resting on neck
3	On edge of shoulder
4	Under arm
5	Behind occupant's back or seat
6	Used to install child restraint
7	Across the collarbone and over shoulder with extra "slack room"
8	Resting on neck with extra "slack room"
9	On edge of shoulder with extra "slack room"
10	Under arm with extra "slack room"
98	Other position (specify)
99	Unknown belt position

LAP BELT POSITION
This variable reports the position of the lap belt on the occupant.

COLUMN Name: BELTLAPPOS

SAS Value	Value Text
0	Not equipped/not available/not used
1	Snug and low across hips
2	Across abdomen
3	Used to install child restraint
4	Low across hips with extra "slack room"
5	Across abdomen with extra "slack room"
8	Other position (specify)
9	Unknown position

BELT POSITIONING DEVICE PRESENCE
This variable reports the presence of a belt positioning device in use for this seating position at the time of the crash.

COLUMN Name: BELTPOSDEVPRES

SAS Value	Value Text
0	None present
1	Safety belt guide
2	Belt extender
3	Shoulder belt fit adjuster
8	Other (specify)
9	Unknown if present

BELT POSITIONING DEVICE USE
This variable reports the use of a belt positioning device in use for this seating position at the time of the crash.

COLUMN Name: BELTPOSDEVUSE

SAS Value	Value Text
0	None present
1	Device not used
2	Device used
9	Unknown if device used

BELT USE DETERMINATION
This variable reports whether the belt was used during the crash. This information is based upon all information in the case.

COLUMN Name: BELTUSE

SAS Value	Value Text
0	None used not available/removed or destroyed
1	Inoperative (specify)
2	Shoulder belt
3	Lap belt
4	Lap and shoulder belt
5	Belt used - type unknown
8	Other belt used (specify)

SAS Value	Value Text
12	Shoulder belt with child safety seat
13	Lap belt with child safety seat
14	Lap and shoulder belt with child safety seat
15	Belt with child safety seat - type unknown
18	Other belt with child safety seat (specify)
99	Unknown if belt used

OCCUPANT MORTALITY

This variable reports the mortality of the occupant. Fatal applies to those occupants who die of crash related injuries up to thirty (30) days after the crash.

COLUMN Name: MORTALITY

SAS Value	Value Text
0	Not Fatal
1	Fatal
2	Fatal — ruled disease (specify)

OCCUPANT TREATMENT

This variable reports the treatment this occupant received. Occupants who receive treatment but do not go directly to a medical facility are coded (7) Treatment Later.

COLUMN Name: TREATMENT

SAS Value	Value Text
0	No treatment
1	Treatment at scene - non-transported
2	Transported and released
3	Hospitalization
4	Dead on Arrival (DOA) at hospital
5	Dead Prior To Admission
6	Transported to a medical facility - unknown if treated
7	Treatment later
8	Treatment - other (specify)
9	Unknown

INJURED STATUS

This element serves as a gateway element to allow injury coding to be completed on the occupant when INJURED STATUS equals Injured. It also serves to let the user known that injury information exists for this occupant.

COLUMN Name: INJSTATUS

SAS Value	Value Text
0	Not Injured
1	Injured
7	Injured, Details Unknown
99	Unknown if Injured

NUMBER OF CODED INJURIES FOR THIS OCCUPANT

This derived variable reports the number of injuries found in the Injury dataset for this occupant.

COLUMN Name: INJNUM

Comorbidities are pre-existing conditions, documented in the case subject's medical history, that have the potential to affect the injury severity. The comorbidities available for selection in CISS have been identified, based on experience in the CIREN program, as the most common and likely to affect injury severity or likelihood. Sources include medical records and the interview with the occupant or their surrogate.

COMORBIDITY - CARDIOVASCULAR CONDITION

This variable reports if the occupant had a pre-existing cardiovascular condition, and it had the potential to affect the injury severity. This field will be blank for uninjured occupants.

COLUMN Name: CARDIOCOND

SAS Value	Value Text
0	No
1	Yes

COMORBIDITY - DEGENERATIVE SPINAL CONDITION

This reports if the occupant had a pre-existing degenerative spinal condition, and it had the potential to affect the injury severity. This field will be blank for uninjured occupants.

COLUMN Name: SPINEDEGEN

SAS Value	Value Text
0	No
1	Yes

COMORBIDITY - IMPAIRED COAGULATION

This variable reports if the occupant had a pre-existing impaired coagulation condition, and it had the potential to affect the injury severity. This variable will be blank if the occupant is uninjured.

COLUMN Name: IMPAIREDCOAG

SAS Value	Value Text
0	No
1	Yes

COMORBIDITY - HISTORY OF IMPLANT, SURG, FUSION

This variable reports if the occupant had a history of musculoskeletal implant, surgery, or fusion, and it had the potential to affect the injury severity. This field will be blank for uninjured occupants.

COLUMN Name: IMPLANTFUS

SAS Value	Value Text
0	No
1	Yes

COMORBIDITY - OBESITY
This variable reports if the occupant had a pre-existing history of obesity, and it had the potential to affect the injury severity. This field will be blank for uninjured occupants.

COLUMN Name: OBESITY

SAS Value	Value Text
0	No
1	Yes

COMORBIDITY - OSTEOPOROSIS OR OSTEOPENIA
This variable reports if the occupant had a pre-existing history of osteoporosis or osteopenia, and it had the potential to affect the injury severity. This field will be blank for uninjured occupants.

COLUMN Name: OSTEOCOND

SAS Value	Value Text
0	No
1	Yes

COMORBIDITY - OTHER
This variable reports if the occupant had a pre-existing comorbidity that isn't captured in the other comorbidity variables, and that other comorbidity had the potential to affect the injury severity. This field will be blank for uninjured occupants.

COLUMN Name: COMORBOTH

SAS Value	Value Text
0	No
1	Yes

COMORBIDITY - PREGNANCY
This variable reports if the occupant was pregnant at the time of the crash and that pregnancy had the potential to affect the injury severity. This field will be blank for uninjured occupants.

COLUMN Name: PREGNANT

SAS Value	Value Text
0	No
1	Yes

COMPUTED BODY MASS INDEX

This variable stores the computed Body Mass Index (BMI) based upon the occupant's coded weight and height. This field will be blank if either the height or weight is unknown.

COLUMN Name: BMI

SAS Value	Value Text
10.0 - 70.0	[Actual Value]
99.9	BMI UNKNOWN

CHILD SEAT USE BY THIS OCCUPANT

This variable alerts the user that there is a row for this occupant in the CHILDSEAT dataset.

COLUMN Name: CHILDSEATUSE

SAS Value	Value Text
0	No
1	Yes

WAS EMS DATA OBTAINED

This variable reports whether EMS data was obtained for this occupant and if there will be data captured in the different EMS variables. If EMSDATA equals 0/No then the other EMS prefixed variables will be blank.

COLUMN Name: EMSDATA

SAS Value	Value Text
0	No
1	Yes

ELAPSED TIME FROM CRASH EMS VITALS WERE TAKEN

This variable stores the elapsed time in minutes between the Crash Time and time the EMS took vital signs from this occupant. This variable will be blank when either the occupant was not injured or when an EMS report was not obtained.

COLUMN Name: EMSVITALTIME

SAS Value	Value Text
9997	Not Reported
9999	Unknown

EMS SYSTOLIC RATE

This variable reports the occupant's systolic blood pressure rate documented by the EMS. This variable will be blank when either the occupant was not injured or when an EMS report was not obtained. The data is expressed in millimeters of mercury (mmHg).

COLUMN Name: EMSSYSTOLIC

SAS Value	Value Text
0 - 300	[Actual Value]
888	Palpable
997	Not Reported
999	Unknown

EMS DIASTOLIC RATE

This variable reports the occupant's diastolic rate documented by the EMS. This variable will be blank when either the occupant was not injured or when an EMS report was not obtained. The data is expressed in millimeters of mercury (mmHg).

COLUMN Name: EMSDIASTOLIC

SAS Value	Value Text
0 - 300	[Actual Value]
888	Palpable
997	Not Reported
999	Unknown

EMS OBSERVED GCS

This variable reports the GCS score documented by the EMS. This variable will be blank when either the occupant was not injured or when an EMS report was not obtained.

COLUMN Name: EMSGCS

SAS Value	Value Text
3 - 15	[Actual Value]
97	Not Reported
99	Unknown

ELAPSED TIME FROM CRASH EMS GCS OBSERVED

This variable stores the elapsed time in minutes between the Crash Time and the time the GCS was observed by EMS. This variable will be blank when either the occupant was not injured or when an EMS report was not obtained.

COLUMN Name: EMSGCSTIME

SAS Value	Value Text
9997	Not Reported
9999	Unknown

EMS GCS EYE SCORE

This variable reports the eye score component of the GCS score documented by the EMS. This variable will be blank when either the occupant was not injured or when an EMS report was not obtained.

COLUMN Name: EMSGCSEYE

SAS Value	Value Text
1	1
2	2
3	3
4	4
7	Not Reported
9	UnKnown

EMS GCS MOTOR SCORE
This variable reports the occupant's motor component of the GCS score documented by the EMS. This variable will be blank when either the occupant was not injured or when an EMS report was not obtained.

COLUMN Name: EMSGCSMOTOR

SAS Value	Value Text
1	1
2	2
3	3
4	4
5	5
6	6
7	Not Reported
9	Unknown

EMS GCS VERBAL SCORE
This variable reports the verbal component of the GCS score documented by the EMS. This variable will be blank when either the occupant was not injured or when an EMS report was not obtained.

COLUMN Name: EMSGCSVERB

SAS Value	Value Text
1	1
2	2
3	3
4	4
5	5
7	Not Reported
9	Unknown

EMS GCS MODIFIER
This variable reports additional information to support, or better explain, a low GCS score reported by EMS.

COLUMN Name: EMSGCSMOD

SAS Value	Value Text
1	Legitimate
2	Intubated
3	Intubated and Sedated
4	Chemically Sedated
5	Spinal Cord Injury
7	Not Reported

EMS PULSE RATE

This variable stores the occupant's pulse rate documented by the EMS. This variable will be blank when either the occupant was not injured or when an EMS report was not obtained. The data is expressed in heart beats per minute.

COLUMN Name: EMSPULSE

SAS Value	Value Text
0 - 300	[Actual Value]
888	Palpable
997	Not Reported
999	Unknown

EMS RESPIRATORY RATE

This variable reports the occupant's respiratory rate documented by the EMS. This variable will be blank when either the occupant was not injured or when an EMS report was not obtained. The data is expressed in breaths per minute.

COLUMN Name: EMSRESPRATE

SAS Value	Value Text
0 - 98	[Actual Value]
888	Agonal
997	Not Reported
999	Unknown

ELAPSED TIME FROM CRASH HOSPITAL VITALS WERE TAKEN

This variable stores the elapsed time in minutes between the Crash Time and the time the medical facility obtained vital signs. This variable will be blank when either the occupant was not injured or when medical records were not obtained.

COLUMN Name: HOSPVITALTIME

SAS Value	Value Text
9997	Not Reported
9999	Unknown

HOSPITAL SYSTOLIC RATE

This variable reports the systolic component of the blood pressure documented by the medical facility. This variable will be blank when either the occupant was not injured or when GCS Obtained equals 0. The data is expressed in millimeters of mercury (mmHg).

COLUMN Name: HOSPSYSTOLIC

SAS Value	Value Text
1 - 300	[Actual Value]
888	Palpable
997	Not Reported
999	Unknown

HOSPITAL DIASTOLIC RATE

This variable reports the diastolic component of the blood pressure documented by the medical facility. This variable will be blank when either the occupant was not injured or when medical records were not obtained. The data is expressed in millimeters of mercury (mmHg).

COLUMN Name: HOSPDIASTOLIC

SAS Value	Value Text
0 - 300	[Actual Value]
888	Palpable
997	Not Reported
999	Unknown

HOSPITAL PULSE RATE

This variable reports the pulse rate measured by the medical facility. This field will be blank if the occupant is not injured or GCS Obtained equals 0. The data is expressed in heart beats per minute.

COLUMN Name: HOSPPULSE

SAS Value	Value Text
0 - 300	[Actual Value]
888	Palpable
997	Not Reported
999	Unknown

GCS OBTAINED

This variable reports whether vitals and/or GCS information was acquired from the medical records.

COLUMN Name: GCSOBTAINED

SAS Value	Value Text
0	No
1	Yes

ELAPSED TIME FROM CRASH HOSPITAL GCS OBSERVED

This variable stores the elapsed time in minutes between the Crash Time and the time the GCS was observed at a medical facility. This variable will be blank when either the occupant was not injured or when medical facility reports were not obtained.

COLUMN Name: HOSPGCSTIME

SAS Value	Value Text
9997	Not Reported
9999	Unknown

HOSPITAL GCS EYE SCORE

This variable reports the eye score component of the GCS documented by the medical facility. This variable will be blank when either the occupant was not injured or when medical records were not obtained.

COLUMN Name: HOSPGCSEYE

SAS Value	Value Text
1	1
2	2
3	3
4	4
7	Not Reported
9	Unknown

HOSPITAL GCS VERBAL SCORE

This variable reports the verbal component of the GCS score obtained by the medical facility. This field will be blank if the occupant is not injured or GCS Obtained equals 0.

COLUMN Name: HOSPGCSVERB

SAS Value	Value Text
1	1
2	2
3	3
4	4
5	5
7	Not Reported
9	Unknown

HOSPITAL GCS MOTOR SCORE

This variable reports the motor component of the GCS score obtained by the medical facility. This field will be blank if the occupant is not injured or GCS Obtained equals 0.

COLUMN Name: HOSPGCSMOTOR

SAS Value	Value Text
1	1
2	2
3	3
4	4
5	5
6	6
7	Not Reported
9	Unknown

HOSPITAL OBSERVED GCS

This variable reports the GCS (Glasgow Coma Scale) score as observed by the medical facility. This field will be blank if the occupant is not injured or GCS Obtained equals 0.

COLUMN Name: HOSPGCS

SAS Value	Value Text
3 - 15	[Actual Value]
97	Not Reported
99	Unknown

HOSPITAL GCS MODIFIER

This variable reports additional information to support, or better explain, a low GCS score reported by the medical facility. This variable will be blank when either the occupant was not injured or when medical records were not obtained.

COLUMN Name: HOSPGCSMOD

SAS Value	Value Text
1	Legitimate
2	Intubated
3	Intubated and Sedated
4	Chemically Sedated
5	Spinal Cord Injury
7	Not Reported

HOSPITAL RESPIRATORY RATE

This variable reports the respiratory rate measured by the medical facility. This field will be blank if the occupant is not injured or GCS Obtained equals 0.

COLUMN Name: HOSPRESPRATE

SAS Value	Value Text
0 - 98	[Actual Value]
888	Agonal
997	Not Reported
999	Unknown

HOSPITAL STAY

This variable reports the number of days the occupant was admitted to the medical facility.

COLUMN Name: HOSPSTAY

SAS Value	Value Text
0	Not hospitalized
1 - 60	[Actual Value]
61	61 days or more
99	Unknown

LOCATION EMS GCS DATA OBSERVED

This variable reports where the EMS personnel obtained the GCS information.

COLUMN Name: EMSGCSLOC

SAS Value	Value Text
0	Not Available or None
1	At Crash Site
2	EMS Vehicle
3	Emergency Department
4	Floor
5	Intensive Care Unit
6	Intermediate Care Unit
7	Operating Room

SAS Value	Value Text
8	Other Hospital
9	Pre-Hospital, Not Specified
10	Radiology
11	Resus. Room - not in ED
98	Other (Specify)
99	Unknown

LOCATION HOSPITAL GCS DATA OBSERVED

This variable reports the location where the medical facility obtained the GCS data. This field will be blank if the occupant is not injured or GCS Obtained equals (0) No.

COLUMN Name: HOSPGCSLOC

SAS Value	Value Text
0	Not Available or None
1	At Crash Site
2	EMS Vehicle
3	Emergency Department
4	Floor
5	Intensive Care Unit
6	Intermediate Care Unit
7	Operating Room
8	Other Hospital
9	Pre-Hospital, Not Specified
10	Radiology
11	Resus. Room - not in ED
98	Other (Specify)
99	Unknown

MAXIMUM AIS

This derived variable reports the maximum AIS Severity for this occupant by scanning the data in the Injury dataset. Please see INJURY.AIS for further information and range of values.

COLUMN Name: MAIS

SAS Value	Value Text
0	Not Injured
1	Minor injury
2	Moderate injury
3	Serious injury
4	Severe injury
5	Critical injury
6	Maximum (untreatable) injury
9	Injury, unknown severity
99	Unknown if injured

INJURY SEVERITY SCORE

This variable is derived by scanning the AIS Severity found in the Injury dataset. The Injury Severity Score is

COLUMN Name: ISS

SAS Value	Value Text
0	Not Injured
1-75	Actual ISS
97	Injured, Unknown Severity
99	Unknown if Injured

POLICE REPORTED AIR BAG AVAILABILITY

This variable reports what was documented on the PCR regarding the availability and functioning of any air bag system.

COLUMN Name: PARAIRBAG

SAS Value	Value Text
0	No Air Bag Available
1	Deployed
2	Not Deployed
3	Unknown if deployed
7	Not Reported
9	Police indicated "Unknown"

ELAPSED TIME FROM CRASH TO TIME OF DEATH

This variable reports the elapsed time from the Crash Time until the time of death. This information is recorded in hours when the time of death is between 1 and 23 hours from the time of the crash (occupants who die immediately are coded as "1"). The data is otherwise stored in days beginning with 1 day equals 31, 2 days equals 32, etc. This data will be blank when the occupant is not injured.

COLUMN Name: DEATH

SAS Value	Value Text
0	Not Fatal
96	Fatal, ruled disease
99	Unknown

POLICE REPORTED BELT USE

This variable reports what was documented on the PCR regarding occupant use of available vehicle restraints (*i.e.*, manual belts, child safety seat, or automatic restraints).

COLUMN Name: PARBELTUSE

SAS Value	Value Text
0	None used
1	Shoulder belt
2	Lap belt
3	Lap and shoulder belt
4	Belt used, type not specified
5	Child safety seat
6	Automatic belt
7	Other type belt (specify)
8	Police indicated "unknown"
9	Not Reported

SOURCE OF BELT USE

This variable explains what preponderance of information the technician used to make the determination whether the manual seat belt was used, **not** whether the belt system was available.

COLUMN Name: BELTUSESRC

SAS Value	Value Text
0	Not equipped/not available
1	Vehicle Inspection
2	Official Injury Data
3	Driver/occupant interview
8	Other (specify)
9	Unknown if belt used

SOURCE OF EMS VITALS DATA

This variable reports at what location the EMS obtained the vitals information found in the EMS GCS variable.

COLUMN Name: EMSVITALSRC

SAS Value	Value Text
0	Not Available or None
1	At Crash Site
2	EMS Vehicle
11	Pre-Hospital, Not Specified
99	Unknown

SOURCE OF HOSPITAL VITALS DATA

This variable reports at what location the medical facility obtained the vitals information found in the hospital GCS variable.

COLUMN Name: HOSPVITALSRC

SAS Value	Value Text
0	Not Available or None
3	Emergency Department
4	Floor
5	Intensive Care Unit

SAS Value	Value Text
6	Intermediate Care Unit
8	Operating Room
10	Other Hospital
11	Pre-Hospital, Not Specified
12	Radiology
13	Resus. Room - not in ED
98	Other (Specify)
99	Unknown

TYPE OF FACILITY FOR INITIAL TREATMENT

This variable reports the type of facility the occupant went to *immediately* after the crash. The treatment of injuries by a physician immediately (*i.e.*, within one hour) following a crash is of utmost importance in serious injury crashes.

COLUMN Name: MEDFACILITY

SAS Value	Value Text
0	Not treated at a medical facility
1	Trauma center
2	Hospital
3	Medical clinic
4	Physician`s office
5	Treatment later at medical facility
8	Other (specify)
9	Unknown

WAS THE OCCUPANT ENTRAPPED

This variable reports whether the occupant was entrapped in the vehicle due to crash related circumstances.

COLUMN Name: ENTRAP

SAS Value	Value Text
0	Not entrapped/exit not inhibited
1	Entrapped/pinned — mechanically restrained
2	Could not exit vehicle due to jammed doors

SAS Value	Value Text
3	Could not exit vehicle due to external circumstances (specify)
9	Unknown

WAS THE OCCUPANT WEARING EYEWEAR

This variable reports whether the occupant was wearing eyeglasses/lenses at the time of the crash.

COLUMN Name: EYEWEAR

SAS Value	Value Text
0	No
1	Eyeglasses/sunglasses
2	Contact lenses with sunglasses
3	Contact lenses
7	Other (specify)
9	Unknown

WORK DAYS LOST

This variable reports the number of "work" days lost due to the crash by an employed person or a full-time college student. Children, adolescents, retirees, or unemployed persons are included in *Not working prior to crash.*

COLUMN Name: WORKDAYS

SAS Value	Value Text
0	No working days lost
1 - 60	[Actual Value]
61	61 days or more
62	Fatally injured
97	Not working prior
99	Unknown

POLICE REPORTED INJURY SEVERITY

This variable reports the police reported injury severity for this occupant using the KABCOU scale. If the police report doesn't use the KABCOU scale, the appropriate code is translated by using other police report information.

COLUMN Name: PARINJSEV

SAS Value	Value Text
0	O- No Injury
1	C- Possible Injury
2	B- Nonincapacitating Injury
3	A- Incapacitating injury
4	K- Killed
5	U- Injury, severity unknown
6	Died prior to crash
9	Unknown

1ST MEDICALLY REPORTED CAUSE OF DEATH

This variable records the injury number (INJURY.INJNO) which was determined by a medical professional completing the medical report, or by injury coders using official medical records, to be the cause of death or had the greatest effect on the occupant's death.

COLUMN Name: CAUSE1

SAS Value	Value Text
0	Not fatal or no additional causes
96	Mode given but not linked to Injuries (Specify)
97	Other result (includes fatal ruled disease) (specify)
99	Unknown

2ND MEDICALLY REPORTED CAUSE OF DEATH

This variable records the injury number (INJURY.INJNO) which was determined by a medical professional completing the medical report, or by injury coders using official medical records, to be the cause of death or had the greatest effect on the occupant's death. If only one injury was determined to be the cause of death, this field will be blank.

COLUMN Name: CAUSE2

SAS Value	Value Text
0	Not fatal or no additional causes
96	Mode given but not linked to Injuries (Specify)
97	Other result (includes fatal ruled disease) (specify)
99	Unknown

3RD MEDICALLY REPORTED CAUSE OF DEATH

This variable records the injury number (INJURY.INJNO) which was determined by a medical professional completing the medical report, or by injury coders using official medical records, to be the cause of death or had the greatest effect on the occupant's death.

COLUMN Name: CAUSE3

SAS Value	Value Text
0	Not fatal or no additional causes
96	Mode given but not linked to Injuries (Specify)
97	Other result (includes fatal ruled disease) (specify)
99	Unknown

SEAT Dataset

Key Identifiers: PSU, CASENO, VEHNO, SEATLOC

The Seat dataset contains information regarding the seating positions in the vehicle. While all seating positions in the vehicle are defined, only seating positions occupied (or suspected of being occupied) are fully documented during vehicle inspections or occupant coding. If the seating position was not occupied at the time of crash, only the Key Identifiers will be completed. Figure 31 displays the list of all the data elements in the SEAT table. Information about the type of each variable, its length, the format, and the label is provided for each data element.

```
Data Set Name          CISS19.SEAT              Observations           18707
Member Type            DATA                     Variables              28
Engine                 V9                       Indexes                0
Created                10/22/2020 13:31:09      Observation Length     104
Last Modified          10/22/2020 13:31:09      Deleted Observations   0
Protection                                      Compressed             NO
Data Set Type                                   Sorted                 YES
Label
Data Representation     WINDOWS_32
Encoding               wlatin1  Western (Windows)
```

```
                           Alphabetic List of Variables and Attributes

   #    Variable               Type    Len    Format            Informat    Label

   20   BELTANCHORINSP         Num      3     BELTANCHOR19F.    11.         BELT ANCHORAGE ADJUSTMENT - INSPECTION
   17   BELTAVAILINSP          Num      3     BELTAVAIL19F.     11.         BELT AVAILABILITY - INSPECTION
   23   BELTGUIDEINSP          Num      3     BELTGUIDE19F.     11.         BELT GUIDE ROUTING - INSPECTION
   19   BELTMALFUNCTIONINSP    Num      3     BELTMALF19F.      11.         BELT MALFUNCTION - INSPECTION
   22   BELTPOSDEVPRESINSP     Num      3     BELTPOSPRES19F.   11.         BELT POSITIONING DEVICE PRESENCE - INSPECTION
   21   BELTPRETENSIONINSP     Num      3     BELTPRETENS19F.   11.         BELT PRETENSIONER ACTUATION - INSPECTION
   18   BELTUSEINSP            Num      3     BELTUSE19F.       11.         BELT USE DETERMINATION - INSPECTION
    1   CASEID                 Num      5     11.               11.         SYSTEM CASE IDENTIFIER
    3   CASENO                 Num      3     11.               11.         SEQUENTIAL CASE NUMBER
    4   CASENUMBER             Char    16     $20.              $20.        CASE NUMBER
   26   CASEWGT                Num      8     26.20                         CASE WEIGHT
    5   CATEGORY               Num      3     11.               11.         CASE CATEGORY
   15   HEADRESTACT            Num      3     HEADACTIVE19F.    11.         ACTIVE HEAD RESTRAINT
   14   HEADRESTDAM            Num      3     HEADDAM19F.       11.         HEAD RESTRAINT DAMAGE
   13   HEADRESTYPE            Num      3     HEADTYPE19F.      11.         HEAD RESTRAINT TYPE
   12   INTRESTRAINT           Num      3     INTEGREST19F.     11.         INTEGRATED RESTRAINT
   25   LOCATION               Num      3     SEATLOC19F.       11.         SEAT LOCATION
    9   ORIENTATION            Num      3     ORIENT19F.        11.         SEAT ORIENTATION
   11   PERFORMANCE            Num      3     STPERF19F.        11.         SEAT PERFORMANCE
    2   PSU                    Num      3     11.               11.         PRIMARY SAMPLING UNIT
   27   PSUSTRAT               Num      3     11.               11.         PSU STRATIFICATION
   16   ROLLPROTECTION         Num      3     ROLLPROTECT19F.   11.         ROLLOVER PROTECTION
    7   SEATLOC                Num      3     SEATPOS19F.       11.         SEAT LOCATION
   24   SEATROW                Num      3     SEATROW19F.       11.         SEAT ROW
    8   SEATTYPE               Num      3     SEATTYPE19F.      11.         SEAT TYPE
   10   TRACK                  Num      3     TRACK19F.         11.         SEAT TRACK POSITON
    6   VEHNO                  Num      3     11.               11.         VEHICLE NUMBER
   28   VERSION                Num      3     6.                6.          VERSION NUMBER


                              Sort Information

                   Sortedby      PSU CASENO VEHNO SEATLOC
                   Validated     YES
                   Character Set ANSI
```

Figure 31.

ACTIVE HEAD RESTRAINT

This variable reports the presence of active head restraints for this seating position.

COLUMN Name: HEADRESTACT

SAS Value	Value Text
0	Occupant not seated, or no seat
1	None Present
2	Present
8	Not Applicable
9	Unknown

BELT ANCHORAGE ADJUSTMENT - INSPECTION

This variable captures the position of the shoulder belt anchorage adjuster found on the upper B-pillar as found during the vehicle inspection.

COLUMN Name: BELTANCHORINSP

SAS Value	Value Text
0	No manual shoulder belt
1	None for manual shoulder belt
2	In full up position
3	In mid position
4	In full down position
5	Position unknown
9	Unknown if adjuster present

BELT AVAILABILITY - INSPECTION

This variable reports the availability of belt restraints for this seating position at the time of the vehicle inspection.

COLUMN Name: BELTAVAILINSP

SAS Value	Value Text
0	None available
1	Belt removed/destroyed
2	Shoulder belt
3	Lap belt
4	Lap and shoulder belt
5	Belt available - type unknown
6	Shoulder belt (lap belt destroyed/removed)
7	Lap belt (shoulder belt destroyed/removed)
8	Other belt (specify)
9	Unknown

BELT GUIDE ROUTING - INSPECTION

This variable reports whether the seat belt was routed thru a belt guide, as found during the vehicle inspection.

COLUMN Name: BELTGUIDEINSP

SAS Value	Value Text
0	Not Applicable
1	Yes

SAS Value	Value Text
2	No
9	Unknown

BELT MALFUNCTION - INSPECTION

This variable reports if there was any evidence of a belt malfunction during the crash. This data is captured during the vehicle inspection.

COLUMN Name: BELTMALFUNCTIONINSP

SAS Value	Value Text
0	None used/not available/removed or destroyed
1	No belt malfunction(s)
2	Torn webbing (stretched webbing not included)
3	Broken buckle or latch plate
4	Upper anchorage separated
5	Other anchorage separated (specify)
6	Broken retractor
7	Combination of above (specify)
8	Other belt malfunction (specify)
9	Unknown

BELT POSITIONING DEVICE PRESENCE - INSPECTION

This variable reports the presence of a belt positioning device in use for this seating position at the time of the crash. This variable is documented during the vehicle inspection.

COLUMN Name: BELTPOSDEVPRESINSP

SAS Value	Value Text
0	None present
1	Safety belt guide
2	Belt extender
3	Shoulder belt fit adjuster
8	Other (specify)
9	Unknown if present

BELT PRETENSIONER ACTUATION - INSPECTION

This variable reports the presence and type of belt pretensioner, and whether the belt pretensioner actuated during the crash. This information is collected during the vehicle inspection.

COLUMN Name: BELTPRETENSIONINSP

SAS Value	Value Text
0	Not equipped
1	Pretensioner not actuated
2	Retractor type actuated
3	Buckle type actuated
4	Retractor and buckle type actuated
5	Pretensioner present, Unknown if actuated
6	Anchor type actuated
7	Retractor and anchor type actuated
8	Buckle and anchor type actuated
9	Unknown if equipped
10	Retractor, buckle, and anchor type actuated
99	No Vehicle Inspection

BELT USE DETERMINATION - INSPECTION

This variable reports whether the belt was used during the crash. This information is based solely on evidence found during the vehicle inspection.

COLUMN Name: BELTUSEINSP

SAS Value	Value Text
0	None used not available/removed or destroyed
1	Inoperative (specify)
2	Shoulder belt
3	Lap belt
4	Lap and shoulder belt
5	Belt used - type unknown
8	Other belt used (specify)
12	Shoulder belt with child safety seat
13	Lap belt with child safety seat
14	Lap and shoulder belt with child safety seat
15	Belt with child safety seat - type unknown
18	Other belt with child safety seat (specify)
99	Unknown if belt used

HEAD RESTRAINT DAMAGE

This variable reports whether the seat's head restraint was damaged by the occupant during the crash.

COLUMN Name: HEADRESTDAM

SAS Value	Value Text
0	Occupant not seated, or no seat
1	No head restraints
2	No damage
3	Damaged during crash
8	Not Applicable
9	Unknown

HEAD RESTRAINT TYPE

This variable reports the type of head restraint for this seating position.

COLUMN Name: HEADRESTYPE

SAS Value	Value Text
0	Occupant not seated, or no seat
1	No head restraints
2	Integral
3	Adjustable
4	Add-on
97	Not Applicable
98	Other (specify)
99	Unknown

INTEGRATED RESTRAINT

This variable reports whether the restraint was integrated, or integral, with the seat.

COLUMN Name: INTRESTRAINT

SAS Value	Value Text
0	Occupant not seated, or no seat
1	No
2	Yes
8	Not Applicable
9	Unknown if integrated

ROLLOVER PROTECTION

This variable reports whether this seating position was protected during a rollover by an active device that would normally deploy during a rollover.

COLUMN Name: ROLLPROTECTION

SAS Value	Value Text
0	Occupant not seated, or no seat
1	No/Unknown
2	Yes

SEAT LOCATION

This key variable reports the seating position in the vehicle. This is a 2 digit field where the first digit denotes the row of the vehicle, and the second digit denotes the lateral location of the seat. Seat rows are numbered longitudinally from the driver's row backwards. The seat locations are numbered from left to right and is normally three positions although there could be up to four seating locations in a particular row.

COLUMN Name: SEATLOC

SAS Value	Value Text
11	Front Left
12	Front Middle
13	Front Right
14	Front Other
21	Second Left
22	Second Middle
23	Second Right
24	Second Other
31	Third Left
32	Third Middle
33	Third Right
34	Third Other
41	Fourth Left
42	Fourth Middle
43	Fourth Right
44	Fourth Other
51	Fifth Left
52	Fifth Middle
53	Fifth Right
54	Fifth Other
97	In or on unenclosed area

SAS Value	Value Text
98	Other enclosed area
99	Unknown seat location

SEAT ORIENTATION

This variable reports the orientation of this seat in relation to the front of the vehicle. Most seats are fixed in terms of their orientation within the vehicle. Swivel seats and reversible seats are entered according to their orientation at the time of impact.

COLUMN Name: ORIENTATION

SAS Value	Value Text
0	Occupant not seated, or no seat
1	Forward facing seat
2	Side facing seat (inward)
3	Side facing seat (outward)
4	Rear facing seat
7	Other (specify):
8	Not Applicable
9	Unknown Orientation

SEAT PERFORMANCE

This variable reports any performance or deformation issues with this seat.

COLUMN Name: PERFORMANCE

SAS Value	Value Text
0	Occupant not seated, or no seat
1	Seat assembly intact
2	Seat adjuster mechanism separated/deformed
3	Seat back folding locks or seat back structure separation (specify)
4	Seat tracks/anchors separated/deformed
5	Deformed by occupant of this seat
6	Deformed by passenger compartment intrusion (specify)
7	Deformed by Cargo
8	Deformed by Other Occupant
9	Combination of above (specify)
88	Not Applicable
98	Other (specify)
99	Unknown

SEAT TYPE
This variable reports the type of seat present at each position.

COLUMN Name: SEATTYPE

SAS Value	Value Text
0	Occupant not seated, or no seat
1	Bucket
2	Bucket with folding back
3	Bench
4	Bench with separate back cushions
5	Bench with folding back(s)
6	Split bench with separate back cushions
7	Split bench with folding back(s)
8	Pedestal (i.e., column supported)
9	Box mounted seat (i.e., van type)
10	Other seat type (specify)
11	Stowed/Removed
98	Other enclosed area (specify)
99	Unknown Seat Type

SEAT TRACK POSITON
This variable reports the position of this seat on the seat track.

COLUMN Name: TRACK

SAS Value	Value Text
0	Occupant not seated, or no seat
1	Non-adjustable seat track
2	Seat at forward most track position
3	Seat between forward most and middle track positions
4	Seat at middle track position
5	Seat between middle and rear most track position
6	Seat at rear most track position
8	Not Applicable
9	Unknown Seat Track Position

SEATXBAG Dataset

Key Identifiers: PSU, CASENO, VEHNO, SEATLOC, BAGNO (to SEAT)
Key Identifiers: PSU, CASENO, VEHNO, BAGNO, SEATLOC (to AIRBAG)

The SEATXBAG table is used to match rows between the SEAT and AIRBAG tables. This is needed since the two tables have a many-to-many relationship, i.e. there could be many seats related to one air bag (e.g. roof side rail air bags which protect more than one seat), and there could be more than one air bag for any one seat position (e.g. the driver's seat can have both a steering wheel hub air bag and a door panel air bag). Figure 32 displays the list of all the data elements in the SEATXBAG table Information about the type of each variable, its length, the format, and the label is provided for each data element.

```
Data Set Name        CISS19.SEATXBAG           Observations          25178
Member Type          DATA                      Variables             11
Engine               V9                        Indexes               0
Created              10/22/2020 13:31:09       Observation Length    56
Last Modified        10/22/2020 13:31:09       Deleted Observations  0
Protection                                     Compressed            NO
Data Set Type                                  Sorted                YES
Label
Data Representation  WINDOWS_32
Encoding             wlatin1  Western (Windows)


                   Alphabetic List of Variables and Attributes

   #    Variable     Type   Len   Format        Informat    Label

   7    BAGNO        Num    3     6.            6.          AIR BAG NUMBER
   1    CASEID       Num    5     11.           11.         SYSTEM CASE IDENTIFIER
   3    CASENO       Num    3     11.           11.         SEQUENTIAL CASE NUMBER
   4    CASENUMBER   Char   16    $20.          $20.        CASE NUMBER
   9    CASEWGT      Num    8     26.20                     CASE WEIGHT
   5    CATEGORY     Num    3     11.           11.         CASE CATEGORY
   2    PSU          Num    3     11.           11.         PRIMARY SAMPLING UNIT
  10    PSUSTRAT     Num    3     11.           11.         PSU STRATIFICATION
   8    SEATLOC      Num    3     SEATPOS19F.   11.         SEAT LOCATION
   6    VEHNO        Num    3     11.           11.         VEHICLE NUMBER
  11    VERSION      Num    3     6.            6.          VERSION NUMBER


                        Sort Information

         Sortedby       PSU CASENO VEHNO SEATLOC BAGNO
         Validated      YES
         Character Set  ANSI
```

Figure 32.

AIR BAG NUMBER
This variable contains the air bag number for this vehicle used along with the PSU, CASENO, and VEHNO to match to the AIRBAG dataset.

COLUMN Name: BAGNO

SEAT LOCATION
This variable contains the seat location for this vehicle used along with PSU, CASENO, and VEHNO to match to the SEAT dataset.

COLUMN Name: SEATLOC

SAS Value	Value Text
11	Front Left
12	Front Middle
13	Front Right
21	Second Left
22	Second Middle
23	Second Right
24	Second Other
31	Third Left
32	Third Middle
33	Third Right
34	Third Other
41	Fourth Left
42	Fourth Middle
43	Fourth Right
44	Fourth Other
51	Fifth Left
52	Fifth Middle
53	Fifth Right
54	Fifth Other
97	In or on unenclosed area
98	Other enclosed area
99	Unknown

AIRBAG Dataset

Key Identifiers: PSU, CASENO, VEHNO, BAGNO

The AIRBAG dataset contains information regarding the air bags originally installed or retrofitted in the vehicle. For inspected vehicles, a row will exist for every air bag location found in the vehicle. For uninspected vehicles, a row will exist for every air bag located in an occupied seating location. The completeness of data in a row is determined by whether the seating location was occupied. If a seating position is not occupied, then a number of fields will be missing. Additionally, missing data will be found for the delta V columns when an air bag did not deploy or cannot be linked to an event. Figure 33 displays the list of all the data elements in the AIRBAG dataset. Information about the type of each variable, its length, the format, and the label is provided for each data element.

```
Data Set Name            CISS19.AIRBAG          Observations          19495
Member Type              DATA                   Variables             31
Engine                   V9                     Indexes               0
Created                  10/22/2020 13:31:03    Observation Length    120
Last Modified            10/22/2020 13:31:03    Deleted Observations  0
Protection                                      Compressed            NO
Data Set Type                                   Sorted                YES
Label
Data Representation  WINDOWS_32
Encoding                 wlatin1  Western (Windows)
```

```
                    Alphabetic List of Variables and Attributes


   #   Variable        Type    Len    Format           Informat    Label

  15   BAGDAMAGE        Num     3      BAGDAM19F.       11.         AIR BAG DAMAGE
  16   BAGDAMSOURCE     Num     3      BAGDAMSRC19F.    11.         AIR BAG DAMAGE SOURCE
  11   BAGDEPLOY        Num     3      BAGDEPLY19F.     11.         AIR BAG DEPLOYMENT
  25   BAGDVBES         Num     3      BAREQSP19F.      11.         AIR BAG DELTA V - BARRIER EQUIV SPEED
  23   BAGDVENERGY      Num     5      ENERGY19F.       11.         AIR BAG DELTA V - ENERGY
  26   BAGDVEST         Num     3      DVEST19F.        11.         AIR BAG DELTA V - ESTIMATE
  22   BAGDVLAT         Num     3      DVLONLAT19F.     11.         AIR BAG DELTA V - LATERAL
  21   BAGDVLONG        Num     3      DVLONLAT19F.     11.         AIR BAG DELTA V - LONGITUDINAL
  27   BAGDVRANK        Num     3      DVRANK19F.       11.         AIR BAG DELTA V - RANK
  24   BAGDVSPEED       Num     3      DVSPEED19F.      11.         AIR BAG DELTA V - IMPACT SPEED
  20   BAGDVTOTAL       Num     3      DVTOTAL19F.      11.         AIR BAG DELTA V - TOTAL
  14   BAGFLAPSDAM      Num     3      FLAPDAM19F.      11.         AIR BAG FLAP DAMAGE
  13   BAGFLAPSOPEN     Num     3      FLAPOPEN19F.     11.         AIR BAG FLAPS OPEN AT TEAR POINTS
   8   BAGLOCATION      Num     3      BAGLOC19F.       11.         AIR BAG LOCATION
  12   BAGMALFUNCTION   Num     3      BAGMALF19F.      11.         AIR BAG MALFUNCTION
   7   BAGNO            Num     3      6.               6.          AIR BAG NUMBER
   9   BAGSTATUS        Num     3      BAGSTAT19F.      11.         AIR BAG STATUS
  10   BAGTYPE          Num     3      BAGTYPE19F.      11.         AIR BAG TYPE
   1   CASEID           Num     5      11.              11.         SYSTEM CASE IDENTIFIER
   3   CASENO           Num     3      11.              11.         SEQUENTIAL CASE NUMBER
   4   CASENUMBER       Char    16     $20.             $20.        CASE NUMBER
  29   CASEWGT          Num     8      26.20                        CASE WEIGHT
   5   CATEGORY         Num     3      11.              11.         CASE CATEGORY
  28   CDCFORDEPLOY     Num     3      BAGCDC19F.       11.         CDC FOR DEPLOYMENT IMPACT
  19   DEPLOYEVENT      Num     3      DEPLOYEVENT19F.  6.          AIR BAG DEPLOYMENT EVENT
  17   PREVCRASH        Num     3      PREVCRASH19F.    11.         VEHICLE IN PREVIOUS CRASHES
  18   PRIORMAINT       Num     3      PRIORMAINT19F.   11.         PRIOR MAINTENANCE OR SERVICE
   2   PSU              Num     3      11.              11.         PRIMARY SAMPLING UNIT
  30   PSUSTRAT         Num     3      11.              11.         PSU STRATIFICATION
   6   VEHNO            Num     3      11.              11.         VEHICLE NUMBER
  31   VERSION          Num     3      6.               6.          VERSION NUMBER


                          Sort Information


          Sortedby       PSU CASENO VEHNO BAGNO
```

```
Validated      YES
Character Set  ANSI
```

Figure 33.

AIR BAG NUMBER

This variable is a key variable identifying the air bag in the vehicle. Air bags are numbered sequentially, beginning with one, for each vehicle.

COLUMN Name: BAGNO

AIR BAG LOCATION

This air bag reports the location of the air bag's location within the vehicle.

COLUMN Name: BAGLOCATION

SAS Value	Value Text
1	Steering Wheel Hub
2	Top Instrument Panel
3	Mid Instrument Panel
4	Bottom Instrument Panel
5	Seat Back (Outboard)
6	Seat Back (Inboard)
7	Door/Panel
8	Roof Side Rail
9	Seat Belt
98	Other (specify)
99	Unknown

AIR BAG STATUS

This variable reports whether the air bag was available at the time of the crash, or had been removed prior (i.e. previous deployment or disconnected).

COLUMN Name: BAGSTATUS

SAS Value	Value Text
1	Air Bag available
2	Air Bag disconnected (specify):
3	Air Bag not reinstalled
9	Unknown status if available for this crash

AIR BAG TYPE

This variable reports whether the air bag was originally manufactured with the vehicle or if the air bag was retrofitted after production.

COLUMN Name: BAGTYPE

SAS Value	Value Text
1	Original manufacturer install
2	Replacement Air Bag
3	Retrofitted Air Bag
70	No Air Bag available for this crash (disconnected/not reinstalled
79	Unknown status if Air Bag available for this crash
99	Unknown Type

AIR BAG DEPLOYMENT

This variable reports the deployment status of the air bag.

COLUMN Name: BAGDEPLOY

SAS Value	Value Text
1	Deployed during crash (as a result of impact)
2	Deployed inadvertently just prior to crash
3	Deployed, details unknown
4	Non-collision deployment
7	Not deployed
70	No air bag available for this crash (disconnected/not reinstalled)
79	Unknown status if air bag available for this crash
99	Unknown if Deployed

AIR BAG MALFUNCTION

This variable flags "indications of an air bag malfunction" and means that something abnormal has occurred to the air bag system. It may not necessarily mean that the air bag system was defective.

COLUMN Name: BAGMALFUNCTION

SAS Value	Value Text
0	No
1	Yes (specify)
70	No Air Bag available for this crash (disconnected/not reinstalled)

SAS Value	Value Text
79	Unknown status if Air Bag available for this crash
99	Unknown

AIR BAG DAMAGE

This variable reports whether the air bag sustained damage during the bag's deployment.

COLUMN Name: BAGDAMAGE

SAS Value	Value Text
0	Not damaged
1	Ruptured
2	Cut
3	Torn
4	Holed
5	Burned
6	Abraded
8	Other damage (specify)
9	Damaged, details unknown
60	Air Bag did not deploy
69	Unknown if Air Bag deployed
70	No Air Bag available for this crash (disconnected/not reinstalled
79	Unknown status if Air Bag available for this crash
97	Post crash damage
99	Deployed, unknown if damaged

AIR BAG DAMAGE SOURCE

This variable reports what caused the damage reported in the BAGDAMAGE variable.

COLUMN Name: BAGDAMSOURCE

SAS Value	Value Text
1	Object worn by occupant (specify)
2	Object carried by occupant (specify)
3	Adaptive/assistive controls, (specify)
4	Cover flaps
5	Fire in vehicle
6	Thermal burns

SAS Value	Value Text
7	Glazing
8	Other damage source (specify)
9	Damaged unknown source
50	Air Bag Not Damaged
59	Deployed, unknown of damaged
60	Air Bag did not deploy
69	Unknown if Air Bag deployed
70	No Air Bag available for this crash (disconnected/not reinstalled)
79	Unknown status if Air Bag available for this crash
97	Post crash damage

AIR BAG FLAPS OPEN AT TEAR POINTS

This variable reports whether the air bag's cover flaps opened at the designated tear point(s). Some air bags in the seat cushion and seat back may not have cover flaps, but will deploy through a seam that separates during the air bag deployment.

COLUMN Name: BAGFLAPSOPEN

SAS Value	Value Text
0	No
1	Yes
60	Air Bag did not deploy
69	Unknown if Air Bag deployed
70	No Air Bag available for this crash (disconnected/not reinstalled
79	Unknown status if Air Bag available for this crash
99	Unknown flaps/seams opened at tear points

AIR BAG FLAP DAMAGE

This variable reports whether the air bag cover flaps sustained damage during the deployment of the air bag.

COLUMN Name: BAGFLAPSDAM

SAS Value	Value Text
0	No
1	Yes (specify)
60	Not Deploy
69	Unknown if deployed

SAS Value	Value Text
70	No Air Bag available for this crash
79	Unknown if Air Bag available for this crash
99	Unknown if flaps damaged

AIR BAG DEPLOYMENT EVENT

This variable reports the event associated with the deployment with this air bag.

COLUMN Name: DEPLOYEVENT

SAS Value	Value Text
1-30	[Actual Value]
60	Air Bag did not deploy
69	Unknown if Air Bag deployed
70	No Air Bag available for this crash (disconnected/not reinstalled)
79	Unknown status if Air Bag available for this crash
99	Deployed, unknown event

AIR BAG DELTA V - BARRIER EQUIV SPEED

This variable reports the Barrier Equivalent Speed related to the deployment of this air bag and calculated by the WinSMASH application. The data is expressed in kilometers per hour (kmph).

COLUMN Name: BAGDVBES

SAS Value	Value Text
-160 - +160	[Actual Value]
999	Unknown

AIR BAG DELTA V - ENERGY

This variable reports the Energy (expressed in joules) related to the deployment of this air bag and calculated by the WinSMASH application. The data is expressed in joules.

COLUMN Name: BAGDVENERGY

SAS Value	Value Text
40 - 1000000	[Actual Value]
9999999	Unknown

AIR BAG DELTA V - ESTIMATE

This variable reports the delta V estimate calculated by the WinSMASH application (for delta V ranges), or the level of damage (for Minor/Moderate/Severe) as determined by the crash technician, related to the deployment of this air bag.

COLUMN Name: BAGDVEST

SAS Value	Value Text
0	Reconstruction Delta V coded
1	Less than 10 kmph
2	10 kmph < 25 kmph
3	25 kmph < 40 kmph
4	40 kmph < 55 kmph
5	>= 55 kmph
6	Minor
7	Moderate
8	Severe
9	Unknown

AIR BAG DELTA V - IMPACT SPEED

This variable reports the Impact Speed calculated when the WinSMASH Damage and Trajectory algorithm (rarely used) is used for calculating delta V. The data is expressed in kilometers per hour (kmph).

COLUMN Name: BAGDVSPEED

SAS Value	Value Text
0 - 160	[Actual Value]
998	Damage and Trajectory run not made
999	Unknown

AIR BAG DELTA V - LONGITUDINAL

This variable reports the longitudinal component of the delta V results for the event related to the deployment of this air bag. This data is expressed in kilometers per hour (kmph).

COLUMN Name: BAGDVLONG

SAS Value	Value Text
-160 - +160	[Actual Value]
999	Unknown

AIR BAG DELTA V - LATERAL

This variable reports the lateral component of the delta V results for the event related to the deployment of this air bag. The data is expressed in kilometers per hour (kmph).

COLUMN Name: BAGDVLAT

SAS Value	Value Text
-160 - +160	[Actual Value]
999	Unknown

AIR BAG DELTA V - RANK

This variable reports the ranking of this deployment event as to its severity, as determined by the crash technician.

COLUMN Name: BAGDVRANK

SAS Value	Value Text
1	Highest Delta V
2	Second Highest Delta V
8	Other Delta V

AIR BAG DELTA V - TOTAL

This variable reports the total component of the delta V results for the event related to the deployment of this air bag. The data is expressed in kilometers per hour (kmph).

COLUMN Name: BAGDVTOTAL

SAS Value	Value Text
0 - 160	[Actual Value]
999	Unknown

CDC FOR DEPLOYMENT IMPACT

This variable reports whether this event was the highest, secondary, or other delta V associated with this bag's deployment event.

COLUMN Name: CDCFORDEPLOY

SAS Value	Value Text
1	Highest Delta V
2	Second highest Delta V
3	Other Delta V (specify)

SAS Value	Value Text
60	Air Bag did not deploy
69	Unknown if Air Bag deployed
70	No Air Bag available for this crash (disconnected/not reinstalled
79	Unknown status if Air Bag available for this crash
99	Deployed, unknown event

PRIOR MAINTENANCE OR SERVICE
This variable reports whether this air bag had maintenance or service prior to this crash.

COLUMN Name: PRIORMAINT

SAS Value	Value Text
1	No prior maintenance
2	Yes, prior maintenance (specify)
9	Unknown

VEHICLE IN PREVIOUS CRASHES
This variable reports whether this vehicle had been in previous crashes and whether the crash resulted in a deployment of this air bag.

COLUMN Name: PREVCRASH

SAS Value	Value Text
1	No previous crashes
2	Previous crash(es) without deployment(s)
3	One previous crash with deployment
4	More than one previous crash with at least one deployment
8	Previous crashes, unknown deployment status
9	Unknown

CHILDSEAT Dataset

Key Identifiers: PSU, CASENO, VEHNO, OCCNO, CHILDSEATNO

This table contains information about child restraints either used by occupants or found in the vehicle by the crash technician. These child restraints include child seats, vests, etc. Most rows will be associated with an occupant. This table contains information about child restraints either used by occupants (i.e., OCC.CHILDSEATUSE=1) or found in the vehicle by the crash technician. Figure 34 displays the list of all the data elements in the CHILDSEAT table. Information about the type of each variable, its length, the format, and the label is provided for each data element.

```
Data Set Name          CISS19.CHILDSEAT       Observations          233
Member Type            DATA                   Variables             37
Engine                 V9                     Indexes               0
Created                10/22/2020 13:31:04    Observation Length    160
Last Modified          10/22/2020 13:31:04    Deleted Observations  0
Protection                                    Compressed            NO
Data Set Type                                 Sorted                YES
Label
Data Representation     WINDOWS_32
Encoding               wlatin1  Western (Windows)
```

Alphabetic List of Variables and Attributes

#	Variable	Type	Len	Format	Informat	Label
31	BELTRETYPE	Num	3	RETRACTTYPE19F.	11.	BELT RETRACTOR TYPE
27	BELTROUT	Num	3	BELTROUT19F.	11.	BELT ROUTING AND USE
1	CASEID	Num	5	11.	11.	SYSTEM CASE IDENTIFIER
3	CASENO	Num	3	11.	11.	SEQUENTIAL CASE NUMBER
4	CASENUMBER	Char	16	$20.	$20.	CASE NUMBER
35	CASEWGT	Num	8	26.20		CASE WEIGHT
5	CATEGORY	Num	3	11.	11.	CASE CATEGORY
15	CHILDDATEMAN	Char	10	$CRSDATE19F.	$4000.	CHILD SEAT DATE OF MANUFACTURE
11	CHILDMAKE	Num	3	CRSMAKE19F.	11.	CHILD SEAT MAKE
10	CHILDMANUF	Num	3	CRSMAN19F.	11.	CHILD SEAT MANUFACTURER
12	CHILDMODEL	Num	4	CRSMODEL19F.	11.	CHILD SEAT MODEL
13	CHILDMODELNO	Char	20	$CRSMODELNO19F.	$50.	CHILD SEAT MODEL NUMBER
30	CHILDPOSITION	Num	3	CHILDPOSITION19F.	11.	CHILD POSITION IN CHILD SEAT
8	CHILDSEATNO	Num	3	20.	20.	CHILD SEAT NUMBER
14	CHILDSEATYPE	Num	3	CRSTYPE19F.	11.	CHILD SEAT TYPE
17	DATASOURCE	Num	3	CRSSOURCE19F.	11.	CHILD SEAT DATA SOURCE
19	HARNESSDESIGN	Num	3	HARNDESIGN19F.	11.	HARNESS DESIGN
23	HARNESSUSE	Num	3	HARNUSE19F.	11.	HARNESS USE
16	HOWUSED	Num	3	CRSUSE19F.	11.	CHILD SEAT HOW USED
33	LATCHANCHOR	Num	3	LATCHANCHOR19F.	11.	LATCH ANCHOR
22	LATCHDESIGN	Num	3	LATCHDESIGN19F.	11.	LATCH DESIGN
32	LATCHPLATE	Num	3	LATCHPLATE19F.	11.	LATCH PLATE TYPE
34	LATCHTETHER	Num	3	LATCHTETHER19F.	11.	LATCH TETHER
26	LATCHUSE	Num	3	LATCHUSE19F.	11.	LATCH USE
28	LOCKCLIPUSE	Num	3	LOCKUSE19F.	11.	LOCKING CLIP USE
7	OCCNO	Num	3	6.	6.	OCCUPANT NUMBER
18	ORIENTATION	Num	3	CRSORIENT19F.	11.	CHILD SEAT ORIENTATION
29	PLACEMENT	Num	3	CRSPLACE19F.	11.	CHILD SEAT PLACEMENT
2	PSU	Num	3	11.	11.	PRIMARY SAMPLING UNIT
36	PSUSTRAT	Num	3	11.	11.	PSU STRATIFICATION
20	RETAINERCLIPDESIGN	Num	3	CLIPDESIGN19F.	11.	RETAINER CLIP DESIGN
24	RETAINERCLIPUSE	Num	3	CLIPUSE19F.	11.	RETAINER CLIP USE
9	SEATLOC	Num	3	SEATPOS19F.	11.	SEAT LOCATION
21	TETHERDESIGN	Num	3	TETHERDESIGN19F.	11.	TETHER DESIGN
25	TETHERUSE	Num	3	TETHERUSE19F.	11.	TETHER USE
6	VEHNO	Num	3	11.	11.	VEHICLE NUMBER
37	VERSION	Num	3	6.	6.	VERSION NUMBER

```
                           Sort Information

        Sortedby      PSU CASENO VEHNO OCCNO CHILDSEATNO
        Validated     YES
        Character Set ANSI
```

Figure 34.

SEAT LOCATION
All child restraints found inside the vehicles are coded into CISS. This includes unoccupied child restraints. This variable assigns a seating location for each CRS.

COLUMN Name: SEATLOC

SAS Value	Value Text
11	Front Left
12	Front Middle
13	Front Right
14	Front Other
21	Second Left
22	Second Middle
23	Second Right
24	Second Other
31	Third Left
32	Third Middle
33	Third Right
34	Third Other
41	Fourth Left
42	Fourth Middle
43	Fourth Right
44	Fourth Other
51	Fifth Left
52	Fifth Middle
53	Fifth Right
54	Fifth Other
97	In or on unenclosed area
98	Other enclosed area
99	Unknown seat location

OCCUPANT NUMBER

This variable identifies a particular occupant in the vehicle. Occupants are numbered sequentially from left to right beginning in the front row, and then going backwards to rearward seating rows. This variable can be used to link a child seat to a particular occupant.

COLUMN Name: OCCNO

CHILD SEAT MANUFACTURER

This variable reports the original manufacturer of the child restraint.

COLUMN Name: CHILDMANUF

SAS Value	Value Text
0	No Child Safety Seat
1	Angel Guard Products
2	Baby Trend
3	Besi
4	Britax
5	BubbleBum
6	Chicco
7	Columbia Medical
8	Combi
9	Diono
10	Dorel Juvenile Group
11	EZ-On
12	Goodbaby International
13	Graco
14	Happy Kidz
15	Harmony
16	IMMI
17	Kiddy USA
18	Lilly Gold
19	Magna
20	Merritt Mft.
21	Mia Moda
22	Nania
23	Orbit Baby
24	Peg Perego
25	R82
26	Recaro
27	Renolux
28	Safe Traffic Systems

SAS Value	Value Text
29	Safety Angel
30	Sammons Preston
31	Serenity Safety Products
32	Special Tomato
33	Tomy
34	Tumble Forms
35	Mifold
95	Built-in child safety seat
97	Other manufacturer (specify)
98	Unknown Manufacturer
99	Unknown if child safety seat used

CHILD SEAT MAKE

This variable reports the make of the child restraint.

COLUMN Name: CHILDMAKE

SAS Value	Value Text
0	No Child Safety Seat
1	Angel Guard Products
2	Baby Trend
3	Besi
4	Britax
5	BubbleBum
6	Chicco
7	Columbia Medical
8	Car Seat Specialty
9	Combi
10	Diono
11	Sunshine Kids
12	Cosco
13	Dorel Juvenile Group
14	Eddie Bauer
15	Maxi-Cosi
16	Safety 1st
17	EZ-On
18	Cybex
19	Evenflo
20	Goodbaby International
21	Regal Lager

SAS Value	Value Text
22	Urbini
23	Graco
24	Teutonia
25	Happy Kidz
26	Harmony
27	IMMI
28	Jupiter
29	Safeguard
30	Kiddy USA
31	Lilly Gold
32	Safeline
33	Tripleplay Products
34	Clek
35	Magna
36	Merritt Mft.
37	Mia Moda
38	Mifold
39	Nania
40	Safety Baby
41	Team Tex
42	Orbit Baby
43	Peg Perego
44	R82
45	Snug Seat
46	Recaro
47	Renolux
48	Safe Traffic Systems
49	Safety Angel
50	Sammons Preston
51	Guardian
52	Serenity Safety Products
53	Special Tomato
54	Compass
55	Learning Curve
56	Tomy
57	The First Years
58	Tumble Forms
95	Built-in child safety seat
97	Other make (specify)
98	Unknown Make
99	Unknown if child safety seat used

CHILD SEAT MODEL
This variable reports the child restraint's model. The assigned model is a four digit number with the first digit representing the Child Seat Type. The second through fourth digits are a sequentially assigned number within that type.

COLUMN Name: CHILDMODEL

SAS Value	Manufacturer	Make	Model
0	No Child Safety Seat	No Child Safety Seat	No Child Safety Seat
1001	Baby Trend	Baby Trend	EZ Loc
1002	Baby Trend	Baby Trend	Flex Loc
1003	Baby Trend	Baby Trend	Latch Loc
1004	Baby Trend	Baby Trend	Tahoe
1005	Britax	Britax	Baby Safe
1006	Britax	Britax	Baby Trend Latch-Loc
1007	Britax	Britax	Chaperone
1008	Britax	Britax	Companion
1009	Chicco	Chicco	KeyFit
1010	Combi	Combi	Shuttle
1011	Dorel Juvenile Group	Cosco	Light N Comfy
1012	Dorel Juvenile Group	Eddie Bauer	Deluxe Infant Car Seat
1013	Dorel Juvenile Group	Eddie Bauer	Infant Car Seat
1014	Dorel Juvenile Group	Eddie Bauer	Integrated Travel System
1015	Dorel Juvenile Group	Eddie Bauer	SureFit
1016	Dorel Juvenile Group	Maxi-Cosi	Mico
1017	Dorel Juvenile Group	Safety 1st	Comfy Carry Elite
1018	Dorel Juvenile Group	Safety 1st	Designer 22
1019	Dorel Juvenile Group	Safety 1st	Starter
1020	Goodbaby International	Cybex	Aton
1021	Goodbaby International	Evenflo	Embrace
1022	Goodbaby International	Evenflo	Nurture
1023	Goodbaby International	Evenflo	Port About
1024	Goodbaby International	Evenflo	Tot Taxi
1025	Goodbaby International	Urbini	Sonti
1026	Graco	Graco	CoachRider Travel System
1027	Graco	Graco	DuoGlider Travel System
1028	Graco	Graco	LiteRider
1029	Graco	Graco	LiteRider Breeze
1030	Graco	Graco	LiteRider Glider
1031	Graco	Graco	LiteRider Sterling
1032	Graco	Graco	MetroLite Travel System
1033	Graco	Graco	Safe Seat Step 1
1034	Graco	Graco	Snug Ride
1035	Graco	Graco	Snug Ride DX5
1036	Graco	Teutonia	t-tario 35
1037	Happy Kidz	Happy Kidz	Doona
1038	Kiddy USA	Kiddy USA	Evolution Pro 2
1039	Mia Moda	Mia Moda	Certo
1040	Orbit Baby	Orbit Baby	G2

SAS Value	Manufacturer	Make	Model
1042	Tomy	The First Years	Via
1043	Dorel Juvenile Group	Safety 1st	onBoard 35
1044	Baby Trend	Baby Trend	Secure Snap
2001	Britax	Britax	Advantage
2002	Britax	Britax	Advocate CS
2003	Britax	Britax	Boulevard
2004	Britax	Britax	Decathlon
2005	Britax	Britax	Diplomat
2006	Britax	Britax	Elite
2007	Britax	Britax	Galaxy
2008	Britax	Britax	Marathon
2009	Britax	Britax	Roundabout
2010	Britax	Britax	Wizard
2011	Combi	Combi	Coccoro
2012	Dorel Juvenile Group	Cosco	Apt 40
2013	Dorel Juvenile Group	Cosco	Apt 50
2014	Dorel Juvenile Group	Cosco	Scenera
2015	Dorel Juvenile Group	Eddie Bauer	XRS 65
2016	Dorel Juvenile Group	Maxi-Cosi	Priori
2017	Dorel Juvenile Group	Safety 1st	Comfort Ride
2018	Dorel Juvenile Group	Safety 1st	Complete Air with Air Protect
2019	Dorel Juvenile Group	Safety 1st	Forerunner
2020	Dorel Juvenile Group	Safety 1st	Uptown
2021	Goodbaby International	Evenflo	Conquest V
2022	Goodbaby International	Evenflo	Horizon V
2023	Goodbaby International	Evenflo	Momentum 65 DLX
2024	Goodbaby International	Evenflo	Odyssey V
2025	Goodbaby International	Evenflo	Orion
2026	Goodbaby International	Evenflo	Scout
2027	Goodbaby International	Evenflo	Sonus
2028	Goodbaby International	Evenflo	Titan
2029	Goodbaby International	Evenflo	Titan 5
2030	Goodbaby International	Evenflo	Tribute
2031	Goodbaby International	Evenflo	Tribute 5
2032	Goodbaby International	Evenflo	Triumph
2033	Graco	Graco	ComfortSport
2034	Graco	Graco	Contender
2035	Graco	Graco	Head Wise 65/70
2036	Graco	Graco	My Ride 65
2037	Graco	Graco	MY SIze (70)
2038	Lilly Gold	Safeline	Sit n' Stroll
2039	Lilly Gold	Tripleplay Products	Sit n' Stroll
2040	Magna	Clek	Fllo
2041	Magna	Clek	Foonf
2042	Recaro	Recaro	Como
2043	Recaro	Recaro	ProRide
2044	Recaro	Recaro	Signo
2045	Renolux	Renolux	GT 2000
2046	Renolux	Renolux	GT 4000

SAS Value	Manufacturer	Make	Model
2047	Renolux	Renolux	GT-5000 Turn-A-Tot
2048	Renolux	Renolux	GT-7000
2049	Tomy	The First Years	True Fit
2050	Dorel Juvenile Group	Cosco	Mighty Fit
2051	Chicco	Chicco	Next Fit
2052	Graco	Graco	Sequel (65)
2053	Dorel Juvenile Group	Safety 1st	Guide 65
2054	Graco	Graco	Extend2Fit
2055	Peg Perego	Peg Perego	Primo Viaggio
3001	Britax	Britax	Husky
3002	Britax	Britax	Romer King
3003	Orbit Baby	Orbit Baby	G3 Toddler Car Seat
4001	Diono	Diono	Radian RXT
4002	Dorel Juvenile Group	Cosco	Easy Elite 3-in-1
4003	Dorel Juvenile Group	Eddie Bauer	Deluxe Convertible
4004	Dorel Juvenile Group	Safety 1st	All-in-One
4005	Dorel Juvenile Group	Safety 1st	Alpha Omega Elite
4006	Dorel Juvenile Group	Safety 1st	Alpha Sport 3 Phase
4007	Dorel Juvenile Group	Safety 1st	Enspira
4008	Dorel Juvenile Group	Safety 1st	Grow And Go
4009	Dorel Juvenile Group	Safety 1st	Intera
4010	Goodbaby International	Evenflo	Symphony
4011	Graco	Graco	4Ever All-in-One
4012	Graco	Graco	Signature Series Smart Seat
4013	Graco	Graco	Milestone 3-in-1
4014	Dorel Juvenile Group	Safety 1st	Everfit 3-in-1
4015	Graco	Graco	WAYZ
4016	Diono	Diono	Ranier 3-in-1
4017	Dorel Juvenile Group	Safety 1st	Multifit 3-in-1
5001	Baby Trend	Baby Trend	Hybrid 3-in-1
5002	Britax	Britax	Frontier
5003	Britax	Britax	Regent
5005	Dorel Juvenile Group	Cosco	High Back Booster
5006	Dorel Juvenile Group	Cosco	Summit
5007	Dorel Juvenile Group	Cosco	Ventura/Vision
5008	Dorel Juvenile Group	Eddie Bauer	High Back Booster
5009	Dorel Juvenile Group	Safety 1st	Apex 65
5010	Dorel Juvenile Group	Safety 1st	Prospect
5011	Dorel Juvenile Group	Safety 1st	Summit Deluxe
5012	Dorel Juvenile Group	Safety 1st	Surveyor
5013	Dorel Juvenile Group	Safety 1st	Vantage Point
5014	Goodbaby International	Evenflo	Apollo
5015	Goodbaby International	Evenflo	Bolero
5016	Goodbaby International	Evenflo	Chase DLX
5017	Goodbaby International	Evenflo	Comet
5018	Goodbaby International	Evenflo	Express
5019	Goodbaby International	Evenflo	Maestro
5020	Goodbaby International	Evenflo	Traditions
5021	Goodbaby International	Evenflo	Vision

SAS Value	Manufacturer	Make	Model
5022	Graco	Graco	Argos
5023	Graco	Graco	CarGo
5024	Graco	Graco	Cherished CarGo
5025	Graco	Graco	Grand Cargo
5026	Graco	Graco	Nautilus
5027	Graco	Graco	Quest
5028	Graco	Graco	Teasured Cargo
5029	Graco	Graco	Ultra Cargo
5030	Harmony	Harmony	Defender 360 3-in-1
5031	Recaro	Recaro	ProSport
5032	Recaro	Recaro	Young Sport
5033	Dorel Juvenile Group	Cosco	Finale
5034	Chicco	Chicco	My Fit
5950	Built-in child safety seat	Built-in child safety seat	Built-in child safety seat
6001	Baby Trend	Baby Trend	Recaro
6002	Baby Trend	Baby Trend	Trend
6003	Britax	Britax	Bodyguard
6004	Britax	Britax	Cruiser
6005	Britax	Britax	Monarch
6006	Britax	Britax	Parkway
6007	Britax	Britax	Stariser / Comfy
6008	BubbleBum	BubbleBum	Inflatable Booster
6009	Combi	Combi	Kobuk
6010	Dorel Juvenile Group	Cosco	Highrise
6011	Dorel Juvenile Group	Cosco	Pronto
6012	Dorel Juvenile Group	Cosco	Protek
6013	Dorel Juvenile Group	Cosco	Select Ride
6014	Dorel Juvenile Group	Cosco	Stack It BSS
6015	Dorel Juvenile Group	Cosco	Traveler
6016	Dorel Juvenile Group	Cosco	Valet
6017	Dorel Juvenile Group	Cosco	Vista
6018	Dorel Juvenile Group	Cosco	Voyager
6019	Dorel Juvenile Group	Maxi-Cosi	Rodi
6020	Dorel Juvenile Group	Safety 1st	Highrider
6021	Dorel Juvenile Group	Safety 1st	Store N Go
6022	Goodbaby International	Cybex	Solution X-Fix
6023	Goodbaby International	Evenflo	Big Kid
6024	Goodbaby International	Evenflo	Booster Seat
6025	Goodbaby International	Evenflo	Confidence
6026	Goodbaby International	Evenflo	Secure Comfort
6027	Goodbaby International	Evenflo	Sightseer Comfort Touch
6028	Graco	Graco	Affix
6029	Graco	Graco	AirBooster
6030	Graco	Graco	My CarGo
6031	Graco	Graco	TurboBooster
6032	Harmony	Harmony	Secure Comfort Deluxe Booster
6033	Harmony	Harmony	Youth Booster Seat

SAS Value	Manufacturer	Make	Model
6034	IMMI	Jupiter	Grand Touring
6035	IMMI	Jupiter	Komfort Kruiser
6036	IMMI	Jupiter	Komfort Rider
6037	IMMI	Jupiter	Komfort Rider GT
6038	Kiddy USA	Kiddy USA	Cruiser 3
6039	Magna	Magna	Clek Olli
6040	Magna	Magna	Clek Oobr
6041	Magna	Magna	Clek Ozzi
6042	Mifold	Mifold	Grab-and-Go
6043	Recaro	Recaro	Start
6044	Recaro	Recaro	Vivo
6045	Renolux	Renolux	Booster
6046	Safety Angel	Safety Angel	Ride Ryte
6047	Serenity Safety Products	Guardian	Double Up
6048	Tomy	The First Years	Compass B500 Booster
6049	Dorel Juvenile Group	Cosco	Top Side
6050	Goodbaby International	Evenflo	Amp Booster Seat
7001	Besi	Besi	Vest
7002	Dorel Juvenile Group	Safety 1st	Tote 'n Go
7003	EZ-On	EZ-On	E-Z-On Vest
7004	Safe Traffic Systems	Safe Traffic Systems	Ride Safer Travel Vest
7005	Safety Angel	Safety Angel	Travel Vest
8001	Goodbaby International	Evenflo	Harness
8002	IMMI	IMMI	SafeGuard
8003	IMMI	IMMI	Safeguard Star Plus
8004	IMMI	IMMI	Safeguard Star Standard
9001	Columbia Medical	Columbia Medical	2000
9002	R82	R82	Snug Seat Hippo
9003	R82	R82	Traveller Plus
9004	R82	Snug Seat	Pilot
9005	Sammons Preston	Sammons Preston	Churchill EZ Up
9006	Sammons Preston	Sammons Preston	Spirit APS
9007	Special Tomato	Special Tomato	MPS Special Needs
9008	Tumble Forms	Tumble Forms	Carrie Car Seat
9997	Other manufacturer (specify)	Other make (specify)	Other model (specify)
9998	Unknown Manufacturer	Unknown Make	Unknown Model

CHILD SEAT MODEL NUMBER

This variable reports the model number of the child restraint. 99999999 is used for unknown.

COLUMN Name: CHILDMODELNO

CHILD SEAT DATE OF MANUFACTURE
This variable reports the child seat's manufacture date as found on the label affixed to the seat.

COLUMN Name: CHILDDATEMAN

SAS Value	Value Text
9999999999	Unknown

BELT RETRACTOR TYPE
This variable reports the retractor type of the seat belt used with this child seat.

COLUMN Name: BELTRETYPE

SAS Value	Value Text
0	None Present
1	Emergency Locking Retractor
2	Automatic Locking Retractor
3	Switchable Retractor in ELR Mode
4	Switchable Retractor in ALR Mode
5	Switchable Retractor in Unknown Mode
9	Unknown Type of Retractor

BELT ROUTING AND USE
This variable reports the routing of the seat belt used with this child seat.

COLUMN Name: BELTROUT

SAS Value	Value Text
0	No belt routing
1	No belt used
2	Belt routed through belt positioning slots/channels
3	Belt routed through forward facing slots/channels
4	Belt routed through rear facing slots/channels
5	Belt routed unconventionally (specify)
9	Unknown belt path or if belt routed

CHILD POSITION IN CHILD SEAT
This variable reports the occupant's position in the child seat at the time of impact.

COLUMN Name: CHILDPOSITION

SAS Value	Value Text
0	Not occupied
1	Upright
2	Reclined/lying back
3	Supine, facing upwards
4	Slumped forward
5	Slumped to the side
6	Kneeling
8	Other (specify)
9	Unknown

CHILD SEAT DATA SOURCE
This variable reports the source of the data for the child restraint information. The Source of Data variable represents all of the coded CRS variables.

COLUMN Name: DATASOURCE

SAS Value	Value Text
1	Vehicle
2	Interview
3	Vehicle and Interview
4	Photographs Only
5	Official Records

CHILD SEAT HOW USED
Since this variable represents how the CRS was actually used, this information is determined during the child seat inspection and/or by asking appropriate questions during the interview.

COLUMN Name: HOWUSED

SAS Value	Value Text
1	Infant seat (ISS)
2	Forward facing (FSS)
3	Booster seat (BSS)
4	Integrated seat (INT)

SAS Value	Value Text
5	Harness (HSS)
6	Vest (VSS)
7	Special needs (SNSS)
8	Other (specify)
9	Unknown

CHILD SEAT NUMBER

This variable is a key variable. Child Seat Numbers are assigned sequentially beginning with one for the seats in the vehicle.

COLUMN Name: CHILDSEATNO

CHILD SEAT PLACEMENT

This variable reports the placement of the child restraint in the seating position.

COLUMN Name: PLACEMENT

SAS Value	Value Text
1	Seat
2	Floor
3	Lap of other occupant
4	Console
8	Other (specify)
9	Unknown

CHILD SEAT TYPE

This variable reports the type of this child restraint.

COLUMN Name: CHILDSEATYPE

SAS Value	Value Text
1	Infant seat (ISS)
2	Convertible seat (CSS)
3	Forward facing (FSS)
4	Booster/Convertible facing seat (BSS/CSS)
5	Booster/Forward facing seat (BSS/FSS)
6	Booster seat (BSS)
7	Vest (VSS)
8	Harness (HSS)

SAS Value	Value Text
9	Special needs (SNSS)
95	Integrated seat (INT)
97	Other (specify)
99	Unknown

CHILD SEAT ORIENTATION

This variable reports the orientation of the child seat at the time of the crash.

COLUMN Name: ORIENTATION

SAS Value	Value Text
1	Rear facing
2	Forward facing
3	Supine
8	Other (specify)
9	Unknown

HARNESS DESIGN

This variable reports whether this child restraint was designed with a harness.

COLUMN Name: HARNESSDESIGN

SAS Value	Value Text
0	No harness/shield available (or not designed with harness/shield)
1	3 pt
2	5 pt
3	6 pt
4	T-Shield
5	Tray Shield
6	Shield
9	Unknown

HARNESS USE
This variable reports how the child seat harness was used at the time of the crash.

COLUMN Name: HARNESSUSE

SAS Value	Value Text
0	Not designed with harness
1	Harness/shield not used
2	Harness straps in Top/Highest slots
3	Harness straps in the Middle slots
4	Harness straps in the Bottom/Lower slots
5	Harness used - slot use unknown
6	Retrofitted with Harness
7	Shield used
8	Other (specify)
9	Unknown if harness/shield used

LATCH ANCHOR USE
This variable reports whether the LATCH anchors on the child seat were being used at the time of the crash.

COLUMN Name: LATCHUSE

SAS Value	Value Text
0	Not designed with lower anchors
1	Lower anchors used
3	Lower anchors - not used
9	Unknown if lower anchors used

LATCH ANCHOR DESIGN
This variable reports whether the child seat was designed with LATCH anchors to secure the child seat to the seating position.

COLUMN Name: LATCHDESIGN

SAS Value	Value Text
0	No lower anchors available (or not designed with lower anchors)
1	Lower anchors available (or designed with lower anchors)
9	Unknown

LATCH PLATE TYPE
This variable is coded for all seat belts in seats associated with a child restraint.

COLUMN Name: LATCHPLATE

SAS Value	Value Text
0	Not used/not available
1	Sliding
2	Light weight locking/cinching
3	Locking
4	Switchable
5	Sewn On
9	Unknown Type

LATCH TETHER AVAILABILITY
This variable reports whether the vehicle was equipped with a LATCH system tether. In some vehicles, such as mini-vans and station wagons, the tether anchor may be found on the rear floor of the vehicle, on the back of the rear seat, and on the roof area. It may be concealed by some sort of covering which can be removed or "flipped up".

COLUMN Name: LATCHTETHER

SAS Value	Value Text
0	No
1	Yes
9	Unknown if tether

LOCKING CLIP USE
A locking clip is usually included with the CRS at the time of purchase and typically found on the back aspect of CRS seat back. The purpose of a locking clip is to lock belt systems of vehicles that contain sliding latch plates and emergency locking retractors only (e.g., vehicles that do not have automatic locking capability). Locking clips used on the lap and shoulder belt combination are to be positioned not more than one inch above the latch plate. Seat belts are usually labeled indicating the need of a locking clip and this need is also discussed in the vehicle owner's manual.

COLUMN Name: LOCKCLIPUSE

SAS Value	Value Text
0	None present
1	Locking clip used on lap and shoulder belt

SAS Value	Value Text
2	Locking clip used on lap belt only
3	Locking clip used on shoulder belt only
4	Internal belt lock present and used
5	Internal belt lock present and not used
6	Internal belt lock present, use unknown
8	Other (specify)
9	Unknown

LOWER ANCHORS AVAILABILITY
This variable reports whether the LATCH anchors were in use at the time of the crash.

COLUMN Name: LATCHANCHOR

SAS Value	Value Text
0	No
1	Yes
9	Unknown if anchor

RETAINER CLIP DESIGN
This variable reports whether the child seat was designed to be used with a chest retainer clip. A chest retainer clip is a plastic device which attaches the two harness straps.

COLUMN Name: RETAINERCLIPDESIGN

SAS Value	Value Text
0	No clip available, or not designed with retainer clip
1	Clip available
9	Unknown

RETAINER CLIP USE
This variable reports whether a chest retainer clip was being used at the time of the crash, and if so, the position of the clip in relation to the child's torso.

COLUMN Name: RETAINERCLIPUSE

SAS Value	Value Text
0	Not designed with retainer clip
1	Retainer clip not used

SAS Value	Value Text
2	Retainer clip used - neck level
3	Retainer clip used - chest/armpit Level
4	Retainer clip used - stomach level
5	Retainer clip used - unknown level
6	Retrofitted with retainer clip
9	Unknown if retainer clip used

TETHER DESIGN

The Lower Anchors and Tethers for Children (LATCH) system is comprised of a top tether strap and lower anchor straps. This variable reports if the CRS was equipped with a top tether strap that is used to secure the top of the CRS to the vehicle.

COLUMN Name: TETHERDESIGN

SAS Value	Value Text
0	No tether available (or not designed with Tether)
1	Tether available (or designed with Tether)
9	Unknown

TETHER USE

This variable reports if the child seat's tether was being used to secure the child seat to the seat position.

COLUMN Name: TETHERUSE

SAS Value	Value Text
0	Not designed with Tether
1	Tether not used
2	Tether used
9	Unknown if Tether Used

EJECT Dataset

Key Identifiers: PSU, CASENO, VEHNO, OCCNO, EJECTNO

The EJECT dataset captures whether an occupant was ejected or not. This table Figure 35 displays the list of all the data elements in the EJECT table. Information about the type of each variable, its length, the format, and the label is provided for each data element. There will normally be one row per occupant.

```
Data Set Name        CISS19.EJECT              Observations           5641
Member Type          DATA                      Variables              15
Engine               V9                        Indexes                0
Created              10/22/2020 13:31:06       Observation Length     72
Last Modified        10/22/2020 13:31:06       Deleted Observations   0
Protection                                     Compressed             NO
Data Set Type                                  Sorted                 YES
Label
Data Representation  WINDOWS_32
Encoding             wlatin1  Western (Windows)
```

```
                    Alphabetic List of Variables and Attributes

  #    Variable       Type    Len   Format          Informat      Label

  1    CASEID         Num      5    11.             11.           SYSTEM CASE IDENTIFIER
  3    CASENO         Num      3    11.             11.           SEQUENTIAL CASE NUMBER
  4    CASENUMBER     Char    16    $20.            $20.          CASE NUMBER
 13    CASEWGT        Num      8    26.20                         CASE WEIGHT
  5    CATEGORY       Num      3    11.             11.           CASE CATEGORY
 10    EJECTAREA      Num      3    EJECTAREA19F.   11.           EJECTION AREA
 11    EJECTMED       Num      3    EJECTMED19F.    11.           EJECTION MEDIUM
 12    EJECTMEDSTAT   Num      3    EJECTMEDST19F.  11.           EJECTION MEDIUM STATUS
  8    EJECTNO        Num      3    11.             11.           EJECTION NUMBER
  9    EJECTTYPE      Num      3    EJECTION19F.    11.           EJECTION TYPE
  7    OCCNO          Num      3    6.              6.            OCCUPANT NUMBER
  2    PSU            Num      3    11.             11.           PRIMARY SAMPLING UNIT
 14    PSUSTRAT       Num      3    11.             11.           PSU STRATIFICATION
  6    VEHNO          Num      3    11.             11.           VEHICLE NUMBER
 15    VERSION        Num      3    6.              6.            VERSION NUMBER
```

```
                         Sort Information

            Sortedby        PSU CASENO VEHNO OCCNO EJECTNO
            Validated       YES
            Character Set   ANSI
```

Figure 35.

EJECTION NUMBER

This variable, in addition to PSU, CASENO, VEHNO and OCCNO, is the key field to identify a particular ejection. The field is numbered sequentially beginning with one (1). Ejections are numbered in regards to the vehicle, not an occupant, so an occupant with multiple ejections may not have sequentially numbered entries in the Eject dataset. While most occupants will only have one entry, there is the possibility an occupant may experience more than one ejection during a crash.

COLUMN Name: EJECTNO

OCCUPANT NUMBER
This variable is a sequentially assigned number for all occupants in the vehicle. Numbers are assigned from left to right with the front row and then other rows going backwards.

COLUMN Name: OCCNO

EJECTION AREA
This field denotes the basic area of the ejection.

COLUMN Name: EJECTAREA

SAS Value	Value Text
0	No Ejection
1	Windshield
2	Left front
3	Right front
4	Left rear
5	Right rear
6	Rear
7	Roof
89	Unknown if ejected
98	Other area
99	Unknown

EJECTION MEDIUM
This field gives more information regarding the area of ejection and should be used with EJECTAREA for determining the location of the ejection.

COLUMN Name: EJECTMED

SAS Value	Value Text
0	No Ejection
1	Door/hatch/tailgate
2	Non-fixed roof structure
3	Fixed glazing
4	Non-fixed glazing (specify)
5	Integral structure

SAS Value	Value Text
79	Unknown ejection area
89	Unknown if ejected
98	Other medium (specify)
99	Unknown

EJECTION MEDIUM STATUS

This variable is a description of the status of the area through which an occupant was ejected. It reports the status of the medium immediately prior to the impact.

COLUMN Name: EJECTMEDSTAT

SAS Value	Value Text
0	No ejection
1	Open
2	Closed
3	Integral Structure
79	Unknown ejection area
89	Unknown if ejected
99	Unknown status

EJECTION TYPE

This variable reports the extent of the ejection.

COLUMN Name: EJECTTYPE

.

SAS Value	Value Text
0	Not Ejected
1	Ejected, Totally
2	Ejected, Partially
3	Ejection - Unknown Degree
9	Unknown

EMSCARE Dataset

Key Identifiers: PSU, CASENO, VEHNO, OCCNO, EMSNO

The EMSCARE dataset contains information regarding EMS care afforded to the occupant. Data can be found in this dataset when OCC.EMSDATA=1. Figure 36 displays the list of all the data elements in the EMSCARE table. Information about the type of each variable, its length, the format, and the label is provided for each data element.

```
Data Set Name        CISS19.EMSCARE          Observations          751
Member Type          DATA                    Variables             19
Engine               V9                      Indexes               0
Created              10/22/2020 13:31:06     Observation Length    88
Last Modified        10/22/2020 13:31:06     Deleted Observations  0
Protection                                   Compressed            NO
Data Set Type                                Sorted                YES
Label
Data Representation  WINDOWS_32
Encoding             wlatin1  Western (Windows)
```

```
                     Alphabetic List of Variables and Attributes

 #    Variable      Type   Len   Format         Informat    Label

16    ARRMEDICAL    Num    4     EMSLAPS19F.    11.         ELAPSED TIME FROM CRASH THAT EMS UNIT ARRIVED AT MEDICAL
 1    CASEID        Num    5     11.            11.         SYSTEM CASE IDENTIFIER
 3    CASENO        Num    3     11.            11.         SEQUENTIAL CASE NUMBER
 4    CASENUMBER    Char   16    $20.           $20.        CASE NUMBER
17    CASEWGT       Num    8     25.20                      CASE WEIGHT
 5    CATEGORY      Num    3     11.            11.         CASE CATEGORY
 9    EMSAGENCY     Num    3     EMSAGNCY19F.   11.         EMS AGENCY
12    EMSCARE       Num    3     EMSCARE19F.    11.         TYPE OF EMS CARE RECEIVED
11    EMSMODE       Num    3     EMSMODE19F.    11.         EMS UNIT MODE OF TRANSPORTATION
 8    EMSNO         Num    3     20.            20.         EMS NUMBER
10    EMSTYPE       Num    3     EMSTYPE19F.    11.         TYPE OF EMS UNIT
13    NOTIFIED      Num    4     EMSTIME19F.    11.         ELAPSED TIME FROM CRASH THAT EMS WAS NOTIFIED
 7    OCCNO         Num    3     6.             6.          OCCUPANT NUMBER
 2    PSU           Num    3     11.            11.         PRIMARY SAMPLING UNIT
18    PSUSTRAT      Num    3     11.            11.         PSU STRATIFICATION
14    SCENEARR      Num    4     EMSLAPS19F.    11.         ELAPSED TIME BETWEEN CRASH AND EMS ARRIVAL AT SCENE
15    SCENEDEP      Num    4     EMSLAPS19F.    11.         ELAPSED TIME BETWEEN CRASH AND EMS SCENE DEPARTURE
 6    VEHNO         Num    3     11.            11.         VEHICLE NUMBER
19    VERSION       Num    3     6.             6.          VERSION NUMBER
```

```
                          Sort Information

            Sortedby        PSU CASENO VEHNO OCCNO EMSNO
            Validated       YES
            Character Set   ANSI
```

Figure 36.

EMS NUMBER

The EMS Number is a key variable used to number the units which respond to the scene. This field is number sequentially beginning with one (1).

COLUMN Name: EMSNO

EMS AGENCY

This variable reports the type of EMS agency that responded to the scene of the crash.

COLUMN Name: EMSAGENCY

SAS Value	Value Text
1	Fire Department
2	Rescue Squad
3	Police Department
4	Trauma Unit
5	Disaster Unit
6	Ambulance Service Unit
7	Hospital
8	Mortuaries/Funeral Home
98	Other (specify)
99	Unknown

TYPE OF EMS UNIT

This variable reports the type of EMS unit that responded.

COLUMN Name: EMSTYPE

SAS Value	Value Text
1	Ambulance
2	Fire Truck/Apparatus
8	Other
9	Unknown

EMS UNIT MODE OF TRANSPORTATION
This variable reports whether the responding EMS vehicle responded via land or air.

COLUMN Name: EMSMODE

SAS Value	Value Text
1	Land
2	Air

TYPE OF EMS CARE RECEIVED
This variable reports the level of care the occupant received from the responding EMS unit.

COLUMN Name: EMSCARE

SAS Value	Value Text
0	No Care Administered
1	Basic Life Support
2	Advanced Life Support
3	Care administered, type unknown
9	Unknown if care administered

ELAPSED TIME FROM CRASH THAT EMS WAS NOTIFIED
This variable reports the number of minutes between the time of the crash and when EMS was notified. Since coders are required to document the time coded on the EMS report, in rare occasions this value may be negative due to conflicts between the police crash report and the EMS report.

COLUMN Name: NOTIFIED

SAS Value	Value Text
-50 - +200	[Actual Value]
9997	Transport refused
9998	Not Applicable
9999	Unknown

ELAPSED TIME BETWEEN CRASH AND EMS ARRIVAL AT SCENE

This field reports the number of minutes between the time of the crash and when EMS arrived at the scene. Since coders are required to document the time coded on the EMS report, in rare occasions this value may be negative due to conflicts between the police crash report and the EMS report.

COLUMN Name: SCENEARR

SAS Value	Value Text
-50 - +1600	[Actual Value]
9997	Transport refused
9998	Not Applicable
9999	Unknown

ELAPSED TIME BETWEEN CRASH AND EMS SCENE DEPARTURE

This variable reports the number of minutes between the time of the crash and when EMS departed the scene. Since coders are required to document the time coded on the document, in rare occasions this value may be negative due to conflicts between the police crash report and the EMS report.

COLUMN Name: SCENEDEP

SAS Value	Value Text
-50 - 1600	[Actual Value]
9997	Transport refused
9998	Not Applicable
9999	Unknown

ELAPSED TIME FROM CRASH THAT EMS UNIT ARRIVED AT MEDICAL

This variable reports the number of minutes between the time of the crash and when EMS arrived at the medical facility.

COLUMN Name: ARRMEDICAL

SAS Value	Value Text
0 - 1600	[Actual Value]
9997	Transport refused
9998	Not Applicable
9999	Unknown

INJURY Dataset

Key Identifiers: PSU, CASENO, VEHNO, OCCNO, INJNO

The INJURY dataset contains information regarding any injuries sustained by the occupant as documented from official medical sources as well as the interview from the occupant or its surrogate. Data will be found in this dataset for any occupant with OCC.INJSTATUS=1. Figure 37 displays the list of all the data elements in the INJURY table. Information about the type of each variable, its length, the format, and the label is provided for each data element.

```
Data Set Name          CISS19.INJURY              Observations          13214
Member Type            DATA                       Variables             17
Engine                 V9                         Indexes               0
Created                10/22/2020 13:31:08        Observation Length    80
Last Modified          10/22/2020 13:31:08        Deleted Observations  0
Protection                                        Compressed            NO
Data Set Type                                     Sorted                YES
Label
Data Representation    WINDOWS_32
Encoding               wlatin1  Western (Windows)


                    Alphabetic List of Variables and Attributes

  #    Variable      Type    Len    Format        Informat      Label

 14    AIS           Num      3     AIS19F.       11.           AIS SEVERITY
  9    AISCODE       Char     8     $10.          $10.          AIS CODE
  1    CASEID        Num      5     11.           11.           SYSTEM CASE IDENTIFIER
  3    CASENO        Num      3     11.           11.           SEQUENTIAL CASE NUMBER
  4    CASENUMBER    Char    16     $20.          $20.          CASE NUMBER
 15    CASEWGT       Num      8     26.20                       CASE WEIGHT
  5    CATEGORY      Num      3     11.           11.           CASE CATEGORY
 13    INJLEVEL      Num      3     11.           11.           AIS INJURY LEVEL
  8    INJNO         Num      3     11.           11.           INJURY NUMBER
  7    OCCNO         Num      3     6.            6.            OCCUPANT NUMBER
  2    PSU           Num      3     11.           11.           PRIMARY SAMPLING UNIT
 16    PSUSTRAT      Num      3     11.           11.           PSU STRATIFICATION
 10    REGION        Num      3     REGION19F.    11.           AIS BODY REGION
 12    STRUSPEC      Num      3     11.           11.           AIS SPECIFIC ANATOMIC STRUCTURE
 11    STRUTYPE      Num      3     11.           11.           AIS TYPE OF ANATOMIC STRUCTURE
  6    VEHNO         Num      3     11.           11.           VEHICLE NUMBER
 17    VERSION       Num      3     6.            6.            VERSION NUMBER


                              Sort Information

            Sortedby        PSU CASENO VEHNO OCCNO INJNO
            Validated       YES
            Character Set   ANSI
```

Figure 37.

OCCUPANT NUMBER
This key variable reports the occupant this injury is associated. It can be used to merge the INJURY dataset to the OCC dataset.

COLUMN Name: OCCNO

INJURY NUMBER
This key variable reports the sequential injury number for this injury. It can be used to merge with the ICS and LOCALIZER datasets.

COLUMN Name: INJNO

AIS CODE
This variable stores the AIS Code assigned to the injury. This is an eight digit code which contains information regarding the injury's body region, organ, type of injury, and severity. CISS currently uses the AIS 2015 codes developed by the Association for the Advancement of Automotive Medicine (AAAM).

COLUMN Name: AISCODE

AIS SEVERITY
This variable reports the severity of the coded injury (AISCODE).

COLUMN Name: AIS

SAS Value	Value Text
1	Minor Injury
2	Moderate Injury
3	Serious Injury
4	Severe Injury
5	Critical Injury
6	Maximum Injury
9	Injured, Unknown Severity

ICS Dataset

Key Identifiers: PSU, CASENO, VEHNO, OCCNO, INJNO

The ICS table reports Injury Causation Scenarios for the injuries coded to the occupant. While there will normally be one ICS per injury, there is the possibility the injury has two coded scenarios. The following fields are completed for every ICS row: Body Region Injured (BRI), Source of Energy (SOE), and ICS Type (ICS_TYPE). The remainder of the data fields will be completed based upon the ICS Type (ICS_TYPE):

- Basic (1) will see the completion of the following fields:
  - IPCSAREA1
  - IPC1, and
  - IPCCONF1

- Critical IPCs 2pt (2) will see the completion of the following fields:
  - IPCAREA1
  - IPC1
  - IPCCONF1
  - REGCONTACT1
  - IPCAREA2
  - IPC2
  - IPCCONF2
  - REGCONTACT2
  - Additionally, any related suffixed "_ALT" (e.g. IPCAREA1_ALT) fields may or may not be completed

- Critical IPCs 3pt (3) will see the completion of the following fields:
  - IPCAREA1
  - IPC1
  - IPCCONF1
  - REGCONTACT1
  - IPCAREA2
  - IPC2
  - IPCCONF2
  - REGCONTACT2
  - IPCAREA3
  - IPC3
  - IPCCONF3
  - REGCONTACT3
  - Additionally, any related suffixed "_ALT" (e.g. IPCAREA1_ALT) fields may or may not be completed

- Isolated IPC (4) will see the completion of the following fields:
  - IPCAREA1
  - IPC1
  - IPCCONF1
  - REGCONTACT1
  - Additionally, any related suffixed "_ALT" (e.g. IPCAREA1_ALT) fields may or may not be completed

- Tandem IPC (5) will see the completion of the following fields:
  - IPCAREA1
  - IPC1
  - IPCCONF1
  - REGCONTACT1
  - IPCAREA_2ND
  - IPC_2ND
  - IPCCONF_2ND
  - IPCAREA_3RD

- IPC_3RD
- IPCCONF_3RD

Additionally, the FACTOR1, FACTOR2, FACTOR3, FACTOR4, FACTOR5 fields will be completed when ICS_TYPE equals 2, 3, 4, or 5.

Figure 38 displays the list of all the data elements in the ICS table. Information about the type of each variable, its length, the format, and the label is provided for each data element.

Note: See Injury Causation Coding Overview section of the CISS Coding and Editing Manual for additional details.

```
Data Set Name         CISS19.ICS              Observations          13317
Member Type           DATA                    Variables             62
Engine                V9                      Indexes               0
Created               10/22/2020 13:31:08     Observation Length    1424
Last Modified         10/22/2020 13:31:08     Deleted Observations  0
Protection                                    Compressed            NO
Data Set Type                                 Sorted                YES
Label
Data Representation   WINDOWS_32
Encoding              wlatin1  Western (Windows)
```

Alphabetic List of Variables and Attributes

#	Variable	Type	Len	Format	Informat	Label
10	BRI	Num	3	VAIDBRI19F.	11.	BODY REGION INJURED
1	CASEID	Num	5	11.	11.	SYSTEM CASE IDENTIFIER
3	CASENO	Num	3	11.	11.	SEQUENTIAL CASE NUMBER
4	CASENUMBER	Char	16	$20.	$20.	CASE NUMBER
60	CASEWGT	Num	8	26.20		CASE WEIGHT
5	CATEGORY	Num	3	11.	11.	CRASH CATEGORY
54	FACTOR1	Num	3	VAIDFACTOR19F.	11.	CONTRIBUTING FACTOR 1
55	FACTOR2	Num	3	VAIDFACTOR19F.	11.	CONTRIBUTING FACTOR 2
56	FACTOR3	Num	3	VAIDFACTOR19F.	11.	CONTRIBUTING FACTOR 3
57	FACTOR4	Num	3	VAIDFACTOR19F.	11.	CONTRIBUTING FACTOR 4
58	FACTOR5	Num	3	VAIDFACTOR19F.	11.	CONTRIBUTING FACTOR 5
12	ICSCONFIDENCE	Num	3	VAIDCONFIDENCE19F.	11.	ICS CONFIDENCE
9	ICSNO	Num	3	11.	11.	ICS NUMBER
59	ICSNOTE	Char	1200	$32767.	$32767.	ICS NOTE
13	ICS_TYPE	Num	3	ICSTYPE19F.	11.	ICS TYPE
8	INJNO	Num	3	11.	11.	INJURY NUMBER
15	IPC1	Num	4	VAIDIPC19F.	11.	IPC Component - #1 - Primary
25	IPC2	Num	3	VAIDIPC19F.	11.	IPC Component - #2 - Primary
35	IPC3	Num	3	VAIDIPC19F.	11.	IPC Component - #3 - Primary
20	IPC1_ALT	Num	3	VAIDIPC19F.	11.	IPC Component - #1 - Alternate
30	IPC2_ALT	Num	3	VAIDIPC19F.	11.	IPC Component - #2 - Alternate
40	IPC3_ALT	Num	3	VAIDIPC19F.	11.	IPC Component - #3 - Alternate
14	IPCAREA1	Num	3	VAIDAREA19F.	11.	IPC Area - #1 - Primary
24	IPCAREA2	Num	3	VAIDAREA19F.	11.	IPC Area - #2 - Primary
34	IPCAREA3	Num	3	VAIDAREA19F.	11.	IPC Area - #3 - Primary
19	IPCAREA1_ALT	Num	3	VAIDAREA19F.	11.	IPC Area - #1 - Alternate
29	IPCAREA2_ALT	Num	3	VAIDAREA19F.	11.	IPC Area - #2 - Alternate
39	IPCAREA3_ALT	Num	3	VAIDAREA19F.	11.	IPC Area - #3 - Alternate
44	IPCAREA_2ND	Num	3	VAIDAREA19F.	11.	Tandem IPC Secondary Area
49	IPCAREA_3RD	Num	3	VAIDAREA19F.	11.	Tandem IPC Tertiary Area
16	IPCCONF1	Num	3	VAIDCONFIDENCE19F.	11.	IPC Confidence - #1 - Primary
26	IPCCONF2	Num	3	VAIDCONFIDENCE19F.	11.	IPC Confidence - #2 - Primary
36	IPCCONF3	Num	3	VAIDCONFIDENCE19F.	11.	IPC Confidence - #3 - Primary
21	IPCCONF1_ALT	Num	3	VAIDCONFIDENCE19F.	11.	IPC Confidence - #1 - Alternate
31	IPCCONF2_ALT	Num	3	VAIDCONFIDENCE19F.	11.	IPC Confidence - #2 - Alternate
41	IPCCONF3_ALT	Num	3	VAIDCONFIDENCE19F.	11.	IPC Confidence - #3 - Alternate
46	IPCCONF_2ND	Num	3	VAIDCONFIDENCE19F.	11.	Tandem IPC Secondary Confidence
51	IPCCONF_3RD	Num	3	VAIDCONFIDENCE19F.	11.	Tandem IPC Tertiary Confidence
45	IPC_2ND	Num	3	VAIDIPC19F.	11.	Tandem IPC Secondary

```
50   IPC_3RD          Num   3   VAIDIPC19F.       11.      Tandem IPC Tertiary
18   LOADPATH1        Num   4   VAIDLOAD19F.      11.      LOAD PATH - #1 – PRIMARY
28   LOADPATH2        Num   4   VAIDLOAD19F.      11.      LOAD PATH - #2 – SECONDARY
38   LOADPATH3        Num   4   VAIDLOAD19F.      11.      LOAD PATH - #3 – TERTIARY
23   LOADPATH1_ALT    Num   4   VAIDLOAD19F.      11.      LOAD PATH - #1 – PRIMARY ALTERNATE
33   LOADPATH2_ALT    Num   4   VAIDLOAD19F.      11.      LOAD PATH - #2 – SECONDARY ALTERNATE
43   LOADPATH3_ALT    Num   4   VAIDLOAD19F.      11.      LOAD PATH - #3 – TERTIARY ALTERNATE
48   LOADPATH_2ND     Num   4   VAIDLOAD19F.      11.      LOAD PATH – TANDEM SECONDARY
53   LOADPATH_3RD     Num   4   VAIDLOAD19F.      11.      LOAD PATH – TANDEM TERTIARY
 7   OCCNO            Num   3   6.                6.       OCCUPANT NUMBER
 2   PSU              Num   3   11.               11.      PRIMARY SAMPLING UNIT
61   PSUSTRAT         Num   3   11.               11.      PSU STRATIFICATION
17   REGCONTACT1      Num   3   VAIDBRC19F.       11.      Body Region Contacted - #1 - Primary
27   REGCONTACT2      Num   3   VAIDBRC19F.       11.      BODY REGION CONTACTED - #2 - SECONDARY
37   REGCONTACT3      Num   3   VAIDBRC19F.       11.      BODY REGION CONTACTED - #3 - TERTIARY
22   REGCONTACT1_ALT  Num   4   VAIDBRC19F.       11.      BODY REGION CONTACTED - #1 - PRIMARY ALTERNATE
32   REGCONTACT2_ALT  Num   4   VAIDBRC19F.       11.      BODY REGION CONTACTED - #2 - SECONDARY ALTERNATE
42   REGCONTACT3_ALT  Num   4   VAIDBRC19F.       11.      BODY REGION CONTACTED - #3 - TERTIARY ALTERNATE
47   REGCONTACT_2ND   Num   4   VAIDBRC19F.       11.      BODY REGION CONTACTED - TANDEM SECONDARY
52   REGCONTACT_3RD   Num   4   VAIDBRC19F.       11.      BODY REGION CONTACTED - TANDEM TERTIARY
11   SOE              Num   3   VAIDSOE19F.       11.      SOURCE OF ENERGY
 6   VEHNO            Num   3   11.               11.      VEHICLE NUMBER
62   VERSION          Num   3   6.                6.       VERSION NUMBER


                               Sort Information

               Sortedby      PSU CASENO VEHNO OCCNO INJNO ICSNO
               Validated     YES
               Character Set ANSI
```

Figure 38.

BODY REGION INJURED

COLUMN Name: BRI

SAS Value	Value Text
1	Head/Face
2	Neck
3	Cervical Spine
4	Thoracic Spine
5	Lumbar Spine
6	Shoulder
7	Arm
8	Elbow
9	Forearm
10	Wrist
11	Hand
12	Thorax
13	Abdomen
14	Pelvis
15	Hip
16	Thigh
17	Knee

SAS Value	Value Text
18	Leg
19	Ankle
20	Foot
99	Unknown

SOURCE OF ENERGY

This variable reports the source of energy of the injury. This field is coded for all rows. The value is a three digit number. The 100 series of codes refer to crash events where the second and third digits refer to the event which was the source of energy for this injury. The 200 series of codes refer to air bags where the second and third digits refer to the air bag which was the source of energy for this injury.

COLUMN Name: SOE

SAS Value	Value Text
1##	Crash - Event XX
199	Crash - Event unknown
2##	Air Bag ##
300	Pretensioner
5##	Injury ##
999	Unknown

ICS TYPE

This variable reports the type of Injury Causation Scenario (ICS) completed for this injury. This field should alert the user to the completeness of the data in this dataset.

COLUMN Name: ICS_TYPE

SAS Value	Value Text
1	Basic
2	Isolated IPC
3	Critical IPC 2-point
4	Critical IPC 3-point
5	Tandem IPC

BODY REGION CONTACTED - #1 - PRIMARY

This variable reports the body region contacted by the injury producing component (IPC), it does not necessarily have to be the same body region that was injured. This field is NOT coded when ICS_TYPE equals 1/Basic.

COLUMN Name: REGCONTACT1

SAS Value	Value Text
1	Head/Face
2	Neck
3	Cervical Spine
4	Thoracic Spine
5	Lumbar Spine
6	Shoulder
7	Arm
8	Elbow
9	Forearm
10	Wrist
11	Hand
12	Thorax
13	Abdomen
14	Pelvis
15	Hip
16	Thigh
17	Knee
18	Leg
19	Ankle
20	Foot
88	Caused by other injury
99	Unknown

BODY REGION CONTACTED - #1 - ALTERNATE

This variable reports the body region contacted by the injury producing component (IPC), it does not necessarily have to be the same body region that was injured. This field is NOT coded when ICS_TYPE equals 2, 3, or 4. Please refer to BODY REGION CONTACTED - #1 - PRIMARY for a list of codes and attributes.

COLUMN Name: REGCONTACT1_ALT

BODY REGION CONTACTED - #2 - SECONDARY

This variable reports situations where a second body region was contacted in addition to another body region. This variable is only collected when ICS_TYPE equals (3) Critical IPCs 2pt or (4) Critical IPCs 3pt. Please refer to BODY REGION CONTACTED - #1 - PRIMARY for a list of codes and attributes.

COLUMN Name: REGCONTACT2

BODY REGION CONTACTED - #2 - SECONDARY ALTERNATE

This variable reports situations where a second body region was contacted in addition to another body region. This variable is only collected when ICS_TYPE equals (3) Critical IPCs 2pt or (4) Critical IPCs 3pt. Please refer to BODY REGION CONTACTED - #1 - PRIMARY for a list of codes and attributes.

COLUMN Name: REGCONTACT2_ALT

BODY REGION CONTACTED - #3 - TERTIARY

This variable reports situations where a third body region was contacted in addition to two other body regions. This variable is only collected when ICS_TYPE equals (4) Critical IPCs 3pt. Please refer to BODY REGION CONTACTED - #1 - PRIMARY for a list of codes and attributes.

COLUMN Name: REGCONTACT3

BODY REGION CONTACTED - #3 - TERTIARY ALTERNATE

This variable reports situations where a third body region was contacted in addition to two other body regions. This variable is only collected when ICS_TYPE equals (4) Critical IPCs 3pt. Please refer to BODY REGION CONTACTED - #1 - PRIMARY for a list of codes and attributes.

COLUMN Name: REGCONTACT3_ALT

BODY REGION CONTACTED - 2ND

This variable reports situations where a third body region was contacted in addition to two other body regions. This variable is only collected when ICS_TYPE equals (4) Critical IPCs 3pt. Please refer to BODY REGION CONTACTED - #1 - PRIMARY for a list of codes and attributes.

COLUMN Name: REGCONTACT_2ND

BODY REGION CONTACTED - 3RD

This variable reports situations where a third body region was contacted in addition to two other body regions. This variable is only collected when ICS_TYPE equals (4) Critical IPCs 3pt. Please refer to BODY REGION CONTACTED - #1 - PRIMARY for a list of codes and attributes.

COLUMN Name: REGCONTACT_3RD

ICS CONFIDENCE

This variable reports the injury coder's confidence in their coding of the injury causation scenario.

COLUMN Name: ICSCONFIDENCE

SAS Value	Value Text
1	Certain
2	Probable
3	Possible
8	Caused by other injury
9	Unknown

ICS NOTE

This text field reports notes from the injury coder regarding information from the medical report which may not be explicitly captured in the coded data for the particular ICS entry.

COLUMN Name: ICSNOTE

IPC AREA - #1 - PRIMARY

This variable reports the primary injury producing component (IPC) area, and serves as a filter for the selection of the more specific IPC1 field. This variable is coded for all injuries.

COLUMN Name: IPCAREA1

SAS Value	Value Text
1	Front
2	Left Side
3	Left Door Panel
4	Right Side

SAS Value	Value Text
5	Right Door Panel
6	Interior
7	Roof
8	Floor
9	Rear
10	Adaptive Driving Equipment
11	Exterior Of Occupant's Vehicle
12	Exterior Of Other Motor Vehicle
13	Other Vehicle Or Object
14	Noncontact Injury
15	Left Air Bag
16	Right Air Bag
88	Caused by other injury
99	Injured, Unknown Source

IPC AREA - #1 - ALTERNATE

This variable reports the alternative primary injury producing component (IPC) area, and serves as a filter for the selection of the more specific IPC1_ALT field. This field may or may not be completed, however it is NOT assessed when ICS_TYPE equals (1) Basic. Please refer to IPC AREA - #1 - PRIMARY for a list of codes and attributes.

COLUMN Name: IPCAREA1_ALT

IPC AREA - #2 - PRIMARY

This variable reports the secondary injury producing component (IPC) area, and serves as a filter for the selection of the more specific IPC2 field. This field is only completed when ICS_TYPE equals (3) IPC Critical 2pt, or (4) IPC Critical 3pt. Please refer to IPC AREA - #1 - PRIMARY for a list of codes and attributes.

COLUMN Name: IPCAREA2

IPC AREA - #2 - ALTERNATE

This variable reports the possible secondary alternative injury producing component (IPC) area, and serves as a filter for the selection of the more specific IPC2_ALT field. This field is only completed when the injury coder believes it's possible this component, as opposed to IPCAREA2, may have contributed to the injury. This field may or may not be completed, and is only completed when ICS_TYPE equals (3) IPC Critical 2pt, or (4) IPC Critical 3pt. Please refer to IPC AREA - #1 - PRIMARY for a list of codes and attributes.

COLUMN Name: IPCAREA2_ALT

IPC AREA - #3 - PRIMARY

This variable reports the tertiary injury producing component (IPC) area, and serves as a filter for the selection of the more specific IPC3 field. This field is only completed when ICS_TYPE equals (4) IPC Critical 3pt. Please refer to IPC AREA - #1 - PRIMARY for a list of codes and attributes.

COLUMN Name: IPCAREA3

IPC AREA - #3 - ALTERNATE

This variable reports the possible tertiary injury producing component (IPC) area, and serves as a filter for the selection of the more specific IPC3_ALT field. This field is only completed when the injury coder believes it's possible this component, as opposed to IPCAREA3, may have contributed to the injury. This field may or may not be completed, but is only completed when ICS_TYPE equals (4) IPC Critical 3pt. Please refer to IPC AREA - #1 - PRIMARY for a list of codes and attributes.

COLUMN Name: IPCAREA3_ALT

IPC COMPONENT - #1 - PRIMARY

This variable reports the primary injury producing component (IPC) for this ICS. This field is completed for all ICS entries.

COLUMN Name: IPC1

SAS Value	Value Text
101	Windshield
102	Mirror
103	Sunvisor
104	Steering wheel rim
105	Steering wheel hub/spoke
106	Steering wheel (combination of rim and hub/spoke)
107	Steering column, transmission selector lever, other attachment
108	Mounted electronic equipment (phone, laptop, GPS, etc.)
109	Glove compartment door
110	Other front object (specify):
111	Left instrument panel
112	Center instrument panel
113	Right instrument panel
114	Left, center instrument panel, junction
115	Right, center instrument panel, junction
116	Left lower instrument panel (includes knee bolster)

SAS Value	Value Text
117	Center lower instrument panel (includes knee bolster)
118	Right lower instrument panel (includes knee bolster)
119	Left lower instrument panel, center console, junction
120	Right lower instrument panel, center console, junction
201	Left A (A1/A2)-pillar
202	Left B-pillar
203	Other left pillar (specify):
211	Left side window glass
212	Left side window frame
213	Left side window sill
221	Left side panel forward of A1/A2 pillar
222	Left side panel rear of the B-pillar
231	Left A-pillar, instrument panel, door, junction
232	Left A-pillar, windshield header, roof side rail, roof, junction
233	Left B-pillar, roof side rail, roof, junction
234	Left B-pillar, door, junction
235	Left C-pillar, roof side rail, roof, junction
298	Other left side object (specify)
301	Left forward upper quadrant
302	Left forward lower quadrant
303	Left rear upper quadrant
304	Left rear lower quadrant
309	Left door panel unknown/multiple quadrant
311	Left hardware/armrest forward upper quadrant
312	Left hardware/armrest forward lower quadrant
313	Left hardware/armrest rear upper quadrant
314	Left hardware/armrest rear lower quadrant
319	Left hardware/armrest unknown/multiple quadrant
401	Right A (A1/A2)-pillar
402	Right B-pillar
403	Other right pillar (specify):
411	Right side window glass
412	Right side window frame
413	Right side window sill
421	Right side panel forward of A1/A2 pillar
422	Right side panel rear of the B-pillar
431	Right A-pillar, instrument panel, door, junction
432	Right A-pillar, windshield header, roof side rail, roof, junction
433	Right B-pillar, roof side rail, roof, junction
434	Right B-pillar, door, junction

SAS Value	Value Text
435	Right C-pillar, roof side rail, roof, junction
498	Other right side object (specify)
501	Right forward upper quadrant
502	Right forward lower quadrant
503	Right rear upper quadrant
504	Right rear lower quadrant
509	Right door panel unknown/multiple quadrant
511	Right hardware/armrest forward upper quadrant
512	Right hardware/armrest forward lower quadrant
513	Right hardware/armrest rear upper quadrant
514	Right hardware/armrest rear lower quadrant
519	Right hardware/armrest unknown/multiple quadrant
601	This occupants seat cushion
602	This occupants seat back
603	Seat latch points for child restraints
609	This occupants seat, unknown cushion or back
611	Other seating position seat cushion
612	Other seating position seat back
613	Other seating position, unknown cushion or back
621	Lap portion of belt restraint
622	Shoulder portion of belt restraint
623	Belt restraint B-pillar or door frame attachment point
624	Other restraint system component (specify):
631	This occupants head restraint
632	Other seating position head restraint
641	Other occupants (specify):
642	Interior loose objects (specify):
651	Transmission shifter
652	Grab handles
653	Engine shroud/cover
654	Seatback trays
661	Center console first row
662	Center console second row
663	Center console other row
671	Fold down armrest first row
672	Fold down armrest second row
673	Fold down armrest other row
681	Child safety seat shell, (i.e., interior, exterior, base, cup holder, padding, head restraint, handle)

SAS Value	Value Text
682	Child safety seat harness system, (i.e., straps, retainer clip, latchplate, buckle)
683	Unknown child safety seat component
696	Same occupant contact (specify) (ex. knee)
697	Cargo in vehicle
698	Other interior object(s) (specify):
701	Front header
702	Rear header
703	Roof left side rail
704	Roof right side rail
705	Roof or convertible top
706	Roof map light/console
707	Sunroof/components
708	Roll bar
801	Floor (including toe pan)
802	Parking brake handle
803	Foot controls including parking brake
901	Backlight (rear window)
902	Backlight storage rack, door, etc.
998	Other rear object (specify):
1001	Steering control devices (attached to OEM steering wheel)
1002	Steering knob attached to steering wheel
1003	Replacement steering wheel (i.e., reduced diameter)
1004	Joy stick steering controls
1005	Wheelchair tie-downs
1006	Modification to seat belts,(specify):
1007	Additional or relocated switches, (specify):
1008	Raised roof
1009	Wall mounted head rest (used behind wheel chair)
1098	Other adaptive device (specify):
1101	Hood
1102	Outside hardware (e.g., outside mirror, antenna)
1198	Other exterior surface or tires (specify):
1199	Unknown exterior objects
1201	Front bumper
1202	Hood edge
1203	Other front of vehicle (specify):
1204	Hood
1205	Hood ornament
1206	Windshield, roof rail, A-pillar

SAS Value	Value Text
1207	Side surface
1208	Side mirrors
1209	Other side protrusions (specify):
1210	Rear surface
1211	Undercarriage
1212	Tires and wheels
1298	Other exterior of other motor vehicle (specify):
1299	Unknown exterior of other motor vehicle
1301	Ground
1302	Tree
1303	Pole
1304	Traffic barrier (includes: jersey barrier, guardrail, etc.)
1398	Other object (specify):
1399	Unknown object (specify)
1401	Fire in vehicle
1402	Flying glass
1403	Air bag exhaust gases
1498	Other noncontact injury source (specify):
1501	Steering wheel hub
1502	Steering wheel hub compartment cover
1503	Left bottom instrument panel
1504	Left bottom instrument panel- compartment cover
1505	Left seat back
1506	Left door/panel
1507	Left roof side rail
1508	Left seat belt
1598	Left other air bag (specify)
1601	Right top instrument panel
1602	Right top instrument panel- compartment cover
1603	Right middle instrument panel
1604	Right middle instrument panel - compartment cover
1605	Right bottom instrument panel
1606	Right bottom instrument panel- compartment cover
1607	Right seat back
1608	Right door/panel
1609	Right roof side rail
1610	Right seat belt
1698	Right other air bag (specify)
8888	Caused by other injury
9999	Injured, unknown source

IPC COMPONENT - #1 - ALTERNATE

This variable reports the alternative primary injury producing component (IPC), and serves as a filter for the selection of the more specific IPC1 field. This field may or may not be completed.

This field is only completed when ICS_TYPE equals (2) Isolated IPC, (3) IPC Critical 2pt, (4) IPC Critical 3pt, or (5) Tandem IPC.

Please refer to IPC COMPONENT - #1 - PRIMARY for a list of codes and attributes.

COLUMN Name: IPC1_ALT

IPC COMPONENT - #2 - PRIMARY

This variable reports the secondary injury producing component (IPC). This field is only completed when ICS_TYPE equals (3) IPC Critical 2pt, or (4) IPC Critical 3pt.

Please refer to IPC COMPONENT - #1 - PRIMARY for a list of codes and attributes.

COLUMN Name: IPC2

IPC COMPONENT - #2 - ALTERNATE

This variable reports the alternative secondary injury producing component (IPC). This field may or may not be completed. This field is only completed when ICS_TYPE equals (3) IPC Critical 2pt, or (4) IPC Critical 3pt.

Please refer to IPC COMPONENT - #1 - PRIMARY for a list of codes and attributes.

COLUMN Name: IPC2_ALT

IPC COMPONENT - #3 - PRIMARY

This variable reports the tertiary injury producing component (IPC). This field is only completed when ICS_TYPE equals (4) IPC Critical 3pt.

Please refer to IPC COMPONENT - #1 - PRIMARY for a list of codes and attributes.

COLUMN Name: IPC3

IPC COMPONENT - #3 - ALTERNATE

This variable reports the alternative tertiary injury producing component (IPC). This field may or may not be completed. This field is only completed when ICS_TYPE equals (4) IPC Critical 3pt.

Please refer to IPC COMPONENT - #1 - PRIMARY for a list of codes and attributes.

COLUMN Name: IPC3_ALT

IPC CONFIDENCE - #1 - PRIMARY
This variable reports the injury coder's confidence in the coding of the IPC1 field. This field is completed for all ICS entries.

COLUMN Name: IPCCONF1

SAS Value	Value Text
1	Certain
2	Probable
3	Possible
8	Caused by other injury
9	Unknown

IPC CONFIDENCE - #1 - ALTERNATE
This variable reports the injury coder's confidence in the coding of the IPC1_ALT field. This field is only completed when the IPC1_ALT field is completed. Please refer to IPC CONFIDENCE - #1 - PRIMARY for a list of codes and attributes.

COLUMN Name: IPCCONF1_ALT

SAS Value	Value Text
1	Certain
2	Probable
3	Possible
8	Caused by other injury
9	Unknown

IPC CONFIDENCE - #2 - PRIMARY
This variable reports the injury coder's confidence in the coding of the IPC2 field. This field is only completed when the IPC2 field is completed. Please refer to IPC CONFIDENCE - #1 - PRIMARY for a list of codes and attributes.

COLUMN Name: IPCCONF2

SAS Value	Value Text
1	Certain
2	Probable
3	Possible

SAS Value	Value Text
8	Caused by other injury
9	Unknown

IPC CONFIDENCE - #2 - ALTERNATE

This variable reports the injury coder's confidence in the coding of the IPC2_ALT field. This field is only completed when the IPC2_ALT field is completed. Please refer to IPC CONFIDENCE - #1 - PRIMARY for a list of codes and attributes.

COLUMN Name: IPCCONF2_ALT

SAS Value	Value Text
1	Certain
2	Probable
3	Possible
8	Caused by other injury
9	Unknown

IPC CONFIDENCE - #3 - PRIMARY

This variable reports the injury coder's confidence in the coding of the IPC3 field. This field is only completed when the IPC3 field is completed. Please refer to IPC CONFIDENCE - #1 - PRIMARY for a list of codes and attributes.

COLUMN Name: IPCCONF3

SAS Value	Value Text
1	Certain
2	Probable
3	Possible
8	Caused by other injury
9	Unknown

IPC CONFIDENCE - #3 - ALTERNATE
This variable reports the injury coder's confidence in the coding of the IPC3_ALT field. This field is only completed when the IPC3_ALT field is completed. Please refer to IPC CONFIDENCE - #1 - PRIMARY for a list of codes and attributes.

COLUMN Name: IPCCONF3_ALT

SAS Value	Value Text
1	Certain
2	Probable
3	Possible
8	Caused by other injury
9	Unknown

TANDEM IPC SECONDARY AREA
This variable reports the secondary injury producing component (IPC) area for Tandem ICSs only (ICS_TYPE=5), otherwise the field will be blank. The data also serves as a filter for the more specific field, IPC_2ND.

Please refer to IPC AREA - #1 - PRIMARY for a list of codes and attributes.

COLUMN Name: IPCAREA_2ND

SAS Value	Value Text
1	Certain
2	Probable
3	Possible
9	Unknown

TANDEM IPC SECONDARY
This variable reports the secondary injury producing component (IPC) for Tandem ICSs only (ICS_TYPE=5), otherwise the field will be blank.

Please refer to IPC COMPONENT - #1 - PRIMARY for a list of codes and attributes.

COLUMN Name: IPC_2ND

SAS Value	Value Text
1	Certain
2	Probable
3	Possible
9	Unknown

TANDEM IPC TERTIARY AREA

This variable reports the tertiary injury producing component (IPC) area for Tandem ICSs only (ICS_TYPE=5), otherwise the field will be blank. The data also serves as a filter for the more specific field, IPC_3RD.

Please refer to IPC AREA - #1 - PRIMARY for a list of codes and attributes.

COLUMN Name: IPCAREA_3RD

SAS Value	Value Text
1	Certain
2	Probable
3	Possible
9	Unknown

TANDEM IPC TERTIARY

This variable reports the tertiary injury producing component (IPC) for Tandem ICSs only (ICS_TYPE=5), otherwise the field will be blank.

Please refer to IPC COMPONENT - #1 - PRIMARY for a list of codes and attributes.

COLUMN Name: IPC_3RD

SAS Value	Value Text
1	Certain
2	Probable
3	Possible
9	Unknown

TANDEM IPC SECONDARY CONFIDENCE

This variable reports the injury coders confidence in coding IPC_2ND for coding a Tandem ICS (ICS_TYPE=5), otherwise the field will be blank.

Please refer to IPC CONFIDENCE - #1 - PRIMARY for a list of codes and attributes

COLUMN Name: IPCCONF_2ND

SAS Value	Value Text
1	Certain
2	Probable
3	Possible
9	Unknown

TANDEM IPC TERTIARY CONFIDENCE

This variable reports the injury coders confidence in coding IPC_3RD for coding a Tandem ICS (ICS_TYPE=5), otherwise the field will be blank.

Please refer to IPC CONFIDENCE - #1 - PRIMARY for a list of codes and attributes

COLUMN Name: IPCCONF_3RD

SAS Value	Value Text
1	Certain
2	Probable
3	Possible
9	Unknown

CONTRIBUTING FACTOR 1

This variable reports when the coder believes something contributed to the severity of the injury. This field is only completed when ICS_TYPE does NOT equal (1) Basic.

COLUMN Name: FACTOR1

SAS Value	Value Text
0	None
1	High DV
2	Seat belt interaction
3	Intrusion
4	Full Ejection
5	Partial Ejection
6	Comorbidity
7	CRS used improperly
8	Unbelted case occupant
9	Unbelted other occupant
10	Pretensioner
11	Loose cargo
12	Possible late air bag deployment
13	Seat belt payout due to load limiter
98	Other

CONTRIBUTING FACTOR 2

This variable reports when the coder believes something contributed to the severity of the injury. This field is only completed when there exists at least one other Contributing Factor and ICS_TYPE does NOT equal (1) Basic.

Please refer to CONTRIBUTING FACTOR 1 for a list of codes and attributes.

COLUMN Name: FACTOR2

CONTRIBUTING FACTOR 3

This variable reports when the coder believes something contributed to the severity of the injury. This field is only completed when there exists at least two other Contributing Factors and ICS_TYPE does NOT equal (1) Basic.

Please refer to CONTRIBUTING FACTOR 1 for a list of codes and attributes.

COLUMN Name: FACTOR3

CONTRIBUTING FACTOR 4

This variable reports when the coder believes something contributed to the severity of the injury. This field is only completed when there exists at least three other Contributing Factors and ICS_TYPE does NOT equal (1) Basic.

Please refer to CONTRIBUTING FACTOR 1 for a list of codes and attributes.

COLUMN Name: FACTOR4

CONTRIBUTING FACTOR 5

This variable reports when the coder believes something contributed to the severity of the injury. This field is only completed when there exists at least four other Contributing Factors and ICS_TYPE does NOT equal (1) Basic.

Please refer to CONTRIBUTING FACTOR 1 for a list of codes and attributes.

COLUMN Name: FACTOR5

LOAD PATH PRIMARY

Load path is the anatomic linkage between Body Region Injured (BRI) and Body Region Contacted (REGCONTACT1). For example, a hip injury from a knee loading the instrument panel in a frontal crash would have a load path of 'Knee to Thigh to Hip." In rare cases, a non-contiguous path may be coded using the "Other" code. If the BODY REGION INJURED (BRI) equals BODY REGION CONTACTED - #1 - PRIMARY, then Not Applicable (9997) is coded.

This field will be blank when ICS TYPE (ICS_TYPE) equals 1.

This field is only completed when ICS_TYPE does NOT equal 1 (Basic).

COLUMN Name: LOADPATH1

SAS VALUE	VALUE TEXT
101	Head/Face to C-Spine to Neck
102	Head/Face to C-Spine
103	Head/Face to C-Spine to T-Spine
104	Head/Face to C-Spine to T-Spine to L-Spine
201	Neck to C-Spine to Head/Face
202	Neck to C-spine to Shoulder
203	Neck to C-Spine
204	Neck to C-Spine to T-Spine
205	Neck to C-Spine to T-Spine to L-Spine
401	Thorax to T-Spine to C-Spine to Head/Face
402	Thorax to T-Spine to C-Spine to Neck
403	Thorax to Shoulder
404	Thorax to T-Spine to C-Spine
405	Thorax to T-Spine
406	Thorax to T-Spine to L-Spine
601	Shoulder to Thorax
602	Shoulder to Arm
603	Shoulder to Arm to Elbow
604	Shoulder to Arm to Elbow to Forearm
605	Shoulder to Arm to Elbow to Forearm to Wrist
606	Shoulder to Arm to Elbow to Forearm to Wrist to Hand
701	Arm to Shoulder
702	Arm to Elbow
703	Arm to Elbow to Forearm
704	Arm to Elbow to Forearm to Wrist
705	Arm to Elbow to Forearm to Wrist to Hand
801	Elbow to Arm to Shoulder
802	Elbow to Arm
803	Elbow to Forearm
804	Elbow to Forearm to Wrist
805	Elbow to Forearm to Wrist to Hand
901	Forearm to Elbow to Arm to Shoulder
902	Forearm to Elbow to Arm
903	Forearm to Elbow
904	Forearm to Wrist
905	Forearm to Wrist to Hand
1001	Wrist to Forearm to Elbow to Arm to Shoulder
1002	Wrist to Forearm to Elbow to Arm
1003	Wrist to Forearm to Elbow
1004	Wrist to Forearm
1005	Wrist to Hand

SAS VALUE	VALUE TEXT
1101	Hand to Wrist to Forearm to Elbow to Arm to Shoulder
1102	Hand to Wrist to Forearm to Elbow to Arm
1103	Hand to Wrist to Forearm to Elbow
1104	Hand to Wrist to Forearm
1105	Hand to Wrist
1301	Abdomen to L-Spine to T-Spine to C-Spine to Head/Face
1302	Abdomen to L-Spine to T-Spine to C-Spine to Neck
1303	Abdomen to L-Spine to T-Spine to C-Spine
1304	Abdomen to L-Spine to T-Spine
1305	Abdomen to L-Spine
1401	Pelvis to Hip
1402	Pelvis to L-Spine to T-Spine to C- Spine
1403	Pelvis to L-Spine to T-Spine
1404	Pelvis to L-Spine
1501	Hip to Pelvis
1502	Hip to Thigh
1503	Hip to Thigh to Knee
1504	Hip to Thigh to Knee to Leg
1505	Hip to Thigh to Knee to Leg to Ankle
1506	Hip to Thigh to Knee to Leg to Ankle to Foot
1601	Thigh to Hip
1602	Thigh to Knee
1603	Thigh to Knee to Leg
1604	Thigh to Knee to Leg to Ankle
1605	Thigh to Knee to Leg to Ankle to Foot
1701	Knee to Thigh to Hip to Pelvis
1702	Knee to Thigh to Hip
1703	Knee to Thigh
1704	Knee to Leg
1705	Knee to Leg to Ankle
1706	Knee to Leg Ankle to Foot
1801	Leg to Knee to Thigh to Hip to Pelvis
1802	Leg to Knee to Thigh to Hip
1803	Leg to Knee to Thigh
1804	Leg to Knee
1805	Leg to Ankle
1806	Leg to Ankle to Foot
1901	Ankle to Leg to Knee to Thigh to Hip to Pelvis
1902	Ankle to Leg to Knee to Thigh to Hip
1903	Ankle to Leg to Knee to Thigh
1904	Ankle to Leg to Knee
1905	Ankle to Leg
1906	Ankle to Foot
2001	Foot to Ankle to Leg to Knee to Thigh to Hip to Pelvis
2002	Foot to Ankle to Leg to Knee to Thigh to Hip
2003	Foot to Ankle to Leg to Knee to Thigh
2004	Foot to Ankle to Leg to Knee

SAS VALUE	VALUE TEXT
2005	Foot to Ankle to Leg
2006	Foot to Ankle
8888	Caused by other injury
9997	N/A
9998	Other
9999	Unknown

LOAD PATH PRIMARY - ALTERNATE

Load path is the anatomic linkage between Body Region Injured (BRI) and Body Region Contacted (REGCONTACT1_ALT). For example, a hip injury from a knee loading the instrument panel in a frontal crash would have a load path of 'Knee to Thigh to Hip." In rare cases, a non-contiguous path may be coded using the "Other" code. If the BODY REGION INJURED (BRI) equals BODY REGION CONTACTED - #1 - ALTERNATE, then Not Applicable (9997) is coded.

This field is only completed when ICS_TYPE equals 2, 3 or 4, and IPC AREA - #1 - ALTERNATE is NOT blank.

COLUMN Name: LOADPATH1_ALT

Please refer to LOAD PATH PRIMARY for a list of codes and attributes.

LOAD PATH SECONDARY

Load path is the anatomic linkage between Body Region Injured (BRI) and Body Region Contacted - #2 (REGCONTACT2). For example, a hip injury from a knee loading the instrument panel in a frontal crash would have a load path of 'Knee to Thigh to Hip." In rare cases, a non-contiguous path may be coded using the "Other" code. If the BODY REGION INJURED (BRI) equals BODY REGION CONTACTED - #2 - PRIMARY, then Not Applicable (9997) is coded.

This field is only completed when ICS_TYPE equals 3 or 4, and IPC AREA - #2 is NOT blank.

COLUMN Name: LOADPATH2

Please refer to LOAD PATH PRIMARY for a list of codes and attributes.

LOAD PATH SECONDARY - ALTERNATE

Load path is the anatomic linkage between BODY REGION INJURED (BRI) and BODY REGION CONTACTED - #2 - ALTERNATE (REGCONTACT2_ALT). For example, a hip injury from a knee loading the instrument panel in a frontal crash would have a load

path of 'Knee to Thigh to Hip." In rare cases, a non-contiguous path may be coded using the "Other" code. If the BODY REGION INJURED (BRI) equals BODY REGION CONTACTED - #2 - ALTERNATE, then Not Applicable (9997) is coded.

This field is only completed when ICS_TYPE equals 3 or 4, and IPC AREA - #2 - ALTERNATE is NOT blank.

COLUMN Name: LOADPATH2_ALT

Please refer to LOAD PATH PRIMARY for a list of codes and attributes.

LOAD PATH TERTIARY

Load path is the anatomic linkage between BODY REGION INJURED (BRI) and BODY REGION CONTACTED - #3 (REGCONTACT3). For example, a hip injury from a knee loading the instrument panel in a frontal crash would have a load path of 'Knee to Thigh to Hip." In rare cases, a non-contiguous path may be coded using the "Other" code. If the BODY REGION INJURED (BRI) equals BODY REGION CONTACTED - #3 - ALTERNATE, then Not Applicable (9997) is coded.

This field is only completed when ICS_TYPE equals 3 or 4, and IPC AREA - #3 - PRIMARY is NOT blank.

COLUMN Name: LOADPATH3

Please refer to LOAD PATH PRIMARY for a list of codes and attributes.

LOAD PATH TERTIARY - ALTERNATE

Load path is the anatomic linkage between BODY REGION INJURED (BRI) and BODY REGION CONTACTED - #3 - ALTERNATE (REGCONTACT3_ALT). For example, a hip injury from a knee loading the instrument panel in a frontal crash would have a load path of 'Knee to Thigh to Hip." In rare cases, a non-contiguous path may be coded using the "Other" code. If the BODY REGION INJURED (BRI) equals BODY REGION CONTACTED - #3 - ALTERNATE, then Not Applicable (9997) is coded.

This field is only completed when ICS_TYPE equals 3 or 4, and IPC AREA - #3 - ALTERNATE is NOT blank.

COLUMN Name: LOADPATH3_ALT

Please refer to LOAD PATH PRIMARY for a list of codes and attributes.

LOAD PATH 2ND

Load path is the anatomic linkage between BODY REGION INJURED (BRI) and BODY REGION CONTACTED - 2ND (REGCONTACT_2ND). For example, a hip injury from a knee loading the instrument panel in a frontal crash would have a load path of 'Knee to Thigh to Hip." In rare cases, a non-contiguous path may be coded using the "Other" code. If the BODY REGION INJURED (BRI) equals BODY REGION CONTACTED - 2ND, then Not Applicable (9997) is coded.

This field is only completed when ICS_TYPE equals 5 (Tandem), and IPC AREA - 2ND is NOT blank.

COLUMN Name: LOADPATH_2ND

Please refer to LOAD PATH PRIMARY for a list of codes and attributes.

LOAD PATH 3RD

Load path is the anatomic linkage between BODY REGION INJURED (BRI) and BODY REGION CONTACTED - 3RD (REGCONTACT_3RD). For example, a hip injury from a knee loading the instrument panel in a frontal crash would have a load path of "Knee to Thigh to Hip." In rare cases, a non-contiguous path may be coded using the "Other" code. If the BODY REGION INJURED (BRI) equals BODY REGION CONTACTED - 3RD, then Not Applicable (9997) is coded.

This field is only completed when ICS_TYPE equals 5 (Tandem), and IPC AREA - 3RD is NOT blank.

COLUMN Name: LOADPATH_3RD

Please refer to LOAD PATH PRIMARY for a list of codes and attributes.

LOCALIZER Dataset

Key Identifiers: PSU, CASENO, VEHNO, OCCNO, INJNO, LOCALNO

This table reports the localizers coded to the related injury in the Injury dataset. Localizers are meant to provide more specificity about the body region location of an injury. There will be at least one row per injury in the Injury dataset, and may have more than one. Figure 39 displays the list of all the data elements in the LOCALIZER dataset. Information about the type of each variable, its length, the format, and the label is provided for each data element.

```
Data Set Name        CISS19.LOCALIZER          Observations          14372
Member Type          DATA                      Variables             15
Engine               V9                        Indexes               0
Created              10/22/2020 13:31:11       Observation Length    1064
Last Modified        10/22/2020 13:31:11       Deleted Observations  0
Protection                                     Compressed            NO
Data Set Type                                  Sorted                YES
Label
Data Representation  WINDOWS_32
Encoding             wlatin1  Western (Windows)


                Alphabetic List of Variables and Attributes

   #    Variable      Type    Len    Format     Informat    Label

   1    CASEID        Num      5     11.        11.         SYSTEM CASE IDENTIFIER
   3    CASENO        Num      3     11.        11.         SEQUENTIAL CASE NUMBER
   4    CASENUMBER    Char    16     $20.       $20.        CASE NUMBER
  15    CASEWGT       Num      8     26.20                  CASE WEIGHT
   5    CATEGORY      Num      3     11.        11.         CRASH CATEGORY
   8    INJNO         Num      3     11.        11.         INJURY NUMBER
  10    L1            Char     3     $L119F.    $10.        L1 LOCALIZER
  11    L2            Char     3     $L219F.    $10.        L2 LOCALIZER
  12    LDEF          Char  1000     $1000.     $1000.      LOCALIZER DEFINITION
   9    LOCALNO       Num      3     11.        11.         LOCALIZER NUMBER
   7    OCCNO         Num      3     6.         6.          OCCUPANT NUMBER
   2    PSU           Num      3     11.        11.         PRIMARY SAMPLING UNIT
  13    PSUSTRAT      Num      3     11.        11.         PSU STRATIFICATION
   6    VEHNO         Num      3     11.        11.         VEHICLE NUMBER
  14    VERSION       Num      3     6.         6.          VERSION NUMBER


                        Sort Information

       Sortedby        PSU CASENO VEHNO OCCNO INJNO LOCALNO
       Validated       YES
       Character Set   ANSI
```

Figure 39.

INJURY NUMBER

Sequential number assigned by the system to each coded injury.

COLUMN Name: INJNO

LOCALIZER NUMBER

This key variable reports the sequential number for this localizer. It can be used to merge with the ICS datasets.

COLUMN Name: LOCALNO

PRIMARY LOCALIZER

This variable reports a more specific area of the body region injured as reported in the Injury dataset.

COLUMN Name: L1

SAS VALUE	VALUE TEXT
00	No Further Specificity
01	Anterior
02	Central / Middle / Medial
03	Posterior
04	Superior / Upper
05	Inferior / Lower
06	Lamina
07	Pedicle
08	Transverse Process
09	Facet
10	Right
11	Right Anterior
12	Right Central / Middle / Medial
13	Right Posterior
14	Right Superior / Upper
15	Right Inferior / Lower
16	Right Lamina
17	Right Pedicle
18	Right Transverse Process
19	Right Facet
20	Left
21	Left Anterior
22	Left Central / Middle / Medial
23	Left Posterior
24	Left Superior / Upper
25	Left Inferior / Lower
26	Left Lamina
27	Left Pedicle
28	Left Transverse Process
29	Left Facet
30	Right Body/Shaft
31	Right Multiple
32	Right Lateral
33	Right Anterolateral
34	Right Posterolateral
35	Right Spinous Process
40	Left Body/Shaft
41	Left Multiple

SAS VALUE	VALUE TEXT
42	Left Lateral
43	Left Anterolateral
44	Left Posterolateral
45	Left Spinous Process
50	Bilateral
51	Bilateral Anterior
52	Bilateral Central / Middle / Medial
53	Bilateral Posterior
54	Bilateral Superior / Upper
55	Bilateral Inferior / Lower
56	Bilateral Lamina
57	Bilateral Pedicle
58	Bilateral Transverse Process
59	Bilateral Facet
90	Body/Shaft
91	Multiple
92	Lateral
93	Anterolateral
94	Posterolateral
95	Spinous Process

SECONDARY LOCALIZER

This variable expands upon the L1 variable and gives the most specific information regarding the location of the injury. It should be used in conjunction with the AIS code found in the Injury dataset as well as the L1 variable.

COLUMN Name: L2

SAS VALUE	VALUE TEXT
00	No Further Specificity
01	Vertebrae C1
02	Vertebrae C2
03	Vertebrae C3
04	Vertebrae C4
05	Vertebrae C5
06	Vertebrae C6
07	Vertebrae C7
08	Vertebrae T1
09	Vertebrae T2

SAS VALUE	VALUE TEXT
10	Vertebrae T3
11	Vertebrae T4
12	Vertebrae T5
13	Vertebrae T6
14	Vertebrae T7
15	Vertebrae T8
16	Vertebrae T9
17	Vertebrae T10
18	Vertebrae T11
19	Vertebrae T12
20	Vertebrae L1
21	Vertebrae L2
22	Vertebrae L3
23	Vertebrae L4
24	Vertebrae L5
25	1 Finger / Toe
26	2 Finger / Toe
27	3 Finger / Toe
28	4 Finger / Toe
29	5 Finger / Toe
31	Rib 1
32	Rib 2
33	Rib 3
34	Rib 4
35	Rib 5
36	Rib 6
37	Rib 7
38	Rib 8
39	Rib 9
40	Rib 10
41	Rib 11
42	Rib 12
43	Teeth-Central Incisor
44	Teeth-Lateral Incisor
45	Teeth-Canine
46	Teeth-First Premolar
47	Teeth-Second Premolar
48	Teeth-First Molar
49	Teeth-Second Molar
50	Teeth-Third Molar

SAS VALUE	VALUE TEXT
51	Scalp
52	Forehead
53	Face
54	Eye
55	Eyelid
56	Ear
57	Nose
58	Lip
59	Neck
60	Shoulder
61	Arm
62	Elbow
63	Forearm
64	Wrist
65	Hand
66	Fingers
67	Torso
68	Back
69	Flank
70	Chest
71	Abdomen
72	Buttock
73	Genitalia
74	Perineum
75	Hip
76	Thigh
77	Knee
78	Leg
79	Ankle
80	Foot
81	Toe
82	Metacarpal / Metatarsal
83	Eyebrow
84	Cheek
85	Chin
86	Groin
AA	Frontal
AB	Parietal
AC	Temporal
AD	Occipital

SAS VALUE	VALUE TEXT
AE	Hard Palate Bone
AF	Lacrimal Bone
AG	Maxillary Bone
AH	Nasal Bone
AI	Nasal Concha Bone
AJ	Vomer Bone
AK	Zygomatic Bone
AL	Orbital Bone
AM	Mandible Bone
AN	Medula
AO	Hypothalamus
AP	Midbrain
AQ	Pons
BA	Buccinator Muscle
BB	Depressor Anguli Oris Muscle
BC	Depressor Labii Muscle
BD	Digastric Muscle
BE	Frontalis Muscle
BF	Hyoglossus Muscle
BG	Levator Anguli Oris Muscle
BH	Levator Labii Anterior Muscle
BI	Levator Labii Superioris Muscle
BJ	Masseter Muscle
BK	Mentalis Muscle
BL	Mylohyoid Muscle
BN	Orbicularis Oculi Muscle
BO	Orbicularis Oris Muscle
BP	Procerus Muscle
BQ	Risorius Muscle
BR	Stylohyoid Muscle
BS	Temporal Muscle
BT	Zygomaticus Major Muscle
BU	Zygomaticus Minor Muscle
BV	Alveolar Ridge with Teeth
BW	Maxillary Alveolar Ridge
BX	Mandibular Alveolar Ridge
BY	External Carotid
BZ	Nasalis Superior Muscle
CA	Nasalis Inferior Muscle
DA	Levator Scapula Muscle

SAS VALUE	VALUE TEXT
DB	Omohyoid Muscle
DC	Platysma Muscle
DD	Scalene Anterior Muscle
DE	Scalene Middle Muscle
DF	Scalene Posterior Muscle
DG	Semispinalis Caervicis Muscle
DH	Semispinalis Capitis Muscle
DI	Splenius Capitis Muscle
DJ	Sternocleidomastoid Muscle
DK	Sternohyoid Muscle
DL	Sternothyroid Muscle
DM	Thyrohyoid Muscle
DN	Trapezius Muscle
DO	Internal Carotid
DP	Common Carotid
DQ	External Carotid
DR	Sublingual Glands
DS	Submandibular Gland
DT	Parotid Gland
DU	Thyroid Gland
DV	Epiglottis
EA	Diaphragm Muscle
EB	Iliocostalis Muscle
EC	Intercostal Large Front Muscle
ED	Intercostal Large Muscle
EE	Intercostal Small Muscle
EF	Latissimus Dorsi Muscle
EG	Longissimus Muscle
EH	Pectoralis Major Muscle
EI	Pectoralis Minor Muscle
EJ	Rhomboid Major Muscle
EK	Rhomboid Minor Muscle
EL	Serratus Anterior Muscle
EM	Spinalis Muscle
EN	Inferior Vena Cava Artery
EO	Superior Vena Cava Artery
EP	Thoracic Veins
EQ	Coronary Vein
ER	Costal Ribs Bones
ES	Lung Lobe 1

SAS VALUE	VALUE TEXT
ET	Lung Lobe 2
EU	Lung Lobe 3
EV	Sternum
EW	Atria
EX	Ventricle
GA	External Oblique Muscle
GB	Internal Oblique Muscle
GC	Psoas Major Muscle
GD	Psoas Minor Muscle
GE	Quadratus Lumborum Muscle
GF	Rectus Abdominis Muscle
GG	Transverse Abdominis Muscle
GH	Colon
GI	Ascending Colon
GJ	Descending Colon
GK	Transverse Colon
GL	Sigmoid Colon
GM	Gonadal Arteries
GN	Hepatic Arteries
GO	Gonadal Veins
GP	Hepatic Veins
GQ	Inferior Mesenteric Vein
GR	Portal Veins
GS	Renal Veins
GT	Common Iliac Artery
HA	Biceps Lateral Muscle
HB	Biceps Medial Muscle
HC	Brachialis Muscle
HD	Coracobrachialis Muscle
HE	Triceps Lateral Muscle
HF	Triceps Long Muscle
HG	Triceps Medial Muscle
HH	Abductor Pollicis Longus Muscle
HI	Anconeous Muscle
HJ	Brachioradialis Muscle
HK	Extensor Carpi Radialis Brevis Muscle
HL	Extensor Carpi Radialis Longus Muscle
HM	Abductor Minimi Digiti Muscle
HN	Abductor Pollicis Brevis Muscle
HO	Adductor Pollicis Muscle

SAS VALUE	VALUE TEXT
HP	Bicep Brachii Muscle
HQ	Extensor Carpi Ulnaris Muscle
HR	Extensor Digiti Minimi Muscle
HS	Extensor Digitorum Muscle
HT	Flexor Carpi Radialis Muscle
HU	Flexor Carpi Ulnaris Muscle
HV	Flexor Digitorum Profundus Muscle
HW	Flexor Digitorum Superficialis Muscle
HX	Flexor Pollicis Longus Muscle
HY	Pronator Quadratus Muscle
HZ	Pronator Teres Muscle
IA	Supinator Muscle
IB	Extensor Indicis Muscle
IC	Extensor Pollicis Brevis Muscle
ID	Extensor Pollicis Longus Muscle
IE	Palm Muscles
IF	Palmaris Longus Muscle
IG	Deltoid Muscle
IH	Infraspinatus Right Muscle
II	Subscapularis Muscle
IJ	Supraspinatus Muscle
IK	Teres Major Muscle
IL	Teres Minor Muscle
IM	Triceps Tendon
IN	Flexor Retinaculum Tendon
IO	Hand Ligaments
IP	Wrist Ligaments
IQ	Sternoclavicular Ligament
IR	Interosseus Membrane of Forearm
IS	Shoulder Ligaments
IT	Capsule Ligament
IU	Elbow Ligaments
IV	Bicipital Aponeurosis
IW	Upper Extremity Arteries
IX	Interosseous Artery
IY	Profunda Arteries
IZ	Radial Artery
JA	Ulnar Artery
JB	Palmer Arch Arteries
JC	Upper Extremity Veins

SAS VALUE	VALUE TEXT
JD	Forearm Veins
JE	Intersseous Vein
JF	Median Cubital Vein
JG	Radial Vein
JH	Ulnar Vein
JI	Palm Veins
JJ	Axillary Vein
JK	Cephalic Vein
JL	Humerus Bone
JM	Radius Bone
JN	Ulna Bone
JO	Clavicle Bone
JP	Scapula Bone
JQ	Wrist Bone-Pisiform
JR	Wrist Bone-Scaphoid
JS	Wrist Bone-Trapezium
JT	Wrist Bone-Trapezoid
JU	Wrist Bone-Triquetral
JV	Wrist Bone-Capitate
JW	Wrist Bone-Hamate
JX	Wrist Bone-Lunate
LA	Abductor Digiti Minimi Muscle
LB	Abductor Hallucis Muscle
LC	Extensor Digitorium Brevis Muscle
LD	Extensor Hallucis Brevis Muscle
LE	Flexor Digitorium Brevis Muscle
LF	Gluteus Maximus Muscle
LG	Gluteus Medius Muscle
LH	Gluteus Minimus Muscle
LI	Iliacus Muscle
LJ	Inferior Gemellus Muscle
LK	Obturator Externus Muscle
LL	Obturator Internus Muscle
LM	Pisiformis Muscle
LN	Quadratus Femoris Muscle
LO	Superior Gemellus Muscle
LP	Extensor Digitorium Longus Muscle
LQ	Extensor Hallucis Longus Muscle
LR	Flexor Digitorium Longus Muscle
LS	Flexor Hallucis Muscle

SAS VALUE	VALUE TEXT
LT	Gastrocnemius Muscle
LU	Peroneus Brevis Muscle
LV	Peroneus Longus Muscle
LW	Soleus Muscle
LX	Tibialis Anterior Muscle
LY	Tibialis Posterior Muscle
LZ	Adductor Brevis Muscle
MA	Adductor Longus Muscle
MB	Adductor Magnus Muscle
MC	Bicep Femoris Muscle
MD	Gracilis Muscle
ME	Pectineus Muscle
MF	Rectus Femoris Muscle
MG	Sartorius Muscle
MH	Semimembranosus Muscle
MI	Semitendinosus Muscle
MJ	Tensor Faciae Latae Muscle
MK	Vastus Intermedius Muscle
ML	Vastus Lateralis Muscle
MM	Vastus Medialis Muscle
MN	Tibial Collateral Ligament
MO	Fibular Collateral Ligament
MP	Achilles Tendon
MQ	Ankle Ligaments
MR	Hip Ligaments
MS	Joints of Lower Extremities Ligaments
MT	Knee Ligaments
MU	Patellar Ligament
MV	Sacrotuberous Ligament
MW	Tibial Anterior Artery
MX	Tibial Posterior Artery
MY	Peroneal Artery
MZ	Plantar Veins
NA	Saphenous Small Vein
NB	Tibial Vein Anterior
NC	Tibial Vein Posterior
ND	Saphenous Vein
NE	Femoral Lateral Nerve
NF	Femoral Posterior Nerve
NG	Femoral Nerve

SAS VALUE	VALUE TEXT
NH	Gluteal Superior Nerve
NI	Inferior Gluteal Nerve
NJ	Obturator Nerve
NK	Pudendal Nerve
NL	Sacral Plexus
NM	Sciatic Nerve
NN	SI Joint
NO	Pelvic Bone Back
NP	Pelvic Bone
NQ	Pelvic Bone Front
NR	Sacrum Bone
NS	Symphysis Pubis Bone
NT	Illium Bone
NU	Ischium Bone
NV	Pubic Rami
NW	Coccyx Bone
NX	LE Above Knee
NY	LE Below Knee
OA	Anterior Cruciate Ligament
OB	Posterior Cruciate Ligament
OC	Acetabulofemoral Ligament

LOCALIZER DESCRIPTION
This variable gives the translation of the combined L1 and L2 attributes.

COLUMN Name: LDEF

APPENDIX A

REFERENCES

Zhang, F., Noh, E. Y., Subramanian, R., & Chen, C.-L. (2019, September). *Crash Investigation Sampling System: Sample design and weighting* (Report No. DOT HS 812 804). National Highway Traffic Safety Administration. Available at https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812804.

Zhang, F., Subramanian, R., Chen, C.-L., & Noh, E. Y. (2019, September). *Crash Investigation Sampling System: Design overview, analytic guidance, and FAQs* (Report No. DOT HS 812 801). National Highway Traffic Safety Administration. Available at https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812801

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APPENDIX B

VEHICLE MODEL CODE GROUPINGS

The primary source of information on vehicle make and model is vehicle inspection; the VIN provides vehicle make data. Secondary sources include the police report and interviews. If the make of the vehicle is known and the model is not known, but the vehicle type (e. g., passenger car) is known, then Vehicle Model is coded as "399" (Unknown automobile). If the make of the vehicle is not known but the body type is known (e.g., a hit-and-run 2-door sedan), then Vehicle Make is coded "99" (Unknown) and Vehicle Model is coded "399" (Unknown automobile). If no information is available for a vehicle, then Vehicle Make and Body Type are coded "99" (Unknown) and Vehicle Model is coded "999" (Unknown).
Vehicle models are organized into general groups. These groups are:

001-397 -	Passenger vehicle (automobile)
398 -	Other automobile
399 -	Unknown automobile
401-497 -	Light trucks (including compact and large utility vehicles, utility station wagons, minivans, large vans [includes step vans and van derivatives], compact pickup trucks, and large pickup trucks)
498 -	Other light truck
499 -	Unknown light truck
701-739 -	Motored Cycles/ATCs/ATVs (including motorcycles, mopeds, mini bikes, motor scooters and dirt bikes) (701 - 709 Motorcycles/Mopeds) (731 - 739 ATCs/ATVs)
801-890 -	Medium/heavy trucks (includes all trucks over 10,000 lbs. GVWR except some pickup type trucks under Body Type code "31" -Large pickup)
870 -	Medium/Heavy Van-Based vehicle
898 -	Other medium/heavy truck
901-987 -	Buses
988 -	Other bus
989 -	Unknown bus
998 -	Other vehicle (includes construction equipment, farm vehicles and go-karts)
999 -	Unknown vehicle

Within these groups, the model codes for automobiles and light trucks generally are not ordered to give any indication of vehicle size or type. However, the model codes for motored cycles, medium/heavy trucks, buses and other vehicles have specific definition. These definitions are:

Motored Cycles
701	0-50cc
702	51-124cc
703	125-349cc
704	350-449cc
705	450-749cc
706	750cc or greater
709	Unknown cc

All Terrain Cycles/Vehicles
731	0-50cc
732	51-124cc
733	125-349cc
734	350cc or greater
739	Unknown cc

Trucks and Buses
850	M/H truck based motor home
870	Medium/Heavy Van-Based vehicle
880	Medium/Heavy Pickup (pickup-style only - over 10,000 lbs.)
881	Medium/Heavy - CBE
882	Medium/Heavy - COE/low entry
883	Medium/Heavy - COE/high entry
884	Medium/Heavy - Unknown engine location
890	Medium/Heavy - COE entry position unknown
981	Bus - conventional front engine
982	Bus - front engine/flat front
983	Bus - rear engine/flat front

Other
398	Other automobile
498	Other light truck
598	Other (Low Speed Vehicle (LSV)/Neighborhood Electric Vehicle (NEV))
898	Other medium/heavy truck
988	Other bus
998	Other vehicle (farm vehicle, go-kart)

Unknown

399   Unknown automobile

499   Unknown light truck

599   Unknown (Low Speed Vehicle (LSV)/Neighborhood Electric Vehicle NEV))

709   Unknown cc motorcycle

989   Unknown bus

999   Unknown vehicle

VEHICLE MAKE AND MODEL CODES
(next page)

MAKE & MODEL CODE	MAKE	MODEL	INCLUDES
01-001	American Motors	Rambler/American	
01-002	American Motors	Rebel/Matador/Marlin	Mariner, Briarcliff, Westerner, The Machine, SST, 550, Grant, King Brougham, X, Oleg Cassini, Barcelona, Police, The Machine Black, Radar, Tahiti, Marlin II
01-003	American Motors	Ambassador	
01-004	American Motors	Pacer	
01-005	American Motors	AMX	
01-006	American Motors	Javelin	
01-007	American Motors	Hornet/Concord	SST, Sportabout, AMX D/L, SC-360, Gucci Edition, Levi Trim Package, X AMX Limited, D/L, Levi Trim, Sport, Base, Sundancer
01-008	American Motors	Spirit/Gremlin	Base, X, Levi Trim, GT, AMX, D/L, SST
01-009	American Motors	Eagle	Sport, Series 30, Sundancer, Limited
01-010	American Motors	Eagle SX-4	50 Series, Kammback, Sport
01-398	American Motors	Other (automobile)	
01-399	American Motors	Unknown (automobile)	
02-001	Jeep / Kaiser-Jeep / Willys-Jeep	Compass	Base, Sport, Limited, Latitude, Altitude, High Altitude, SE, 75th Anniversary Edition, Upland
02-401	Jeep / Kaiser-Jeep / Willys-Jeep	CJ-2/CJ-3/CJ-4	Military
02-402	Jeep / Kaiser-Jeep / Willys-Jeep	CJ-5/CJ-6/CJ-7/CJ-8	Scrambler, Renegade, Golden Eagle, Laredo, Wrangler,
02-403	Jeep / Kaiser-Jeep / Willys-Jeep	YJ series/Wrangler	SE, Sport (Base, S), Sahara, X, Rubicon (Base, Hard Rock), Unlimited (Altitude, Dragon, Freedom, Polar, Rubicon X, Willys Wheeler, Sport, S, Sahara), Islander, Call of Duty: Black Ops Edition, Moab, Altitude, Freedom, Rio Grande, 60th/65th Anniversary Edition, Apex, Columbia, Golden Eagle, Rocky Mountain, Willys, Willys Wheeler (Base, W), Black Bear, 75th Anniversary Edition, Winter, Rubicon Recon, Black and Tan Edition, Sahara Altitude Edition
02-404	Jeep / Kaiser-Jeep / Willys-Jeep	Cherokee (1984-on) (For Grand Cherokee for 2014 on use 02-422.)	Limited, Laredo, Pioneer, Sport, Grand Cherokee, TSi, Briarwood, Country, RHD, SE, Classic, Overland, Special Edition, SRT8, Summit, Laredo X, Overland Summit, Altitude, Trail Hawk, Sport, Latitude (Base, Plus), Limited, 75th Anniversary, Sport Altitude, High Altitude, Upland
02-405	Jeep / Kaiser-Jeep / Willys-Jeep	Liberty	Sport, Limited Edition, Renegade, Columbia Edition, Rocky Mountain Edition, CRD, Special Edition, Latitude, Jet
02-406	Jeep / Kaiser-Jeep / Willys-Jeep	Commander	Base, Limited, Overland, Sport, Rocky Mountain

MAKE & MODEL CODE	MAKE	MODEL	INCLUDES
02-407	Jeep / Kaiser-Jeep / Willys-Jeep	Patriot	Sport (Base, SE), Limited, Latitude, X, Altitude, High Altitude, Freedom Edition, 75th Anniversary Edition
02-408	Jeep / Kaiser-Jeep / Willys-Jeep	Renegade	Trail Hawk, Latitude, Sport, Altitude, Limited, Desert Hawk, 75th Anniversary Edition, Upland, High Altitude
02-421	Jeep / Kaiser-Jeep / Willys-Jeep	Cherokee (thru 1983)	Wide Track, Chief, Commando, Jeepster
02-422	Jeep / Kaiser-Jeep / Willys-Jeep	Grand Cherokee (For 2014 on. Use model 404 for model years prior to 2013.)	Laredo (Base/E), Limited, Overland, Summit, SRT (Laredo [Base, E] 75th Anniversary Edition [Base, E], Altitude, Limited, Overland, Summit), Trailhawk, 75th Anniversary Edition (Base, Limited), Altitude, Latitude (Base, Plus), Upland, Limited X, High Altitude, Trailhawk Elite
02-431	Jeep / Kaiser-Jeep / Willys-Jeep	Grand Wagoneer	Custom, Brougham Limited, Wagoneer
02-481	Jeep / Kaiser-Jeep / Willys-Jeep	Pick-up	J-10, J-20, Honcho
02-482	Jeep / Kaiser-Jeep / Willys-Jeep	Comanche	Chief
02-483	Jeep / Kaiser-Jeep / Willys-Jeep	Gladiator	Sport, Sport S, Overland, Rubicon
02-498	Jeep / Kaiser-Jeep / Willys-Jeep	Other (light truck)	
02-499	Jeep / Kaiser-Jeep / Willys-Jeep	Unknown (light truck)	
02-999	Jeep / Kaiser-Jeep / Willys-Jeep	Unknown (JEEP)	
03-401	AM General	Dispatcher	Post Office (Jeep)
03-402	AM General	Hummer	H3 (Base, Luxury,Adventure, Limited Edition), x, Alpha
03-421	AM General	Hummer (SUV from 1993-2003; see 431 for 2004 on) (for Pickup, see model 481)	Slantback-HMSB, H1, H2
03-431	AM General	Hummer (2004 on; see model 421 for 1993-2003)	H1(Base, Luxury, Adventure),H2(Base, Luxury, Adventure), Limousine
03-441	AM General	MV-1	SE, DX, LX, Taxi
03-466	AM General	Dispatcher	DJ-series-Post Office Van
03-481	AM General	Hummer (Pickup) (for SUV see model 421 for 1993-2003; see 431 for 2004 on)	H1, H2 (Base, Luxury,Adventure, Limited Edition),Alpha
03-482	AM General	Hummer	H3T (Adventure, Luxury, Alpha)
03-498	AM General	Other (light truck)	H1, H2, Alpha
03-499	AM General	Unknown (light truck)	

MAKE & MODEL CODE	MAKE	MODEL	INCLUDES
03-884	AM General	Medium/Heavy Truck	Military off-road
03-898	AM General	Other (medium/heavy truck)	
03-983	AM General	Bus: Rear engine, Flat front	Transit
03-988	AM General	Other(bus)	
03-989	AM General	Unknown Bus Type	
03-998	AM General	Other (vehicle)	
03-999	AM General	Unknown (AM GENERAL)	
06-009	Chrysler	Cordoba	
06-010	Chrysler	New Yorker (thru 78)/ Newport/5th Avenue/Imperial (1979-83) (excludes all FWD)	Town and Country, Brougham, Custom, Royal, 300 (thru 1971) Frank Sinatra editions (FS), Royal Limo, Windsor Wagon/ Ambulance
06-014	Chrysler	New Yorker/E-Class/Imperial/ Fifth Avenue	
06-015	Chrysler	Laser	
06-016	Chrysler	LeBaron	
06-017	Chrysler	LeBaron GTS/GTC	
06-018	Chrysler	200	Limited (Base, Platinum), LX, Touring, S, Super S, C (Base, Platinum)
06-021	Chrysler	SRT Viper	Standard, GTS, TA, GT3-R, GTS-R
06-031	Chrysler	TC (Maserati Sport)	
06-035	Chrysler	Conquest	
06-041	Chrysler	Concorde	
06-042	Chrysler	LHS	
06-043	Chrysler	Sebring	JX, JXi, LX, LXi,GTC, TSi, Limited, Plus, Platinum, Touring, Signature Series
06-044	Chrysler	Cirrus	
06-050	Chrysler	Executive	
06-051	Chrysler	300M/300/300C/300S	Special, Platinum, Touring, Limited, SRT, Signature Series, SRT8, LX, SRT, Heritage, Great American, Walter P. Chrysler Executive Series, Luxury
06-052	Chrysler	PT Cruiser	Base, Touring, Limited, GT, Turbo, Dream Cruiser, Platinum, Series 4, Signature Series, Street Cruiser
06-053	Chrysler	Prowler (2002 on) (1997,1999-01 see Plymouth)	Roadster, Black Tie Edition
06-054	Chrysler	Pacifica	Premium, Luxury, Touring, Signature Series, LX, Hybrid
06-055	Chrysler	Crossfire	
06-398	Chrysler	Other (automobile)	
06-399	Chrysler	Unknown (automobile)	

MAKE & MODEL CODE	MAKE	MODEL	INCLUDES
06-421	Chrysler	Aspen	Limited, Signature, Hybrid
06-441	Chrysler	Town and Country	Minivan, SX, L, LX, Lxi, Ltd., SWB, LWB, AWD, FWD, eL, eX, Touring, Platinum, Signature Series, Limited, 30th Anniversary, S
06-442	Chrysler	Voyager (2000 on; 1984-00 see Plymouth)	Base, Popular, Value, LX, eC
06-443	Chrysler	Pacifica	L, LX, Touring (Base, L, L Plus, Plus) Limited, Hybrid (Touring, Touring L, Limited, Plus)
06-444	Chrysler	Voyager (2020 on. For 2000-2003 see vehicle make 06-442. For 1984-2000 see Plymouth.)	L, LX
06-499	Chrysler	Unknown (light truck)	
06-999	Chrysler	Unknown (CHRYSLER)	
07-001	Dodge	Dart	
07-002	Dodge	Coronet/Magnum/ Charger (thru 1978)	Brougham, Custom, Superbee, 500, Crestwood, Deluxe, XE, R/T, 440, SE, Police
07-003	Dodge	Polara/Monaco/ Royal Monaco	
07-004	Dodge	Viper	RT/10, GTS, ACR, SRT-10, GT, SRT
07-005	Dodge	Challenger	
07-006	Dodge	Aspen	
07-007	Dodge	Diplomat	
07-008	Dodge	Omni/Charger (1983 on)	
07-009	Dodge	Mirada	
07-010	Dodge	St Regis	
07-011	Dodge	Aries (K)	
07-012	Dodge	400	
07-013	Dodge	Rampage (car-based pickup)	
07-014	Dodge	600	
07-015	Dodge	Daytona	
07-016	Dodge	Lancer	
07-017	Dodge	Shadow	
07-018	Dodge	Dynasty	
07-019	Dodge	Spirit	
07-020	Dodge	Neon	
07-021	Dodge	Magnum	SE, SXT, R/T, SRT8
07-024	Dodge	Charger	Daytona (Base, 392), SRT8, R/T, SE, SXT (RWD/AWD), Super Bee, 3.5L, Rallye, Plus, Max, R, Blacktop, 100th Anniversary,

MAKE & MODEL CODE	MAKE	MODEL	INCLUDES
			Red Line, Road & Track, Scat Pack, SRT 392, SRT, Hellcat, Blacktop, GT, Scat Pack
07-025	Dodge	Caliber	SE, SXT, R/T, SRT4, Sport, Heat, Mainstreet, Rush, Uptown
07-026	Dodge	Avenger	SE,SXT,R/T
07-027	Dodge	Journey (For 2009-2018 only. For model years 2019 on, see 07-404.)	SE, SXT, R/T, Heat, Hero, Uptown, Express, Crew, Mainstreet, Lux, American Value Package, Blacktop, AVP, SXT Plus, Limited, Crossroad (Base, Plus), GT
07-028	Dodge	Challenger (2008 on; for 1970-74 see model 005)	SRT (392, Hellcat), SE, R/T (Plus, Classic, Scat Pack, Road & Track, Shaker, Plus Shaker) , Plum Crazy Edition, Classic, SXT, SXT Plus, Rallye Redline, Blacktop, Shaker, 100th Anniversary, T/A (Base, Plus, 392), 392 Hemi Scat Pack Shaker, SRT (392, HellCat), GT, Demon, Hellcat Redeye
07-029	Dodge	Dart (2013 on. See model 001 for 1960-1976.)	Limited, Rallye, SE, SXT, Special Edition, Mopar'13, Aero, GT, Blacktop
07-030	Dodge	Barracuda	
07-033	Dodge	Challenger	
07-034	Dodge	Colt (includes 2WD Vista)	GT, Custom, Carousel, Premier, Deluxe, E, DL, GTS, Turbo, RS
07-035	Dodge	Conquest	
07-039	Dodge	Stealth	
07-040	Dodge	Monaco	
07-041	Dodge	Intrepid	
07-042	Dodge	Avenger	
07-043	Dodge	Stratus	
07-398	Dodge	Other (automobile)	
07-399	Dodge	Unknown (automobile)	
07-401	Dodge	RaiderSport	Sport
07-402	Dodge	Durango (1998-2003 only; see model 422 for 2004 on)	Sport, R/T, SLT, SXT, Plus, Black Top
07-403	Dodge	Nitro	SLT, SXT, R/T, SE, Heat, Detonator, Shock
07-404	Dodge	Journey (For 2019 on. For model years 2009-2018, see 07-027.)	SE, SXT, GT, Crossroads
07-421	Dodge	Ramcharger	
07-422	Dodge	Durango (2004 on; see 402 for 1998-2003 models)	ST, SLT, Limited, SXT (Base, Plus), Adventurer, Hybrid, Express, Crew, LUX, Citadel (Base, Anodized Platinum), R/T, Blacktop, Plus, Rallye, GT (Base, Plus)
07-441	Dodge	Vista Van	4x4 (Only)
07-442	Dodge	Caravan/Grand Caravan	Mini Ram Van, 112 & 19 WB, SE, ES, LE, Sport, EX, eC, eL, AWD, Sport, EPIC-elec* SXT, C/V, Special Edition, Cargo, Hero,

MAKE & MODEL CODE	MAKE	MODEL	INCLUDES
			American Value Package, R/T, Crew, Blacktop, AVP, 30th Anniversary, SE Plus, SXT Plus
07-443	Dodge	Ram C/V	Tradesman
07-444	Dodge	Promaster City	Cargo, Passenger, Tradesman (Base, SLT) Wagon (Base, SLT)
07-461	Dodge	B-Series Van/Ram Van/ Ram Wagon	Sportsman, Royal, Maxiwagon, Ram, B1500-B3500, Tradesman, Ram Maxivan (1500, 2500,500), Ram Wagon (1500, 2500, 3500) Conversion,Cargo Van (1500: van, nonmaxi van, maxi van; 2500: non-maxi, maxi van; 3500: non-maxi), Dodge Wagon (1500, 2500, 3500)
07-462	Dodge	Sprinter	Cargo and Passenger
07-463	Dodge	Ram Promaster	Cargo, Chassis, Cutaway, 1500 (Low Roof, High Roof), 2500 (Low Roof, High Roof), 3500 (Low Roof, High Roof)
07-470	Dodge	Van Derivative	Kary Van, Parcel Van
07-471	Dodge	D50, Colt pickup, Ram 50/Ram 100	
07-472	Dodge	Dakota	R/T, Limited Edition, Quad Cab, Club Cab, Plus, SLT, ST, SXT, Sport, Laramie, TRX, SE, Big Horn, Lone Star, TRX4
07-481	Dodge	D, W-Series pickup	Custom, Royal, Ram, Miser, D100-D350, W100-W350
07-482	Dodge	Ram Pickup	1500 (Limited, Longhorn, Rebel, Laramie, Sport , Big Horn, SLT, Express, ST, Black, Tradesman, EcoDiesel, Outdoorsman, Stinger Yellow, Night, Eco Diesel) 2500 (Limited, Laramie, Longhorn, Power Wagon, Big Horn, ST, SLT, Outdoorsman, Tradesman), 3500 (Limited, Laramie, Longhorn, Power Wagon, Big Horn, ST, SLT, Outdoorsman, Tradesman), Quad Cab, SLT, SLT+, ST, SRT-10, Laramie, Bumble Bee, Power Wagon, Daytona, TRX Off-Road, Sport, Black Ram, Red Wings Edition, Lone Star, Limited Tungsten, Hydro Blue, Harvest, Sublime Green, Kentucky Derby Edition, South Fork Edition, Ignition Orange Edition, Mojave Sand Edition, Warlock Edition
07-498	Dodge	Other (light truck)	
07-499	Dodge	Unknown (light truck)	
07-850	Dodge	Motor Home	Truck-based, Van-based
07-870	Dodge	Medium/Heavy Van-Based Vehicle	Sprinter, Promaster
07-880	Dodge	Medium/Heavy Pickup (pickup-style only - over 10,000 lbs)	
07-881	Dodge	Medium/Heavy - CBE	
07-882	Dodge	Medium/Heavy - COE low entry	
07-883	Dodge	Medium/Heavy - COE high entry	
07-884	Dodge	Medium/Heavy - Unknown engine location	

MAKE & MODEL CODE	MAKE	MODEL	INCLUDES
07-890	Dodge	Medium/Heavy - COE entry position unknown	
07-898	Dodge	Other (medium/heavy truck)	
07-981	Dodge	Bus**: Conventional (Engine out front)	(not van based)
07-988	Dodge	Other (bus)	
07-989	Dodge	Unknown (bus)	
07-998	Dodge	Other (vehicle)	
07-999	Dodge	Unknown (DODGE)	
08-010	Imperial	Imperial	
08-398	Imperial	Other (automobile	
08-399	Imperial	Unknown (automobile)	
09-001	Plymouth	Valiant/Scamp/Duster (thru 1976)	
09-002	Plymouth	Satellite/Belvedere	
09-003	Plymouth	Fury (Fury Gran thru '78)	
09-004	Plymouth	Gran Fury ('80 on)	
09-005	Plymouth	Barracuda	
09-006	Plymouth	Volare'	
09-007	Plymouth	Caravelle	
09-008	Plymouth	Horizon/Turismo	
09-011	Plymouth	Reliant (K)	
09-013	Plymouth	Scamp-(car-based p/u)	
09-017	Plymouth	Sundance	
09-019	Plymouth	Acclaim	
09-020	Plymouth	Neon (2002 and on, see Dodge)	
09-031	Plymouth	Cricket	
09-032	Plymouth	Arrow	
09-033	Plymouth	Sapporo	
09-034	Plymouth	Champ/Colt import (includes 2WD Vista)	
09-035	Plymouth	Conquest	
09-037	Plymouth	Laser	
09-038	Plymouth	Breeze	
09-039	Plymouth	Prowler (2002 and on, see Chrysler)	
09-398	Plymouth	Other (automobile)	
09-399	Plymouth	Unknown (automobile)	

MAKE & MODEL CODE	MAKE	MODEL	INCLUDES
09-421	Plymouth	Trailduster	
09-441	Plymouth	Vista Van	4X4 (only)
09-442	Plymouth	Voyager (minivan) (2001 and on, see Chrysler)	SE, LX, Grand Voyager, SE Expresso, EPIC-electric*
09-461	Plymouth	Van-fullsize (B-series)	Voyager (thru 1983), Sport, Premier
09-471	Plymouth	Arrow pickup (foreign)	
09-498	Plymouth	Other (light truck)	
09-499	Plymouth	Unknown (light truck)	
09-998	Plymouth	Other (vehicle)	
09-999	Plymouth	Unknown (PLYMOUTH)	
10-034	Eagle	Summit (excludes wagon)	
10-037	Eagle	Talon	
10-040	Eagle	Premier	
10-041	Eagle	Vision	
10-044	Eagle	Medallion	
10-045	Eagle	Summit Wagon	
10-398	Eagle	Other (automobile)	
10-399	Eagle	Unknown (automobile)	
12-001	Ford	Falcon	
12-002	Ford	Fairlane	
12-003	Ford	Mustang/Mustang II	Mach(I), Boss (302), Grande, Cobra (SVT), Ghia, SVO, GT (Premium, Base, Cal Spec. Pkg.), LX, Shelby (GT500, GT500KR), Deluxe, Premium, Bullitt, V6 (Base, Premium, Pony), Fastback (GT, Premium, Ecoboost)
12-004	Ford	Thunderbird (all sizes)	
12-005	Ford	LTD II	
12-006	Ford	LTD/Custom/Galaxy (all sizes)	
12-007	Ford	Ranchero	
12-008	Ford	Maverick	
12-009	Ford	Pinto	
12-010	Ford	Torino/Gran Torino/Elite	
12-011	Ford	Granada	
12-012	Ford	Fairmont	
12-013	Ford	Escort/EXP/ZX2	
12-015	Ford	Tempo	
12-016	Ford	Crown Victoria (For 2011 on, code as vehicle model 398)	LX, LTD Crown Victoria, LX Sport

MAKE & MODEL CODE	MAKE	MODEL	INCLUDES
12-017	Ford	Taurus/Taurus X	MT-5, L, GL, LX, SHO, G, SE, SVG, SES, SEL, Limited, Eddie Bauer, Police Interceptor
12-018	Ford	Probe	
12-021	Ford	Five Hundred	
12-022	Ford	Freestyle	
12-023	Ford	Fusion	I4 S/SE/SEL, V6 SE/SEL, S, SE, Sport, Hybrid (S, SE, Platinum, Titanium), Titanium (Hybrid, Energi) Energi (SE, Platinum, Titanium), Platinum, Plug-In
12-024	Ford	Edge (For model years 2007-2018 only. For model years 2019 on, see 12-424.)	SE, SEL, SEL Plus, Limited, Sport, Titanium, ST
12-025	Ford	Flex	SE, SEL, Limited, Titanium
12-026	Ford	City	
12-027	Ford	C-Max	Hybrid (SE, Titanium), Energi, SE, SEL
12-031	Ford	English Ford	
12-032	Ford	Fiesta	Sport, Ghia, S, SE, SES, SEL, Titanium, ST
12-033	Ford	Festiva	
12-034	Ford	Laser	
12-035	Ford	Contour	
12-036	Ford	Aspire	
12-037	Ford	Focus	ZX3, LX, SE, ZTS, SVT, ZX4, ZX4, ST, ZX5, ZXW, S, SES, SEL, SE, Titanium, Electric, ST, RS
12-038	Ford	GT	
12-398	Ford	Other (automobile)	Deluxe, Ford Six, Mainline, Crestline, Futura, Galaxie, Model A
12-399	Ford	Unknown (automobile)	
12-401	Ford	Bronco (thru 1977)/Bronco II/Explorer/Explorer Sport (Explorer for 1990-2018 only. For model years 2019 on, see 12-425.)	Eddie Bauer, XL, XLT, Explorer (1990 on) XLS, Explorer Sport (Value, Choice Premium), NBX, Adrenalin, Ironman, Police Interceptor, Base, Limited,Platinum
12-402	Ford	Escape	XLS (Value, Sport, V6 Choice/Premium), XLT (Choice, Premium, Sport), Hybrid (Base, Limited), No Boundaries, Limited. S, SE, SEL, Titanium
12-403	Ford	EcoSport	S, SE, SES (Black Appearance Package), Titanium
12-421	Ford	Bronco-fullsize (1978-on)	Eddie Bauer, Custom, XL, XLT
12-422	Ford	Expedition	EL, XLS, XLT (4x4,4x2), Eddie Bauer (4x4,4x2), NBX, Sport, NBX, Limited, King Ranch, Funk Master Flex Edition, XL, Platinum, XLT MAX, Limited MAX, Platinum MAX, Special Edition
12-423	Ford	Excursion	XLT, Limited (ltd.), Ultimate, Premium,XLS, Eddie Bauer

MAKE & MODEL CODE	MAKE	MODEL	INCLUDES
12-424	Ford	Edge(For 2019 on. For model years 2007-2018, see 12-024.)	SE, SEL, ST, Titanium
12-425	Ford	Explorer (For 2019 on. For model years 1990-2018 see 12-401.)	XLT, Limited, Sport, Platinum
12-441	Ford	Aerostar	XLT, Cargo Van
12-442	Ford	Windstar	GL, LX, XLT, Splash, Cargo Limited, SE, SEL
12-443	Ford	Freestar	Base, LX, SE, Limited
12-444	Ford	Transit Connect	XL (Van, Wagon), XLT (Van, Wagon), Premium, EV, Titanium
12-461	Ford	E-Series Van/Econoline	Clubwagon (XL, XLT), Chateau, (XL,XLT), Parcel Van, Econoline Wagon E-150 (XL/XLT/Premium); E-350 XL/XLT/ Extended), E-250 (EXT)
12-462	Ford	Transit	Van, Wagon (XL, XLT)
12-470	Ford	Van Derivative	
12-471	Ford	Ranger	Supercab, 4x4, STX, SL, SLT, Splash, XL (Standard/ Super Cab), XLT, Tremor (Standard/Super Cab/Off-Road/FX4), Edge (Regular/ Super Cab), EV* (electric), Level II, Sport, Lariat
12-472	Ford	Courier	
12-473	Ford	Explorer Sport Trac	2WD/4WD, Value, Choice, Premium, XLS, XLT, Adrenalin, Limited
12-481	Ford	F-Series pickup	F100, F150-F350, (XL, XLT, Crew Cab, Super Cab, Regular Cab, Lariat, Super Duty, Flareside, Styleside, SVT Lightning, Fireside, Harley-Davidson Edition, King Ranch, SuperCrew, STX, Heritage Edition, Sport Edition, FX4, FX2), F450 (10,000 GVWR and under) (see model 880 for F450 >10,000 GVWR), Amarillo Package, Platinum, Cabela's, STX, SVT Raptor, Limited
12-498	Ford	Other (light truck)	
12-499	Ford	Unknown (light truck)	
12-850	Ford	Motorhome	Truck-based, F-550, Van-Based (E Series)
12-870	Ford	Medium/Heavy Van-Based Vehicle	Econoline E350, E450, Transit
12-880	Ford	Medium/Heavy Pickup (pickup-style only - over 10,000 lbs)	Super Duty F250,350, F450/550, Lariat, XL, XLT, King Ranch
12-881	Ford	Medium/Heavy - CBE	F-5 thru F-8, L-series, FT-series, Super Duty F-Series: 350/450/550/650/750/800 (does not include pickup style)
12-882	Ford	Medium/Heavy - COE low entry	C/CT series, LCF
12-883	Ford	Medium/Heavy - COE high entry	CL/CLT series, LCF
12-884	Ford	Medium/Heavy - Unknown engine location	
12-890	Ford	Medium/Heavy - COE entry position unknown	

MAKE & MODEL CODE	MAKE	MODEL	INCLUDES
12-898	Ford	Other (medium/heavy truck)	
12-981	Ford	Bus**: Conventional (Engine out front)	B-series (not van based),F-series
12-988	Ford	Other (bus)	
12-989	Ford	Unknown (bus)	
12-998	Ford	Other (vehicle)	
12-999	Ford	Unknown (FORD)	
13-001	Lincoln	Continental (thru '81) / Town Car	Continental, (thru '81), Signature/Designer Series, Town Car ('81 on, body 04 only), Cartier, Executive, L, Premium, Ballistic Protection Edition, Ultimate, Designer Series
13-002	Lincoln	Mark	
13-005	Lincoln	Continental ('82 on)	
13-011	Lincoln	Versailles	
13-012	Lincoln	LS	Convenience,Premium,Sport, Luxury, Ultimate
13-013	Lincoln	Zephyr/MKZ	FWD, AWD, Hybrid (Premiere 400A, Select 500A, Reserve 600A), 2.0L, 3.7L, EcoBoost, Premiere (100A), Select (200A), Reserve (300A, I, II), Black Label (Vineyard, Chalet, Thoroughbred), 3.0L
13-014	Lincoln	MKX	FWD, AWD, Black Label (Modern Heritage, Indulgence, Thoroughbred, The Muse), Premiere, Select, Reserve
13-015	Lincoln	MKS	Ecoboost, 3.7L FWD/AWD
13-016	Lincoln	MKT	EcoBoost, TownCar, 3.5L, 3.7L, Premiere, Reserve
13-017	Lincoln	Continental	Black Label Edition (Rhapsody, Chalet, Thoroughbred), Select, Premiere, Reserve, 80th Anniversary Coach Door Edition
13-398	Lincoln	Other (automobile)	
13-399	Lincoln	Unknown (automobile)	
13-401	Lincoln	Aviator	Premium, Luxury, Ultimate, Kitty Hawk Edition
13-402	Lincoln	MKC	FWD, AWD, Black Label (Modern Heritage, Center Stage, Indulgence), Premiere, Select, Reserve
13-403	Lincoln	Corsair	Standard, Reserve
13-421	Lincoln	Navigator	2WD, 4WD, Premium, Luxury, Ultimate, L, 5.4L, Premiere, Select (Base, L), Reserve (Base, L), Black Label (Base, L)
13-422	Lincoln	Nautilus	Black Label Edition, Reserve, Select
13-423	Lincoln	Aviator	Reserve, Black Label Edition
13-481	Lincoln	Blackwood	
13-482	Lincoln	Mark LT	2WD, 4WD
13-498	Lincoln	Other (light truck)	
13-499	Lincoln	Unknown (light truck)	

MAKE & MODEL CODE	MAKE	MODEL	INCLUDES
13-999	Lincoln	Unknown (LINCOLN)	
14-002	Mercury	Cyclone	
14-003	Mercury	Capri- domestic (1967 see 008)	
14-004	Mercury	Cougar/XR7 (1967-1997)	
14-006	Mercury	Marquis/Monterey (car version; for van version 2004 on see code 444) /Grand Marquis	, Limited Edition, Limited Edition, Limited Edition, Limited Edition, Limited Edition, Limited Edition, Limited Edition, Limited Edition, Limited Edition, Limited Edition, Limited Edition, Limited Edition
14-008	Mercury	Comet	
14-009	Mercury	Bobcat	
14-010	Mercury	Montego (prior to 1976; for 2005 on see code 020)	
14-011	Mercury	Monarch	
14-012	Mercury	Zephyr	
14-013	Mercury	Lynx/LN7	
14-015	Mercury	Topaz	
14-017	Mercury	Sable	LS, GS (Premium), GS Plus, Platinum Edition
14-020	Mercury	Montego (2005 on)	
14-021	Mercury	Milan	I-4, V6 (Base/Premier)
14-031	Mercury	Capri-foreign	
14-033	Mercury	Pantera-foreign	
14-036	Mercury	Tracer	
14-037	Mercury	Mystique	
14-038	Mercury	Cougar (1999 on)	
14-039	Mercury	Marauder	M75, 300A
14-398	Mercury	Other (automobile)	
14-399	Mercury	Unknown (automobile)	
14-401	Mercury	Mountaineer	Convenience, Luxury, Premier (4.0/4.6L)
14-402	Mercury	Mariner	Luxury, Premier, Hybrid
14-443	Mercury	Villager	LS, GS, Nautica, Estate, Sport, Sport Plus, Popular
14-444	Mercury	Monterey (van version; for car version prior to 2004 see code 006)	Convenience, Luxury, Premier
14-498	Mercury	Other (light truck)	
14-499	Mercury	Unknown (light truck)	
14-999	Mercury	Unknown (MERCURY)	
18-001	Buick / Opel	Special/Skylark	GS (350, 400, 455), Deluxe GS California, Sport Wagon, Custom Roadmaster (1946-59), Skylark edition

MAKE & MODEL CODE	MAKE	MODEL	INCLUDES
18-002	Buick / Opel	LeSabre/Centurion/ Estate Wagon, Invicta, Custom, Limited, T-Type, Ltd, C.M.I, LE	
18-003	Buick / Opel	Electra/Electra 225/ Park Limited, Park Avenue, Ultra, Base	
18-004	Buick / Opel	Roadmaster	
18-005	Buick / Opel	Riviera	
18-007	Buick / Opel	Century	Luxus, T-Type, FWD (82-on), Custom, Regal (72-77), Limited, LE, SE, Base, Special
18-008	Buick / Opel	Apollo/Skylark	
18-010	Buick / Opel	Regal (RWD only)	
18-012	Buick / Opel	Skyhawk	
18-015	Buick / Opel	Skylark (76-85)	
18-018	Buick / Opel	Somerset/Skylark	
18-019	Buick / Opel	Regal (2011 on)	GS, CXL, Turbo, Premium I/ II, Base, Grand National, Sport Touring, Sportback/GS, TourX, Avenir
18-020	Buick / Opel	Regal (FWD)	
18-021	Buick / Opel	Reatta	
18-022	Buick / Opel	LaCrosse	CX, CXL (FWD/AWD), CXS, Super, Leather, Premium I/II, Touring, Preferred, Essence, Avenir
18-023	Buick / Opel	Lucerne	CX, CXL V6, CXL V8, CXS, Super, Special Edition
18-024	Buick / Opel	Enclave (2008-12 model years only. For 2013 on see model 421.)	
18-025	Buick / Opel	Verano	Base, Convenience, Leather, Turbo, Premium, Sport, Touring
18-026	Buick / Opel	Cascada	1SV, Base, Premium, Sport Touring
18-031	Buick / Opel	Opel Kadett	
18-032	Buick / Opel	Opel Manta	
18-033	Buick / Opel	Opel GT	
18-034	Buick / Opel	Opel Isuzu	
18-398	Buick / Opel	Other (automobile)	
18-399	Buick / Opel	Unknown (automobile)	
18-401	Buick / Opel	Rendezvous	CX, CXL, Ultra, Plus
18-402	Buick / Opel	Rainier	CXL,CXL Plus
18-404	Buick / Opel	Encore	Convenience, Leather, Premium, Base, Sport Touring, Preferred (I,II), Essence
18-405	Buick / Opel	Envision	Preferred, Premium (I,II) Essence, Base
18-421	Buick / Opel	Enclave (2013 on. See model 024 for 2008-12 model years.)	Convenience, Leather, Premium, Avenir, Essence, Preferred

MAKE & MODEL CODE	MAKE	MODEL	INCLUDES
18-441	Buick / Opel	Terraza	CX, CXL
18-498	Buick / Opel	Other (light truck)	
18-499	Buick / Opel	Unknown (light truck)	
18-999	Buick / Opel	Unknown BUICK	
19-003	Cadillac	Deville/Fleetwood,Coupe de Ville, Sedan de Ville, Fleetwood Brougham, Fleetwood 60 Special, d`Elegan	
19-004	Cadillac	Limousine	Fleetwood 75, Formal, Deville-based, DTS
19-005	Cadillac	Eldorado	
19-006	Cadillac	Commercial Series	
19-009	Cadillac	Allante'	
19-014	Cadillac	Seville	
19-016	Cadillac	Cimarron	
19-017	Cadillac	Catera	
19-018	Cadillac	CTS/CTC	Luxury, Luxury Sport, V-Series, 2.0L, 2.8L, 3.0L, 3.6L, 6.2L Supercharged, Premium, Performance, Standard, Luxury (Base and Premium), V-Sport (Base and Premium Luxury)
19-019	Cadillac	XLR	Neiman Marcus Edition, V Series
19-020	Cadillac	SRX	V6, V8, Sports Package, 2.8L Turbo, 3.0L, Luxury, Performance, Premium, Standard
19-021	Cadillac	STS	V6,V8, V-Series, Luxury, Premium
19-022	Cadillac	DTS	Luxury I, II, III, Performance
19-023	Cadillac	XTS	Standard, Luxury, Premium, Platinum, V-Sport, Limousine, Funeral Hearst, Twin Turbo
19-024	Cadillac	ATS	2.0L/2.5L/3.6L (Standard, Luxury, Performance, Premium, Turbo) V-Series
19-025	Cadillac	ELR	
19-026	Cadillac	CT6	2.0L (Turbo, Luxury) 3.0L (Twin Turbo, Platinum, Luxury), 3.6L (Premium Luxury, Platinum), Plug-In, V-Series
19-027	Cadillac	CT5	Luxury, Premium Luxury, Sport
19-398	Cadillac	Other (automobile)	
19-399	Cadillac	Unknown (automobile)	
19-401	Cadillac	XT5	3.6L (Base, Luxury, Premium, Platinum)
19-421	Cadillac	Escalade/ESV (from 2004 on; see 431 for 2003 only)	4WD, 2WD, 6.2L, Standard, Platinum, Limousine, Hybrid, Luxury, Premium
19-422	Cadillac	XT4	Luxury, Premium Luxury, Sport
19-423	Cadillac	XT6	Base, Luxury, Premium

MAKE & MODEL CODE	MAKE	MODEL	INCLUDES
19-431	Cadillac	Escalade ESV	Luxury, Premium, Platinum
19-480	Cadillac	Escalade EXT (from 2002 -2006; for 2007 on see 481)	4WD, 2WD
19-481	Cadillac	Escalade EXT (from 2007 on; see 480 for 2002-2006)	4WD, 2WD, Luxury, Premium, Standard
19-498	Cadillac	Other (light truck)	
19-499	Cadillac	Unknown (light truck)	
19-999	Cadillac	Unknown CADILLAC	
20-001	Chevrolet	Chevelle/Malibu Classic, Councours, Laguna**, S-3, Greenbriar, Estate, 300,SS-396/454, Deluxe	
20-002	Chevrolet	Impala/Caprice (For SS from 2014 on, use 20-021.)	Biscayne, Belair, Super Sport, Classic, Classic Brougham, Townsman, Brookwood, Kingswood, LS, LT, LTZ, Sport, SS, Luxury, Premier
20-004	Chevrolet	Corvette	Stingray, C5, Z06, Z06-R, 50th Anniversary Edition, Commemorative Edition, Indy Pace Car, ZR1, Grand Sport, 427, 1LZ, 2LZ, 3LZ, ZL1
20-006	Chevrolet	Corvair	
20-007	Chevrolet	El Camino	
20-008	Chevrolet	Nova (-'79)	
20-009	Chevrolet	Camaro	SS, RS, LT, Berlinetta, Iroc-Z, Z/28, LS, LT, ZL1, 2.0L, 3.6L, 6.2L
20-010	Chevrolet	Monte Carlo (thru '88)	
20-011	Chevrolet	Vega	
20-012	Chevrolet	Monza	
20-013	Chevrolet	Chevette	
20-015	Chevrolet	Citation	
20-016	Chevrolet	Cavalier	
20-017	Chevrolet	Celebrity	
20-019	Chevrolet	Beretta/Corsica	
20-020	Chevrolet	Lumina	
20-021	Chevrolet	SS (For 2014 on. For Impala/Caprice SS use model 20-002.)	LS, LT, LTZ
20-022	Chevrolet	Cobalt	LS, LT, LTZ, SS, SS Supercharged
20-023	Chevrolet	HHR	LS, 1LT, 2LT
20-024	Chevrolet	Traverse (2009-2012 only. For 2013 on see model 423.)	LS, LT, LTZ

MAKE & MODEL CODE	MAKE	MODEL	INCLUDES
20-025	Chevrolet	Cruze	LS, LT, LTZ, ECO, Turbo Diesel, Limited, Premier
20-026	Chevrolet	Volt	Premier, LT
20-027	Chevrolet	Caprice PPV	
20-028	Chevrolet	Sonic	Base, LS, LT, LTZ, RS, Premier
20-029	Chevrolet	Spark	LS, LT, EV, ACTIV
20-031	Chevrolet	Spectrum	
20-032	Chevrolet	Nova/Geo Prizm/Prism	
20-033	Chevrolet	Sprint/Geo Sprint	
20-034	Chevrolet	Geo Metro/Metro	
20-035	Chevrolet	Geo Storm	
20-036	Chevrolet	Monte Carlo (1995 on)	FWD, LS, Z34, LS, LT, LTZ, SS, Sport Edition
20-037	Chevrolet	Malibu/Malibu Maxx	Base, L, LS, LT, LTZ, SS, Hybrid, ECO, Classic, Limited, Premier, RS
20-038	Chevrolet	SSR	Signature Series, LS, LS5, 1SS, 2SS, 3SS
20-039	Chevrolet	Aveo/Aveo 5	Base, LS, LT, Special Value
20-040	Chevrolet	Bolt	Base, LT, Premier
20-398	Chevrolet	Other (automobile)	Fleetmaster, Fleetline, Styline Special, One-fifty, Bel-Air, Del Ray, Biscayne
20-399	Chevrolet	Unknown (automobile)	
20-401	Chevrolet	S-10 Blazer/TrailBlazer (2002 only; for 2003 on, see 403)	S-10 p/u based,LS,LT,ZR2 TrailBlazer, Xtreme, ZR2, LS, LT, LTZ, EXT
20-402	Chevrolet	Geo Tracker/Tracker	Lsi, LT, ZR2
20-403	Chevrolet	TrailBlazer (2003 on; for 2002 model, see 401)	LS, LT, LTZ, North Face Edition, EXT, SS (LS/LT)
20-404	Chevrolet	Equinox	L, LS, LT, LTZ, Sport, Premier, Turbo (Base and Diesel)
20-405	Chevrolet	Captiva	Sport, LS, LT, LTZ
20-406	Chevrolet	Trax	LS, LT, LTZ, Premier
20-407	Chevrolet	AMER	Limited, Laredo, Pioneer, Sport, Grand Cherokee, TSi, Briarwood, Country, RHD, SE, Classic, Overland, Special Edition, SRT8, Summit, Laredo X, Overland Summit, Altitude, Trail Hawk, Sport, Latitude (Base, Plus), Limited, 75th Anniversary, Sport Altitude, High Altitude, Upland
20-421	Chevrolet	Fullsize Blazer/Tahoe	K-series, full-sized p/u based, LS, LT, LTD, LTZ, 4WD, Z71, Hybrid, Premier
20-422	Chevrolet	Suburban (from 2004 on; see 431 for 1950-2003)	LS, LT, LTZ, Z71, Premier
20-423	Chevrolet	Traverse (2013 on. For 2009-2012 see model 024.)	L, LS, LT(Cloth, Leather), LTZ, Premier, RS, Redline Edition

MAKE & MODEL CODE	MAKE	MODEL	INCLUDES
20-431	Chevrolet	Suburban (from 1950-2003;see 422 for 2004 on)	all models (C1500/2500, K1500/2500), LS, LT, Z71
20-441	Chevrolet	Astro Van	Minivan, Cargo, Passenger, LT, LS, Conversion
20-442	Chevrolet	Lumina APV	Minivan, MPV
20-443	Chevrolet	Venture	Cargo, Passenger, Plus, LS, LT, Value, Value Plus, Extended, W. B. Edition, Entertainer
20-444	Chevrolet	Uplander	Base, LS, LT, LT(AWD), LT Entertainer
20-445	Chevrolet	City Express	LS, LT
20-461	Chevrolet	G-series van	Beauville,Chevy Van, Sport Van, G10-G30, Express, G1500/2500/3500, LT, LS
20-466	Chevrolet	P-series van	
20-470	Chevrolet	Van derivative	Parcel Van, Hi-cube
20-471	Chevrolet	S-10/T-10 Pickup	4 x 4, Fleetside, Extended,Crew, LS, S-10, Xtreme,ZR2, ZR5, electric pickup*
20-472	Chevrolet	LUV	Imported pickup
20-473	Chevrolet	Colorado	Z71, Z85, Sport, LS, LT, Work, Value, Shoreline, Midnight (LT, Z71), Trail Boss, ZR2
20-481	Chevrolet	C, K, R, V-series pickup/Silverado	C10-C30, K10-K30, R10-R30, V10-V30, Silverado: 1500 (C-K, HD), 2500 (C-K, HD), 3500 (CK), ST, LS, LT, Z71, Fleetside, Sportside, Crew Cab, SS, Hybrid, LTZ, WT, High Country, Rally 1/2, Midnight (HD,Base), Realtree, Custom Sport HD, Blackout, Special Ops, High Country, Custom Trail Boss
20-482	Chevrolet	Avalanche	1500/2500 Premium, North Face Edition, Z71, Z66, LS, LT, LTZ, Black Diamond
20-498	Chevrolet	Other (light truck)	
20-499	Chevrolet	Unknown (light truck)	
20-850	Chevrolet	Motor Home	Truck-based, Van-based
20-870	Chevrolet	Medium/Heavy Van-Based Vehicle	Express 3500/4500
20-880	Chevrolet	Medium/Heavy Pickup (pickup-style only - over 10,000 lbs)	
20-881	Chevrolet	Medium/Heavy - CBE	C50/60/65; M60/65;H70/80/90; J70/80/90;Bison 90; Kodiak (C4500)all other CBE
20-882	Chevrolet	Medium/Heavy - COE low entry	T60/65, all other COE low entry
20-883	Chevrolet	Medium/Heavy - COE high entry	Titan 90, all other COE high entry
20-884	Chevrolet	Medium/Heavy - Unknown engine location	
20-890	Chevrolet	Medium/Heavy - COE entry position unknown	
20-898	Chevrolet	Other (medium/heavy truck)	

MAKE & MODEL CODE	MAKE	MODEL	INCLUDES
20-981	Chevrolet	Bus**: Conventional (Engine out front)	S-60 series
20-988	Chevrolet	Other (bus)	
20-989	Chevrolet	Unknown (bus)	
20-998	Chevrolet	Other (vehicle)	
20-999	Chevrolet	Unknown (CHEVROLET)	
21-001	Oldsmobile	Cutlass (RWD-only)	
21-002	Oldsmobile	Delta 88/LSS	
21-003	Oldsmobile	Ninety-Eight/Regency	
21-005	Oldsmobile	Toronado	
21-006	Oldsmobile	Commercial Series	
21-012	Oldsmobile	Starfire	
21-015	Oldsmobile	Omega	
21-016	Oldsmobile	Firenza	
21-017	Oldsmobile	Ciera	
21-018	Oldsmobile	Calais	
21-020	Oldsmobile	Cutlass (FWD)	
21-021	Oldsmobile	Achieva/Alero	
21-022	Oldsmobile	Aurora	
21-023	Oldsmobile	Intrigue	
21-398	Oldsmobile	Other (automobile)	
21-399	Oldsmobile	Unknown (automobile)	
21-401	Oldsmobile	Bravada	2WD, 4WD, Collector's Series
21-441	Oldsmobile	Silhouette	GL, GLS, Series I, Series II, GS Premier Edition, Collector's Series
21-499	Oldsmobile	Unknown (light truck)	
21-999	Oldsmobile	Unknown (OLDSMOBILE)	
22-001	Pontiac	Lemans/ Tempest (thru 1970)	
22-002	Pontiac	Bonneville/Catalina/ Parisienne	,GXP,GXP,GXP,GXP,GXP,GXP,GXP,GXP,GXP,GXP,GXP,GXP
22-005	Pontiac	Fiero	
22-008	Pontiac	Ventura/GTO	
22-009	Pontiac	Firebird/Trans AM	
22-010	Pontiac	Grand Prix (RWD)	
22-011	Pontiac	Astre	
22-012	Pontiac	Sunbird (thru 1980;1985 on see model 016)	
22-013	Pontiac	T-1000/1000	

MAKE & MODEL CODE	MAKE	MODEL	INCLUDES
22-015	Pontiac	Phoenix	
22-016	Pontiac	Sunbird (1985-1994)/J-2000/Sunfire (1995 on)	
22-017	Pontiac	6000	
22-018	Pontiac	Grand AM	, SC/T Package, SC/T Package, SC/T Package, SC/T Package, SC/T Package, SC/T Package, SC/T Package, SC/T Package, SC/T Package, SC/T Package, SC/T Package, SC/T Package
22-019	Pontiac	G5	Base, GT
22-020	Pontiac	Grand Prix (FWD)	
22-022	Pontiac	G6	
22-023	Pontiac	Solstice	GXP
22-024	Pontiac	G8	
22-025	Pontiac	G3	
22-026	Pontiac	G8-ST	
22-031	Pontiac	Lemans (1988-on)	
22-032	Pontiac	Vibe	GT, AWD
22-398	Pontiac	Other (automobile)	Torpedo, Streamliner, Chieftain Star Chief, Super Chief
22-399	Pontiac	Unknown (automobile)	
22-401	Pontiac	Aztek	GT, SE, 1SA, 1SB, 1SC, Rally Edition
22-403	Pontiac	Torrent	GXP
22-441	Pontiac	Trans Sport/ Montana/SV6	SE, Montana, Extended, Versatrak, 1SV, 1SA, 1SX, 1SY, 1SE, Chrome Sport,
22-499	Pontiac	Unknown (light truck)	
22-999	Pontiac	Unknown (PONTIAC)	
23-007	GMC	Caballero	
23-008	GMC	Acadia (2007-2012 only. For 2013 on see model 423.)	SLE, SLT
23-399	GMC	Unknown (automobile)	
23-401	GMC	Jimmy/Typhoon/Envoy	S-15 based, (100.5 WB), T15, SLE, SL, SLS, SLT, XL, XUV, Denali
23-402	GMC	Terrain	SL, SLE, SLT, Denali, Diesel (SLE, SLT), Black Edition
23-421	GMC	Fullsize Jimmy/Yukon	Fullsize pickup based, K5, K18, SL, SLE, SLT, SLS, Diamond Edition, Yukon Denali, Denali (Ultimate,Ultimate Black Edition), Hybrid, Premium Edition, Graphite Edition (Base, Performance)
23-422	GMC	Suburban/Yukon XL (2004 on; see 431 for 1950- 2003)	Yukon XL (Denali -1500-2500), SLE, SLT, Hybrid
23-423	GMC	Acadia (2013 on. For 2007-2012 see model 008.)	FWD/AWD, Denali, SL, SLE, SLT, All Terrain

MAKE & MODEL CODE	MAKE	MODEL	INCLUDES
23-431	GMC	Suburban/Yukon XL (2000 on) (1950-2003 only; see 422 for 2004 on)	all models, SLE, C16, C26, K16. K26, C1500-2500, K1500-2500, Yukon XL (Denali -1500-2500)
23-441	GMC	Safari (Minivan)	SLT, SLX, SLE, M15, L15, SL
23-461	GMC	G-series van/Savana	Rally Van, Vandura, G15-G35, Savana (G1500-3500) SLT, Extended, SLE, LS, LT, Uplifter, WT, Cargo
23-466	GMC	P-series van	
23-470	GMC	Van derivative	Hicube, Magna Van, Value Van, Parcel Van
23-471	GMC	S15/T15/Sonoma	4 X 4, Syclone, SL, SLS, SLE, Extended/Crew Cab, ZR2, ZRX, ZR5
23-472	GMC	Canyon	Base, SLE, SL, SLT, Z71, Z85, Work Truck, Crew Cab, Extended Cab, Denali, All Terrain (Base, X)
23-481	GMC	C, K, R, V-series pickup/ Sierra	Excluding Yukon, C15-C35, K15-K35, R15-R35, V15-V35, Sierra, C/K1500, 2500, 3500, Sportside, X81, SL, Special, SLE, Classic, Extended Cab, Denali, Limited 1500HD/2500HD/3500HD, C3, Hybrid, SLT, Work Truck, 5SA, AT4
23-498	GMC	Other (light truck)	
23-499	GMC	Unknown (light truck)	
23-850	GMC	Motor Home	
23-870	GMC	Medium/Heavy Van-Based Vehicle	Savana 3500, 4500
23-880	GMC	Medium/Heavy Pickup (pickup-style only - over 10,000 lbs	
23-881	GMC	Medium/Heavy - CBE	W5000/6000/7000 series,Kodiak Brigadier/General models, Top Kick
23-882	GMC	Medium/Heavy - COE low entry	W6000/W7000, all other COE, low entry, W/WT Series
23-883	GMC	Medium/Heavy - COE high entry	Astro 95, all other COE,high entry, T Series
23-884	GMC	Medium/Heavy - Unknown engine location	
23-890	GMC	Medium/Heavy - COE entry position unknown	
23-898	GMC	Other (medium/heavy truck)	
23-981	GMC	Bus**: Conventional (Engine out front)	B6000
23-988	GMC	Other (bus)	
23-989	GMC	Unknown (bus)	
23-998	GMC	Other (vehicle)	
23-999	GMC	Unknown (GMC)	
24-001	Saturn	SL	

MAKE & MODEL CODE	MAKE	MODEL	INCLUDES
24-002	Saturn	SC	
24-003	Saturn	SW	
24-004	Saturn	EV1/EGV1*	
24-005	Saturn	LS	LS, LS1, LS2, L100/L200/L300, L300-1/2/3
24-006	Saturn	LW	LW1, LW2, LW200/300 -1/2/3
24-007	Saturn	Ion	Quad-coupe, Ion- 1/2/3
24-008	Saturn	Sky	
24-009	Saturn	Aura	
24-010	Saturn	Outlook	XE, XR
24-011	Saturn	Astra	
24-398	Saturn	Other (automobile)	
24-399	Saturn	Unknown (automobile)	
24-401	Saturn	Vue	Red Line, 4, V6, Green Line, XE, XR-4, XR-V6
24-441	Saturn	Relay	2,3
24-499	Saturn	Unknown (Light truck)	
24-999	Saturn	Unknown (SATURN)	
25-401	Grumman	LLV	Postal vehicle
25-441	Grumman	Step-in van	Multi-stop, step van
25-498	Grumman	Other (light truck)	
25-499	Grumman	Unknown (light truck)	
25-881	Grumman	Medium/Heavy - CBE	
25-882	Grumman	Medium/Heavy - COE low entry	
25-883	Grumman	Medium/Heavy - COE high entry	
25-884	Grumman	Medium/Heavy - engine location unknown	
25-890	Grumman	Medium/Heavy - entry position unknown	
25-898	Grumman	Other (Medium/Heavy truck)	
25-983	Grumman	Bus: Flat front, rear engine	Transit
25-988	Grumman	Other (bus)	
25-989	Grumman	Unknown (bus)	
25-999	Grumman	Unknown (GRUMMAN/ GRUMMAN-OLSON)	
26-001	Coda	Coda	
26-398	Coda	Other (automobile)	
26-399	Coda	Unknown (automobile)	

MAKE & MODEL CODE	MAKE	MODEL	INCLUDES
29-001	Other Domestic Manufacturers	Studabaker/Avanti	Lark, Gran Turismo, Hawk, Cruiser, all associated subseries, light pick-up, Studebaker XUV/XUT, Lister
29-002	Other Domestic Manufacturers	Checker	
29-003	Other Domestic Manufacturers	Panoz	Esperante (Magnussen Edition, Spyder (Base, GT), Convertible, GTS), GT, GTS, GTLM, JRD, Abruzzi, Roadster, GTR1, 25th Anniversary, Spyder (GT), Avezzano
29-004	Other Domestic Manufacturers	Saleen	S7, S281, 435S, S302 (White Label, Yellow Label, Black Label), 570, 620, FOURSIXTEEN
29-005	Other Domestic Manufacturers	Tesla	Roadster (Base, Sport), Model S (Base, Signature, Performance), Model X, Super Charger , Model 3, Model Y
29-398	Other Domestic Manufacturers	Other (automobile)	Desoto, Excaliber, Stutz,FiberFab, Hudson, Packard, Consulier, Gatsby, Auburn, Phaeton, Citicar, Clenet
29-399	Other Domestic Manufacturers	Unknown (automobile)	
30-031	Volkswagen	Karmann Ghia	
30-032	Volkswagen	Beetle 1300/1500	
30-033	Volkswagen	Super Beetle	
30-034	Volkswagen	411/412	
30-035	Volkswagen	Squareback/Fastback	
30-036	Volkswagen	Rabbit	
30-037	Volkswagen	Dasher	
30-038	Volkswagen	Scirocco	
30-040	Volkswagen	Jetta/Jetta SportsWagen	III, GL (TDI, 1.9L, 2.0L), GLI (2.0T, VR6), GLS (1.8T,1.8L/I.9L/ 2.0L/2.8L/ TDI/VR6),GT, Carat, TDI, GLX (VR6/ 2.8L), Turbo Diesel, 2.5L Wolfsburg Edition, S/SE/ SEL, Value Edition, 2.0T, 3.6, Autobahn, Hybrid (SE, SEL, SEL Premium), Premium, Edition 30, 1.4T, Sport, Turbo Charged, 35th Anniversary Edition
30-041	Volkswagen	Quantum	
30-042	Volkswagen	Golf/Cabriolet/Cabrio/GTI/ GLI	Golf II, GTI (GLS, GLX 1.8T/2.0T/2.8L), GT, GL(1.8T/ VR6/2.0L/1.9L/ TDI), Golf III, GLS (1.8T/1.8L/1.9L/ 2.0/TDI), Wolfsburg, Cabrio (GL, GLS, GLX), 20th Anniversary, R32, MkV, Convenience, R, 2.5L, Driver's Edition, S, SE, SEL, Autobahn, Launch Edition, Sport Wagen (S, SE, SEL), eGolf (SE, SEL Premium), Alltrack (S,SE, SEL), Alltrack
30-043	Volkswagen	Rabbit Pickup	
30-044	Volkswagen	Fox	
30-045	Volkswagen	Corrado	
30-046	Volkswagen	Passat (CC - 2008 thru 2011; see 052 for 2012 on)	GL,GLS(1.8T,Synchro,V6),TDI,GLX(1.8T, 2.0T, W8, Synchro,V6), 4MOTION, 3.6 GL, Value Edition, CC, Highline,

MAKE & MODEL CODE	MAKE	MODEL	INCLUDES
			Komfort, 2.5 (S/SE), Wolfsburg Edition, Sport, Premium, Clean Diesel, SEL, R-Line, 35th Anniversary Edition, Autobahn
30-047	Volkswagen	New Beetle	GL GLS TDI, 1.8T/1.8L/ 1.9L/2.0L/2.5/2.5L Syncro/ V6, GLX (1.8T), Turbo, Turbo S, Fender Edition, Sun and Sound, R-Line, GSR, Clean Diesel, Classic, SE, SEL, Dune, #PinkBeetle, Coast, Final Edition (SE, SEL)
30-048	Volkswagen	Phaeton	3.2L, 4.2L, V6, V8,W12
30-051	Volkswagen	Eos	2.0T, 3.2L, Executive, Komfort, Luxury, Turbo, VR6, Sport, Final Edition
30-052	Volkswagen	CC (For 2012 on. See model 046 for 2008-2011.)	Luxury, Sport, Sport Plus, VR6, R-Line, 2.0T, 4MOTION, Executive,
30-053	Volkswagen	Arteon	R-Line, SE, SEL
30-398	Volkswagen	Other (automobile)	
30-399	Volkswagen	Unknown (automobile)	
30-401	Volkswagen	The Thing (181)	
30-402	Volkswagen	Tiguan	S, SE, SEL, R-Line, 4MOTION, 2.0T, Wolfsburg, Sport, Premium, Limited (Base, 4MOTION)
30-403	Volkswagen	Atlas	S, V6 (S, 4MOTION, Launch Edition, SE, SEL)
30-421	Volkswagen	Touareg/Touareg 2	V6, V8, V10, VR6 FSI, Lux, Executive, Hybrid, Sport, R-Line, X Special Edition, TDI, Wolfsburg
30-441	Volkswagen	Vanagon/Camper	Bus, Kombi, Van
30-442	Volkswagen	Eurovan	GLS, MV, Camper, Weekender Package
30-443	Volkswagen	Routan	S, SE, SEL Premium/RSE
30-498	Volkswagen	Other (light truck)	
30-499	Volkswagen	Unknown (light truck)	
30-998	Volkswagen	Other (vehicle)	
30-999	Volkswagen	Unknown (VOLKSWAGEN)	
31-031	Alfa Romeo	Spider (Spyder)	
31-032	Alfa Romeo	Sports Sedan	
31-033	Alfa Romeo	Sprint/Special	
31-034	Alfa Romeo	GTV-6	
31-035	Alfa Romeo	164 (Alpha 164)	
31-036	Alfa Romeo	4c	Launch Edition, Base, Spider
31-037	Alfa Romeo	Giulia	Base, Ti, Quadrifoglio
31-398	Alfa Romeo	Other (automobile)	
31-399	Alfa Romeo	Unknown (automobile)	
31-401	Alfa Romeo	Stelvio (For 2018 only. For model years 2019 on, see 31-422.)	Base, Ti, Quadrifoglio

MAKE & MODEL CODE	MAKE	MODEL	INCLUDES
31-422	Alfa Romeo	Stelvio (For 2019 on. For model year 2018, see 31-401.)	Base, Ti, Quadrifoglio
31-999	Alfa Romeo	Unknown (ALFA ROMEO)	--
32-031	Audi	Super 90	
32-032	Audi	100	
32-033	Audi	Fox	
32-034	Audi	4000	
32-035	Audi	5000	
32-036	Audi	80/90	
32-037	Audi	200	
32-038	Audi	V-8 Quattro	
32-039	Audi	Coupe Quattro	
32-040	Audi	S4 (1992-1994; 2000-2011 only. See model 055 for 2012 on)/S6 (1992-1994; 2000-2011 only. See model 056 for 2013 on.)	Quattro, Avant Quattro (Wagon), 4.2 Saloon, Avant (2.7), RS4, Special Edition
32-041	Audi	Cabriolet (1994-1998)	
32-042	Audi	A6	Avant Quattro Wagon (3.0L, 3.0T), Quattro (2.7T, 4.2), FrontTrak (2.8, 3.0L), RS6, 3.2, S Line, 3.0T (Premium, Premium Plus, Prestige), 2.0T (Premium, Premium Plus), Special Edition, 45 TFSI (Premium, Premium Plus, Prestige), 55 TFSI (Premium, Premium Plus, Prestige)
32-043	Audi	A4	Avant Wagon (1.8T, 2.0T, 2.8, 3.0, 3.2), Avant Quattro Wagon, FrontTrak (1.8, 2.8, 3.0),Quattro (1.8T, 2.0T, 3.0, 3.2), Special Edition, S Line, 2.0T(Premium, Premium Plus, Prestige)
32-044	Audi	A8	4.2 Quattro, L (3.0, 4.0, 55 TFSI, 60 TFSI), W12 (6.3), NWB, 3.0T, 4.0T, TDI, Sport
32-045	Audi	TT/TTS	FWD, Quattro AWD, 180, 225 Quattro Roadster, FrontTrak (180), 1.8L, 2.0 (Base, TFSI), 3.2L, S Line, RS (Premium, Premium Plus, Prestige), 2.0T (Premium Plus, Prestige), RS, 45 TFSI
32-046	Audi	S8	4.2 Quattro, 5.2, 4.0 TFSI, Plus (4.0)
32-047	Audi	Allroad (2001-05 only. See 403 for 2013 on)	
32-048	Audi	A3	2.0T/FSI, 3.2 S Line (Premium, Premium Plus), TDI, 1.8, Prestige, Sportback e-tron (Premium, Premium Plus, Prestige), 40 TFSI (Premium, Premium Plus), 45 TFSI (Premium, Premium Plus)
32-049	Audi	A5	2.0, 2.0T, 3.2, (Premium, Premium Plus, Prestige), Quattro
32-050	Audi	R8	4.2, 5.2, Spyder, GT (Spyder), (V8, V10, V10 Plus)

MAKE & MODEL CODE	MAKE	MODEL	INCLUDES
32-051	Audi	A7	Premium, Premium Plus, Prestige, (3.0 TFSI/TDI), 55 TFSI (Premium, Premium Plus, Prestige)
32-052	Audi	S5	4.2, 3.0T (Premium Plus, Prestige), Quattro
32-054	Audi	RS5	4.2 Prestige, V8
32-055	Audi	S4 (2012 on only. See model 040 for 1992-1994; 2000-2011)	3.0T Prestige, Premium Plus
32-056	Audi	S6 (2013 on. See model 040 for 1992-1994; 2000-2011)	4.0TFSI Premium Plus, Prestige, 2.9 TFSI (Premium Plus, Prestige)
32-057	Audi	S7	4.0, Premium Plus, Prestige, 2.9 TFSI (Premium Plus, Prestige)
32-058	Audi	RS7	4.0 TFSI, Performance
32-059	Audi	S3	Premium Plus, Prestige
32-060	Audi	RS3	--
32-398	Audi	Other (automobile)	
32-399	Audi	Unknown (automobile)	
32-401	Audi	Q7 (For 2007-2018 only. For model years 2019 on, see 32-422.)	3.6/4.2, 3.0T, TDI(Premium, Premium Plus,Prestige) Hybrid, S Line,
32-402	Audi	Q5	2.0T, 3.2, 3.0T (Premium, Premium Plus, Prestige), Hybrid (2.0)
32-403	Audi	Allroad (2013 on. For 2001-2005 see model 047.)	2.0T (Premium, Premium Plus, Prestige)
32-404	Audi	SQ5	3.0 (Premium, Premium Plus, Prestige)
32-405	Audi	Q3	2.0 TFSI (Premium Plus, Prestige), 45 TFSI (Premium, Premium Plus, Prestige)
32-406	Audi	e-Tron	Premium Plus, Prestige
32-421	Audi	Q8	Premium, Premium Plus, Prestige, 55 TFSI (Premium, Premium Plus, Prestige)
32-422	Audi	Q7 (For 2019 on. For model years 2007-2018, see 32-401.)	2.0T, 3.0T
32-499	Audi	Unknown (light truck)	
32-999	Audi	Unknown (AUDI)	
33-031	Austin/Austin Healey	Marina	
33-032	Austin/Austin Healey	America	
33-033	Austin/Austin Healey	Healey Sprite	
33-034	Austin/Austin Healey	Healey 100/3000	
33-035	Austin/Austin Healey	Mini/Mini Cooper/Mini Moke	
33-398	Austin/Austin Healey	Other (automobile)	
33-399	Austin/Austin Healey	Unknown (automobile)	
34-031	BMW	1600, 1800, 2000,2002	
34-032	BMW	Coupe (before 1975)	

MAKE & MODEL CODE	MAKE	MODEL	INCLUDES
34-033	BMW	Bavarian Sedan	
34-034	BMW	3-series	3.0s/si, 318i/is/ti/iC, 320i, 323iS/iC/i/Ci,325e/es/i/iS/ii/ C/Ci/Cic/xi/iT/xiT, Sport Wagon (iT/xiT), 328d/i/iS/ti/ iC/Ci/x/xi, xDrive, 330e/i/Ci/ Cic/xi, 335i/is/xi/d, 340i, xDrive, ActiveHybrid, M3, Gran Turismo (328i), 340i
34-035	BMW	5-series	524i,525i/xi,/iT528i/iT/xi, xDrive, 530e/i/iT/xi,533i, 535d/i/xi,xDrive, 550i, xDrive 540/i/iA/iT, TD Sport Wagon, (wagon 1992-93), M5, 545i, 550i/ix, Gran Turismo (535i, 550i), ActiveHybrid 5
34-036	BMW	6-series	630, 633, 635, csi, M6, L6, 640i, 645Ci, 650i/ix, Neiman Marcus Edition, xDrive, Alpina B, B6, Gran Turismo (640i)
34-037	BMW	7-series	733i, 735i, L7, 740 e/d/i/L/iL /iA/Li Protection,750 i/iL/Li/ Lxi/ix Protection,745i/Li, 760i/Li, Alpina B7, Individual, ActiveHybrid 7, xDrive, M760i
34-038	BMW	8-series	840Ci/cia/i, 850i/iS/Ci/Cia, xDrive, M8
34-039	BMW	Z3	
34-040	BMW	Z8	
34-041	BMW	V5	
34-042	BMW	Z4	2.5i, 2.8i, 3.0i/si, 3.5i/is, Z4M/s/sDrive, 28i, 30i, 35s
34-043	BMW	1-Series	128i, 135i/is
34-044	BMW	X6 (For 2008-2015. For 2016 on, see model 404.)	
34-045	BMW	i3	Base, Range Extender, s
34-046	BMW	i8	
34-047	BMW	4-Series	428i, 435i, xDrive, M4, 430i, 440i
34-048	BMW	2-Series	228i, 230i, M235i, M240i, Xdrive, M2
34-049	BMW	X4	28i, 35i, M40i, 30i
34-398	BMW	Other (automobile)	
34-399	BMW	Unknown (automobile)	
34-401	BMW	X5 (For 2000-16. For 2017 on, see model 421).	3.0i/si, 4.0is, 4.4i, 4.6is, 4.8is, M, 35i/d, Premium, 50i, Sport Activity, Premium, sDrive
34-402	BMW	X3	25i, 28 d/i, 30i/xDrive, 35i, 4.8is, M40i, M Sports, xLine, Luxury Package
34-403	BMW	X1	28i/is, 35i, xDrive, xLine
34-404	BMW	X6 (For 2016 on. For 2008-2015, see model 044.)	35i, 40i, 50i, xDrive, sDrive, M, M50i
34-405	BMW	X2	28i, xDrive, M35i
34-421	BMW	X5 (For 2017 on. For 2000-16, see model 401)	35i/d, 40e/i, 50i, M, M50i

MAKE & MODEL CODE	MAKE	MODEL	INCLUDES
34-422	BMW	X7	30i/40i xDrive, M50i
34-499	BMW	Unknown (light truck)	
34-703	BMW	125-349cc	G310
34-705	BMW	450-749cc	
34-706	BMW	750cc and over	
34-707	BMW	Electric Motorcycle	C Evolution
34-709	BMW	Unknown cc	
34-999	BMW	Unknown (BMW)	
35-031	Nissan/Datsun	F-10	
35-032	Nissan/Datsun	200SX/240SX	
35-033	Nissan/Datsun	210/1200/B210	
35-034	Nissan/Datsun	Z-car, ZX	
35-035	Nissan/Datsun	310	
35-036	Nissan/Datsun	510	
35-037	Nissan/Datsun	610	
35-038	Nissan/Datsun	710	
35-039	Nissan/Datsun	810/Maxima	SE (Titanium Special), GXE, GLE, 2.5 (S/SR/SL/SV), 3.5SE/SL/SEL/S/SV/SR, Platinum Edition, Midnight Edition, Platinum Reserve
35-040	Nissan/Datsun	Roadster	
35-041	Nissan/Datsun	311/411	
35-042	Nissan/Datsun	Stanza	
35-043	Nissan/Datsun	Sentra	E, XE, GXE, S, SE, SE-R (Spec V), GLE, CA, 2.5LE, 1.8, 1.8S, 2.0/S/SL/SR, Special Edition, Platinum Edition, Spec-V, FE, SV, FE+S, Nismo, SR Turbo
35-044	Nissan/Datsun	Pulsar	
35-045	Nissan/Datsun	Micra	
35-046	Nissan/Datsun	NX 1600/2000	
35-047	Nissan/Datsun	Altima	XE, GXE, SE, GLE, 2.5 S/SL/SR/SV, 3.5 S/SE/SL/SR/SV, SE-R, Hybrid, SR (Base, Midnight), Platinum, Special Edition, Edition One, VC-Turbo
35-048	Nissan/Datsun	350Z/370Z	Enthusiast, Performance, Touring, Track, Base, 35th Anniversary, Grand Touring, Nismo, 40th Anniversary, Sport, Sport Tech, Nismo Tech, Touring Sport, Heritage Edition (Magnetic Black, Pearl White, Deep Blue Pearl, and Chicane Yellow), 50th Anniversary Edition
35-049	Nissan/Datsun	Murano (For 2003-2018 only. For model years 2019 on, see 35-422.)	SE, SL, S, LE, SV, CrossCabriolet, Platinum, S Plus

MAKE & MODEL CODE	MAKE	MODEL	INCLUDES
35-050	Nissan/Datsun	Versa	1.8S/SL, 1.6 S/SV/SL, Plus, Note (S, S Plus, SV, SR, SL), S Plus, SR, SV Special Edition
35-051	Nissan/Datsun	Rogue (For 2008-2018 only. For model years 2019 on, see 35-404.)	S, SL, SV, Krom/Special Edition, Select (S) Sport
35-052	Nissan/Datsun	Cube	1.8 S/SL, Krom Edition, Indigo Edition
35-053	Nissan/Datsun	GT-R	Base, Premium, Black Edition, Track Edition, Nismo, 45th Anniversary, Pure, 50th Anniversary
35-055	Nissan/Datsun	Leaf	S, SL, SV, Plus
35-056	Nissan/Datsun	Kicks	S, SV, SR
35-398	Nissan/Datsun	Other (automobile)	
35-399	Nissan/Datsun	Unknown (automobile)	
35-401	Nissan/Datsun	Pathfinder	MPV, 4X4, XE, LE, SE, S, Off-Road, FE+, SV, Silver Edition, Hybrid, SL (Tech, Premium), Platinum, SL, Rock Creek Edition
35-402	Nissan/Datsun	Xterra	XE (I-4), SE, (S/C), SE-R, Spec V, X, S, Off-Road, Pro-4X
35-403	Nissan/Datsun	Juke	S, SL, SV, Nismo, Nismo RS
35-404	Nissan/Datsun	Rogue (For 2019 on. For model years 2008-2018, see 35-051.)	S, SV, SL, Hybrid, Sport (S, SV, SL)
35-421	Nissan/Datsun	Pathfinder Armada	LE, SE, SE Off-Road, Titanium, Platinum (Base/Reserve), SV, SL
35-422	Nissan/Datsun	Murano (For 2019 on. For model years 2003-2018, see 35-056.)	S, SV, SL, Platinum
35-441	Nissan/Datsun	Van	XE, GXE
35-442	Nissan/Datsun	Axxess	
35-443	Nissan/Datsun	Quest	XE, GXE, SE, GLE, 3.5 S/SE/SL, Special Edition, SV, LE, Platinum
35-444	Nissan/Datsun	Altra EV*	(electric vehicle*)
35-446	Nissan/Datsun	NV200/eNV200	S, SV, Taxi, Compact Cargo, Passenger, HD Cargo
35-461	Nissan/Datsun	NV	1500 (S, SV), 2500 HD (S, SV), 3500 (S, SV, SL), Passenger (S, SV, SL)
35-471	Nissan/Datsun	Nissan/Datsun Pickup (1955-1997)	120,620 series, King Cab,Hardbody, XE, SE
35-472	Nissan/Datsun	Frontier (1998 on)	XE, SE, S/C (Regular Cab, King Cab, Desert Runner, Crew Cab), Open-Sky, SVE, Nismo, Pro-4X, LE, SV, SL, S, Diesel Runner, Midnight Edition
35-473	Nissan/Datsun	Titan (from 2004-06; see 481 for 2007 on)	E, LE, SE, XE
35-481	Nissan/Datsun	Titan (from 2007 on; see 473 for 2004-06)	LE, SE, XE, PRO-4X, S, SV, SL, XD (S, SV, SL, Platinum Reserve), Platinum, Platinum Reserve, Midnight Edition
35-498	Nissan/Datsun	Other (light truck)	Patrol (1960)
35-499	Nissan/Datsun	Unknown (light truck)	

MAKE & MODEL CODE	MAKE	MODEL	INCLUDES
35-870	Nissan/Datsun	Medium Heavy Van-Based Vehicle	NV
35-883	Nissan/Datsun	Medium/Heavy - COE high entry	
35-898	Nissan/Datsun	Other (medium/heavy truck)	
35-999	Nissan/Datsun	Unknown (NISSAN/DATSUN)	
36-031	Fiat	124 (Coupe/Sedan)	
36-032	Fiat	124 Spider/Racer	
36-033	Fiat	Brava/131	
36-034	Fiat	850 (Coupe/Spider)	
36-035	Fiat	128	
36-036	Fiat	X-1/9	
36-037	Fiat	Strada	
36-038	Fiat	500/500c	Abarth, Pop, Sport, Lounge, e, Cabrio, Turbo, Cattiva, Gucci, eSport, GQ Edition, 1957 Edition
36-039	Fiat	124 Spider	Classica, Abarth, Lusso
36-398	Fiat	Other (automobile)	
36-399	Fiat	Unknown (automobile)	
36-401	Fiat	500L	Pop, Easy, Trekking, Lounge, Urbana
36-402	Fiat	500X	Pop, Easy, Trekking, Lounge, Trekking Plus
36-499	Fiat	Unknown (light truck)	
36-882	Fiat	Medium/Heavy - COE low entry	
36-883	Fiat	Medium/Heavy - COE high entry	
36-890	Fiat	Medium/Heavy - COE entry position unknown	
36-898	Fiat	Other (medium/heavy truck)	
36-998	Fiat	Other (vehicle)	
36-999	Fiat	Unknown (FIAT)	
37-031	Honda	Civic/CRX, del Sol	1300, 1500, CVCC, DX, EX, VX, CX, FE, CRX, CRX Si, S, Si, HF, LX, 4WD Wagon, GX (NGV), HX, VTEC, VP, Si, Civic, Hybrid, Special Edition, EX-L, DX-VP, LX-S, Natural Gas, Sport, Sport Touring, EX-T, LX-P, Touring, Type R
37-032	Honda	Accord (Note: For Crosstour model years 2010 and 2011 only. For Crosstour model years 2012-2015, see vehicle model 37-405)	LX (V-6, ULEV), LXI, DX, CVCC,SE-I,LX-I,V-6, SJE, SME, SMH, SMK, EX (Wagon, ULEV, V-6), SE (ULEV), Special Edition, Hybrid (Base, EX-L, Touring), Value Package, LX-S, LX-P, EX-L, Crosstour (EX, EX-L, EX(V6), EX-L (V6)), Premium, Plug-In Hybrid, Sport, Hybrid(EX-L, Touring), Touring,Sport Special Edition, EX-T
37-033	Honda	Prelude	
37-034	Honda	600	

MAKE & MODEL CODE	MAKE	MODEL	INCLUDES
37-035	Honda	S2000	
37-036	Honda	EV Plus*	*Electric vehicle (EV+)
37-037	Honda	Insight	*(Gasoline-Electric), MT/CVT, LX, EX, Touring
37-038	Honda	FCX/Clarity	Hydrogen Vehicle, Clarity, Electric, Fuel Cell, Touring
37-039	Honda	Fit	Base, DX, LX, Sport, EV, EX, EX-L
37-041	Honda	CR-Z	EX, Hybrid, Sport, LX, EX-L
37-398	Honda	Other (automobile)	
37-399	Honda	Unknown (automobile)	
37-401	Honda	Passport	LX, EX, DX, EX-L
37-402	Honda	CR-V	LX, EX, Special Edition (SE), SC, EX-L, Touring, Hybrid
37-403	Honda	Element	DX, EX, EX-P, LX, SC, Dog Friendly
37-404	Honda	HR-V	EX, EX-L, LX, Sport, Touring
37-405	Honda	Crosstour (2012-2015 only. See vehicle model 37-032 for model years 2010 and 2011.)	
37-421	Honda	Pilot	EX, EX-L, LX, SE, Value Package, Touring, Elite, Black Edition
37-422	Honda	Passport (2019 on. For 1994-2002 see model 401.)	Sport, Elite, EX-L, Touring
37-441	Honda	Odyssey	LX, EX, EX-L (Res, NAVI), Touring, Touring Elite, SE, Special Edition
37-471	Honda	Ridgeline	RT, RTL, RTL-T, RTL-E,RTS, RTX, Sport, Black Edition
37-498	Honda	Other (light truck)	
37-499	Honda	Unknown (light truck)	
37-701	Honda	0- 50 cc	
37-702	Honda	51-124 cc	
37-703	Honda	125-349 cc	
37-704	Honda	350-449 cc	
37-705	Honda	450-749 cc	
37-706	Honda	750 cc or greater	
37-709	Honda	Unknown cc	
37-732	Honda	51-124cc (ATV)	
37-733	Honda	125-349cc (ATV)	
37-734	Honda	350cc or greater (ATV)	
37-739	Honda	Unknown cc (ATV)	
37-998	Honda	(Other Vehicle)	
37-999	Honda	Unknown (HONDA)	
38-031	Isuzu	I-Mark	

MAKE & MODEL CODE	MAKE	MODEL	INCLUDES
38-032	Isuzu	Impulse	
38-033	Isuzu	Stylus	
38-398	Isuzu	Other (automobile)	
38-399	Isuzu	Unknown (automobile)	
38-401	Isuzu	Trooper/Trooper II	Deluxe, LS, S, LTD
38-402	Isuzu	Rodeo/ Rodeo Sport	S, LS, LSE
38-403	Isuzu	Amigo	
38-404	Isuzu	VehiCROSS	VXO
38-405	Isuzu	Axiom	XS
38-421	Isuzu	Ascender	LS, S, Limited, Luxury
38-441	Isuzu	Oasis	S, LS
38-471	Isuzu	P'up (pickup)	4 X 4
38-472	Isuzu	Hombre	S, XS, XS Space Cab
38-473	Isuzu	i-280/i-290	S, LS, Luxury
38-474	Isuzu	i-350/i-370	LS, Limited, S
38-498	Isuzu	Other (light truck)	
38-499	Isuzu	Unknown (light truck)	
38-881	Isuzu	Medium/Heavy - CBE	
38-882	Isuzu	Medium/Heavy - COE, low entry	NOR, NPR,NQR, N Series
38-883	Isuzu	Medium/Heavy - COE, high entry	FRR, FRRI, FSR, FTR,FVR, F Series
38-884	Isuzu	Medium/Heavy - Unknown engine location	
38-890	Isuzu	Medium/Heavy - COE entry position unknown	
38-898	Isuzu	Other (medium/heavy truck)	
38-981	Isuzu	Bus**: Conventional (Engine out front)	
38-982	Isuzu	Bus: Front engine, Flat front	
38-983	Isuzu	Bus: Rear engine Flat front	
38-988	Isuzu	Other (bus)	
38-989	Isuzu	Unknown (bus)	
38-999	Isuzu	Unknown (ISUZU)	
39-031	Jaguar	XJ-S, XK8 Coupe	
39-032	Jaguar	XJ/XJL/XJ6/12/XJR/XJ8/ XJ8L Sedan/Coupe	Mk II, Mk X, XJ,3.85, 3.8, 340/420 Sedan; XJ8(LWB, L,Vanden Plas, Sport); XJ6(L), C, L, Vanden Plas, III, GT, Super 8, Limited, Portfolio, Supersport, Supercharged, Ultimate, Standard Wheelbase, Long Wheelbase, R-Sport, 50th Anniversary Special Edition

MAKE & MODEL CODE	MAKE	MODEL	INCLUDES
39-033	Jaguar	XK-E	
39-034	Jaguar	S-Type	
39-035	Jaguar	XKR/XK	Victory Edition, Portfolio, 175 Limited Edition, Black Pack, XKR-S
39-036	Jaguar	X-Type	
39-037	Jaguar	XF/XFR	4.2 Luxury, S, Premium Luxury, Supercharged, 3.0, 2.0T, Portfolio, Sport, Prestige, R-Sport, S, Sportbrake (First Edition, S, Prestige)
39-038	Jaguar	F-Type	S, V8, Project 7, Premium, SVR, Type R, British Design Edition, R-Dynamic, 400 Sport, Checkered Flag
39-039	Jaguar	XE	Premium, Prestige, R-Sport, R-Dynamic, S
39-398	Jaguar	Other (automobile)	
39-399	Jaguar	Unknown (automobile)	
39-401	Jaguar	F-Pace	20d/35t (Premium, Prestige, First Edition, Sport, R-Sport, S), SVR, Portfolio
39-402	Jaguar	E-Pace	Base, S, SE, R-Dynamic (S, SE, HSE), First Edition, Checkered Flag Edition
39-403	Jaguar	I-Pace	Base, First Edition, e-Trophy, S, SE, HSE
39-499	Jaguar	Unknown (light truck)	--
39-999	Jaguar	Unknown (JAGUAR)	
40-031	Lancia	Beta Sedan - HPE	
40-032	Lancia	Zagato	
40-033	Lancia	Scorpion	
40-398	Lancia	Other (automobile)	
40-399	Lancia	Unknown (automobile)	
41-031	Mazda	RX2	
41-032	Mazda	RX3	
41-033	Mazda	RX4	
41-034	Mazda	RX7	
41-035	Mazda	323/GLC/ Protégé/ Protégé5	
41-036	Mazda	Cosmo	
41-037	Mazda	626	
41-038	Mazda	808	
41-039	Mazda	Mizer	
41-040	Mazda	R-100	
41-041	Mazda	616/618	
41-042	Mazda	1800	
41-043	Mazda	929	

MAKE & MODEL CODE	MAKE	MODEL	INCLUDES
41-044	Mazda	MX-6	
41-045	Mazda	Miata/MX-5	Miata (LS), SE, SV, Mazdaspeed, Sport, Touring, Grand Touring, Club, Special, Special Edition, PRHT, RF (Club, Grand Touring),30th Anniversary
41-046	Mazda	MX-3	
41-047	Mazda	Millenia	
41-048	Mazda	MP3	
41-049	Mazda	RX-8	
41-050	Mazda	Mazda6	Grand Touring, Sport, Mazdaspeed6, Grand Sport, SV, Plus, Touring, Skyactiv-D, Touring, Grand Touring Reserve, Signature
41-051	Mazda	Mazda3	i (Sport, Touring, Grand Touring, SV) s (Touring, Grand Touring), SP23, Value, Mazdaspeed3, Touring 2.5, Select, Preferred, Premium
41-052	Mazda	Mazda5	Sport, Touring
41-053	Mazda	CX-7	Sport, Touring, Grand Touring
41-054	Mazda	CX-9 (2007-12 only.For 2013 on see model 421.)	Sport Touring, Grand Touring
41-055	Mazda	Mazda2	Sport, Touring
41-056	Mazda	CX-3	Sport, Touring, Grand Touring
41-398	Mazda	Other (automobile)	
41-399	Mazda	Unknown (automobile)	
41-401	Mazda	Navajo	
41-402	Mazda	Tribute	DX, DX-V6, LX-V6, ES-V6, ES, LX, i, s, Hybrid, Sport, Grand Touring, Touring
41-403	Mazda	CX5	Sport, Touring, Grand Touring, Diesel, Reserve, Signature, Skyactiv-D
41-421	Mazda	CX-9 (2013 on. See model 054 for 2007-12 model years.)	Sport, Touring, Grand Touring, Signature
41-441	Mazda	MPV	LX, ES, DX, All Sport, LX-SV
41-471	Mazda	Pickup/ B-Series Pickup	B2000, B2200, B2300, SE-5, LX, SE (2WD, 4WD), SX, DS, Cab Plus, B2500/B2600/B3000/B4000, Dual Sport Cab
41-498	Mazda	Other (light truck)	
41-499	Mazda	Unknown (light truck)	
41-999	Mazda	Unknown (MAZDA)	
42-031	Mercedes-Benz	200/220/230/240/ 250/260/280/300/ 320/420	
42-032	Mercedes-Benz	230/280 SL	
42-033	Mercedes-Benz	300/350/380/450/500/ 560 SL	
42-034	Mercedes-Benz	350/380/420/450/560 SLC	

MAKE & MODEL CODE	MAKE	MODEL	INCLUDES
42-035	Mercedes-Benz	280/300 SEL	
42-036	Mercedes-Benz	300/380/420/450/500/560/SEL & 500/560, 600 SEC & 300/350 SDL	
42-037	Mercedes-Benz	300/380/450 SE	
42-038	Mercedes-Benz	600, 6.9 Sedan	
42-039	Mercedes-Benz	190	
42-040	Mercedes-Benz	300	
42-041	Mercedes-Benz	400/500E	
42-042	Mercedes-Benz	C Class (94 on)	C220/C230 (Kompressor)/ C240/250/280/300/320/350/400 (W)/C32/ 36/43/55/63/63S AMG, Sport, Luxury, 450 (AMG), 350e Plug-In Hybrid
42-043	Mercedes-Benz	S Class (95 on)	S320/350/400(V)/420/430/ 450/500/550/560(V/e/Maybach)/600(V), 55/63/65 (AMG), Hybrid, 4-M, S600 (Maybach)
42-044	Mercedes-Benz	SL Class (95 on)	SL320/400/500/550(R)/ 600(R), Silver Arrow Edition, SL55/63/65 AMG
42-045	Mercedes-Benz	SLK	SLK230/280/300/320/350 (Sport), Kompressor, SLK 32/55 (AMG), Special Edition
42-046	Mercedes-Benz	CL Class	
42-047	Mercedes-Benz	CLK	CLK 320/350/430/500, Cabriolet, CLK 55(AMG)
42-048	Mercedes-Benz	E Class (97 on)	250/300/TD, 320/350 (4-M,A,C,S,W)/400/ 420/430/450/500/550 (4-M,A,C, W), 43/53/55/63/63S AMG, 320CDI, Hybrid
42-049	Mercedes-Benz	SLR	
42-050	Mercedes-Benz	R Class	R350, R500
42-051	Mercedes-Benz	CLS Class	CLS400/450/500/550, CLS 53/55/63/63S AMG
42-052	Mercedes-Benz	SLS Class	AMG (C/GT) Final Edition
42-053	Mercedes-Benz	B Class	250e
42-054	Mercedes-Benz	CLA Class	250, 45
42-055	Mercedes-Benz	GLA Class	250, 45 AMG
42-056	Mercedes-Benz	AMG GT S	450, GT C, GT R
42-057	Mercedes-Benz	SLC Series	300, 43 (AMG)
42-058	Mercedes-Benz	A-Class	220, 35
42-398	Mercedes-Benz	Other (automobile)	
42-399	Mercedes-Benz	Unknown (automobile)	
42-401	Mercedes-Benz	M/ML Class	ML250/320/350/430/450/ 500/550, ML55/63 (AMG), Special Edition, Hybrid, 4-M
42-402	Mercedes-Benz	G Class	G500/550, G55/63/65 (AMG)
42-403	Mercedes-Benz	GLK Class	220/280/320/350

MAKE & MODEL CODE	MAKE	MODEL	INCLUDES
42-404	Mercedes-Benz	GLE Class (For 2016-2018 only. For model years 2019 on, see 42-423.)	300d3/50/550e, 43/63/63S (AMG), Coupe (450, AMG - 43/63S)
42-405	Mercedes-Benz	GLC Class	300, 43/63/63S (AMG), Coupe (300, AMG 43), 350e
42-406	Mercedes-Benz	GLB Class	250
42-421	Mercedes-Benz	GL Class	GL320/350/450/550, GL63 (AMG)
42-422	Mercedes-Benz	GLS Class	450, 550, 63 (AMG)
42-423	Mercedes-Benz	GLE Class (For 2019 on. For model years 2016-2018, see 42-404.)	400, 43/63/63S AMG
42-461	Mercedes-Benz	SPRINTER	(2004-2010 on see "Freightliner" and "Dodge")
42-462	Mercedes-Benz	Metris	Cargo, Passenger
42-470	Mercedes-Benz	Van derivative	Kurbstar
42-498	Mercedes-Benz	Other (light truck)	
42-499	Mercedes-Benz	Unknown (light truck)	
42-850	Mercedes-Benz	Motor Home	Sprinter based
42-870	Mercedes-Benz	Medium Heavy Van-Based Vehicle	Sprinter
42-881	Mercedes-Benz	Medium/Heavy - CBE	
42-882	Mercedes-Benz	Medium/Heavy - COE low entry	
42-883	Mercedes-Benz	Medium/Heavy - COE high entry	
42-884	Mercedes-Benz	Medium/Heavy - Unknown engine location	
42-890	Mercedes-Benz	Medium/Heavy - COE entry position unknown	
42-898	Mercedes-Benz	Other (medium/heavy truck)	
42-981	Mercedes-Benz	Bus**: Conventional (Engine out front)	
42-988	Mercedes-Benz	Other (bus)	
42-989	Mercedes-Benz	Unknown (bus)	
42-998	Mercedes-Benz	Other (vehicle)	
42-999	Mercedes-Benz	Unknown (MERCEDES-BENZ)	
43-031	MG	Midget	
43-032	MG	MGB	
43-033	MG	MGB	
43-034	MG	MGA	
43-035	MG	TA/TC/TD/TF	
43-036	MG	MGC	
43-037	MG	Magnette/Sports Sedans	

MAKE & MODEL CODE	MAKE	MODEL	INCLUDES
43-398	MG	Other (automobile)	
43-399	MG	Unknown (automobile)	
44-031	Peugeot	304	
44-032	Peugeot	403	
44-033	Peugeot	404	
44-034	Peugeot	504/505	
44-035	Peugeot	604	
44-036	Peugeot	405	
44-398	Peugeot	Other (automobile)	202, 203
44-399	Peugeot	Unknown (automobile)	
44-701	Peugeot	0 - 50 cc	
44-702	Peugeot	51-124cc	
44-709	Peugeot	Unknown cc	
44-999	Peugeot	Unknown (PEUGEOT)	
45-031	Porsche	911/996	L, S, E, T, SC, Carrera (2, 4, Cabriolet, S, Targa, T), GT, Slopenose, 4S, Targa, Speedster, Turbo (Base, S, S Exclusive, Cabriolet), B series, S-Coupe, Cabriolet (S), GT2, GT3 (RS), GT, GTS, 4 GTS (Carrera/Targa)
45-032	Porsche	912	
45-033	Porsche	914	
45-034	Porsche	924	
45-035	Porsche	928	
45-036	Porsche	930	
45-037	Porsche	944	
45-038	Porsche	959	
45-039	Porsche	968	
45-040	Porsche	986/Boxster	Boxster, Boxster Cabriolet, S Roadster, S Anniversary, Limited Edition, Spyder, Black Edition, GTS
45-041	Porsche	Cayman	S, Hybrid, Black Edition, R, GTS
45-042	Porsche	Panamera	S, 4, 4S, Turbo, Turbo S, Hybrid, GTS, S, Platinum Edition, Executive Edition, Exclusive, Sport Turismo (Base/4S/E-Hybrid/S E-Hybrid/Turbo), 10 years edition
45-043	Porsche	918	Spyder, Weissach Pkg
45-044	Porsche	718	Cayman (Base, S, GTS, T), Boxster (Base, S, GTS, T), GT4, Spyder
45-045	Porsche	Taycan	4S, Turbo, Turbo S
45-398	Porsche	Other (automobile)	Spyder, Speedster (prior to '65), 356 (A,B,C) Grund, America, Super, 1500

MAKE & MODEL CODE	MAKE	MODEL	INCLUDES
45-399	Porsche	Unknown (automobile)	
45-401	Porsche	Macan	S, S Diesel, Turbo, GTS
45-421	Porsche	Cayenne	Turbo, S, Titanium, GTS (PD Edition),Transsyberia, Hybrid, Diesel, E-Hybrid
45-499	Porsche	Unknown (light truck)	S, S Diesel, Turbo
45-999	Porsche	Unknown(PORSCHE)	
46-031	Renault	LeCar	
46-032	Renault	Dauphine/10/R-8 Caravelle	
46-033	Renault	12	
46-034	Renault	15	
46-035	Renault	16	
46-036	Renault	17	
46-037	Renault	18i/Sportwagon	
46-038	Renault	Fuego	TL, TS, GTL, GTS, Turbo
46-039	Renault	Alliance/Encore GTA, Convertible	
46-041	Renault	Alpine	
46-044	Renault	Medallion **	
46-045	Renault	Premier**	
46-398	Renault	Other (automobile)	Juvaquatre, 4CV, Fregate, Domaine
46-399	Renault	Unknown (automobile)	
47-031	Saab	99/99E/900	
47-032	Saab	Sonnett	
47-033	Saab	95/96	
47-034	Saab	9000	
47-035	Saab	9-3/9-3X	SE (Hot), Viggen, Linear Arc, Vector, Aero, 2.0T, SportCombi, Combi, Estate
47-036	Saab	9-5	SE, Aero, 2.3T, Set, Arc, Linear, Aero, SportCombi, 2.5T, Turbo X, Vector
47-037	Saab	9-2X	Linear, Aero
47-038	Saab	9-4X	
47-398	Saab	Other (automobile)	Monte Carlo 850, GT850, GT750, 92/93
47-399	Saab	Unknown (automobile)	
47-401	Saab	9-7x	Arc, Linear, 4.2i, 5.3i, Altitude Edition, Aero
47-999	Saab	Unknown(SAAB)	
48-031	Subaru	Loyale (1990 on)/DL/ FE/G/GF/GL/GLF/STD	
48-032	Subaru	Star	

MAKE & MODEL CODE	MAKE	MODEL	INCLUDES
48-033	Subaru	360	
48-034	Subaru	Legacy/Outback(prior to 2003 only; see 045 for 2003 on)	L, LS, LSI, 4WD, Outback (Limited, Ltd, Sport, VDC, L.L. Bean Edition), GT, Brighton, Sport Utility Sedan (Ltd.), 30th Anniv. Outback, H-6, 35th Anniv., 2.5, 2.5i(Base, Premium, Sport, Limited) GT, spec. B, 3.0R, Limited, Premium, Sport, 3.6R (Base, Limited), XT (Limited, Touring)
48-035	Subaru	XT/XT6	4WD Turbo, convertible, DL, GL
48-036	Subaru	Justy	
48-037	Subaru	SVX	
48-038	Subaru	Impreza	L, LS, Brighton, Outback Sport, RS, L-Sport, LX, 2.5i/RS/S/TS/ GT, WRX, WRX Sport/STI/SS/ TR, Limited Edition, Premium, SE, STI, STI-S, 2.0i (Premium, Limited, Sport, Sport Limited)
48-039	Subaru	RX	
48-043	Subaru	Brat	
48-044	Subaru	Baja	Sport, Turbo
48-045	Subaru	Outback (2003 on)(see 034 for prior to 2003)	H6-VDC, 35th Anniversary Edition, 2.5, 2.5i (Premium, Limited, Touring), 2.5XT, 3.0R, Special Edition, VDC Limited, Sport, L.L. Bean Edition, 3.0R. Premium, 3.6R (Limited, Touring)
48-046	Subaru	BRZ	Premium, Limited, tS
48-047	Subaru	WRX (2015 on; see 038 for prior to 2015.)	Premium, Limited, Sti (Base, Limited, Type RA, S209)
48-398	Subaru	Other (automobile)	
48-399	Subaru	Unknown (automobile)	
48-401	Subaru	Forester	L, S, 2.5X, 2.5XS, 2.5XT, L.L. Bean Edition, Limited (Plus), Sport, Premium, Touring
48-402	Subaru	B9 Tribeca	Base, Limited, Special Edition, Premium, Touring, 3.6R
48-403	Subaru	XV Crosstrek	2.0i Premium/Limited, Hybrid
48-421	Subaru	Ascent	Base, Premium, Limited, Touring
48-499	Subaru	Unknown (light truck)	
48-999	Subaru	Unknown (SUBARU)	
49-031	Toyota	Corona	
49-032	Toyota	Corolla	1100, 1200, 1600, SR-5, LE, DX, CE, Deluxe, Custom, FX, FX16, Sport, GTS, VE, S, XRS, XLE, CE, L, Special Edition, LE Eco`, 50th Anniversary, XSE, iM, SE CVT
49-033	Toyota	Celica	1900, 2000, GT, ST, GTS, VE, GT-S
49-034	Toyota	Supra	
49-035	Toyota	Cressida	
49-036	Toyota	Crown	
49-037	Toyota	Carina	

MAKE & MODEL CODE	MAKE	MODEL	INCLUDES
49-038	Toyota	Tercel	
49-039	Toyota	Starlet	
49-040	Toyota	Camry	LE, Deluxe, XLE, DLX, SE, All-Trac, CE, Limited Edition, L, Hybrid (CVT/LE/XLE/SE), XSE, Special Edition, TRD, Nightshade Edition
49-041	Toyota	MR-2/MR Spyder	
49-042	Toyota	Paseo	
49-043	Toyota	Avalon	XL, XLS, Limited, Touring, XLE, Hybrid (XLE, XSE, Limited), Premium, Sport, Plus, TRD
49-044	Toyota	Solara	
49-045	Toyota	ECHO	
49-046	Toyota	Prius *	*Electric hybrid, Touring, II, III, IV, V(2/3/4/5), (CVT), 3rd Generation (2/3/4/5), Plug-In (Base/Advanced), c (1/2/3/4,L, LE), Personal Series, Two, Two Eco, Three, Three Touring, Four, Four Touring, Prime (Plus, Premium, Advanced)
49-047	Toyota	Matrix	Base, XR, XRS, STD, S, SD
49-048	Toyota	Scion xA	
49-049	Toyota	Scion xB (2004-2011 only. See Scion for 2012 on.)	1.0, 2.0 Series
49-050	Toyota	Scion tC (2005-2011 only. See Scion for 2012 on.)	1.0 Series
49-051	Toyota	Yaris	Liftback, S, CE, HB, LB, LE, RS, SE, L, iA, XLE
49-052	Toyota	Scion xD (2007-2011 only. See Scion for 2012 on.)	
49-053	Toyota	Venza	LE, XLE, Limited
49-054	Toyota	Scion iQ (2010-2011 only. See Scion for 2012 on.)	
49-055	Toyota	Mirai	
49-056	Toyota	86	Base, GT, TRD, Special Edition, Hakone Edition
49-057	Toyota	GR Supra	3.0, 3.0 Premium, Launch Edition
49-398	Toyota	Other (automobile)	2000 GT Coupe (1960s), Sports 800, Vipor, Tiara
49-399	Toyota	Unknown (automobile)	
49-401	Toyota	4-Runner	SR5 (Base, Limited, Premium), Limited (Base, Nightshade Edition), Sport, Trail, TRD Pro, TRD Off-Road (Base, Premium)
49-402	Toyota	RAV4 *	L, LE, EVs-electric*, Sport, Limited, Hybrid (Limited, SE, XLE, LE), XLE (Base, Premium), Platinum, Adventure, SE
49-403	Toyota	Highlander	Limited, Hybrid (LE, XLE, Limited), Sport, SE, Plus, LE, LE Plus, XLE, Platinum
49-404	Toyota	FJ Cruiser	Baja 1000, FJ, SE, TRD, AT, MT

MAKE & MODEL CODE	MAKE	MODEL	INCLUDES
49-405	Toyota	C-HR	LE, Limited, XLE, XLE Premium
49-421	Toyota	Land Cruiser	4WD, Heritage Edition
49-422	Toyota	Sequoia	SR5, Limited, Platinum, TRD Sport
49-441	Toyota	Minivan (1984-90)/ Previa (1991 on)	LE, Cargo, DX, XLE
49-442	Toyota	Sienna	CE, LE, XLE, Symphony, Limited, SE, L
49-471	Toyota	Pickup	SR-5,Extra Cab, Sport, LN44, Chinook, Wonder Wagon
49-472	Toyota	Tacoma	SR5, Xtracab, Limited, PreRunner, Side Step, Double Cab, S-Runner, 2.7L, 4.0L, X-Runner, T/X, T/X Pro, Access Cab, TRD (Sport, Pro, Off-Road), SR
49-481	Toyota	T-100	DX, SR5, Limited, Xtracab
49-482	Toyota	Tundra	SR5 (Access Cab), LTD, (Access Cab), Double Cab, Darrell Waltrip Special Edition, CrewMax, 4.0L, 4.6L, 5.7L, Limited, SR, 1794 Edition, Plantinum, TRD Pro
49-498	Toyota	Other (light truck)	
49-499	Toyota	Unknown (light truck)	
49-999	Toyota	Unknown (TOYOTA)	
50-031	Triumph	Spitfire	
50-032	Triumph	GT-6	
50-033	Triumph	TR4	
50-034	Triumph	TR6	
50-035	Triumph	TR7/TR8	
50-036	Triumph	Herald	
50-037	Triumph	Stag	
50-398	Triumph	Other (automobile)	1800,2000,Mayflower, Renown,1200
50-399	Triumph	Unknown (automobile)	
50-701	Triumph	0-50cc	
50-702	Triumph	51-124cc	
50-703	Triumph	125-349cc	
50-704	Triumph	350-449cc	
50-705	Triumph	450-749cc	
50-706	Triumph	750cc or greater	
50-709	Triumph	Unknown cc	
50-799	Triumph	Unknown (motored cycle)	
50-999	Triumph	Unknown (TRIUMPH)	
51-031	Volvo	122	
51-032	Volvo	140/142/144/145 *	

MAKE & MODEL CODE	MAKE	MODEL	INCLUDES
51-033	Volvo	164	
51-034	Volvo	240 series*/DL/GL/GLT	
51-035	Volvo	260 series/GLE	
51-036	Volvo	1800	
51-037	Volvo	PV544	
51-038	Volvo	760/780	
51-039	Volvo	740	
51-040	Volvo	940	
51-041	Volvo	960	
51-042	Volvo	850	
51-043	Volvo	70 Series (For XC70 for 2014 on, use model code 402)	C70 (LT, HT,T5), S70 (GLT, T5, AWD) V70 (R, SC Cross Country, GLT, T5, M, 2.4T, 2.4, 2.5T, T6, R, 3.2) LPT, HPT. XC70
51-044	Volvo	90 Series	
51-045	Volvo	80 Series	S80 (2.9, T-6, Executive, Premier) 2.5T
51-046	Volvo	40 Series	S40, V40, LSE
51-047	Volvo	60 Series	S60 (2.4T, 2.4, 2.5 AWD, T5, Polestar), 2.4M, 2.5T, R, T5, T6, R-Design, Drive-E, Cross Country, Dynamic, Inscription, Polestar, Momentum
51-048	Volvo	V50	
51-049	Volvo	C30	T5
51-050	Volvo	XC60 (For 2008-2018 only. For model years 2019 on, see 51-404.)	3.2, T5 (Dynamic, Inscription), T6 (Dynamic, Inscription, R-Design), R-Design, Drive-E, Momentum, Plug-In Hybrid
51-051	Volvo	V60	T5, T6, R-Design, Drive-E, Cross Country, Polestar, Dynamic, Momentum, Inscription
51-052	Volvo	V90	Cross Country (Volvo Ocean Race, Inscription, R-Design)
51-053	Volvo	S90	T5 (Momentum, Inscription) T6 (Momentum, Inscription), R-Design
51-398	Volvo	Other (automobile)	
51-399	Volvo	Unknown (automobile)	
51-401	Volvo	XC90	2.5T(AWD), T6(AWD), V8, 3.2, R-Design, SVR7, First Edition, T5, Plug-In, Excellence, T8, Momentum, Inscription, Excellence
51-402	Volvo	XC70 (For 2014 on. For prior to 2013, use model code 043)	3.2, T6, Drive-E
51-403	Volvo	XC40	Momentum, R-Design, Plug-In Hybrid, Inscription
51-404	Volvo	XC60 (For 2019 on. For model years 2008-2018, see 51-050.)	Momentum, R-Design, Inscription, Polestar
51-499	Volvo	Unknown (light truck)	3.2, T6

MAKE & MODEL CODE	MAKE	MODEL	INCLUDES
51-881	Volvo	Medium/Heavy - CBE	
51-882	Volvo	Medium/Heavy - COE low entry	
51-883	Volvo	Medium/Heavy - COE high entry	
51-884	Volvo	Medium/Heavy - Unknown engine location	
51-890	Volvo	Medium/Heavy - COE entry position unknown	
51-898	Volvo	Other (medium/heavy truck)	
51-981	Volvo	Bus**: Conventional (Engine out front)	
51-983	Volvo	Bus : Rear engine, Flat front	
51-988	Volvo	Other (bus)	
51-989	Volvo	Unknown (bus)	
51-998	Volvo	Other (Vehicle)	
51-999	Volvo	Unknown (VOLVO)	
52-031	Mitsubishi	Starion	
52-032	Mitsubishi	Tredia	
52-033	Mitsubishi	Cordia	
52-034	Mitsubishi	Galant	ECS, Sigma (thru 88), ES, LS, DE, GTS-V6, I-4, Special Edition, Ralliart, Sport Edition, SE, FE
52-035	Mitsubishi	Mirage (For 1985-2002. For 2014 on use model 048.)	L, Turbo,GS,LS,DS,DE,ES
52-036	Mitsubishi	Precis	
52-037	Mitsubishi	Eclipse	GS, DOHL, Turbo, GS-T, GSX, Spyder, RS, GT, GTS, Remix Edition, SE, Sport, Special Edition
52-038	Mitsubishi	Sigma	
52-039	Mitsubishi	3000 GT	
52-040	Mitsubishi	Diamante	
52-041	Mitsubishi	iMiEV (For 2018 on, code as vehicle model 398)	iMiEV (For 2018 on, code as vehicle model 398)
52-045	Mitsubishi	Expo Wagon	
52-046	Mitsubishi	Lancer/Lancer Sportback/ Lancer Evolution	ES, LS, O-Z, Rally, Evolution VII/VIII/IX/X, Sport, Ralliart LS, MR Edition, DE, GSR, GTS, Touring, SE, GT, SEL
52-047	Mitsubishi	Outlander (For 2003-2018 only. For model years 2019 on, see 52-404.)	ES, LS, SE, XLS, Limited, GT, Sport, SE-S, GT-S, SEL, GT 3.0 S-AWC, Plug-In Hybrid, PHEV
52-048	Mitsubishi	Mirage (2014 on. For 1985-2002 use 52-035.)	DE, ES, LE, RF, SE, GT, G4 (ES, RF, SE)
52-398	Mitsubishi	Other (automobile)	500, 1000, Debonair, Galant (1969), iMEV (2018 on)

MAKE & MODEL CODE	MAKE	MODEL	INCLUDES
52-399	Mitsubishi	Unknown (automobile)	
52-401	Mitsubishi	Montero/Montero Sport	Sport, LS, SR, XLS, ES, LTD, 20th Anniversary Edition, SE
52-402	Mitsubishi	Endeavor	LS, SE, XLS, Limited
52-403	Mitsubishi	Eclipse Cross	ES, LE, SE, SEL
52-404	Mitsubishi	Outlander (For 2019 on. For model years 2003-2018, see 52-047.)	ES, LE, SE, SEL, GT, Sport (ES, LE, SP, SE, GT), PHEV
52-441	Mitsubishi	Mini-Van	LS
52-471	Mitsubishi	Pickup	Mighty Max, SPX, 4x4
52-472	Mitsubishi	Raider	LS, Durocross, XLS
52-498	Mitsubishi	Other (light truck)	
52-499	Mitsubishi	Unknown (light truck)	
52-882	Mitsubishi	Medium/Heavy - COE, low entry	FUSO FE/FG/FH/FK/FM
52-898	Mitsubishi	Other (medium/heavy truck)	
52-981	Mitsubishi	Bus**: Conventional (Engine out front)	
52-982	Mitsubishi	Bus: Front engine, Flat Front	
52-983	Mitsubishi	Bus: Rear engine, Flat front	
52-988	Mitsubishi	Other (bus)	
52-989	Mitsubishi	Unknown (bus)	
52-999	Mitsubishi	Unknown (MITSUBISHI)	
53-031	Suzuki	Swift/SA310	
53-032	Suzuki	Esteem	
53-033	Suzuki	Aerio	S,G,LX,SX (Wagon)
53-034	Suzuki	Forenza	S, LX, EX, Premium
53-035	Suzuki	Verona	S, LX, EX, Luxury
53-036	Suzuki	Reno	S, LX, EX, Premium
53-040	Suzuki	SX4/SX4 Crossover	Base, Sport, Convenience, Touring, L, S, SD, SE, GTS, LE, SportBack, JX, Premium, Tech Value Package
53-041	Suzuki	Kizashi	GTS, S, SE, SLS, Sport
53-398	Suzuki	Other (automobile)	800 Fronte, Alto
53-399	Suzuki	Unknown (automobile)	
53-401	Suzuki	Samurai	Standard, Deluxe, JL
53-402	Suzuki	Sidekick/Vitara/ Vitara V6	JS, JX, JLX, JLS, Sport, Grand Vitara (1999-2002 only; see model 404 for 2003on) (JS,JLX,JLS,Ltd.,)XL-7 (2002 only; see model 405 for 2003 on) LX
53-403	Suzuki	X-90	
53-404	Suzuki	Grand Vitara (2003 on; see model 402 for models prior to 2003)	JS, JLX, JLS, Limited, GX, LX, XV6, Premium, Xsport, Luxury, Special Edition, Ultra Adventure Edition

MAKE & MODEL CODE	MAKE	MODEL	INCLUDES
53-405	Suzuki	XL-7 (2003 on; see 402 for 2002 model year)	Standard, Touring, Limited, GX, LX, Premium, Luxury
53-481	Suzuki	Equator	Comfort, Premium, Sport, RMZ-4
53-498	Suzuki	Other (light truck)	Jimmy
53-499	Suzuki	Unknown (light truck)	
53-701	Suzuki	0-50cc	
53-702	Suzuki	51-124cc	
53-703	Suzuki	125-349cc	
53-704	Suzuki	350-449cc	
53-705	Suzuki	450-749cc	
53-706	Suzuki	750cc-over	
53-709	Suzuki	Unknown cc	
53-731	Suzuki	0-50cc (ATV)	
53-732	Suzuki	51-124cc (ATV)	
53-733	Suzuki	125-349cc (ATV)	
53-734	Suzuki	350cc or greater (ATV)	
53-739	Suzuki	Unknown cc (ATV)	
53-999	Suzuki	Unknown (SUZUKI)	
54-031	Acura	Integra	
54-032	Acura	Legend	
54-033	Acura	NSX (For 1991-2005 only. For 2016 on see model 043.)	NSX-T
54-034	Acura	Vigor	
54-035	Acura	TL	3.2, 3.5, 3.7, SH-AWD (AT/MT)
54-036	Acura	RL/RLX	3.5, 3.7, Hybrid, Sport Hybrid, Technology Package, Advance Package
54-037	Acura	CL	
54-038	Acura	RSX	
54-039	Acura	TSX	2.4, 3.5, Hybrid, Special Edition, V6
54-040	Acura	ZDX	
54-041	Acura	ILX	2.0, 2.4, Hybrid, Premium, A-Spec, Special Edition, AcuraWatch Plus, Technology Plus, Standard
54-043	Acura	NSX (2016 on. For 1991-2005 see model 033.)	Sport, GT3, Sport Hybrid
54-044	Acura	TLX	2.4, 3.6 V-6, Standard, GT Package, A-Spec, Advance Package, Technology Package
54-398	Acura	Other (automobile)	
54-399	Acura	Unknown (automobile)	

MAKE & MODEL CODE	MAKE	MODEL	INCLUDES
54-401	Acura	SLX	
54-402	Acura	RDX	2.3, SH-AWD, Standard, Advance, AcuraWatch Plus, Technology
54-421	Acura	MDX	Standard, Sport Hybrid, Technology/Advance/Entertainment Package
54-499	Acura	Unknown (light truck)	
54-999	Acura	Unknown (ACURA)	
55-031	Hyundai	Pony	
55-032	Hyundai	Excel	
55-033	Hyundai	Sonata	GL, GLS, LX, SE, Limited, Hybrid (SE, Limited), 2.0T (Sport, Limited), Sport, Eco, Plug-In, SEL
55-034	Hyundai	Scoupe	
55-035	Hyundai	Elantra	GLS, GL, GT, Limited, SE, Touring (GLS, SE), GS, Sport, Value Edition, ECO, SEL
55-036	Hyundai	Accent	L, GL, GS, Gsi, GT, GLS, SE, Blue, Sport, Limited, Value Edition, SEL
55-037	Hyundai	Tiburon	FX, GT, GS, SE, Limited
55-038	Hyundai	XG300(2001)/ XG350(2002 on)	
	L		
55-039	Hyundai	Azera (For 2018 on, code as vehicle model 398)	SE, Limited, GLS
55-040	Hyundai	Equus	Signature, Ultimate
55-041	Hyundai	Genesis (For 2009-2016 only. For model years 2017 on, see 55-043, 55-044 and 55-046)	3.8, 4.6, 2.0T, R-Spec, Grand Touring, Premium, Track, 5.0 R-Spec, Ultimate
55-042	Hyundai	Veloster	Base, Turbo, Re-Mix, R-Spec, RE-FLEX Edition, Rally Edition, N, Premium, Turbo (Base, R-Spec, Ultimate), Ultimate, 2.0 (Base, Premium)
55-043	Hyundai	Genesis (G80)	Standard, Premium, Sport,Ultimate (RWD/AWD)
55-044	Hyundai	Genesis (G90)	Premium, Ultimate (RWD/AWD)
55-045	Hyundai	Ioniq	Electric (Base, Limited), Hybrid (Blue, SEL, Limited), Plug-In Hybrid (Base, Limited)
55-046	Hyundai	Genesis (G70)	Standard, Premium
55-398	Hyundai	Other (automobile)	Azera (2018 on)
55-399	Hyundai	Unknown (automobile)	
55-401	Hyundai	Santa Fe	GL, GLS, LX, Limited (Base, Ultimate), SE (Base, Ultimate), Sport (Base, 2.0T, Ultimate), 2.0T, SEL, SEL Plus
55-402	Hyundai	Tucson	GL, GLS, LX, Limited, SE, Fuel Cell, ECO, Sport, SEL, Value, Ultimate

MAKE & MODEL CODE	MAKE	MODEL	INCLUDES
55-403	Hyundai	Veracruz (2007 only)	GLS, Limited, SE
55-404	Hyundai	Kona	EV, Iron Man Special Edition, SE, SEL, SEL Plus, Limited, Ultimate, Electric
55-405	Hyundai	Nexo	Fuel Cell
55-406	Hyundai	Venue	SE, SEL, Denim
55-421	Hyundai	Veracruz (2008 on; see 403 for 2007 only)	GLS, Limited, SE
55-422	Hyundai	Palisade	SE, SEL, Limited
55-441	Hyundai	Entourage	GLS, Limited, SE
55-498	Hyundai	Other (light truck)	
55-499	Hyundai	Unknown (light truck)	
55-999	Hyundai	Unknown (HYUNDAI)	
56-031	Merkur	XR4Ti	
56-032	Merkur	Scorpio	
56-398	Merkur	Other (automobile)	
56-399	Merkur	Unknown (automobile)	
57-031	Yugo	GV/GVL/GVX	
58-031	Infiniti	M30	
58-032	Infiniti	Q45	
58-033	Infiniti	G20	
58-034	Infiniti	J30	
58-035	Infiniti	I30	
58-036	Infiniti	I35	
58-037	Infiniti	G25/G35/G37	x, 6MT, Journey, Sport, special Edition, IPL
58-038	Infiniti	M35/M37/M45/M56	Sport, x, Hybrid
58-039	Infiniti	FX35/FX37/FX45/FX50	
58-040	Infiniti	EX35/EX37	
58-041	Infiniti	Q50	Base (3.7 Premium/AWD/ Hybrid) S (3.7 Premium/ AWD/Hybrid), Eau Rogue, 2.0t (AWD, Premium, Sport, Pure, Luxe), 3.0t (Premium, Sport, Luxe, AWD, Pure), Red Sport 400,Hybrid (Base, Premium, Luxe), Signature Edition, Red Sport
58-042	Infiniti	Q60	Journey, AWD, 6MT, IPL (Base and 6MT), S, Neiman Marcus, 2.0t (Base, AWD, Premium, Pure, Luxe), 3.0t (Premium, AWD, Luxe, Sport, Pure), Sport (Base, AWD), Red Sport 400 (Base, AWD)
58-043	Infiniti	Q70	Hybrid, 3.7 (Base, Luxe, AWD), 5.6 (Base, Luxe,AWD), L 3.7 (Base, Luxe, AWD), 5.6 (Base, Luxe, AWD)

MAKE & MODEL CODE	MAKE	MODEL	INCLUDES
58-044	Infiniti	QX50	Base, AWD, Journey, Pure, Luxe, Essential, Sensory, Autograph
58-045	Infiniti	Q40	
58-047	Infiniti	QX30	Luxury, Premium, Sport, Pure, Essential
58-398	Infiniti	Other (automobile)	
58-399	Infiniti	Unknown (automobile)	
58-401	Infiniti	QX4	Luxury
58-402	Infiniti	JX35	Luxury, AWD
58-403	Infiniti	QX60	3.5, AWD, Hybrid, Limited, Pure, Luxe
58-404	Infiniti	QX70	3.7, 5.0, AWD
58-421	Infiniti	QX56	
58-422	Infiniti	QX80	Base, AWD, 4WD, Limited, Luxe
58-499	Infiniti	Unknown (Light Truck)	
58-999	Infiniti	Unknown (INFINITI)	
59-031	Lexus	ES-250/300/300h/330/ 350	Black Diamond Edition, Premium Plus, Ultra Luxury, Hybrid, F-Sport
59-032	Lexus	LS-400/430/460/460L/600h/600hL	LS-F, F Sport, Hybrid, Nightfall Edition, LS 500, LS 500h
59-033	Lexus	SC-400/SC-300	
59-034	Lexus	GS-300/350/400/430/ 450h/460	Hybrid, F Sport, Turbo, F
59-035	Lexus	IS-250/300/350/500/200t	SportCross, Sport, F, C, F Sport, Turbo
59-036	Lexus	SC-430	Special Edition, Pebble Beach
59-037	Lexus	HS 250h	Premium
59-038	Lexus	CT 200h	
59-039	Lexus	LFA	
59-040	Lexus	RC	300, 350, 350h, F Sport, Turbo, F
59-042	Lexus	LC Series	500, 500h
59-043	Lexus	UX	200, Hybrid, F Sport, 250h, Luxury
59-398	Lexus	Other (automobile)	
59-399	Lexus	Unknown (automobile)	
59-401	Lexus	RX300/350	2WD, 4WD
59-402	Lexus	GX470	Sport, Premium
59-403	Lexus	RX330/350/400h/450h	Hybrid, Thundercloud, Mark Levinson Package, F Sport
59-404	Lexus	GX460	Sport, Premium, Luxury
59-405	Lexus	NX	200t, 300, 300h, F Sport, Hybrid, Turbo
59-421	Lexus	LX450/470/570	
59-499	Lexus	Unknown (light truck)	
59-999	Lexus	Unknown (LEXUS)	

MAKE & MODEL CODE	MAKE	MODEL	INCLUDES
60-031	Daihatsu	Charade	
60-401	Daihatsu	Rocky	
60-999	Daihatsu	Unknown (DAIHATSU)	
61-031	Sterling	827	
61-398	Sterling	Other (automobile)	825, S, SL, Oxford Edition
61-399	Sterling	Unknown (automobile)	
62-401	Land Rover	Discovery (For 2017 on, see model 425)	SD, SE, SE7, LE, LSE, Series II, Kalahari Edition, S, HSE, G-4 Edition
62-402	Land Rover	Defender	90
62-403	Land Rover	Freelander (2004 on; see 422 for 2002-03.)	HSE, SE, S, SE3, G4 Edition
62-404	Land Rover	Range Rover Evoque	Pure (Premium, Plus), Prestige, Dynamic, SE (Base, Premium), HSE (Base, Dynamic), Autobiography, Landmark Edition, S, First Edition, Convertible
62-405	Land Rover	Discovery Sport	HSE (Base, Luxury), SE, Landmark Edition
62-421	Land Rover	Range Rover	County, County SE, Great Divide, Hunter, LSE, County LWB, 4.0SE, 4.6 HSE, S, SE, HSE, Westminster, Limited Edition, Supercharged, Sport [HST, SE, SVR, HSE (Base, Dynamic)], Supercharged, Autobiography), Supercharged, HSE-LUX, Autobiography (Base, Black), Standard Wheelbase (Base, HSE, Supercharged, Autobiography, SV Autobiography DYNAMIC), Long Wheelbase (Supercharged, Autobiography, SV Autobiography), PHEV, SV Coupe
62-422	Land Rover	Freelander (2002-03 only; see 403 for 2004 on)	HSE, SE, S, SE3
62-423	Land Rover	LR3/LR4	HSE, SE, LUX, Plus, V8, Limited Edition, HSE Silver Edition, Landmark Edition
62-424	Land Rover	LR2	i6, TD4, HSE, LUX, Plus
62-425	Land Rover	Discovery (For model years 1994-2004, see model 401)	SE, HSE, HSE Luxury, First Edition, Sport (HSE, HSE Luxury, SE)
62-426	Land Rover	Velar	Base, B-Dynamic, First Edition, R-Dynamic (SE, HSE), S
62-427	Land Rover	Defender	110, 90 First Edition, 110 First Edition
62-498	Land Rover	Other (light truck)	Land Rover (1948-1990), Range Rover (before 1987)
62-499	Land Rover	Unknown (light truck)	
63-031	KIA	Sephia	
63-032	KIA	Rio/Rio5	Cinco (Wagon), LX, SX, EX, S
63-033	KIA	Spectra/Spectra5	
63-034	KIA	Optima	LX, SE, V6, EX (Base, Premium), SX, SX Turbo, Hybrid, Limited, SXL, Plug-In, S

MAKE & MODEL CODE	MAKE	MODEL	INCLUDES
63-035	KIA	Amanti	
63-036	KIA	Rondo	
63-037	KIA	Soul	Base, sport, +, !, White Tiger, EV, Tarmac, 1 Million, X-Line, GT-Line (Base, Turbo)
63-038	KIA	Forte	2.0 (EX, LX, SX) 2.4 (SX), Koup (EX, LX, SX) 5 (EX, LX, SX), S, FX, EX, LXS
63-039	KIA	Cadenza	Premium, Limited, Technology
63-040	KIA	K900	V6 (Premium, Luxury), V8 (Luxury)
63-041	KIA	Stinger	2.0, Premium, GT, GT1, GT2
63-398	KIA	Other (automobile)	
63-399	KIA	Unknown (automobile)	
63-401	KIA	Sportage	EX, LX, 4WD, Limited, S, SX, Base, Turbo
63-402	KIA	Sorento	EX, EX-V6, L, LX, LX-V6, SX, SX-V6, Limited, Limited-V6, SXL, S V6
63-403	KIA	Niro	FE, EX, LX, Touring (Base, Launch Edition, Graphite Edition), Plug-In, S
63-421	KIA	Borrego	EX, LX, LTD
63-422	KIA	Telluride	EX, LX, S, SX
63-441	KIA	Sedona	EX, LX, L, SX, Limited
63-498	KIA	Other (Light Truck)	
63-499	KIA	Unknown (light truck)	
63-999	KIA	Unknown (KIA)	
64-031	Daewoo	Lanos	
64-032	Daewoo	Nubira	
64-033	Daewoo	Leganza	
64-398	Daewoo	Other (automobile)	
64-399	Daewoo	Unknown (automobile)	
65-031	Smart	Fortwo	Pure, Prime, Passion, Proxy, Electric, Brabus, EQ
65-398	Smart	Other (automobile)	
65-399	Smart	Unknown (automobile)	
67-031	Scion	xB (2012 on. See Toyota for 2004-2011)	1.0, 2.0 Series
67-032	Scion	tC (2012 on. See Toyota for 2005-2011)	1.0 Series, Limited Edition, 8.0 Series
67-033	Scion	xD (2012 on. See Toyota for 2007-2011)	
67-034	Scion	iQ (2012 on. See Toyota for 2010-2011)	10 Anniversary

MAKE & MODEL CODE	MAKE	MODEL	INCLUDES
67-035	Scion	FR-S	
67-036	Scion	iA	
67-037	Scion	iM	
67-398	Scion	Other (automobile)	
67-399	Scion	Unknown (automobile)	
69-031	Other Import	Aston Martin	Lagonda, Vantage, Volante, Saloon, DB Mark III, DB4, DB4GT, DB5, DB6, DB7 (Heritage/Vantage/Volante), V12 (Vanquish S/Zagato/ Vantage, Vantage S), V8(Vantage/ Vantage S), DB9 (Carbon Edition, GT), Rapide (S), Cygnet, Carbon Black, One-77, Virage (Coupe/ Volante), DBS (Coupe/ Volante), CC100, Vantage GT, Rapide E, Vulcan, GT12, DB11
69-032	Other Import	Bricklin	
69-033	Other Import	Citroen	
69-034	Other Import	DeLorean	
69-035	Other Import	Ferrari	F355 (Berlinetta, GTS, Spider, F1), F430, F456 (GTA, M, GT, MGTA), F550 (Maranello, Barchetta Pininfarina), 360/430 (Spider, Modena, Challenge) Maranello, Berlinetta, MGT (Vintage), Enzo, Challenge Stradale, 575M, 612 Scaglietti, Superamerica, 599 GTB/GTO, California (T), 418 Italia, FF, SA Aperta, 458 (Spider/Italia/Challenge/ Speciale (A)), F12 Berlinetta, FF, LaFerrari, 488 GTB/Spider/Pista, GTC4Lusso, F12TDF, F60 America, F8 Tributo
69-036	Other Import	Hillman	
69-037	Other Import	Jensen	
69-038	Other Import	Lamborghini	Countach, 5000S, Jalpa, Diablo, Miura, Murciélago (LP640), Galladoro, LP 550-2/560-4/570-4/670-4/700-4, CP, Aventador (J, SV, LP750-4, Roadster), Sesto Elemento, Spyder, Superlegga, Gallardo, Veneo, Huracan (Base, Spyder, EVO), 350GT, Urus
69-039	Other Import	Lotus	Europe, Espirit (V8, GT-3, V8-GT) Elise, Exige, Evora (Range/GTE/400) , California, Club Racer, Sport, 2-Eleven, Black, Bespoke, 3-Eleven (430)
69-040	Other Import	Maserati	Biturbo, Ghibli, 3200 GT, Quattroporte, Spyder GT, Sports GT, Executive GT, 90th Anniversary, MC12, GranSport, GranTurismo, GranCabrio, Stradale, Kubang, Sport, MC, S, GTS, S Q4, MC Centenial Edition, Levante, Alfier, Trofeo
69-041	Other Import	Morris	
69-042	Other Import	Rolls Royce/Bentley	Rolls Royce: Cloud/Shadow series, Silver Spur, Silver Dawn, Silver Spirit, Silver Seraph, Corniche, Park Ward), Phantom (Drophead), Ghost; Bentley: (Arnaze, Azure, Continental (GT,

MAKE & MODEL CODE	MAKE	MODEL	INCLUDES
			Speed Black Edition), Mulliner), Brooklands, Goodwood, EWB, 4, Mulsanne, Flying Spur, Super Sports, Wraith, Dawn, Cullinan, Black Badge, Bentayga
69-044	Other Import	Simca	
69-045	Other Import	Sunbeam	
69-046	Other Import	TVR	
69-048	Other Import	Desta	
69-049	Other Import	Reliant	
69-052	Other Import	Bertone	
69-053	Other Import	Lada	
69-054	Other Import	Mini-Cooper	Mark I,II,III, S, SE, Sport, MC40, Traveller, John Cooper Works, Clubman, Countryman, Paceman, Coupe, All 4, Roadster, Convertible, Plug-In, Signature, Classic, Iconic, Oxford Edition, International Orange Edition, Ice Blue Edition, Ying Yang Edition, Straight Edition, 60 Years Special Edition, Rebel Green Edition, John Cooper Works Knights Edition
69-055	Other Import	Morgan (2003 on; Prior to 2003 see 398)	Aero 8, Plus 8, V6, Classic Range, AeroMax, 4/4 Sport, Super Sports Junior, Plus 4, 4 Seater, Aero, Eva GT, 3 Seater, 4/4, Plus 8, SP1, AR Plus 4, Roadster 37
69-056	Other Import	Maybach	57, 57S, 62, 62S, Laudualet, Zeppelin, Guard
69-057	Other Import	Spyker	C8, Base, T, Laviolette, Aileron, Spyder, Double 12R, Double 12S, C12 Zagato, L2014 M85, D, B6 Venator
69-058	Other Import	Koenigsegg	CC8S, CCR, CCX, CCXR, CCGT, Trevita, Agera, CC8S, Agera R/S, Special Edition, Regera, One:1, Jesko
69-061	Other Import	Mahindra	Scorpio (Lx, Sle, Vls, Vlx)
69-062	Other Import	Caterham	Classic, Roadsport, Academy, Superlight (R300/R400/R500), CSR, Seven (270/280/310/360/420/480/620S/R), SP 300R, Aeroseven, Superflight Twenty, 60th Anniversary Edition
69-063	Other Import	McLaren	MP4-12C, P15, 675LT, 540C, 12C GT Spirit, 650S, P1, BP23, 570S, 600LT, 720S
69-064	Other Import	Bugatti	Veyron 164 (Grand Sport, Super Sport), Vitesse, Chiron, Divo
69-398	Other Import	Other (automobile)	Morgan (Prior to 2003; 2003 on see 055), Singer, Gazelle, Fisker, Karma
69-399	Other Import	Unknown (automobile)	
70-701	BSA	0-50cc	
70-702	BSA	51-124cc	
70-703	BSA	125-349cc	
70-704	BSA	350-449cc	
70-705	BSA	450-749cc	

MAKE & MODEL CODE	MAKE	MODEL	INCLUDES
70-706	BSA	750cc or greater	
70-709	BSA	Unknown cc	
71-701	Ducati	0-50cc	
71-702	Ducati	51-124cc	
71-703	Ducati	125-349cc	
71-704	Ducati	350-449cc	
71-705	Ducati	450-749cc	
71-706	Ducati	750cc or greater	
71-709	Ducati	Unknown cc	
72-701	Harley-Davidson	0-50cc	
72-702	Harley-Davidson	51-124cc	
72-703	Harley-Davidson	125-349cc	
72-704	Harley-Davidson	350-449cc	
72-705	Harley-Davidson	450-749cc	
72-706	Harley-Davidson	750cc or greater	
72-707	Harley-Davidson	Electric Motorcycle	Livewire
72-709	Harley-Davidson	Unknown cc	
73-701	Kawasaki	0-50cc	
73-702	Kawasaki	51-124cc	
73-703	Kawasaki	125-349cc	
73-704	Kawasaki	350-449cc	
73-705	Kawasaki	450-749cc	
73-706	Kawasaki	750cc or greater	
73-709	Kawasaki	Unknown cc	
73-731	Kawasaki	0-50cc (ATV)	
73-732	Kawasaki	51-124cc (ATV)	includes all ATVs designed solely for off-road use and have 3 or 4 wheels.
73-733	Kawasaki	125-349cc (ATV)	
73-734	Kawasaki	350cc or greater (ATV)	
73-739	Kawasaki	Unknown cc (ATV)	
73-998	Kawasaki	Other (Vehicle)	
74-704	Moto-Guzzi	350-449cc	
74-705	Moto-Guzzi	450-749cc	
74-706	Moto-Guzzi	750cc or greater	
74-709	Moto-Guzzi	Unknown cc	
75-704	Norton	350-449cc	
75-705	Norton	450-749cc	

MAKE & MODEL CODE	MAKE	MODEL	INCLUDES
75-706	Norton	750cc or greater	
75-709	Norton	Unknown cc	
76-701	Yamaha	0-50cc	
76-702	Yamaha	51-124cc	
76-703	Yamaha	125-349cc	
76-704	Yamaha	350-449cc	
76-705	Yamaha	450-749cc	
76-706	Yamaha	750cc or greater	
76-709	Yamaha	Unknown cc	
76-731	Yamaha	0-50cc (ATV)	includes all ATVs designed solely for off-road use and have 3 or 4 wheels.
76-732	Yamaha	51-124cc (ATV)	
76-733	Yamaha	125-349cc (ATV)	
76-734	Yamaha	350cc or greater (ATV)	
76-739	Yamaha	Unknown cc (ATV)	
76-998	Yamaha	Other (Vehicle)	Snowmobiles, Golf Car
77-706	Victory	750cc or greater	
77-707	Victory	Electric Motorcycle	--
77-709	Victory	Unknown cc	
77-998	Victory	Other (Vehicle)	
80-850	Brockway	Motor Home	Truck based
80-881	Brockway	Medium/Heavy - CBE	
80-882	Brockway	Medium/Heavy - COE low entry	
80-883	Brockway	Medium/Heavy - COE high entry	
80-884	Brockway	Medium/Heavy - Unknown engine location	
80-890	Brockway	Medium/Heavy - COE entry position unknown	
80-898	Brockway	Other (medium/heavy truck)	
80-981	Brockway	Bus**: Conventional (Engine out front)	
80-982	Brockway	Bus: Front engine, Flat front	
80-983	Brockway	Bus: Rear engine, Flat front	
80-988	Brockway	Other (bus)	
80-989	Brockway	Unknown (bus)	
80-998	Brockway	Other (vehicle)	
80-999	Brockway	Unknown (BROCKWAY)	

MAKE & MODEL CODE	MAKE	MODEL	INCLUDES
81-850	Diamond Reo/Reo	Motor Home	C054-C088
81-881	Diamond Reo/Reo	Medium/Heavy - CBE	DC101,C116, M35 (A1, A2, A3)
81-882	Diamond Reo/Reo	Medium/Heavy - COE low entry	
81-883	Diamond Reo/Reo	Medium/Heavy - COE high entry	C054-C088
81-884	Diamond Reo/Reo	Medium/Heavy - Unknown engine location	
81-890	Diamond Reo/Reo	Medium/Heavy - COE entry position unknown	
81-898	Diamond Reo/Reo	Other (medium/heavy truck)	
81-981	Diamond Reo/Reo	Bus**: Conventional (Engine out front)	
81-982	Diamond Reo/Reo	Bus: Front engine, Flat front	
81-983	Diamond Reo/Reo	Bus: Rear engine, Flat front	
81-988	Diamond Reo/Reo	Other (bus)	
81-989	Diamond Reo/Reo	Unknown (bus)	
81-998	Diamond Reo/Reo	Other (vehicle)	
81-999	Diamond Reo/Reo	Unknown (DIAMOND REO or REO)	
82-461	Freightliner	Sprinter/Advantage	2500 (HC/SHC), 3500 (HC/SHC)
82-462	Freightliner	MT 35 Chassis	
82-498	Freightliner	Other (light truck)	
82-499	Freightliner	Unknown (light truck)	
82-850	Freightliner	Motor Home	Medium/Heavy Truck-based, Sprinter van-based.
82-870	Freightliner	Medium Heavy Van-Based Vehicle	Sprinter
82-881	Freightliner	Medium/Heavy - CBE	
82-882	Freightliner	Medium/Heavy - COE low entry	
82-883	Freightliner	Medium/Heavy - COE high entry	
82-884	Freightliner	Medium/Heavy - Unknown engine location	
82-890	Freightliner	Medium/Heavy - COE entry position unknown	
82-898	Freightliner	Other (medium/heavy truck)	
82-981	Freightliner	Bus**: Conventional (Engine out front)	
82-982	Freightliner	Bus: Front engine, Flat front	
82-983	Freightliner	Bus: Rear engine, Flat front	
82-988	Freightliner	Other (bus)	
82-989	Freightliner	Unknown (bus)	
82-998	Freightliner	Other (vehicle)	

MAKE & MODEL CODE	MAKE	MODEL	INCLUDES
82-999	Freightliner	Unknown (FREIGHTLINER)	
83-850	FWD	Motor Home	Truck based
83-881	FWD	Medium/Heavy - CBE	
83-882	FWD	Medium/Heavy - COE low entry	
83-883	FWD	Medium/Heavy - COE high entry	
83-884	FWD	Medium/Heavy - Unknown engine location	
83-890	FWD	Medium/Heavy - COE entry position unknown	
83-898	FWD	Other (medium/heavy truck)	
83-981	FWD	Bus**: Conventional (Engine out front)	
83-982	FWD	Bus: Front engine, Flat front	
83-983	FWD	Bus: Rear engine, Flat front	
83-988	FWD	Other (bus)	
83-989	FWD	Unknown (bus)	
83-998	FWD	Other (vehicle)	
83-999	FWD	Unknown (FWD)	
84-421	International Harvester/Navistar	Scout	Scout II, Utility pickup, SS-2, Roadster, 800 series, Traveler, Terra Traveltop,
84-431	International Harvester/Navistar	Travelall	1010-1210, 100-200
84-466	International Harvester/Navistar	Multistop Van	Metro RM, MS1510, 120-160, MS1210
84-481	International Harvester/Navistar	Pickup	R-100-500, 900A-1500C/D, 1010-1510
84-498	International Harvester/Navistar	Other light truck	
84-499	International Harvester/Navistar	Unknown light truck	
84-850	International Harvester/Navistar	Motorhome	Truck based
84-881	International Harvester/Navistar	Medium/Heavy - CBE	Loadstar/Fleetstar, Paystar, CBE Transtar, 4200, S-series Mixer, 8100, 8500, 9100, 9200, 9300, 9400, 9900, CXT, RXT, MXT, Lonestar
84-882	International Harvester/Navistar	Medium/Heavy - COE low entry	CO, VCO, DCO, 190-1950,Cargostar, LFM, 5370 (Garbage), CF500/600
84-883	International Harvester/Navistar	Medium/Heavy - COE high entry	DCO, DCOT, UCO, VCOT,405-series, COE Transtar, Unistar, Conco 707B, 9600

MAKE & MODEL CODE	MAKE	MODEL	INCLUDES
84-884	International Harvester/Navistar	Medium/Heavy - Unknown engine location	
84-890	International Harvester/Navistar	Medium/Heavy - COE entry position unknown	
84-898	International Harvester/Navistar	Other (medium/heavy truck)	Fire truck - R140-R306, CO 8190
84-981	International Harvester/Navistar	Bus**: Conventional (Engine out front)	R153-1853 Loadstar, 1603-1853
84-982	International Harvester/Navistar	Bus: Front engine, Flat front	173FC, 183FC
84-983	International Harvester/Navistar	Bus**: Rear engine, Flat front	183RE, 193RE-transit
84-988	International Harvester/Navistar	Other (bus)	
84-989	International Harvester/Navistar	Unknown (bus)	
84-998	International Harvester/Navistar	Other (vehicle)	
84-999	International Harvester/Navistar	Unknown (INTL. HARVESTER/ NAVISTAR)	
85-850	Kenworth	Motor Home	Truck based
85-881	Kenworth	Medium/Heavy - CBE	520, 540, T400, T600,T800, C500-550, W900, T300
85-882	Kenworth	Medium/Heavy - COE low entry	L700
85-883	Kenworth	Medium/Heavy - COE high entry	K100, K100E, K270, K300, K350
85-884	Kenworth	Medium/Heavy - Unknown engine location	
85-890	Kenworth	Medium/Heavy - COE entry position unknown	
85-898	Kenworth	Other (medium/heavy truck)	
85-981	Kenworth	Bus**: Conventional (Engine out front)	
85-982	Kenworth	Bus: Front engine, Flat front	
85-983	Kenworth	Bus: Rear engine, Flat front	
85-988	Kenworth	Other (bus)	
85-989	Kenworth	Unknown (bus)	
85-998	Kenworth	Other (vehicle)	
85-999	Kenworth	Unknown (KENWORTH)	
86-850	Mack	Motor Home	Truck based
86-881	Mack	Medium/Heavy - CBE	

MAKE & MODEL CODE	MAKE	MODEL	INCLUDES
86-882	Mack	Medium/Heavy - COE low entry	
86-883	Mack	Medium/Heavy - COE high entry	
86-884	Mack	Medium/Heavy - Unknown engine location	
86-890	Mack	Medium/Heavy - COE entry position unknown	
86-898	Mack	Other (medium/heavy truck)	
86-981	Mack	Bus**: Conventional (Engine out front)	
86-982	Mack	Bus: Front engine, Flat front	
86-983	Mack	Bus: Rear engine, Flat front	
86-988	Mack	Other (bus)	
86-989	Mack	Unknown (bus)	
86-998	Mack	Other (vehicle)	
86-999	Mack	Unknown (MACK)	
87-850	Peterbilt	Motor Home	Truck based
87-881	Peterbilt	Medium/Heavy - CBE	357-379, 387, 385
87-882	Peterbilt	Medium/Heavy - COE low entry	270
87-883	Peterbilt	Medium/Heavy - COE high entry	362, 320
87-884	Peterbilt	Medium/Heavy - Unknown engine location	
87-890	Peterbilt	Medium/Heavy - COE entry position unknown	
87-898	Peterbilt	Other (medium/heavy truck)	
87-981	Peterbilt	Bus**: Conventional (Engine out front)	
87-982	Peterbilt	Bus: Front engine, Flat front	
87-983	Peterbilt	Bus: Rear engine, Flat front	
87-988	Peterbilt	Other (bus)	
87-989	Peterbilt	Unknown (bus)	
87-998	Peterbilt	Other (vehicle)	
87-999	Peterbilt	Unknown (PETERBILT)	
88-850	Iveco/Magirus	Motor Home	Truck based
88-881	Iveco/Magirus	Medium/Heavy - CBE	LCF
88-882	Iveco/Magirus	Medium/Heavy - COE low entry	FL, FS
88-883	Iveco/Magirus	Medium/Heavy - COE high entry	
88-884	Iveco/Magirus	Medium/Heavy - Unknown engine location	

MAKE & MODEL CODE	MAKE	MODEL	INCLUDES
88-890	Iveco/Magirus	Medium/Heavy - COE entry position unknown	
88-898	Iveco/Magirus	Other (medium/heavy truck)	
88-981	Iveco/Magirus	Bus**: Conventional (Engine out front)	
88-982	Iveco/Magirus	Bus: Front engine, Flat front	
88-983	Iveco/Magirus	Bus: Rear engine,Flat front	
88-988	Iveco/Magirus	Other (bus)	
88-989	Iveco/Magirus	Unknown (bus)	
88-998	Iveco/Magirus	Other (vehicle)	
88-999	Iveco/Magirus	Unknown (IVECO/MAGIRUS)	
89-850	White/Autocar White/GMC	Motor Home	Truck based
89-881	White/Autocar White/GMC	Medium/Heavy - CBE	
89-882	White/Autocar White/GMC	Medium/Heavy - COE low entry	
89-883	White/Autocar White/GMC	Medium/Heavy - COE high entry	
89-884	White/Autocar White/GMC	Medium/Heavy - Unknown engine location	
89-890	White/Autocar White/GMC	Medium/Heavy - COE entry position unknown	
89-898	White/Autocar White/GMC	Other (medium/heavy truck)	
89-981	White/Autocar White/GMC	Bus**: Conventional (Engine out front)	
89-982	White/Autocar White/GMC	Bus: Front engine, Flat front	
89-983	White/Autocar White/GMC	Bus: Rear engine, Flat front	
89-988	White/Autocar White/GMC	Other (bus)	
89-989	White/Autocar White/GMC	Unknown (bus)	
89-998	White/Autocar White/GMC	Other (vehicle)	
89-999	White/Autocar White/GMC	Unknown (WHITE/AUTOCAR-WHITE/GMC)	
90-461	Bluebird	Van Based	van-based school bus, shuttle bus
90-981	Bluebird	Bus**: Conventional (Engine out front)	
90-982	Bluebird	Bus: Front engine, Flat front	
90-983	Bluebird	Bus: Rear engine, Flat front	
90-988	Bluebird	Other (bus)	
90-989	Bluebird	Unknown (Bus)	
90-999	Bluebird	Unknown (BLUEBIRD)	

MAKE & MODEL CODE	MAKE	MODEL	INCLUDES
91-981	Eagle Coach	Bus**: Conventional (Engine out front)	
91-982	Eagle Coach	Bus: Front engine, Flat front	
91-983	Eagle Coach	Bus: Rear engine, Flat front	
91-988	Eagle Coach	Other (bus)	
91-989	Eagle Coach	Unknown (Bus)	
92-981	Gillig	Bus**: Conventional (Engine out front)	
92-982	Gillig	Bus: Front engine, Flat front	
92-983	Gillig	Bus: Rear engine, Flat front	
92-988	Gillig	Other (bus)	
92-989	Gillig	Unknown (bus)	
93-981	MCI	Bus**: Conventional (Engine out front)	
93-982	MCI	Bus: Front engine, Flat front	
93-983	MCI	Bus: Rear engine, Flat front	
93-988	MCI	Other (bus)	
93-989	MCI	Unknown (bus)	
94-461	Thomas Built	Van Based	
94-981	Thomas Built	Bus**: Conventional (Engine out front)	
94-982	Thomas Built	Bus: Front engine, Flat front	
94-983	Thomas Built	Bus: Rear engine, Flat front	
94-988	Thomas Built	Other (bus)	
94-989	Thomas Built	Unknown (bus)	
94-999	Thomas Built	Unknown(THOMAS BUILT)	
97-997	Not Reported	Not Reported	
98-301	Other Make	Think	City
98-302	Other Make	Meyers Motor	NmG
98-398	Other Make	Other (automobile)	Solectra (electric: Force)
98-498	Other Make	Other (light truck)	Solectra (electric: Citivan Flash)
98-598	Other Make	Other (LSV/NEV)	Tomberlin, Ford, Fly Bo
98-701	Other Make	0-50cc	(Includes: ATK, Beta, Buell,Cagiva, Cobra Trike, Jawa, Husqvarna, KTM, Aprilia,Maely, Riva, Strociek, BMC,MV Agusta, Bimota, Husaberg,Indian Scout, Indian, Laverda, Big Dog, Polaris, Titan, Twin Eagle, Viza, Vespa, Viper)
98-702	Other Make	51-124cc	
98-703	Other Make	125-349cc	

MAKE & MODEL CODE	MAKE	MODEL	INCLUDES
98-704	Other Make	350-449cc	
98-705	Other Make	450-749cc	
98-706	Other Make	750cc or greater	
98-707	Other Make	Electric Motorcycle	Zero
98-709	Other Make	Unknown cc	
98-731	Other Make	0-50cc (ATV)	
98-732	Other Make	51-124cc (ATV)	
98-733	Other Make	125-349cc (ATV)	
98-734	Other Make	350cc or greater (ATV)	
98-739	Other Make	Unknown cc (ATV)	
98-802	Other Make	Auto-Union-DKW	
98-803	Other Make	Divco	
98-804	Other Make	Western Star	
98-805	Other Make	Oshkosh	(includes trucks & buses)
98-806	Other Make	Hino	(includes trucks & buses)
98-807	Other Make	Scania	(includes trucks & buses)
98-808	Other Make	UD	
98-809	Other Make	Sterling	
98-850	Other Make	Motor Home	Truck-based
98-870	Other Make	Medium/Heavy Van-Based Vehicle	
98-881	Other Make	Medium/Heavy - CBE	DINA
98-882	Other Make	Medium/Heavy - COE low entry	DINA
98-883	Other Make	Medium/Heavy - COE high entry	
98-884	Other Make	Medium/Heavy - Unknown engine location	
98-890	Other Make	Medium/Heavy - COE entry position unknown	
98-898	Other Make	Other (medium/heavy truck)**	e.g., Marmon, Ward LaFrance
98-902	Other Make	Neoplan	
98-903	Other Make	Carpenter	
98-904	Other Make	Collins Bus	
98-905	Other Make	DINA	
98-906	Other Make	Mid Bus	
98-907	Other Make	Orion	
98-908	Other Make	Van Hool	
98-981	Other Make	Bus***: Conventional (Engine out front)	

MAKE & MODEL CODE	MAKE	MODEL	INCLUDES
98-982	Other Make	Bus: Front engine, Flat front	
98-983	Other Make	Bus: Rear engine, Flat front	
98-988	Other Make	Other (bus)	
98-998	Other Make	Other (vehicle)	
98-999	Other Make	Unknown (OTHER MAKE)	
99-399	Unknown Make	Unknown (automobile)	
99-499	Unknown Make	Unknown (light truck)	
99-598	Unknown Make	Unknown (LSG/NGV)	
99-599	Unknown Make	Unknown (LSV/NGV)	
99-701	Unknown Make	0-50cc	
99-702	Unknown Make	51-124cc	
99-703	Unknown Make	125-349cc	
99-704	Unknown Make	350-449cc	
99-705	Unknown Make	450-749cc	
99-706	Unknown Make	750cc or greater	
99-707	Unknown Make	Electric Motorcycle	--
99-709	Unknown Make	Unknown cc	
99-731	Unknown Make	0-50cc (ATV)	All ATVs designed solely for off-road use and have 3 or 4 wheels
99-732	Unknown Make	51-124cc (ATV)	
99-733	Unknown Make	125-349cc (ATV)	
99-734	Unknown Make	350cc or greater (ATV)	
99-739	Unknown Make	Unknown cc (ATV)	
99-850	Unknown Make	Motor Home	Truck-based
99-870	Unknown Make	Medium Heavy Van-Based Vehicle	
99-881	Unknown Make	Medium/Heavy - CBE	
99-882	Unknown Make	Medium/Heavy - COE low entry	
99-883	Unknown Make	Medium/Heavy - COE high entry	
99-884	Unknown Make	Medium/Heavy - Unknown engine location	
99-890	Unknown Make	Medium/Heavy - COE entry position unknown	
99-898	Unknown Make	Other (medium/heavy truck)	
99-981	Unknown Make	Bus**: Conventional (Engine out front)	
99-982	Unknown Make	Bus: Front engine. Flat front	
99-983	Unknown Make	Bus: Rear engine, Flat front	

MAKE & MODEL CODE	MAKE	MODEL	INCLUDES
99-988	Unknown Make	Other (bus)	
99-989	Unknown Make	Unknown (bus)	
99-998	Unknown Make	Other (vehicle)	
99-999	Unknown Make	Unknown (as to automobile, motored cycle, light truck or truck)	

APPENDIX C

CDC AND DELTA-V

This section gives an overview of the Collision Deformation Classification (CDC) for cars, vans, and light trucks, per SAE J224 MAR 84 in the current year CISS. The CDC codes contain eight characters. If there is a CDC, these codes are as follows:

Direction of Force (2-character numeric).

Clock Direction is coded as follows:

00	Non-horizontal force	07	7 o'clock
01	1 o'clock	08	8 o'clock
02	2 o'clock	09	9 o'clock
03	3 o'clock	10	10 o'clock
04	4 o'clock	11	11 o'clock
05	5 o'clock	12	12 o'clock
06	6 o'clock	99	Unknown

Deformation Location (1 character alphanumeric) is coded as follows:

F	Front
R	Right side
L	Left side
B	Back (rear)
T	Top
U	Undercarriage
9	Unknown

Specific Longitudinal or Lateral Location (1 character alphanumeric) is coded as follows:

Horizontal Impacts		Top or Undercarriage	
D	Distributed--side or end	D	Distributed (F+P+B)
L	Left--front or rear	F	Front Section
C	Center--front or rear	P	Center Section
R	Right--front or rear	B	Rear Section
F	Side front--left or right	Y	F+P
P	Side center section--L or R	Z	P+B
B	Side rear--left or right	9	Unknown
Y	Side (F + P) or end (L + C)		
Z	Side (P + B) or end (C + R)		
9	Unknown		

Specific Vertical or Lateral Location (1 character alphanumeric) is coded as follows:

Vertical - Front, Rear, or Side Impacts

A	All
H	Top of frame to top
E	Everything below belt line
G	Belt line and above
M	Middle--top of frame to belt line or hood
L	Frame--top of frame, frame, bottom of frame (including undercarriage)
W	Below undercarriage level (wheel and tires only)
9	Unknown

Lateral - Top and Undercarriage Impacts

D	Distributed
L	Left
C	Center
R	Right
Y	Left and Center (L + C)
Z	Right and Center (R + C)
9	Unknown

Type of Damage Distribution (1 character alphanumeric) is coded as follows:

W	Wide impact area	E	Corner
N	Narrow impact area	K	Conversion in impact type
S	Sideswipe	U	No residual deformation
O	Rollover (including side)	9	Unknown
A	Overhanging structure		

Deformation Extent Guide (2 character alphanumeric) is coded as follows:

01	One	06	Six
02	Two	07	Seven
03	Three	08	Eight
04	Four	09	Nine
05	Five	99	Unknown

Delta-V

CISS uses a computer model that provides a measure of crash severity in terms of Delta-V. In vehicle-to-vehicle crashes, the model assumes that the two vehicles approach each other at an impact velocity, reach a common velocity, and then separate. Delta-V is equal to the impact velocity minus the separation velocity. Other

factors being equal, the greater the delta-V during a collision, the greater the potential for occupant injury.

Delta-V = Impact Velocity - Separation Velocity

The direction of the vector is determined by the investigator as the direction of principal force. For each vehicle, the components of its Delta-V are obtained by projecting on the longitudinal and lateral axes of that vehicle.

LONGITUDINAL (X)
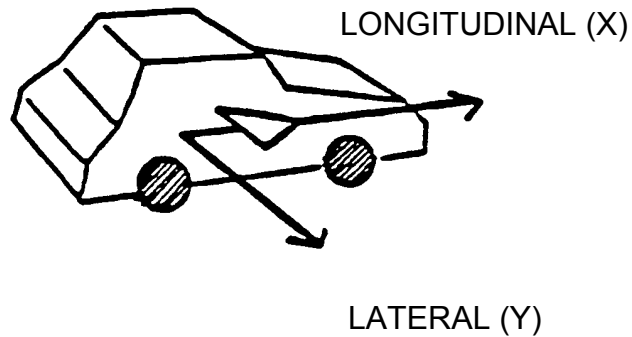
LATERAL (Y)

Figure D-1

Figure D-1 shows the positive direction of the longitudinal and lateral components of Delta-V. For example, in a head-on collision, a vehicle is decelerated and the initial high positive longitudinal velocity is reduced; thus it will have a negative longitudinal Delta-V.

LOCALIZER DATASET CODES

LC1 CODES

LC1	DESCRIPTION	LC1	DESCRIPTION
01	Anterior	44	Left Posterolateral
02	Central / Middle / Medial	45	Left Spinous Process
03	Posterior	50	Bilateral
04	Superior / Upper	51	Bilateral Anterior
05	Inferior / Lower	52	Bilateral Central / Middle / Medial
06	Lamina	53	Bilateral Posterior
07	Pedicle	54	Bilateral Superior / Upper
08	Transverse Process	55	Bilateral Inferior / Lower
09	Facet	56	Bilateral Lamina
10	Right	57	Bilateral Pedicle
11	Right Anterior	58	Bilateral Transverse Process
12	Right Central/Middle/Medial	59	Bilateral Facet
13	Right Posterior	90	Body / Shaft
14	Right Superior / Upper	91	Multiple
15	Right Inferior / Lower	92	Lateral
16	Right Lamina	93	Anterolateral
17	Right Pedicle	94	Posterolateral
18	Right Transverse Process	95	Spinous Process
19	Right Facet		
20	Left		
21	Left Anterior		
22	Left Central / Middle / Medial		
22	Left Central / Middle / Medial		
23	Left Posterior		
24	Left Superior / Upper		
25	Left Inferior / Lower		
26	Left Lamina		
27	Left Pedicle		
28	Left Transverse Process		
29	Left Facet		
30	Right Body / Shaft		
31	Right Multiple		
32	Right Lateral		
33	Right Anterolateral		
34	Right Posterolateral		
35	Right Spinous Process		
40	Left Body / Shaft		
41	Left Multiple		
42	Left Lateral		
43	Left Anterolateral		

LC2 CODES

LC2	DESCRIPTION	LC2	DESCRIPTION
00	No Further Specificity	47	Teeth-Second Premolar
01	Vertebrae C1	48	Teeth-First Molar
02	Vertebrae C2	49	Teeth-Second Molar
03	Vertebrae C3	50	Teeth-Third Molar
04	Vertebrae C4	51	Scalp
05	Vertebrae C5	52	Forehead
06	Vertebrae C6	53	Face
07	Vertebrae C7	54	Eye
08	Vertebrae T1	55	Eyelid
09	Vertebrae T2	56	Ear
10	Vertebrae T3	57	Nose
11	Vertebrae T4	58	Lip
12	Vertebrae T5	59	Neck
13	Vertebrae T6	60	Shoulder
14	Vertebrae T7	61	Arm
15	Vertebrae T8	62	Elbow
16	Vertebrae T9	63	Forearm
17	Vertebrae T10	64	Wrist
18	Vertebrae T11	65	Hand
19	Vertebrae T12	66	Fingers
20	Vertebrae L1	67	Torso
21	Vertebrae L2	68	Back
22	Vertebrae L3	69	Flank
23	Vertebrae L4	70	Chest
24	Vertebrae L5	71	Abdomen
25	1 Finger / Toe	72	Buttock
26	2 Finger / Toe	73	Genitalia
27	3 Finger / Toe	74	Perineum
28	4 Finger / Toe	75	Hip
29	5 Finger / Toe	76	Thigh
31	Rib 1	77	Knee
32	Rib 2	78	Leg
33	Rib 3	79	Ankle
34	Rib 4	80	Foot
35	Rib 5	81	Toe
36	Rib 6	82	Metacarpal / Metatarsal
37	Rib 7	83	Eyebrow
38	Rib 8	84	Cheek
39	Rib 9	85	Chin
40	Rib 10	86	Groin
41	Rib 11	AA	Frontal
42	Rib 12	AB	Parietal
43	Teeth-Central Incisor	AC	Temporal
44	Teeth-Lateral Incisor	AD	Occipital
45	Teeth-Canine	AE	Hard Palate Bone
46	Teeth-First Premolar	AF	Lacrimal Bone

LC2	DESCRIPTION	LC2	DESCRIPTION
AG	Maxillary Bone	DL	Sternothyroid Muscle
AH	Nasal Bone	DM	Thyrohyoid Muscle
AI	Nasal Concha Bone	DN	Trapezius Muscle
AJ	Vomer Bone	DO	Internal Carotid
AK	Zygomatic Bone	DP	Common Carotid
AL	Orbital Bone	DQ	External Carotid
AM	Mandible Bone	DR	Sublingual Glands
AN	Medula	DS	Submandibular Gland
AO	Hypothalamus	DT	Parotid Gland
AP	Midbrain	DU	Thyroid Gland
AQ	Pons	DV	Epiglottis
BA	Buccinator Muscle	EA	Diaphragm Muscle
BB	Depressor Anguli Oris Muscle	EB	Iliocostalis Muscle
BC	Depressor Labii Muscle	EC	Intercostal Large Front Muscle
BD	Digastric Muscle	ED	Intercostal Large Muscle
BE	Frontalis Muscle	EE	Intercostal Small Muscle
BF	Hyoglossus Muscle	EF	Latissimus Dorsi Muscle
BG	Levator Anguli Oris Muscle	EG	Longissimus Muscle
BH	Levator Labii Anterior Muscle	EH	Pectoralis Major Muscle
BI	Levator Labii Superioris Muscle	EI	Pectoralis Minor Muscle
BJ	Masseter Muscle	EJ	Rhomboid Major Muscle
BK	Mentalis Muscle	EK	Rhomboid Minor Muscle
BL	Mylohyoid Muscle	EL	Serratus Anterior Muscle
BN	Orbicularis Oculi Muscle	EM	Spinalis Muscle
BO	Orbicularis Oris Muscle	EN	Inferior Vena Cava Artery
BP	Procerus Muscle	EO	Superior Vena Cava Artery
BQ	Risorius Muscle	EP	Thoracic Veins
BR	Stylohyoid Muscle	EQ	Coronary Vein
BS	Temporal Muscle	ER	Costal Ribs Bones
BT	Zygomaticus Major Muscle	ES	Lung Lobe 1
BU	Zygomaticus Minor Muscle	ET	Lung Lobe 2
BV	Alveolar Ridge with Teeth	EU	Lung Lobe 3
BW	Maxillary Alveolar Ridge	EV	Sternum
BX	Mandibular Alveolar Ridge	EW	Atria
BY	External Carotid	EX	Ventricle
BZ	Nasalis Superior Muscle	GA	External Oblique Muscle
CA	Nasalis Inferior Muscle	GB	Internal Oblique Muscle
DA	Levator Scapula Muscle	GC	Psoas Major Muscle
DB	Omohyoid Muscle	GD	Psoas Minor Muscle
DC	Platysma Muscle	GE	Quadratus Lumborum Muscle
DD	Scalene Anterior Muscle	GF	Rectus Abdominis Muscle
DE	Scalene Middle Muscle	GG	Transverse Abdominis Muscle
DF	Scalene Posterior Muscle	GH	Colon
DG	Semispinalis Caervicis Muscle	GI	Ascending Colon
DH	Semispinalis Capitis Muscle	GJ	Descending Colon
DI	Splenius Capitis Muscle	GK	Transverse Colon
DJ	Sternocleidomastoid Muscle	GL	Sigmoid Colon
DK	Sternohyoid Muscle	GM	Gonadal Arteries

LC2	DESCRIPTION	LC2	DESCRIPTION
GN	Hepatic Arteries	IP	Wrist Ligaments
GO	Gonadal Veins	IQ	Sternoclavicular Ligament
GP	Hepatic Veins	IR	Interosseus Membrane of Forearm
GQ	Inferior Mesenteric Vein	IS	Shoulder Ligaments
GR	Portal Veins	IT	Capsule Ligament
GS	Renal Veins	IU	Elbow Ligaments
GT	Common Iliac Artery	IV	Bicipital Aponeurosis
HA	Biceps Lateral Muscle	IW	Upper Extremity Arteries
HB	Biceps Medial Muscle	IX	Interosseous Artery
HC	Brachialis Muscle	IY	Profunda Arteries
HD	Coracobrachialis Muscle	IZ	Radial Artery
HE	Triceps Lateral Muscle	JA	Ulnar Artery
HF	Triceps Long Muscle	JB	Palmer Arch Arteries
HG	Triceps Medial Muscle	JC	Upper Extremity Veins
HH	Abductor Pollicis Longus Muscle	JD	Forearm Veins
HI	Anconeous Muscle	JE	Intersseous Vein
HJ	Brachioradialis Muscle	JF	Median Cubital Vein
HK	Extensor Carpi Radialis Brevis Muscle	JG	Radial Vein
HL	Extensor Carpi Radialis Longus Muscle	JH	Ulnar Vein
HM	Abductor Minimi Digiti Muscle	JI	Palm Veins
HN	Abductor Pollicis Brevis Muscle	JJ	Axillary Vein
HO	Adductor Pollicis Muscle	JK	Cephalic Vein
HP	Bicep Brachii Muscle	JL	Humerus Bone
HQ	Extensor Carpi Ulnaris Muscle	JM	Radius Bone
HR	Extensor Digiti Minimi Muscle	JN	Ulna Bone
HS	Extensor Digitorum Muscle	JO	Clavicle Bone
HT	Flexor Carpi Radialis Muscle	JP	Scapula Bone
HU	Flexor Carpi Ulnaris Muscle	JQ	Wrist Bone-Pisiform
HV	Flexor Digitorum Profundus Muscle	JR	Wrist Bone-Scaphoid
HW	Flexor Digitorum Superficialis Muscle	JS	Wrist Bone-Trapezium
HX	Flexor Pollicis Longus Muscle	JT	Wrist Bone-Trapezoid
HY	Pronator Quadratus Muscle	JU	Wrist Bone-Triquetral
HZ	Pronator Teres Muscle	JV	Wrist Bone-Capitate
IA	Supinator Muscle	JW	Wrist Bone-Hamate
IB	Extensor Indicis Muscle	JX	Wrist Bone-Lunate
IC	Extensor Pollicis Brevis Muscle	LA	Abductor Digiti Minimi Muscle
ID	Extensor Pollicis Longus Muscle	LB	Abductor Hallucis Muscle
IE	Palm Muscles	LC	Extensor Digitorium Brevis Muscle
IF	Palmaris Longus Muscle	LD	Extensor Hallucis Brevis Muscle
IG	Deltoid Muscle	LE	Flexor Digitorium Brevis Muscle
IH	Infraspinatus Right Muscle	LF	Gluteus Maximus Muscle
II	Subscapularis Muscle	LG	Gluteus Medius Muscle
IJ	Supraspinatus Muscle	LH	Gluteus Minimus Muscle
IK	Teres Major Muscle	LI	Iliacus Muscle
IL	Teres Minor Muscle	LJ	Inferior Gemellus Muscle
IM	Triceps Tendon	LK	Obturator Externus Muscle
IN	Flexor Retinaculum Tendon	LL	Obturator Internus Muscle
IO	Hand Ligaments	LM	Pisiformis Muscle

LC2	DESCRIPTION	LC2	DESCRIPTION
LN	Quadratus Femoris Muscle	NJ	Obturator Nerve
LO	Superior Gemellus Muscle	NK	Pudendal Nerve
LP	Extensor Digitorium Longus Muscle	NL	Sacral Plexus
LQ	Extensor Hallucis Longus Muscle	NM	Sciatic Nerve
LR	Flexor Digitorium Longus Muscle	NN	SI Joint
LS	Flexor Hallucis Muscle	NO	Pelvic Bone Back
LT	Gastrocnemius Muscle	NP	Pelvic Bone
LU	Peroneus Brevis Muscle	NQ	Pelvic Bone Front
LV	Peroneus Longus Muscle	NR	Sacrum Bone
LW	Soleus Muscle	NS	Symphysis Pubis Bone
LX	Tibialis Anterior Muscle	NT	Illium Bone
LY	Tibialis Posterior Muscle	NU	Ischium Bone
LZ	Adductor Brevis Muscle	NV	Pubic Rami
MA	Adductor Longus Muscle	NW	Coccyx Bone
MB	Adductor Magnus Muscle	NX	LE Above Knee
MC	Bicep Femoris Muscle	NY	LE Below Knee
MD	Gracilis Muscle	OA	Anterior Cruciate Ligament
ME	Pectineus Muscle	OB	Posterior Cruciate Ligament
MF	Rectus Femoris Muscle	OC	Acetabulofemoral Ligament
MG	Sartorius Muscle		
MH	Semimembranosus Muscle		
MI	Semitendinosus Muscle		
MJ	Tensor Faciae Latae Muscle		
MK	Vastus Intermedius Muscle		
ML	Vastus Lateralis Muscle		
MM	Vastus Medialis Muscle		
MN	Tibial Collateral Ligament		
MO	Fibular Collateral Ligament		
MP	Achilles Tendon		
MQ	Ankle Ligaments		
MR	Hip Ligaments		
MS	Joints of Lower Extremities Ligaments		
MT	Knee Ligaments		
MU	Patellar Ligament		
MV	Sacrotuberous Ligament		
MW	Tibial Anterior Artery		
MX	Tibial Posterior Artery		
MY	Peroneal Artery		
MZ	Plantar Veins		
NA	Saphenous Small Vein		
NB	Tibial Vein Anterior		
NC	Tibial Vein Posterior		
ND	Saphenous Vein		
NE	Femoral Lateral Nerve		
NF	Femoral Posterior Nerve		
NG	Femoral Nerve		
NH	Gluteal Superior Nerve		
NI	Inferior Gluteal Nerve		

APPENDIX E

MAPPING BETWEEN NASS-CDS AND CISS

* Users are warned that CISS does not use the missing values used in CDS (e.g. Unknown = .U), instead, numeric values are used (e.g. Unknown = 999). Please refer to individual variables for their specific values.

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
ACCIDENT	AAIS	MAXIMUM KNOWN AIS IN THIS CRASH (AIS98 FORMAT)	CRASH	CAIS	CISS uses AIS '15 while AAIS used AIS '98. CISS does not provide a translation back to AIS '98. While the codes are similar, they are not necessarily equivalent.
ACCIDENT	AAIS08	MAXIMUM KNOWN AIS IN THIS CRASH (AIS08 FORMAT)	CRASH	CAIS	CISS uses AIS '15 while AAIS used AIS '08. CISS does not provide a translation back to AIS '08. While the codes are similar, they are not necessarily equivalent.
ACCIDENT	AINJSER	NUMBER OF SERIOUSLY INJURED OCCUPANTS (AIS98 FORMAT)	CRASH	CINJSEV	This variable uses the AIS codes found in the data. CISS uses AIS '15 while AAIS used AIS '98. CISS does not provide a translation back to AIS '98. While the codes are similar, they are not necessarily equivalent.

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
ACCIDENT	AINJSER8	NUMBER OF SERIOUSLY INJURED OCCUPANTS (AIS08 FORMAT)	CRASH	CINJSEV	This variable uses the AIS codes found in the data. CISS uses AIS '15 while AAIS used AIS '08. CISS does not provide a translation back to AIS '08. While the codes are similar, they are not necessarily equivalent.
ACCIDENT	AINJURED	TOTAL NUMBER OF INJURED OCCUPANTS (AIS98 FORMAT)	CRASH	CINJURED	This variable uses the AIS codes found in the data. CISS uses AIS '15 while AAIS used AIS '98. CISS does not provide a translation back to AIS '98. While the codes are similar, they are not necessarily equivalent.
ACCIDENT	AINJURD8	TOTAL NUMBER OF INJURED OCCUPANTS (AIS08 FORMAT)	CRASH	CINJURED	This variable uses the AIS codes found in the data. CISS uses AIS '15 while AAIS used AIS '08. CISS does not provide a translation back to AIS '08. While the codes are similar, they are not necessarily equivalent.
ACCIDENT	ALCINV	ALCOHOL INVOLVED IN ACCIDENT	CRASH	ALCINV	
ACCIDENT	ATREAT	MAXIMUM TREATMENT IN ACCIDENT	CRASH	CTREAT	

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
ACCIDENT	CASEID	CASE NUMBER - STRATUM	N/A	N/A	ACCIDENT.CASEID was a derived field which concatenated CASENO and STRATIF. To recreate this field, the user needs to concatenate CRASH.CASENO and CRASH.CATEGORY, however please be aware that CRASH.CATEGORY does not use the same values and definitions which ACCIDENT.STRATIF that was used in CDS. Also, be aware that CRASH.CASEID is a unique number generated by the CISS data entry which is different from the ACCIDENT.CASEID.
ACCIDENT	CASENO	CASE SEQUENCE NUMBER	CRASH	CASENO	
ACCIDENT	DAYWEEK	DAY OF WEEK OF ACCIDENT	CRASH	DAYOFWEEK	
ACCIDENT	DRGINV	DRUG INVOLVED	CRASH	DRUGINV	
ACCIDENT	EVENTS	NUMBER OF RECORDED EVENTS IN ACCIDENT	CRASH	EVENTS	
ACCIDENT	MANCOLL	MANNER OF COLLISION	CRASH	MANCOLL	
ACCIDENT	MONTH	MONTH OF ACCIDENT	CRASH	CRASHMONTH	
ACCIDENT	NATWGT	NATIONAL INFLATION FACTOR	N/A	N/A	Not part of the CISS PSU profile.

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
ACCIDENT	PSU	PRIMARY SAMPLING UNIT NUMBER	CRASH	PSU	
ACCIDENT	PSUSTRAT	PRIMARY SAMPLING UNIT STRATIFICATION	CRASH	PSUSTRAT	
ACCIDENT	RATWGT	RATIO INFLATION FACTOR	CRASH	CASEWGT	
ACCIDENT	STRATIF	CASE STRATUM	CRASH	CATEGORY	
ACCIDENT	TIME	TIME OF ACCIDENT	CRASH	CRASHTIME	
ACCIDENT	VEHFORMS	NUMBER GENERAL VEHICLE FORMS SUBMITTED	CRASH	VEHICLES	The user should be aware that unlike CDS, CISS creates vehicle forms for all vehicles in the crash regardless of transport status.
ACCIDENT	YEAR	YEAR OF ACCIDENT	CRASH	CRASHYEAR	
ACCIDENT	VERSION	VERSION NUMBER	CRASH	VERSION	The user should be aware that the final year of CDS had Version equal to 28. CISS 2017 VERSION equals 2, since CISS 2016 was the first official year, although no SAS files were produced in 2016 due to the small number of cases.
ACCIDENT	ADMINSS	ADMINISTRATIVE USE	N/A	N/A	ADMINSS

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
ACC_DESC	CASEID	CASE NUMBER - STRATUM	CRASH_DESC	N/A	ACC_DESC.CASEID was a derived field which concatenated CASENO and STRATIF. To recreate this field, the user needs to concatenate CRASH.CASENO and CRASH.CATEGORY, however please be aware that CRASH.CATEGORY does not use the same values and definitions which ACCIDENT.STRATIF that was used in CDS. Also, be aware that CISS CASEID is a unique number generated by the CISS data entry which is different from the ACC_DESC.CASEID.
ACC_DESC	CASENO	CASE SEQUENCE NUMBER	CRASH_DESC	CASENO	
ACC_DESC	LINENO	LINE NUMBER	CRASH_DESC	LINENO	
ACC_DESC	PSU	PRIMARY SAMPLING UNIT NUMBER	CRASH_DESC	PSU	
ACC_DESC	STRATIF	CASE STRATUM	CRASH_DESC	CATEGORY	
ACC_DESC	TEXT71	SUMMARY TEXT	CRASH_DESC	SUMMARY	
ACC_DESC	VERSION	VERSION NUMBER	CRASH_DESC	VERSION	

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
VEH_PRO	CASEID	CASE NUMBER - STRATUM	N/A	N/A	VEH_PRO.CASEID was a derived field which concatenated CASENO and STRATIF. To recreate this field, the user needs to concatenate GV.CASENO and GV.CATEGORY, however please be aware that GV.CATEGORY does not use the same values and definitions which VEH_PRO.STRATIF that was used in CDS. Also, be aware that CISS CASEID is a unique number generated by the CISS data entry which is different from the VEH_PRO.CASEID.
VEH_PRO	CASENO	CASE SEQUENCE NUMBER	GV	CASENO	
VEH_PRO	LINENO	LINE NUMBER	N/A	N/A	
VEH_PRO	PSU	PRIMARY SAMPLING UNIT NUMBER	GV	PSU	
VEH_PRO	STRATIF	CASE STRATUM	GV	CATEGORY	
VEH_PRO	TEXT81	SUMMARY TEXT	GV	MODELYR, MAKETEXT, MODELTEXT, DAMPLANE, DAMSEV	While CISS does not have the VEH_PRO dataset, the data in TEXT81 can be derived by concatenating the fields mentioned in CISS - COLUMNS.
VEH_PRO	VERSION	VERSION NUMBER	GV	VERSION	

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
PERS_PRO	CASEID	CASE NUMBER - STRATUM	N/A	N/A	PERS_PRO.CASEID is a derived field which concatenated CASENO and STRATIF. To recreate this field, the user needs to concatenate OA.CASENO and OA.CATEGORY, however please be aware that OA.CATEGORY does not use the same values and definitions which PER_PRO.STRATIF that was used in CDS. Also, be aware that CISS CASEID is a unique number generated by the CISS data entry which is different from the PERS_PRO.CASEID.
PERS_PRO	CASENO	CASE SEQUENCE NUMBER	OA	CASENO	
PERS_PRO	LINENO	LINE NUMBER	N/A	N/A	
PERS_PRO	PSU	PRIMARY SAMPLING UNIT NUMBER	OA	PSU	
PERS_PRO	STRATIF	CASE STRATUM	OA	CATEGORY	

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
PERS_PRO	TEXT91	SUMMARY TEXT	N/A	N/A	CISS does not collect the exact information contained in TEXT91, however the data can be partially recreated by concatenating the OCCNO, ROLETEXT, and SEATLOCTEXT fields.
PERS_PRO	VERSION	VERSION NUMBER	OA	VERSION	
EVENT	ACCSEQ	ACCIDENT EVENT SEQUENCE NUMBER	EVENT	CRASHSEQ	
EVENT	CASEID	CASE NUMBER - STRATUM	N/A	N/A	EVENT.CASEID was a derived field which concatenated CASENO and STRATIF. To recreate this field, the user needs to concatenate CRASH.CASENO and CRASH.CATEGORY, however please be aware that CRASH.CATEGORY does not use the same values and definitions which ACCIDENT.STRATIF that was used in CDS. Also, be aware that CISS CASEID is a unique number generated by the CISS data entry which is different from the EVENT.CASEID.
EVENT	CASENO	CASE SEQUENCE NUMBER	EVENT	CASENO	

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
EVENT	CLASS1	CLASS OF FIRST VEHICLE	EVENT	CLASS1	
EVENT	CLASS2	CLASS OF OTHER VEHICLE	EVENT	CLASS2	
EVENT	GADEV1	GENERAL AREA OF DAMAGE FIRST VEHICLE	EVENT	GAD1	
EVENT	GADEV2	GENERAL AREA OF DAMAGE OTHER VEHICLE	EVENT	GAD2	
EVENT	OBJCONT	OTHER VEHICLE NUMBER OR OBJECT CONTACTED	EVENT	OBJCONT	
EVENT	NATWGT	NATIONAL INFLATION FACTOR	N/A	N/A	Not part of the CISS PSU profile.
EVENT	PSU	PRIMARY SAMPLING UNIT NUMBER	EVENT	PSU	
EVENT	RATWGT	RATIO INFLATION FACTOR	EVENT	CASEWGT	
EVENT	STRATIF	CASE STRATUM	EVENT	CATEGORY	
EVENT	VEHNUM	VEHICLE NUMBER	EVENT	VEHNO	
EVENT	VERSION	VERSION NUMBER	EVENT	VERSION	
GV	ACCSEQDV	ACCIDENT SEQUENCE NO FOR HIGHEST DELTA V	GV	DVEVENT	
GV	ACCTYPE	ACCIDENT TYPE	GV	CRASHTYPE	
GV	ALCTEST	ALCOHOL TEST RESULT FOR DRIVER	GV	ALCTEST	

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
GV	ANGTHIS	HEADING ANGLE FOR THIS VEHICLE	GV	DVANGTHIS	
GV	ANGOTHER	HEADING ANGLE FOR OTHRE VEHICLE	GV	DVANGOTH	
GV	CLIMATE	WEATHER	GV	WEATHER	
GV	BAREQSP	BARRIER EQUIVALENT SPEED	GV	DVBES	
GV	BODYTYPE	VEHICLE BODY TYPE	GV	BODYTYPE	
GV	CARGOWGT	VEHICLE CARGO WEIGHT	GV	CARGOWT	
GV	CASEID	CASENUMBER - STRATUM	N/A	N/A	GV.CASEID was a derived field which concatenated CASENO and STRATIF. To recreate this field, the user needs to concatenate CRASH.CASENO and CRASH.CATEGORY, however please be aware that CRASH.CATEGORY does not use the same values and definitions which ACCIDENT.STRATIF that was used in CDS. Also, be aware that THE CISS GV.CASEID is a unique number generated by the CISS data entry which is different from the CDS GV.CASEID.
GV	CASENO	CASE SEQUENCE NUMBER	GV	CASENO	

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
GV	CONDTREE	POST COLLISION CONDITION OF TREE OR POLE	GV	TREEPOLE	
GV	CURBWGT	VEHICLE CURB WEIGHT	GV	CARGOWT	
GV	DVEST	ESTIMATED HIGHEST DELTA V	GV	DVEST	
GV	DOCTRAJ	DOCUMENTATION OF TRAJECTORY DATA	GV	TRAJDOC	
GV	DRIVDIST	DRIVER'S DISTRACTION/INATTENTION TO DRIVING	GV & DISTRACT	GV.DRIVDIST & DISTRACT.DISTRACTN	Since drivers may have multiple distractions, this data was split between two datasets. GV.DRIVDIST will capture the CDS attributes of 00, 01, 02, .U. The other attributes will be captured in DISTRACT.DISTRACTN.
GV	DRINKING	POLICE REPORTED ALCOHOL PRESENCE	GV	PARALCOHOL	
GV	DRPRES	DRIVER PRESENCE IN VEHICLE	GV	DRPRESENT	
GV	DRZIP	DRIVER'S ZIP CODE	GV	ZIP	
GV	DVBASIS	BASIS FOR TOTAL DELTA V (HIGHEST)	GV	DVBASIS	
GV	DVCONFID	CONFIDENCE IN RECONSTRUCTION	GV	DVCONF	
GV	DVLAT	LATERAL COMPONENT OF DELTA V	GV	DVLAT	

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
GV	DVLONG	LONGITUDINAL COMPONENT OF DELTA V	GV	DVLONG	
GV	DVTOTAL	TOTAL DELTA V	GV	DVTOTAL	
GV	ENERGY	ENERGY ABSORPTION	GV	DVENERGY	
GV	ETHNICIT	ETHNICITY	GV	ETHNICITY	
GV	FOVERIDE	FRONT OVERRRIDE/UNDERRIDE THIS VEHICLE	N/A	N/A	This derived variable is not in CISS. This data, by event/CDC, can be found in the CDC.OVERUNDER variable.
GV	IMPACTSP	IMPACT SPEED	GV	DVSPEED	
GV	INSPTYPE	TYPE OF VEHICLE INSPECTION	GV	INSPTYPE	
GV	LANES	NUMBER OF LANES	GV	RDLANES	
GV	LGTCOND	LIGHT CONDITIONS	GV	LIGHTCOND	
GV	MAKE	VEHICLE MAKE	GV	MAKE	Users should be aware that CISS has adopted the Make coding scheme used by FARS. As such, there may be slight differences in coding between CDS and CISS.
GV	MANEUVER	ATTEMPTED AVOIDANCE MANEUVER	GV	MANEUVER	

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
GV	MODEL	VEHICLE MODEL	GV	MODEL	Users should be aware that CISS has adopted the Model coding scheme used by FARS. As such, there may be slight differences in coding between CDS and CISS.
GV	MODELYR	VEHICLE MODEL YEAR	GV	MODELYR	
GV	NATWGT	NATIONAL INFLATION FACTOR	N/A	N/A	Not part of the CISS PSU profile.
GV	OCCFORMS	NUMBER OF OCCUPATN FORMS SUBMITTED	N/A	N/A	This derived variable is not in CISS. This data can be derived by counting the number of rows in the OCC dataset for this vehicle.
GV	OCUPANTS	NUMBER OF OCCUPANTS THIS VEHICLE	N/A	N/A	This variable is not in CISS. It was derived for 1996-2015 CDS and coded by the coder from 1979-1993 CDS. This data can be derived for in-transport towed CISS applicable vehicles by counting the number of rows in the OCC dataset, however would be unknown for other vehicles.
GV	RATWGT	RATIO INFLATION FACTOR	GV	CASEWGT	
GV	PREEVENT	INITIAL CRITICAL (PRECRASH) EVENT	GV	CRITEVENT	

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
GV	PREMOVE	PRE-EVENT MOVEMENT PRIOR REC CRIT EVENT	GV	PREMOVE	
GV	PREILOC	PRE-IMPACT LOCATION	GV	PRELOC	
GV	PREISTAB	PRE-IMPACT STABILITY	GV	PRESTAB	
GV	PSU	PRIMARY SAMPLING UNIT NUMBER	GV	PSU	
GV	ALIGNMNT	ROADWAY ALIGNMENT	GV	ALIGNMENT	
GV	SURCOND	ROADWAY SURFACE CONDITION	GV	SURFCOND	
GV	PROFILE	ROADWAY PROFILE	GV	PROFILE	
GV	SURTYPE	ROADWAY SURFACE TYPE	GV	SURFTYPE	
GV	RACE	RACE	GV	RACE	
GV	RELINTER	RELATION TO JUNCTION	GV	RELTOJUNCT	
GV	ROLINDIR	DIRECTION OF INITIAL ROLL	GV	ROLLTYPE	
GV	ROLINLOC	LOCATION OF ROLLOVER	GV	ROLLINLOC	
GV	ROLINTYP	ROLLOVER INITIATION TYPE	GV	ROLLINITYP	
GV	ROLLOBJ	ROLLOVER INITIATION OBJECT CONTACTED	GV	ROLLOBJ	
GV	PROLLMAN	PRE ROLLOVER MANEUVER	GV	ROLLPREMAN	

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
GV	INTEROLL	INTERUPTED ROLLOVER	GV	ROLLINTRPT	
GV	ROLLDIST	ESTIMATED DISTANCE OF ROLLOVER	GV	ROLLDIST	
GV	ROLLOVER	ROLLOVER	GV	ROLLTYPE	
GV	ROVERIDE	REAR OVERRIDE/UNDERRIDE THIS VEHICLE	N/A	N/A	This data is now collected at the vehicle inspection level in the CDC dataset.
GV	SPECOTH	OTHER DRUG: SPECIMEN TEST RESULTS	GV	PARDRUG	
GV	SPLIMIT	SPEED LIMIT	GV	SPEEDLIMIT	
GV	STRATIF	CASE STRATUM	GV	CATEGORY	
GV	TOWHITCH	TOWED TRAILING UNIT	GV	TOWHITCH	
GV	TOWPAR	POLICE REPORTED VEHICLE REMOVAL	GV	TOWED	Slight differences between NASS-CDS's GV.TOWPAR and CISS's GV.TOWED. A different field (GV.TOWSTAT) was used in CISS 2017/2018 files which had even greater differences. Users are cautioned to review the variables before comparing.
GV	TRAFCONT	TRAFFIC CONTROL DEVICE	GV	TRAFDEEV	
GV	TRANSTAT	TRANSPORT STATUS	GV	TRANSTAT	
GV	TRCTLFCT	TRAFFIC CONTROL DEVICE FUNCTIONING	GV	TRAFFUNCT	

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
GV	TRAVELSP	POLICE REPORTED TRAVEL SPEED	N/A	N/A	NOT COLLECTED IN CISS
GV	TRAFFLOW	TRAFFICWAY FLOW	GV	TRAFFLOW	
GV	TRIPLOC	LOC. ON VEH. WHERE INIT TRIP FORCE APPL	GV	ROLLTRIP	
GV	VEHNO	VEHICLE NUMBER	GV	VEHNO	
GV	VEHUSE	VEHICLE SPECIAL USE	GV	SPECUSE	
GV	VIN	VEHICLE IDENTIFICATION NUMBER	GV	VIN	
GV	VINLNGTH	VIN LENGTH	GV	VINLENGTH	
GV	VERSION	VERSION NUMBER	GV	VERSION	
GV	DRUGS	REPORTED OTHER DRUG	GV	DRUGTEST	
GV	VAIS	MAXIMUM KNOWN AIS IN THIS VEHICLE (AIS98 FORMAT)	GV	VMAIS	Users should be aware that CISS uses AAAM's AIS 2015 while NASS-CDS used AIS 1998 for this variable. There may be some differences in the calculation of this field.
GV	VAIS08	MAXIMUM KNOWN AIS IN THIS VEHICLE (AIS08 FORMAT)	GV	VMAIS	Users should be aware that CISS uses AAAM's AIS 2015 while NASS-CDS used AIS 2008 for this variable. There may be some differences in the calculation of this field.
GV	VINMODYR	VIN MODEL YEAR	VINDERIVED	MODELYEAR	

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
GV	MCYCLDS	MOTORCYCLE ENGINE DISPLACEMENT	VINDERIVED	DISPLACEMENTCC	Users would need to filter the VINDERIVED field on VEHICLETYPE='MOTORCYCLE' in order to properly match to MCYCLDS. Additionally, CISS no longer uses the same derivation application so results may differ.
GV	VEHWGT	VIN VEHICLE WEIGHT	N/A	N/A	Not derived for CISS.
GV	VINMAKE	VIN MAKE	VINDERIVED	MAKE	
GV	VINAMOD	VIN MODEL CARS AND TRUCKS	VINDERIVED	MODEL	
GV	SERTR	VIN SERIES TRUCK	VINDERIVED	SERIES	Users would need to filter the VINDERIVED field on BODYCLASS='Pickup' in order to properly match to SERTR. Additionally, CISS no longer uses the same derivation application so results may differ.
GV	VINBT	VIN BODY TYPE	N/A	N/A	The closest CISS comes to VINBT is VINDERIVED.BODYCLASS, however the values are not a one-to-one match.
GV	ROOF1	ROOF	N/A	N/A	
GV	ROOF2	OPTIONAL ROOF 1	N/A	N/A	
GV	ROOF 3	OPTIONAL ROOF 2	N/A	N/A	

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
GV	ANTILOCK	ANTILOCK BRAKES	VINDERIVED	ANTILOCKBRAKESYSTEM	CISS no longer uses the same derivation application so results may differ.
GV	FRTWHLDR	FRONT WHEEL DRIVE	VINDERIVED	DRIVETYPE	Users would need to filter DRIVETYPE by 'FWD/Front Wheel Drive' to determine if the vehicle is front wheel drive.
GV	FOURWHDR	FOUR SHEEL DRIVE	VINDERIVED	DRIVETYPE	Users would need to filter DRIVETYPE by '4WD/4-Wheel Drive/4x4' to determine if the vehicle is four wheel drive.
GV	RESTYPE	RESTRAINT TYPE	VINDERIVED	SEATBELTSTYPE	CISS no longer uses the same derivation application so results may differ in terms of code values and completeness.
GV	CARBUR	CARBURETION	N/A	N/A	
GV	FUELCODE	FUEL CODE	VINDERIVED	FUELTYPEPRIMARY, FUELTYPESECONDARY	CISS no longer uses the same derivation application so results may differ in terms of code values and completeness.
GV	WGTCDTR	TRUCK WEIGHT CODE	VINDERIVED	GROSSVEHICLEWEIGHTRATING	Users would need to filter VEHICLETYPE by 'TRUCK'.

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
GV	VEHTYPE	TYPE OF VEHICLE	VINDERIVED	VEHICLETYPE	CISS no longer uses the same derivation application so results may differ in terms of code values and completeness.
GV	WHLDRWHL	NUMBER WHEELS/NUMBER OF DRIVE WHEELS	N/A	N/A	Users may be able to derive this value by using WHEELSCOUNT and/or DRIVETYPE in the VINDERIVED dataset.
GV	DAYRUNLT	DAYTIME RUNNING LIGHTS	N/A	N/A	
GV	OTVEHWGT	WEIGHT OF THE OTHER VEHICLE	N/A	N/A	
GV	OTBDYTYP	BODY TYPE OF THE OTHER VEHICLE	N/A	N/A	
GV	VINJSER	NUMBER SERIOUSLY INJURED IN THIS VEHICLE (AIS98 FORMAT)	GV	VINJSER	This variable uses the AIS codes found in the data. CISS uses AIS '15 while AAIS used AIS '98. CISS does not provide a translation back to AIS '98. While the codes are similar, they are not necessarily equivalent.

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
GV	VINJSER8	NUMBER OF SERIOUSLY INJURED IN THIIS VEHICLE (AIS08 FORMAT)	GV	VINJSER	This variable uses the AIS codes found in the data. CISS uses AIS '15 while AAIS used AIS '08. CISS does not provide a translation back to AIS '08. While the codes are similar, they are not necessarily equivalent.
GV	VINJURED	NUMBER INJURED IN THIS VEHICLE (AIS98 FORMAT)	GV	VINJURED	This variable uses the AIS codes found in the data. CISS uses AIS '15 while AAIS used AIS '98. CISS does not provide a translation back to AIS '98. While the codes are similar, they are not necessarily equivalent.
GV	VINJURD8	NUMBER OF INJURED IN THIS VEHICLE (AIS08 FORMAT)	GV	VINJURED	This variable uses the AIS codes found in the data. CISS uses AIS '15 while AAIS used AIS '08. CISS does not provide a translation back to AIS '08. While the codes are similar, they are not necessarily equivalent.
GV	VTREAT	MAXIMUM TREATMENT IN THIS VEHICLE	GV	VTREAT	

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
VE	ACCSEQ1	ACCIDENT EVENT SEQUENCE (HIGHEST)	CDC	EVENTNO	Unlike CDS which only provided the two highest delta V CDCs, CISS is providing all documented CDCs, so there is no need to provide a suffix indicating the severity (e.g the "1" in ACCSEQ1). In order to match to NASS CDS, the user should filter on DVRANK=1.
VE	ACCSEQ2	ACCIDENT EVENT SEQUENCE (2ND HIGHEST)	CDC	EVENTNO	Unlike CDS which only provided the two highest delta V CDCs, CISS is providing all documented CDCs, so there is no need to have a 2nd highest delta V event sequence. In order to match to NASS CDS, the user should filter on DVRANK=2.
VE	ALTVEH	MULTI-STAGE MANUFACTURED/CERT.ALT.VEH.	VEHSPEC	ALTVEH	
VE	ORIGAVTW	ORIGINAL AVERAGE TRACK WIDTH	VEHSPEC	TRACKWIDTH	

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
VE	CASEID	CASE NUMBER - STRATUM	N/A	N/A	VE.CASEID was a derived in CDS field which concatenated CASENO and STRATIF. To recreate this field, the user needs to concatenate CRASH.CASENO and CRASH.CATEGORY, however please be aware that CRASH.CATEGORY does not use the same values and definitions which ACCIDENT.STRATIF used in CDS. Also, be aware that CISS CASEID is a unique number generated by the CISS data entry which is different from the VE.CASEID.
VE	CASENO	CASE SEQUENCE NUMBER	CDC	CASENO	
VE	DIRDAMW	DIRECT DAMAGE WIDTH	CDC	DIRECTL	
VE	DOCCDC	CDCs DOCUMENTED BUT NOT CODED ON FILE?	N/A	N/A	Unlike CDS which only provided the two highest delta V CDCs, CISS is providing all documented CDCs, so there is no need mention if there are undocumented CDCs.

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
VE	DVC1	CRUSH PROFILE C1 (HIGHEST)	CDC	C1	Since CISS documents all CDCs in the CDC dataset, this variable in CISS refers to this particular CDC Profile and not necessarily the highest delta V. In order to match to NASS CDS, the user should filter on DVRANK=1.
VE	DVC2	CRUSH PROFILE C2 (HIGHEST)	CDC	C2	Since CISS documents all CDCs in the CDC dataset, this variable in CISS refers to this particular CDC Profile and not necessarily the highest delta V. In order to match to NASS CDS, the user should filter on DVRANK=1.
VE	DVC3	CRUSH PROFILE C3 (HIGHEST)	CDC	C3	Since CISS documents all CDCs in the CDC dataset, this variable in CISS refers to this particular CDC Profile and not necessarily the highest delta V. In order to match to NASS CDS, the user should filter on DVRANK=1.

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
VE	DVC4	CRUSH PROFILE C4 (HIGHEST)	CDC	C4	Since CISS documents all CDCs in the CDC dataset, this variable in CISS refers to this particular CDC Profile and not necessarily the highest delta V. In order to match to NASS CDS, the user should filter on DVRANK=1.
VE	DVC5	CRUSH PROFILE C5 (HIGHEST)	CDC	C5	Since CISS documents all CDCs in the CDC dataset, this variable in CISS refers to this particular CDC Profile and not necessarily the highest delta V. In order to match to NASS CDS, the user should filter on DVRANK=1.
VE	DVC6	CRUSH PROFILE C6 (HIGHEST)	CDC	C6	Since CISS documents all CDCs in the CDC dataset, this variable in CISS refers to this particular CDC Profile and not necessarily the highest delta V. In order to match to NASS CDS, the user should filter on DVRANK=1.

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
VE	DVD	CRUSH PROFILE D (HIGHEST)	CDC	FIELDLD	Since CISS documents all CDCs in the CDC dataset, this variable in CISS refers to this particular CDC Profile and not necessarily the highest delta V. In order to match to NASS CDS, the user should filter on DVRANK=1.
VE	DVL	CRUSH PROFILE L (HIGHEST)	CDC	FIELDL	Since CISS documents all CDCs in the CDC dataset, this variable in CISS refers to this particular CDC Profile and not necessarily the highest delta V. In order to match to NASS CDS, the user should filter on DVRANK=1.
VE	DOF1	DIRECTION OF FORCE (HIGHEST)	CDC	OCLOCK	Since CISS documents all CDCs in the CDC dataset, this variable in CISS refers to this particular CDC and not necessarily the highest delta V. In order to match to NASS CDS, the user should filter on DVRANK=1.
VE	DOF2	DIRECTION OF FORCE (HIGHEST)	CDC	OCLOCK	Variable not needed since CISS documents all CDCs. In order to match to NASS CDS, the user should filter on DVRANK=2.

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
VE	UNDENDW	UNDEFORMED END WIDTH	VEHSPEC	UEW	
VE	EXTENT1	DEFORMATION EXTENT (HIGHEST)	CDC	CDCEXTENT	Unlike CDS which only provided the two highest delta V CDCs, CISS is providing all documented CDCs, so there is no need to provide a suffix indicating the severity (e.g the "1" in ACCSEQ1). In order to match to NASS CDS, the user should filter on DVRANK=1.
VE	EXTENT2	DEFORMATION EXTENT (2ND HIGHEST)	CDC	CDCEXTENT	Variable not needed since CISS documents all CDCs. In order to match to NASS CDS, the user should filter on DVRANK=1.
VE	FUELCAP1	LOCATION OF FUEL TANK-1 FILLER CAP	FUEL		CISS collects information for all vehicle fuel systems so there is no need to suffix fields with one (1) or two (2). As with CDS in later years, CISS only collects full fuel information when there is fuel leakage, cell damage or vehicle fire. Since there was no priority of entry of fuel systems, there is no way to do a direct match to this variable.

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
VE	FUELCAP2	LOCATION OF FUEL TANK-2 FILLER CAP	N/A	N/A	This field is not needed since CISS collects information on all fuel systems.
VE	FUELPRE1	FUEL TANK-1 PRECRASH CONDITIONS	FUEL	FUELCOND	Unlike CDS which only provided information on two fuel systems, CISS reports information for all the vehicle's fuel systems, so there is no need to provide a suffix indicating the fuel system. Since there was no priority of entry of fuel systems, there is
VE	FUELPRE2	FUEL TANK-2 PRECRSASH CONDITIONS	N/A	N/A	This field is not needed since CISS collects information on all fuel systems.
VE	FIRE	FIRE OCCURRENCE	FIRE	FIRE	
VE	FIREORIG	ORIGIN OF FIRE	FIRE	FIREORIGIN	
VE	FUELDAM1	DAMAGE TO FUEL TANK-1	FUEL	CELLDAM	Unlike CDS which only provided information on two fuel systems, CISS reports information for all the vehicle's fuel systems, so there is no need to provide a suffix indicating the fuel system. Since there was no priority of entry of fuel systems, there is no way to do a direct match to this variable.

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
VE	FUELDAM2	DAMAGE TO FUEL TANK-2	N/A	N/A	
VE	GAD1	DEFORMATION LOCATION (HIGHEST)	CDC	CDCPLANE	Since CISS documents all CDCs in the CDC dataset, there is no need for a number suffix. In order to match to NASS CDS, the user should filter on DVRANK=1.
VE	GAD2	DEFORMATION LOCATION (2ND HIGHEST)	CDC	CDCPLANE	Since CISS documents all CDCs in the CDC dataset, there is no need for a number suffix. In order to match to NASS CDS, the user should filter on DVRANK=2.
VE	FUELLOC1	LOCATION OF FUELTANK-1	FUEL	FUELLOC	Unlike CDS which only provided information on two fuel systems, CISS reports information for all the vehicle's fuel systems, so there is no need to provide a suffix indicating the fuel system. Since there was no priority of entry of fuel systems, there is no way to do a direct match to this variable.
VE	FUELLOC2	LOCATION OF FUELTANK-2	N/A	N/A	

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
VE	FUELTNK1	TYPE OF FUEL TANK-1	FUEL	FUELCELL	Unlike CDS which only provided information on two fuel systems, CISS reports information for all the vehicle's fuel systems, so there is no need to provide a suffix indicating the fuel system.
VE	FUELTNK2	TYPE OF FUEL TANK-2	N/A	N/A	
VE	FUELTYP1	FUEL TYPE-1	FUEL	FUELTYPE	Unlike CDS which only provided information on two fuel systems, CISS reports information for all the vehicle's fuel systems, so there is no need to provide a suffix indicating the fuel system. Since there was no priority of entry of fuel systems, there is no way to do a direct match to this variable.
VE	FUELTYP2	FUEL TYPE-2	N/A	N/A	

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
VE	FUELEAK1	LEAKAGE LOCATION OF FUEL SYSTEM-1	FUEL	FUELEAK	Unlike CDS which only provided information on two fuel systems, CISS reports information for all the vehicle's fuel systems, so there is no need to provide a suffix indicating the fuel system. Since there was no priority of entry of fuel systems, there is no way to do a direct match to this variable.
VE	FUELEAK2	LEAKAGE LOCATION OF FUEL SYSTEM-2	N/A	N/A	
VE	NATWGT	NATIONAL INFLATION FACTOR	N/A	N/A	
VE	FUELGT2	EQUIPPED WITH MORE THAN TWO FUEL TANKS	N/A	N/A	This field is not needed since CISS collects information on all fuel systems.
VE	OBJCONT1	OBJECT CONTACTED (HIGHEST)	CDC	OBJCONT	Since CISS documents all CDCs in the CDC dataset, there is no need for a number suffix. In order to match to NASS CDS, the user should filter on DVRANK=1.
VE	OBJCONT2	OBJECT CONTACTED (2ND HIGHEST)	CDC	OBJCONT	Since CISS documents all CDCs in the CDC dataset, there is no need for a number suffix. In order to match to NASS CDS, the user should filter on DVRANK=2.

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
VE	PDOF1	CLOCK DIRECTION FOR PDOF IN DEGREES (HIGHEST)	CDC	PDOF	Since CISS documents all CDCs in the CDC dataset, there is no need for a number suffix. In order to match to NASS CDS, the user should filter on DVRANK=1.
VE	PDOF2	CLOCK DIRECTION FOR PDOF IN DEGREES (2ND HIGHEST)	CDC	PDOF	Since CISS documents all CDCs in the CDC dataset, there is no need for a number suffix. In order to match to NASS CDS, the user should filter on DVRANK=2.
VE	PSU	PRIMARY SAMPLING UNIT NUMBER	CDC	PSU	
VE	RATWGT	RATIO INFLATION FACTOR	CDC	CASEWGT	
VE	SDVC1	CRUSH PROFILE C1 (2ND HIGHEST)	CDC	C1	Since CISS documents all CDCs in the CDC dataset, this variable in CISS refers to this particular CDC Profile and not necessarily the highest delta V. In order to match to NASS CDS, the user should filter on DVRANK=2.

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
VE	SDVC2	CRUSH PROFILE C2 (2ND HIGHEST)	CDC	C2	Since CISS documents all CDCs in the CDC dataset, this variable in CISS refers to this particular CDC Profile and not necessarily the highest delta V. In order to match to NASS CDS, the user should filter on DVRANK=2.
VE	SDVC3	CRUSH PROFILE C3 (2ND HIGHEST)	CDC	C3	Since CISS documents all CDCs in the CDC dataset, this variable in CISS refers to this particular CDC Profile and not necessarily the highest delta V. In order to match to NASS CDS, the user should filter on DVRANK=2.
VE	SDVC4	CRUSH PROFILE C4 (2ND HIGHEST)	CDC	C4	Since CISS documents all CDCs in the CDC dataset, this variable in CISS refers to this particular CDC Profile and not necessarily the highest delta V. In order to match to NASS CDS, the user should filter on DVRANK=2.

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
VE	SDVC5	CRUSH PROFILE C5 (2ND HIGHEST)	CDC	C5	Since CISS documents all CDCs in the CDC dataset, this variable in CISS refers to this particular CDC Profile and not necessarily the highest delta V. In order to match to NASS CDS, the user should filter on DVRANK=2.
VE	SDVC6	CRUSH PROFILE C6 (2ND HIGHEST)	CDC	C6	Since CISS documents all CDCs in the CDC dataset, this variable in CISS refers to this particular CDC Profile and not necessarily the highest delta V. In order to match to NASS CDS, the user should filter on DVRANK=2.
VE	SDVD	CRUSH PROFILE D (2ND HIGHEST)	CDC	FIELDD	Since CISS documents all CDCs in the CDC dataset, this variable in CISS refers to this particular CDC Profile and not necessarily the highest delta V. In order to match to NASS CDS, the user should filter on DVRANK=2.

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
VE	SDVL	CRUSH PROFILE L (2ND HIGHEST)	CDC	FIELDL	Since CISS documents all CDCs in the CDC dataset, this variable in CISS refers to this particular CDC Profile and not necessarily the highest delta V. In order to match to NASS CDS, the user should filter on DVRANK=2.
VE	SHL1	SPECIFIC LONGITUDINAL LOCATION (HIGHEST)	CDC	CDCLONGLAT	Since CISS documents all CDCs in the CDC dataset, there is no need for a number suffix. In order to match to NASS CDS, the user should filter on DVRANK=1.
VE	SHL2	SPECIFIC LONGITUDINAL LOCATION (2ND HIGHEST)	CDC	CDCLONGLAT	Since CISS documents all CDCs in the CDC dataset, there is no need for a number suffix. In order to match to NASS CDS, the user should filter on DVRANK=2.
VE	STRATIF	CASE STRATUM	CDC	CATEGORY	
VE	SVL1	SPECIFIC VERTICAL LOCATION (HIGHEST)	CDC	CDCVERTLAT	Since CISS documents all CDCs in the CDC dataset, there is no need for a number suffix. In order to match to NASS CDS, the user should filter on DVRANK=1.

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
VE	SVL2	SPECIFIC VERTICAL LOCATION (2ND HIGHEST)	CDC	CDCVERTLAT	Since CISS documents all CDCs in the CDC dataset, there is no need for a number suffix. In order to match to NASS CDS, the user should filter on DVRANK=2.
VE	TDD1	TYPE OF DAMAGE DISTRIBUTION (HIGHEST)	CDC	CDCDISTRIB	Since CISS documents all CDCs in the CDC dataset, there is no need for a number suffix. In order to match to NASS CDS, the user should filter on DVRANK=1.
VE	TDD2	TYPE OF DAMAGE DISTRIBUTION (2ND HIGHEST)	CDC	CDCDISTRIB	Since CISS documents all CDCs in the CDC dataset, there is no need for a number suffix. In order to match to NASS CDS, the user should filter on DVRANK=2.
VE	VEHNO	VEHICLE NUMBER	CDC	VEHNO	
VE	WHEELBAS	ORIGINAL WHEELBASE	VEHSPEC	WHEELBASE	
VE	VERSION	VERSION NUMBER	CDC	VERSION	

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
VI	CASEID	CASE NUMBER - STRATUM	N/A	N/A	VI.CASEID was a derived in CDS field which concatenated CASENO and STRATIF. To recreate this field, the user needs to concatenate CRASH.CASENO and CRASH.CATEGORY, however please be aware that CRASH.CATEGORY does not use the same values and definitions which ACCIDENT.STRATIF used in CDS. Also, be aware that the CISS INTERIOR.CASEID is a unique number generated by the CISS data entry which is different from the NASS-CDS VI.CASEID.
VI	CASENO	CASE SEQUENCE NUMBER	INTERIOR	CASENO	
VI	FAILLF	LF DAMAGE/FAILURE ASSOCIATED W	INTERIOR	OPENLF	
VI	FAILLR	LR DAMAGE/FAILURE - OPENING IN COLLISION	INTERIOR	OPENLR	
VI	FAILRF	RF DAMAGE/FAILURE - OPENING IN COLLISION	INTERIOR	OPENRF	

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
VI	FAILTG	TG DAMAGE/FAILURE - OPENING IN COLLISION	INTERIOR	OPENTG	
VI	GLIMPBL	BL GLAZING DAMAGE FROM IMPACT FORCES	GLAZING	GLAZIMP	Glazing rules in CISS have changed compared to NASS-CDS. Glazings are only documented when there is suspected occupant contact (only that glazing), or when there is a suspected ejection (all the vehicle's glazings). To map to the GLIMPBL the user will need to filter on GLAZLOC in (10, 11, 12).
VI	GLIMPLF	LF GLAZING DAMAGE FROM IMPACT FORCES	GLAZING	GLAZIMP	Glazing rules in CISS have changed compared to NASS-CDS. Glazings are only documented when there is suspected occupant contact (only that glazing), or when there is a suspected ejection (all the vehicle's glazings). To map to the GLIMPBL the user will need to filter on GLAZLOC=2.

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
VI	GLIMPLR	LR GLAZING DAMAGE FROM IMPACT FORCES	GLAZING	GLAZIMP	Glazing rules in CISS have changed compared to NASS-CDS. Glazings are only documented when there is suspected occupant contact (only that glazing), or when there is a suspected ejection (all the vehicle's glazings). To map to the GLIMPBL the user will need to filter on GLAZLOC=4.
VI	GLIMPOTH	OTHER GLAZING DAMAGE FROM IMPACT FORCES	GLAZING	GLAZIMP	Glazing rules in CISS have changed compared to NASS-CDS. Glazings are only documented when there is suspected occupant contact (only that glazing), or when there is a suspected ejection (all the vehicle's glazings). To map to the GLIMPBL the user will need to filter on GLAZLOC in (5, 6, 8, 9, 98).

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
VI	GLIMPRF	RF GLAZING DAMAGE FROM IMPACT FORCES	GLAZING	GLAZIMP	Glazing rules in CISS have changed compared to NASS-CDS. Glazings are only documented when there is suspected occupant contact (only that glazing), or when there is a suspected ejection (all the vehicle's glazings). To map to the GLIMPBL the user will need to filter on GLAZLOC=3.
VI	GLIMPRR	RR GLAZING DAMAGE FROM IMPACT FORCES	GLAZING	GLAZIMP	Glazing rules in CISS have changed compared to NASS-CDS. Glazings are only documented when there is suspected occupant contact (only that glazing), or when there is a suspected ejection (all the vehicle's glazings). To map to the GLIMPBL the user will need to filter on GLAZLOC=7.

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
VI	GLIMPRUF	ROOF GLAZING DAMAGE FROM IMPACT FORCES	GLAZING	GLAZIMP	Glazing rules in CISS have changed compared to NASS-CDS. Glazings are only documented when there is suspected occupant contact (only that glazing), or when there is a suspected ejection (all the vehicle's glazings). To map to the GLIMPBL the user will need to filter on GLAZLOC=13.
VI	GLIMPWS	WS GLAZING DAMAGE FROM IMPACT FORCES	GLAZING	GLAZIMP	Glazing rules in CISS have changed compared to NASS-CDS. Glazings are only documented when there is suspected occupant contact (only that glazing), or when there is a suspected ejection (all the vehicle's glazings). To map to the GLIMPBL the user will need to filter on GLAZLOC=1.

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
VI	GLOCCBL	BL GLAZING DAMAGE FROM OCCUPANT CONTACT	GLAZING	GLAZOCC	Glazing rules in CISS have changed compared to NASS-CDS. Glazings are only documented when there is suspected occupant contact (only that glazing), or when there is a suspected ejection (all the vehicle's glazings). To map to the GLIMPBL the user will need to filter on GLAZLOC in (10, 11, 12).
VI	GLOCCLF	LF GLAZING DAMAGE FROM OCCUPANT CONTACT	GLAZING	GLAZOCC	Glazing rules in CISS have changed compared to NASS-CDS. Glazings are only documented when there is suspected occupant contact (only that glazing), or when there is a suspected ejection (all the vehicle's glazings). To map to the GLIMPBL the user will need to filter on GLAZLOC=2.

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
VI	GLOCCLR	LR GLAZING DAMAGE FROM OCCUPANT CONTACT	GLAZING	GLAZOCC	Glazing rules in CISS have changed compared to NASS-CDS. Glazings are only documented when there is suspected occupant contact (only that glazing), or when there is a suspected ejection (all the vehicle's glazings). To map to the GLIMPBL the user will need to filter on GLAZLOC=4.
VI	GLOCCOTH	OTHER GLAZING DAMAGE FROM OCCUPANT CONTACT	GLAZING	GLAZOCC	Glazing rules in CISS have changed compared to NASS-CDS. Glazings are only documented when there is suspected occupant contact (only that glazing), or when there is a suspected ejection (all the vehicle's glazings). To map to the GLIMPBL the user will need to filter on GLAZLOC in (5, 6, 8, 9, 98).

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
VI	GLOCCRF	RF GLAZING DAMAGE FROM OCCUPANT CONTACT	GLAZING	GLAZOCC	Glazing rules in CISS have changed compared to NASS-CDS. Glazings are only documented when there is suspected occupant contact (only that glazing), or when there is a suspected ejection (all the vehicle's glazings). To map to the GLIMPBL the user will need to filter on GLAZLOC=3.
VI	GLOCCRR	RR GLAZING DAMAGE FROM OCCUPANT CONTACT	GLAZING	GLAZOCC	Glazing rules in CISS have changed compared to NASS-CDS. Glazings are only documented when there is suspected occupant contact (only that glazing), or when there is a suspected ejection (all the vehicle's glazings). To map to the GLIMPBL the user will need to filter on GLAZLOC=7.

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
VI	GLOCCRUF	ROOF GLAZING DAMAGE FROM OCCUPANT CONTACT	GLAZING	GLAZOCC	Glazing rules in CISS have changed compared to NASS-CDS. Glazings are only documented when there is suspected occupant contact (only that glazing), or when there is a suspected ejection (all the vehicle's glazings). To map to the GLIMPBL the user will need to filter on GLAZLOC=13.
VI	GLOCCWS	WS GLAZING DAMAGE FROM OCCUPANT CONTACT	GLAZING	GLAZOCC	Glazing rules in CISS have changed compared to NASS-CDS. Glazings are only documented when there is suspected occupant contact (only that glazing), or when there is a suspected ejection (all the vehicle's glazings). To map to the GLIMPBL the user will need to filter on GLAZLOC=1.

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
VI	GLPREBL	GL WINDOW PRECRASH GLAZING STATUS	GLAZING	GLAZPRE	Glazing rules in CISS have changed compared to NASS-CDS. Glazings are only documented when there is suspected occupant contact (only that glazing), or when there is a suspected ejection (all the vehicle's glazings). To map to the GLIMPBL the user will need to filter on GLAZLOC in (10, 11, 12).
VI	GLPRELF	LF WINDOW PRECRASH GLAZING STATUS	GLAZING	GLAZPRE	Glazing rules in CISS have changed compared to NASS-CDS. Glazings are only documented when there is suspected occupant contact (only that glazing), or when there is a suspected ejection (all the vehicle's glazings). To map to the GLIMPBL the user will need to filter on GLAZLOC=2.

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
VI	GLPRELR	LR WINDOW PRECRASH GLAZING STATUS	GLAZING	GLAZPRE	Glazing rules in CISS have changed compared to NASS-CDS. Glazings are only documented when there is suspected occupant contact (only that glazing), or when there is a suspected ejection (all the vehicle's glazings). To map to the GLIMPBL the user will need to filter on GLAZLOC=4.
VI	GLPREOTH	OTHER WINDOW PRECRASH GLAZING STATUS	GLAZING	GLAZPRE	Glazing rules in CISS have changed compared to NASS-CDS. Glazings are only documented when there is suspected occupant contact (only that glazing), or when there is a suspected ejection (all the vehicle's glazings). To map to the GLIMPBL the user will need to filter on GLAZLOC in (5, 6, 8, 9, 98).

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
VI	GLPRERF	RF WINDOW PRECRASH GLAZING STATUS	GLAZING	GLAZPRE	Glazing rules in CISS have changed compared to NASS-CDS. Glazings are only documented when there is suspected occupant contact (only that glazing), or when there is a suspected ejection (all the vehicle's glazings). To map to the GLIMPBL the user will need to filter on GLAZLOC=3.
VI	GLPRERR	RR WINDOW PRECRASH GLAZING STATUS	GLAZING	GLAZPRE	Glazing rules in CISS have changed compared to NASS-CDS. Glazings are only documented when there is suspected occupant contact (only that glazing), or when there is a suspected ejection (all the vehicle's glazings). To map to the GLIMPBL the user will need to filter on GLAZLOC=7.

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
VI	GLPRERUF	ROOF WINDOW PRECRASH GLAZING STATUS	GLAZING	GLAZPRE	Glazing rules in CISS have changed compared to NASS-CDS. Glazings are only documented when there is suspected occupant contact (only that glazing), or when there is a suspected ejection (all the vehicle's glazings). To map to the GLIMPBL the user will need to filter on GLAZLOC=13.
VI	GLPREWS	WS WINDOW PRECRASH GLAZING STATUS	GLAZING	GLAZPRE	Glazing rules in CISS have changed compared to NASS-CDS. Glazings are only documented when there is suspected occupant contact (only that glazing), or when there is a suspected ejection (all the vehicle's glazings). To map to the GLIMPBL the user will need to filter on GLAZLOC=1.

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
VI	GLTYPBL	BL TYPE OF WINDOW/WINDSHIELD GLAZING	GLAZING	GLAZTYPE	Glazing rules in CISS have changed compared to NASS-CDS. Glazings are only documented when there is suspected occupant contact (only that glazing), or when there is a suspected ejection (all the vehicle's glazings). To map to the GLIMPBL the user will need to filter on GLAZLOC in (10, 11, 12).
VI	GLTYPLF	LF TYPE OF WINDOW/WINDSHIELD GLAZING	GLAZING	GLAZTYPE	Glazing rules in CISS have changed compared to NASS-CDS. Glazings are only documented when there is suspected occupant contact (only that glazing), or when there is a suspected ejection (all the vehicle's glazings). To map to the GLIMPBL the user will need to filter on GLAZLOC=2.

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
VI	GLTYPLR	LR TYPE OF WINDOW/WINDSHIELD GLAZING	GLAZING	GLAZTYPE	Glazing rules in CISS have changed compared to NASS-CDS. Glazings are only documented when there is suspected occupant contact (only that glazing), or when there is a suspected ejection (all the vehicle's glazings). To map to the GLIMPBL the user will need to filter on GLAZLOC=4.
VI	GLTYPOTH	OTHER TYPE OF WINDOW/WINDSHIELD GLAZING	GLAZING	GLAZTYPE	Glazing rules in CISS have changed compared to NASS-CDS. Glazings are only documented when there is suspected occupant contact (only that glazing), or when there is a suspected ejection (all the vehicle's glazings). To map to the GLIMPBL the user will need to filter on GLAZLOC in (5, 6, 8, 9, 98).

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
VI	GLTYPRF	RF TYPE OF WINDOW/WINDSHIELD GLAZING	GLAZING	GLAZTYPE	Glazing rules in CISS have changed compared to NASS-CDS. Glazings are only documented when there is suspected occupant contact (only that glazing), or when there is a suspected ejection (all the vehicle's glazings). To map to the GLIMPBL the user will need to filter on GLAZLOC=3.
VI	GLTYPRR	RR TYPE OF WINDOW/WINDSHIELD GLAZING	GLAZING	GLAZTYPE	Glazing rules in CISS have changed compared to NASS-CDS. Glazings are only documented when there is suspected occupant contact (only that glazing), or when there is a suspected ejection (all the vehicle's glazings). To map to the GLIMPBL the user will need to filter on GLAZLOC=7.

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
VI	GLTYPRUF	ROOF TYPE OF WINDOW/WINDSHIELD GLAZING	GLAZING	GLAZTYPE	Glazing rules in CISS have changed compared to NASS-CDS. Glazings are only documented when there is suspected occupant contact (only that glazing), or when there is a suspected ejection (all the vehicle's glazings). To map to the GLIMPBL the user will need to filter on GLAZLOC=13.
VI	GLTYPWS	WS TYPE OF WINDOW/WINDSHIELD GLAZING	GLAZING	GLAZTYPE	Glazing rules in CISS have changed compared to NASS-CDS. Glazings are only documented when there is suspected occupant contact (only that glazing), or when there is a suspected ejection (all the vehicle's glazings). To map to the GLIMPBL the user will need to filter on GLAZLOC=1.
VI	OPENLF	LF DOOR, TAILGATE OR HATCH OPENING	INTERIOR	OPENLF	
VI	OPENLR	LR DOOR, TAILGATE OR HATCH OPENING	INTERIOR	OPENLR	
VI	OPENRF	RF DOOR, TAILGATE OR HATCH OPENING	INTERIOR	OPENRF	
VI	OPENRR	RR DOOR, TAILGATE OR HATCH OPENING	INTERIOR	OPENRR	

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
VI	OPENTG	TG DOOR, TAILGATE OR HATCH OPENING	INTERIOR	OPENTG	
VI	PASINTEG	PASSENGER COMPARTMENT INTEGRITY	INTEGRITY	INTEGRITY	While NASS-CDS only allowed one (1) integrity item to be coded, or a combination code, CISS allows ALL suspected integrity losses to be coded.
VI	PSU	PRIMARY SAMPLING UNIT NUMBER	INTERIOR	PSU	
VI	STRATIF	CASE STRATUM	INTERIOR	CATEGORY	
VI	VEHNO	VEHICLE NUMBER	INTERIOR	VEHNO	
VI	ADAPTEQ	ADAPTIVE (ASSISTIVE) DRIVING EQUIPEMENT	INTERIOR	ADAPTEQUIP	While NASS-CDS only referenced the existence of adaptive equipment (VI.ADAPTEQ), CISS documents the presence of a number different types. To map CISS back to CDS, the user would need to look at INTERIOR.ADAPTEQUIP. Further information regarding the specific type of equipment can be found in the ADAPT dataset.
VI	COLUMTYP	STEERING COLUMN TYPE	INTERIOR	STEERINGTYPE	

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
VI	CDRIR1	1ST DOMINANT CRUSH DIRECTION	INTRUSION	INTDIRECT	While NASS-CDS only documented the 10 highest magnitude intrusions, CISS documents all and doesn't order them in any specific order. Considering this, the suffix numbering does not exist in CISS and while individual intrusions can be found, a one-to-one match is not possible unless the CISS intrusions are first ordered by magnitude.
VI	INLOC1	1ST LOCATION OF INTRUSION	INTRUSION	INTLOC	While NASS-CDS only documented the 10 highest magnitude intrusions, CISS documents all and doesn't order them in any specific order. Considering this, the suffix numbering does not exist in CISS and while individual intrusions can be found, a one-to-one match is not possible unless the CISS intrusions are first ordered by magnitude.

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
VI	INCOMP1	1ST INTRUDING COMPONENT	INTRUSION	INTCOMP	While NASS-CDS only documented the 10 highest magnitude intrusions, CISS documents all and doesn't order them in any specific order. Considering this, the suffix numbering does not exist in CISS and while individual intrusions can be found, a one-to-one match is not possible unless the CISS intrusions are first ordered by magnitude.
VI	INMAG1	1ST MAGNITUDE OF INTRUSION	INTRUSION	INTMAG	While NASS-CDS only documented the 10 highest magnitude intrusions, CISS documents all and doesn't order them in any specific order. Considering this, the suffix numbering does not exist in CISS and while individual intrusions can be found, a one-to-one match is not possible unless the CISS intrusions are first ordered by magnitude.

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
VI	CDRIR2	2ND DOMINANT CRUSH DIRECTION	INTRUSION	INTDIRECT	While NASS-CDS only documented the 10 highest magnitude intrusions, CISS documents all and doesn't order them in any specific order. Considering this, the suffix numbering does not exist in CISS and while individual intrusions can be found, a one-to-one match is not possible unless the CISS intrusions are first ordered by magnitude.
VI	INLOC2	2ND LOCATION OF INTRUSION	INTRUSION	INTLOC	While NASS-CDS only documented the 10 highest magnitude intrusions, CISS documents all and doesn't order them in any specific order. Considering this, the suffix numbering does not exist in CISS and while individual intrusions can be found, a one-to-one match is not possible unless the CISS intrusions are first ordered by magnitude.

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
VI	INCOMP2	2ND INTRUDING COMPONENT	INTRUSION	INTCOMP	While NASS-CDS only documented the 10 highest magnitude intrusions, CISS documents all and doesn't order them in any specific order. Considering this, the suffix numbering does not exist in CISS and while individual intrusions can be found, a one-to-one match is not possible unless the CISS intrusions are first ordered by magnitude.
VI	INMAG2	2ND MAGNITUDE OF INTRUSION	INTRUSION	INTMAG	While NASS-CDS only documented the 10 highest magnitude intrusions, CISS documents all and doesn't order them in any specific order. Considering this, the suffix numbering does not exist in CISS and while individual intrusions can be found, a one-to-one match is not possible unless the CISS intrusions are first ordered by magnitude.

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
VI	CDRIR3	3RD DOMINANT CRUSH DIRECTION	INTRUSION	INTDIRECT	While NASS-CDS only documented the 10 highest magnitude intrusions, CISS documents all and doesn't order them in any specific order. Considering this, the suffix numbering does not exist in CISS and while individual intrusions can be found, a one-to-one match is not possible unless the CISS intrusions are first ordered by magnitude.
VI	INLOC3	3RD LOCATION OF INTRUSION	INTRUSION	INTLOC	While NASS-CDS only documented the 10 highest magnitude intrusions, CISS documents all and doesn't order them in any specific order. Considering this, the suffix numbering does not exist in CISS and while individual intrusions can be found, a one-to-one match is not possible unless the CISS intrusions are first ordered by magnitude.

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
VI	INCOMP3	3RD INTRUDING COMPONENT	INTRUSION	INTCOMP	While NASS-CDS only documented the 10 highest magnitude intrusions, CISS documents all and doesn't order them in any specific order. Considering this, the suffix numbering does not exist in CISS and while individual intrusions can be found, a one-to-one match is not possible unless the CISS intrusions are first ordered by magnitude.
VI	INMAG3	3RD MAGNITUDE OF INTRUSION	INTRUSION	INTMAG	While NASS-CDS only documented the 10 highest magnitude intrusions, CISS documents all and doesn't order them in any specific order. Considering this, the suffix numbering does not exist in CISS and while individual intrusions can be found, a one-to-one match is not possible unless the CISS intrusions are first ordered by magnitude.

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
VI	CDRIR4	4TH DOMINANT CRUSH DIRECTION	INTRUSION	INTDIRECT	While NASS-CDS only documented the 10 highest magnitude intrusions, CISS documents all and doesn't order them in any specific order. Considering this, the suffix numbering does not exist in CISS and while individual intrusions can be found, a one-to-one match is not possible unless the CISS intrusions are first ordered by magnitude.
VI	INLOC4	4TH LOCATION OF INTRUSION	INTRUSION	INTLOC	While NASS-CDS only documented the 10 highest magnitude intrusions, CISS documents all and doesn't order them in any specific order. Considering this, the suffix numbering does not exist in CISS and while individual intrusions can be found, a one-to-one match is not possible unless the CISS intrusions are first ordered by magnitude.

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
VI	INCOMP4	4TH INTRUDING COMPONENT	INTRUSION	INTCOMP	While NASS-CDS only documented the 10 highest magnitude intrusions, CISS documents all and doesn't order them in any specific order. Considering this, the suffix numbering does not exist in CISS and while individual intrusions can be found, a one-to-one match is not possible unless the CISS intrusions are first ordered by magnitude.
VI	INMAG4	4TH MAGNITUDE OF INTRUSION	INTRUSION	INTMAG	While NASS-CDS only documented the 10 highest magnitude intrusions, CISS documents all and doesn't order them in any specific order. Considering this, the suffix numbering does not exist in CISS and while individual intrusions can be found, a one-to-one match is not possible unless the CISS intrusions are first ordered by magnitude.

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
VI	CDRIR5	5TH DOMINANT CRUSH DIRECTION	INTRUSION	INTDIRECT	While NASS-CDS only documented the 10 highest magnitude intrusions, CISS documents all and doesn't order them in any specific order. Considering this, the suffix numbering does not exist in CISS and while individual intrusions can be found, a one-to-one match is not possible unless the CISS intrusions are first ordered by magnitude.
VI	INLOC5	5TH LOCATION OF INTRUSION	INTRUSION	INTLOC	While NASS-CDS only documented the 10 highest magnitude intrusions, CISS documents all and doesn't order them in any specific order. Considering this, the suffix numbering does not exist in CISS and while individual intrusions can be found, a one-to-one match is not possible unless the CISS intrusions are first ordered by magnitude.

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
VI	INCOMP5	5TH INTRUDING COMPONENT	INTRUSION	INTCOMP	While NASS-CDS only documented the 10 highest magnitude intrusions, CISS documents all and doesn't order them in any specific order. Considering this, the suffix numbering does not exist in CISS and while individual intrusions can be found, a one-to-one match is not possible unless the CISS intrusions are first ordered by magnitude.
VI	INMAG5	5TH MAGNITUDE OF INTRUSION	INTRUSION	INTMAG	While NASS-CDS only documented the 10 highest magnitude intrusions, CISS documents all and doesn't order them in any specific order. Considering this, the suffix numbering does not exist in CISS and while individual intrusions can be found, a one-to-one match is not possible unless the CISS intrusions are first ordered by magnitude.

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
VI	CDRIR6	6TH DOMINANT CRUSH DIRECTION	INTRUSION	INTDIRECT	While NASS-CDS only documented the 10 highest magnitude intrusions, CISS documents all and doesn't order them in any specific order. Considering this, the suffix numbering does not exist in CISS and while individual intrusions can be found, a one-to-one match is not possible unless the CISS intrusions are first ordered by magnitude.
VI	INLOC6	6TH LOCATION OF INTRUSION	INTRUSION	INTLOC	While NASS-CDS only documented the 10 highest magnitude intrusions, CISS documents all and doesn't order them in any specific order. Considering this, the suffix numbering does not exist in CISS and while individual intrusions can be found, a one-to-one match is not possible unless the CISS intrusions are first ordered by magnitude.

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
VI	INCOMP6	6TH INTRUDING COMPONENT	INTRUSION	INTCOMP	While NASS-CDS only documented the 10 highest magnitude intrusions, CISS documents all and doesn't order them in any specific order. Considering this, the suffix numbering does not exist in CISS and while individual intrusions can be found, a one-to-one match is not possible unless the CISS intrusions are first ordered by magnitude.
VI	INMAG6	6TH MAGNITUDE OF INTRUSION	INTRUSION	INTMAG	While NASS-CDS only documented the 10 highest magnitude intrusions, CISS documents all and doesn't order them in any specific order. Considering this, the suffix numbering does not exist in CISS and while individual intrusions can be found, a one-to-one match is not possible unless the CISS intrusions are first ordered by magnitude.

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
VI	CDRIR7	7TH DOMINANT CRUSH DIRECTION	INTRUSION	INTDIRECT	While NASS-CDS only documented the 10 highest magnitude intrusions, CISS documents all and doesn't order them in any specific order. Considering this, the suffix numbering does not exist in CISS and while individual intrusions can be found, a one-to-one match is not possible unless the CISS intrusions are first ordered by magnitude.
VI	INLOC7	7TH MAGNITUDE OF INTRUSION	INTRUSION	INTLOC	While NASS-CDS only documented the 10 highest magnitude intrusions, CISS documents all and doesn't order them in any specific order. Considering this, the suffix numbering does not exist in CISS and while individual intrusions can be found, a one-to-one match is not possible unless the CISS intrusions are first ordered by magnitude.

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
VI	INCOMP7	7TH INTRUDING COMPONENT	INTRUSION	INTCOMP	While NASS-CDS only documented the 10 highest magnitude intrusions, CISS documents all and doesn't order them in any specific order. Considering this, the suffix numbering does not exist in CISS and while individual intrusions can be found, a one-to-one match is not possible unless the CISS intrusions are first ordered by magnitude.
VI	INMAG7	7TH MAGNITUDE OF INTRUSION	INTRUSION	INTMAG	While NASS-CDS only documented the 10 highest magnitude intrusions, CISS documents all and doesn't order them in any specific order. Considering this, the suffix numbering does not exist in CISS and while individual intrusions can be found, a one-to-one match is not possible unless the CISS intrusions are first ordered by magnitude.

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
VI	CDRIR8	8TH DOMINANT CRUSH DIRECTION	INTRUSION	INTDIRECT	While NASS-CDS only documented the 10 highest magnitude intrusions, CISS documents all and doesn't order them in any specific order. Considering this, the suffix numbering does not exist in CISS and while individual intrusions can be found, a one-to-one match is not possible unless the CISS intrusions are first ordered by magnitude.
VI	INLOC8	8TH LOCATION OF INTRUSION	INTRUSION	INTLOC	While NASS-CDS only documented the 10 highest magnitude intrusions, CISS documents all and doesn't order them in any specific order. Considering this, the suffix numbering does not exist in CISS and while individual intrusions can be found, a one-to-one match is not possible unless the CISS intrusions are first ordered by magnitude.

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
VI	INCOMP8	8TH INTRUDING COMPONENT	INTRUSION	INTCOMP	While NASS-CDS only documented the 10 highest magnitude intrusions, CISS documents all and doesn't order them in any specific order. Considering this, the suffix numbering does not exist in CISS and while individual intrusions can be found, a one-to-one match is not possible unless the CISS intrusions are first ordered by magnitude.
VI	INMAG8	8TH MAGNITUDE OF INTRUSION	INTRUSION	INTMAG	While NASS-CDS only documented the 10 highest magnitude intrusions, CISS documents all and doesn't order them in any specific order. Considering this, the suffix numbering does not exist in CISS and while individual intrusions can be found, a one-to-one match is not possible unless the CISS intrusions are first ordered by magnitude.

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
VI	CDRIR9	9TH DOMINANT CRUSH DIRECTION	INTRUSION	INTDIRECT	While NASS-CDS only documented the 10 highest magnitude intrusions, CISS documents all and doesn't order them in any specific order. Considering this, the suffix numbering does not exist in CISS and while individual intrusions can be found, a one-to-one match is not possible unless the CISS intrusions are first ordered by magnitude.
VI	INLOC9	9TH LOCATION OF INTRUSION	INTRUSION	INTLOC	While NASS-CDS only documented the 10 highest magnitude intrusions, CISS documents all and doesn't order them in any specific order. Considering this, the suffix numbering does not exist in CISS and while individual intrusions can be found, a one-to-one match is not possible unless the CISS intrusions are first ordered by magnitude.

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
VI	INCOMP9	9TH INTRUDING COMPONENT	INTRUSION	INTCOMP	While NASS-CDS only documented the 10 highest magnitude intrusions, CISS documents all and doesn't order them in any specific order. Considering this, the suffix numbering does not exist in CISS and while individual intrusions can be found, a one-to-one match is not possible unless the CISS intrusions are first ordered by magnitude.
VI	INMAG9	9TH MAGNITUDE OF INTRUSION	INTRUSION	INTMAG	While NASS-CDS only documented the 10 highest magnitude intrusions, CISS documents all and doesn't order them in any specific order. Considering this, the suffix numbering does not exist in CISS and while individual intrusions can be found, a one-to-one match is not possible unless the CISS intrusions are first ordered by magnitude.

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
VI	CDRIR10	1OTH DOMINANT CRUSH DIRECTION	INTRUSION	INTDIRECT	While NASS-CDS only documented the 10 highest magnitude intrusions, CISS documents all and doesn't order them in any specific order. Considering this, the suffix numbering does not exist in CISS and while individual intrusions can be found, a one-to-one match is not possible unless the CISS intrusions are first ordered by magnitude.
VI	INLOC10	10TH LOCATION OF INTRUSION	INTRUSION	INTLOC	While NASS-CDS only documented the 10 highest magnitude intrusions, CISS documents all and doesn't order them in any specific order. Considering this, the suffix numbering does not exist in CISS and while individual intrusions can be found, a one-to-one match is not possible unless the CISS intrusions are first ordered by magnitude.

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
VI	INCOMP10	10TH INTRUDING COMPONENT	INTRUSION	INTCOMP	While NASS-CDS only documented the 10 highest magnitude intrusions, CISS documents all and doesn't order them in any specific order. Considering this, the suffix numbering does not exist in CISS and while individual intrusions can be found, a one-to-one match is not possible unless the CISS intrusions are first ordered by magnitude.
VI	INMAG10	10TH MAGNITUDE OF INTRUSION	INTRUSION	INTMAG	While NASS-CDS only documented the 10 highest magnitude intrusions, CISS documents all and doesn't order them in any specific order. Considering this, the suffix numbering does not exist in CISS and while individual intrusions can be found, a one-to-one match is not possible unless the CISS intrusions are first ordered by magnitude.
VI	NATWGT	NATIONAL INFLATION FACTOR	N/A	N/A	
VI	ODOMETER	ODOMETER READING	N/A	N/A	This variable is no longer captured.

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
VI	RATWGT	RATIO INFLATION FACTOR	INTERIOR	CASEWGT	
VI	RDEFLOC	LOCATION STEERING RIM/SPOOKE DEFORMATION	INTERIOR	RIMDEFLOC	
VI	RIMDEF	STEERING RIM/SPOKE DEFORMATION	INTERIOR	RIMDEF	
VI	COLMTELE	TELESCOPING STEERING COLUMN ADJUSTMENT	INTERIOR	STEERTELEADJ	
VI	COLMTILT	TILT STEERING COLUMN ADJUSTMENT	INTERIOR	STEERTILTADJ	
VI	POSTINT	POST CRASH INTEGRITY LOSS	INTERIOR	POSTINTEGLOSS	
VI	VERSION	VERSION NUMBER	INTERIOR	VERSION	
OA	AGE	AGE OF OCCUPANT	OCC	AGE	

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
OA	BAGAVAIL	AIR BAG SYSTEM AVAILABILITY	AIRBAG	BAGSTATUS	Data reporting for air bags has changed between NASS-CDS and CISS. NASS-CDS primarily captured data for "frontal" air bags (e.g. Steering Wheel Hub, Upper Instrument Panel, and Mid Instrument Panel), while all other air bags in the vehicle were captured in BAGAVOTH and BAGDEPOT which could only accommodate one of those air bags. Preference for the "other" documented air bag fell first to a bag which deployed, however if multiple "other" air bags deployed, preference was given to other frontal bags (i.e. lower instrument panel) then door mounted air bags, and then roof side rail air bags. In contrast, CISS reports all the air bags in the vehicle.
OA	BAGAVOTH	OTHER FRONTAL AIR BAG AVAILABILITY/FUNCTION	AIRBAG	BAGSTATUS	***SEE NOTE FOR OA.BAGAVAIL

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
OA	BAGAVRPT	POLICE REPORTED AIRBAG AVAILABILITY/FUNCTION	OA	PARAIRBAG	
OA	BAGCDC	CDC FOR AIR BAG DEPLOYMENT IMPACT	AIRBAG	CDCFORDEPLOY	***SEE NOTE FOR OA.BAGAVAIL
OA	BAGDAMAG	WAS THERE DAMAGE TO THE AIR BAG	AIRBAG	BAGDAMAGE	***SEE NOTE FOR OA.BAGAVAIL
OA	BAGDAMSO	SOURCE OF AIR BAG DAMAGE	AIRBAG	BAGDAMSOURCE	***SEE NOTE FOR OA.BAGAVAIL
OA	BAGDEPLY	AIR BAG SYSTEM DEPLOYED	AIRBAG	BAGDEPLOY	***SEE NOTE FOR OA.BAGAVAIL
OA	BAGDEPOT	OTHER AIR BAG SYSTEM DEPLOYMENT	AIRBAG	BAGDEPLOY	***SEE NOTE FOR OA.BAGAVAIL
OA	BAGEVENT	AIR BAG DEPLOYMENT ACCIDENT EVENT SEQUENCE NUMBER	AIRBAG	DEPLOYEVENT	***SEE NOTE FOR OA.BAGAVAIL
OA	BAGFAIL	AIR BAG SYSTEM FAILURE	AIRBAG	BAGMALFUNCTION	***SEE NOTE FOR OA.BAGAVAIL
OA	BAGFLDAM	WERE AIR BAG MODULE COVER FLAPS DAMAGED	AIRBAG	BAGFLAPSDAM	***SEE NOTE FOR OA.BAGAVAIL
OA	BAGFLOPN	DID AIR BAG MODULE COVER FLAPS OPEN AT DESG TEAR PTS	AIRBAG	BAGFLAPSOPEN	***SEE NOTE FOR OA.BAGAVAIL
OA	BAGMAINT	PRIOR MAINTENANCE/SERVICE ON AIR BAG	AIRBAG	PRIORMAINT	***SEE NOTE FOR OA.BAGAVAIL
OA	BAGTYPE	TYPE OF AIR BAG	AIRBAG	BAGTYPE	***SEE NOTE FOR OA.BAGAVAIL

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
OA	BELTANCH	SHOULDER BELT UPPER ANCHORAGE ADJUSTMENT	OCC	BELTANCHOR	
OA	BELTSOU	PRIMARY SOURCE OF BELT USE DETERMINATION	OCC	BELTUSESRC	
OA	BICARB	ARTERIAL BLOOD GASES (ABG) HCO3	N/A	N/A	NOT COLLECTED IN CISS
OA	BLOOD	WAS THE OCCUPANT GIVEN BLOOD?	N/A	N/A	NOT COLLECTED IN CISS
OA	CASEID	CASE NUMBER - STRATUM	N/A	N/A	OA.CASEID was a derived in CDS field which concatenated CASENO and STRATIF. To recreate this field, the user needs to concatenate CRASH.CASENO and CRASH.CATEGORY, however please be aware that CRASH.CATEGORY does not use the same values and definitions which ACCIDENT.STRATIF used in CDS. Also, be aware that OCC.CASEID is a unique number generated by the CISS data entry which is different from the NASS-CDS OA.CASEID.
OA	CASENO	CASE SEQUENCE NUMBER	OCC	N/A	

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
OA	CAUSE1	1ST MEDICALLY REPORTED CAUSE OF DEATH	OCC	CAUSE1	
OA	CAUSE2	2ND MEDICALLY REPORTED CAUSE OF DEATH	OCC	CAUSE2	
OA	CAUSE3	3RD MEDICALLY REPORTED CAUSE OF DEATH	OCC	CAUSE3	
OA	CHHARNES	CHILD SAFETY SEAT HARNESS USAGE	CHILDSEAT	HARNESSDESIGN, HARNESSUSE	CISS has combined the Harness and Shield variables and attributes into the HARNESSDESIGN field. In addition, CISS has also separated the "Design" and "Use" attributes into two fields (HARNESSDESIGN and HARNESSUSE). Users are cautioned to review the attributes for both the CDS and CISS variables before comparing the data from the two data programs.
OA	CHMAKE	CHILD SAFETY SEAT MAKE/MODEL	CHILDSEAT	CHILDMAKE	
OA	CHORIENT	CHILD SAFETY SEAT ORIENTATION	CHILDSEAT	ORIENTATION	
OA	CHOWUSED	HOW CHILD SAFETY SEAT USED	CHILDSEAT	HOWUSED	

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
OA	CHSHIELD	CHILD SAFETY SEAT SHIELD USAGE	CHILDSEAT	HARNESSDESIGN, HARNESSUSE	CISS has combined the Harness and Shield variables and attributes into the HARNESSDESIGN field. In addition, CISS has also separated the "Design" and "Use" attributes into two fields (HARNESSDESIGN and HARNESSUSE). Users are cautioned to review the attributes for both the CDS and CISS variables before comparing the data from the two data programs.
OA	CHTETHER	CHILD SAFETY SEAT TETHER USAGE	CHILDSEAT	TETHERDESIGN, TETHERUSE	CISS has separated the "Design" and "Use" attributes into two fields (TETHERDESIGN and TETHERUSE). Users are cautioned to review the attributes for both the CDS and CISS variables before comparing the data from the two data programs.
OA	CHTYPE	TYPE OF CHILD SAFETY SEAT	CHILDSEAT	CHILDSEATTYPE	
OA	CHUSED	WAS CHILD SEAT USED?	OCC	CHILDSEATUSE	
OA	DEATH	TIME TO DEATH	OCC	DEATH	

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
OA	DVBAG	LONGITUDINAL COMPONENT OF DELTA V FOR AIR BAG	AIRBAG	BAGDVLONG	Users should be aware that while NASS-CDS limited the air bag delta V information to just the longitudinal delta V, CISS reports all the delta V information, which can be helpful for non-frontal air bags.
OA	EJCTAREA	EJECTION AREA	EJECT	EJECTAREA	
OA	EJCTMED	EJECTION MEDIUM	EJECT	EJECTMED	
OA	EJECTION	EJECTION	EJECT	EJECTTYPE	
OA	ENTRAP	ENTRAPMENT	OCC	ENTRAP	
OA	EYEWEAR	WAS THE OCCUPANT WEARING EYE-WEAR	OCC	EYEWEAR	
OA	FETALDOA	FETAL MORTALITY	OCC	FETALMORT	
OA	GLASGOW	GLASGOW COMA SCALE (GCS) SCORE	OCC	HOSPGCS	
OA	HEADREST	HEAD RESTRAINT TYPE/DAMAGE BY OCCUPANT	SEAT	HEADRESTYPE	
OA	HEIGHT	HEIGHT OF OCCUPANT	OCC	HEIGHT	
OA	HOSPSTAY	HOSPITAL STAY	OCC	HOSPSTAY	
OA	INJNUM	NUMBER OF RECORDED INJURIES (AIS98 FORMAT)	OCC	INJNUM	CISS uses AAAM's AIS2015 where OA.INJNUM was based upon AIS 1998 which may have some slight differences and result in different counts between NASS-CDS and CISS.

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
OA	INJNUM08	NUMBER OF RECORDED INJURIES (AIS08 FORMAT)	OCC	INJNUM	CISS uses AAAM's AIS2015 where OA.INJNUM08 was based upon AIS 2008 which may have some slight differences and result in different counts between NASS-CDS and CISS.
OA	INJSEV	INJURY SEVERITY (POLICE RATING)	OCC	PARINJSEV	
OA	INTGREST	INTEGRATED RESTRAINS	SEAT	INTRESTRAINT	
OA	ISS	INJURY SEVERITY SCORE (AIS98 FORMAT)	OCC	ISS	CISS uses AAAM's AIS2015 where OA.ISS was based upon AIS 1998 which may have some slight differences and result in different counts between NASS-CDS and CISS.
OA	ISS08	INJURY SEVERITY SCORE (AIS08 FORMAT)	OCC	ISS	CISS uses AAAM's AIS2015 where OA.ISS08 was based upon AIS 2008 which may have some slight differences and result in different counts between NASS-CDS and CISS.
OA	LATCHDES	CHILD SAFETY SEAT LATCH PRESENCE	CHILDSEAT	LATCHDESIGN	
OA	LATCHUSE	CHILD SAFETY SEAT LATCH USE	CHILDSEAT	LATCHUSE	

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
OA	MAIS	MAXIMUM KNOWN OCCUPANT AIS (AIS98 FORMAT)	OCC	MAIS	CISS uses AAAM's AIS2015 where OA.MAIS was based upon AIS 1998 which may have some slight differences and result in different counts between NASS-CDS and CISS.
OA	MAIS08	MAXIMUM KNOWN OCCUPANT AIS (AIS08 FORMAT)	OCC	MAIS	CISS uses AAAM's AIS2015 where OA.MAIS08 was based upon AIS 2008 which may have some slight differences and result in different counts between NASS-CDS and CISS.
OA	MANAVAIL	MANUAL BELT SYSTEM AVAILABILITY	OCC	BELTAVAIL	Users should be aware that NASS-CDS limited MANAVAIL to the coding of manual belt restraints, while CISS OCC.BELTAVAIL will capture both manual and automatic restraints. Additionally, CISS will provide information collected during the vehicle inspection (SEAT dataset) as well as the final determination (OCC dataset).

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
OA	MANFAIL	MANUAL BELT FAILURE MODE DURING ACCIDENT	OCC	BELTMALF	Users should be aware that NASS-CDS limited MANFAIL to the coding of manual belt restraints, while CISS OCC.BELTMALF will capture both manual and automatic restraints. Additionally, CISS will provide information collected during the vehicle inspection (SEAT dataset) as well as the final determination (OCC dataset).
OA	MANUSE	MANUAL BELT SYSTEM USE	OCC	BELTUSE	Users should be aware that NASS-CDS limited MANFAIL to the coding of manual belt restraints, while CISS OCC.BELTMALF will capture both manual and automatic restraints. Additionally, CISS will provide information collected during the vehicle inspection (SEAT dataset) as well as the final determination (OCC dataset).
OA	MEDFACIL	TYPE MEDICAL FACIILLITY INITIAL TREATMENT	OCC	MEDFACILITY	
OA	MEDSTA	MEDIUM STATUS (PRIOR TO IMPACT)	EJECT	EJECTMED	

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
OA	NATWGT	NATIONAL INFLATION FACTOR	N/A	N/A	
OA	OCCMOBIL	OCCUPANT MOBILITY	OCC	MOBILITY	
OA	OCCNO	OCCUPANT NUMBER	OCC	OCCNO	
OA	OCCRACE	OCCUPANTS RACE	OCC	RACE	
OA	OCETHNIC	OCCUPANTS ETHNICITY	OCC	ETHNICITY	
OA	PARUSE	POLICE REPORTED RESTRAINT USE	OCC	PARBELTUSE	
OA	POSGUIDE	BELT POSITINING GUIDE ROUTED	OCC	BELTGUIDE	
OA	POSPRES	BELT POSITINING DEVICE PRESENCE	OCC	BELTPOSDEVPRES	
OA	POSTURE	OCCUPANT'S POSTURE	OCC	POSTURE	
OA	POSUSE	BELT POSITIONING DEVICE USE	OCC	BELTPOSDEVUSE	
OA	PREVACC	HAD VEHICLE BEEN IN PREVIOUS ACCIDENTS	AIRBAG	PREVCRASH	
OA	PSU	PRIMARY SAMPLING UNIT NUMBER	OCC	PSU	
OA	RATWGT	RATIO INFLACTION FACTOR	OCC	CASEWGT	
OA	ROLE	OCCUPANT'S ROLE	OCC	ROLE	
OA	ROLLPROT	ROLLOVER PROTECTION	SEAT	ROLLPROTECTION	
OA	SEATPERF	SEAT PERFORMANCE (THIS POSITION)	SEAT	PERFORMANCE	

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
OA	SEATPOS	OCCUPANT'S SEAT POSITION	OCC	SEATLOC	
OA	SEATRACK	SEAT TRACK ADJUSTED POSITION PRIOR TO IMPACT	SEAT	TRACK	
OA	SEATTYPE	SEAT TYPE (THIS OCCUPANT POSITION)	SEAT	SEATTYPE	
OA	SEX	OCCUPANT'S SEX	OCC	SEX	
OA	STBACINC	SEAT BACK INCLUDE PRIOR AND POST IMPACT	N/A	N/A	NOT COLLECTED IN CISS
OA	STORIENT	SEAT ORIENTATION (THIS OCCUPATN POS.)	N/A	N/A	NOT COLLECTED IN CISS
OA	STRATIF	CASE STRATUM	OCC	CATEGORY	Users are cautioned that there is no one to one match between STRATIF and CATEGORY.
OA	TREATMNT	TREATMENT - MORTALITY	OCC	MORTALITY, TREATMENT	CISS has separated the Mortality (MORTALITY) attributes from the treatment (TREATMENT) attributes.
OA	VEHNO	VEHICLE NUMBER	OCC	VEHNO	
OA	VERSION	VERSION NUMBER	OCC	VERSION	
OA	WEIGHT	OCCUPANT'S WEIGHT	OCC	WEIGHT	
OA	WORKDAYS	WORKING DAYS LOST	OCC	WORKDAYS	

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
OI	AIS	A.I.S. SEVERITY (AIS98 FORMAT)	INJURY	AIS	To match OI.AIS to CISS INJURY.AIS, a user needs to extract the seventh digit of INJURY.AIS. Users are cautioned that there are differences between AIS 1998 which OI.AIS is based vs AIS 2015 which CISS uses. In some situations there may not be a one-to-one match.
OI	AIS08	A.I.S. SEVERITY (AIS08 FORMAT)	INJURY	AIS	To match OI.AIS08 to CISS INJURY.AIS, a user needs to extract the seventh digit of INJURY.AIS. Users are cautioned that there are differences between AIS 2008 which OI.AIS08 is based vs AIS 2015 which CISS uses. In some situations there may not be a one-to-one match.
OI	ASPECT90	ASPECT90	LOCALIZER	L1	Users are cautioned that ASPECT90 doesn't not easily map to L1. Users should use caution when comparing.

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
OI	BODYREG	BODY REGION (O.I.C. - A.I.S.)	INJURY	BRI	Although CISS does not translate back to OIC, it does provide a body region field which closely approximates the old OIC. Users should compare the attributes and numeric BRI codes to properly match the attributes from OIC.
OI	CASEID	CASE NUMBER - STRATUM	N/A	N/A	OA.CASEID was a derived in CDS field which concatenated CASENO and STRATIF. To recreate this field, the user needs to concatenate CRASH.CASENO and CRASH.CATEGORY, however please be aware that CRASH.CATEGORY does not use the same values and definitions which ACCIDENT.STRATIF used in CDS. Also, be aware that CISS INJURY.CASEID is a unique number generated by the CISS data entry which is different from the NASS-CDS OI.CASEID.
OI	CASENO	CASE SEQUENCE NUMBER	INJURY	CASENO	

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
OI	DIRINJ	DIRECT/INDIRECT INJURY	N/A	N/A	Not collected in CISS.
OI	INJLEVEL	INJURY LEVEL (AIS98 FORMAT)	INJURY	AIS	INJLEVEL in NASS-CDS can be obtained by extracting the fifth and sixth positions of CISS's INJURY.AIS field. Users should note that CISS uses AAAM's AIS2015 version of AIS codes, so exact matches may not be possible.
OI	INJLVL08	INJURY LEVEL (AIS08 FORMAT)	INJURY	AIS	INJLEVEL in NASS-CDS can be obtained by extracting the fifth and sixth positions of CISS's INJURY.AIS field. Users should note that CISS uses AAAM's AIS2015 version of AIS codes, so exact matches may not be possible.
OI	INJNO	INJURY NUMBER	INJURY	INJNO	
OI	INJSOU	INJURY SOURCE	ICS	IPC1, IPC2, IPC3, IPC1_ALT, IPC2_ALT, IPC3_ALT	Users should refer to the ICS dataset description in this manual as well as NHTSA Injury Coding Manual for more information.

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
OI	INTRUNO	OCCUPANT AREA INTRUSION NO.	ICS	FACTOR1, FACTOR2, FACTOR3, FACTOR4, FACTOR5	CISS only reports the presence of an intrusion as a contributing factor, not the specific intrusion as in NASS-CDS. Users would filter on all the factor fields equal to 3/Intrusion.
OI	LESION	LESION (O.I.C. - A.I.S.)	N/A	N/A	CISS does not translate back to OIC.
OI	NATWGT	NATIONAL INFLATION FACTOR	N/A	N/A	Not collected in CISS.
OI	OCCNO	OCCUPANT NUMBER	INJURY	OCCNO	
OI	PSU	PRIMARY SAMPLING UNIT NUMBER	INJURY	PSU	
OI	RATWGT	RATION INFLATION FACTOR	INJURY	CASEWGT	
OI	REGION08	BODY REGION (AIS08 FORMAT)	INJURY	AIS	To match OI.REGION08 to CISS INJURY.AIS, a user needs to extract the first digit of INJURY.AIS. Users are cautioned that there are differences between AIS 1998 which OI.AIS is based vs AIS 2015 which CISS uses. In some situations there may not be a one-to-one match.

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
OI	REGION90	BODY REGION (AIS98 FORMAT)	INJURY	AIS	To match OI.REGION90 to CISS INJURY.AIS, a user needs to extract the seventh digit of INJURY.AIS. Users are cautioned that there are differences between AIS 1998 which OI.REGION90 is based vs AIS 2015 which CISS uses. In some situations there may not be a one-to-one match.
OI	SOUCON	INJURY SOURCE CONFIDENCE LEVEL	INJURY		
OI	SOUDAT	SOURCE OF INJURY DATA	N/A	N/A	This data is not captured by CISS.
OI	STRATIF	CASE STRATUM	INJURY	CATEGORY	
OI	STRSPC08	SPECIFIC ANATOMIC STRUCTURE (AIS08 FORMAT)	INJURY	AIS	To match OI.STRSPC08 to CISS INJURY.AIS, a user needs to extract the third and fourth digits of INJURY.AIS. Users are cautioned that there are differences between AIS 2008 which OI.STRSPC08 is based vs AIS 2015 which CISS uses. In some situations there may not be a one-to-one match.

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
OI	STRTYP08	TYPE OF ANATOMIC STRUCTURE (AIS08 FORMAT)	INJURY	AIS	To match OI.STRTYP08 to CISS INJURY.AIS, a user needs to extract the second digit of INJURY.AIS. Users are cautioned that there are differences between AIS 2008 which OI.STRTYP08 is based vs AIS 2015 which CISS uses. In some situations there may not be a one-to-one match.
OI	STRUSPEC	SPECIFIC ANATOMIC STRUCTURE (AIS98 FORMAT)	INJURY	AIS	To match OI.STRUSPEC to CISS INJURY.AIS, a user needs to extract the third and fourth digits of INJURY.AIS. Users are cautioned that there are differences between AIS 1998 which OI.STRUSPEC is based vs AIS 2015 which CISS uses. In some situations there may not be a one-to-one match.

NASS-CDS DATASET	COLUMN	LABEL	CISS DATASET	COLUMN	NOTES
OI	STRUTYPE	TYPE OF ANATOMIC STRUCTURE (AIS98 FORMAT)	INJURY	AIS	To match OI.STRUTYPE to CISS INJURY.AIS, a user needs to extract the second digit of INJURY.AIS. Users are cautioned that there are differences between AIS 1998 which OI.STRUTYPE is based vs AIS 2015 which CISS uses. In some situations there may not be a one-to-one match.
OI	SYSORG	SYSTEM/ORGAN (O.I.C. - A.I.S.)	N/A	N/A	CISS does not translate back to OIC.
OI	VEHNO	VEHICLE NUMBER	INJURY	VEHNO	
OI	VERSION	VERSION NUMBER	INJURY	VERSION	

APPENDIX F

ENTITY RELATIONSHIP DIAGRAM OF CISS DATASETS

(SEE FOLLOWING PAGES)

CRASH DATA FILES

```
              ┌─────────────────────────┐
              │         CRASH           │
              │ (Basic Crash Level Data)│
              └────────┬──────┬─────────┘
                       │      │
          ┌────────────┘      └────────────┐
          │                                │
┌─────────┴─────────┐            ┌─────────┴─────────┐
│       JKWGT        │            │       EVENT        │
│ (Adjusted Jackknife│            │ (Crash Event Data) │
│  Replicate Weights)│            └───────────────────┘
└─────────┬─────────┘
          │
┌─────────┴─────────┐
│       JKCOEF       │
│ (Jackknife         │
│  Coefficients)     │
└───────────────────┘
```
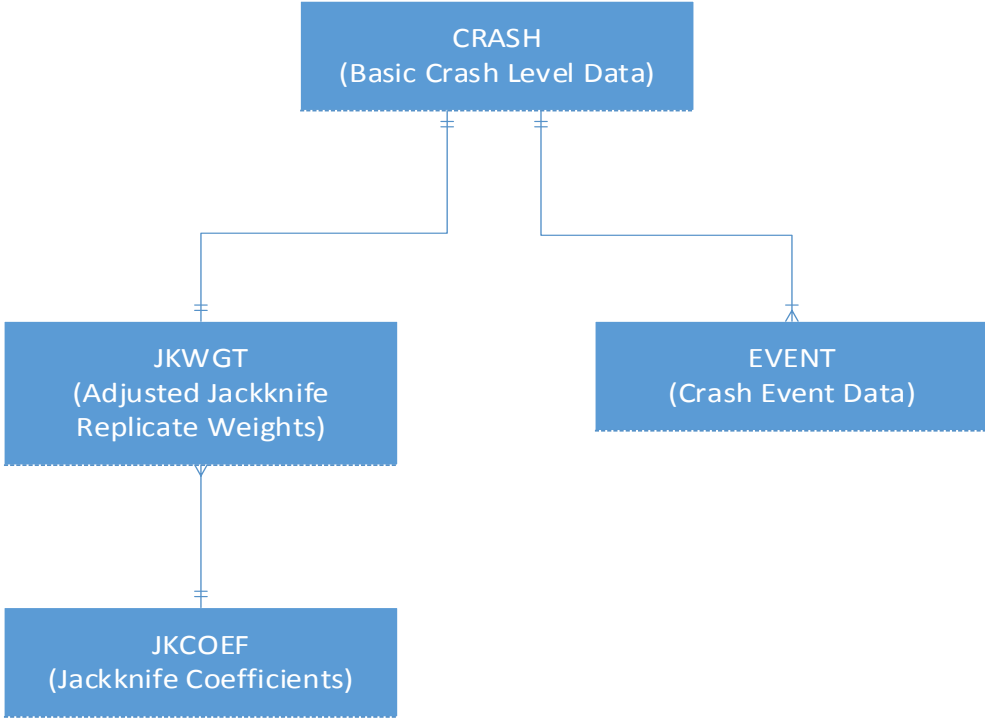
LEGEND

――――┤―	ONE and ONLY ONE
――――<	MANY
――――┤<	ONE or MANY
――――○<	ZERO, ONE, or MANY
――――○┤	ZERO or ONE

GENERAL VEHICLE DATA FILES
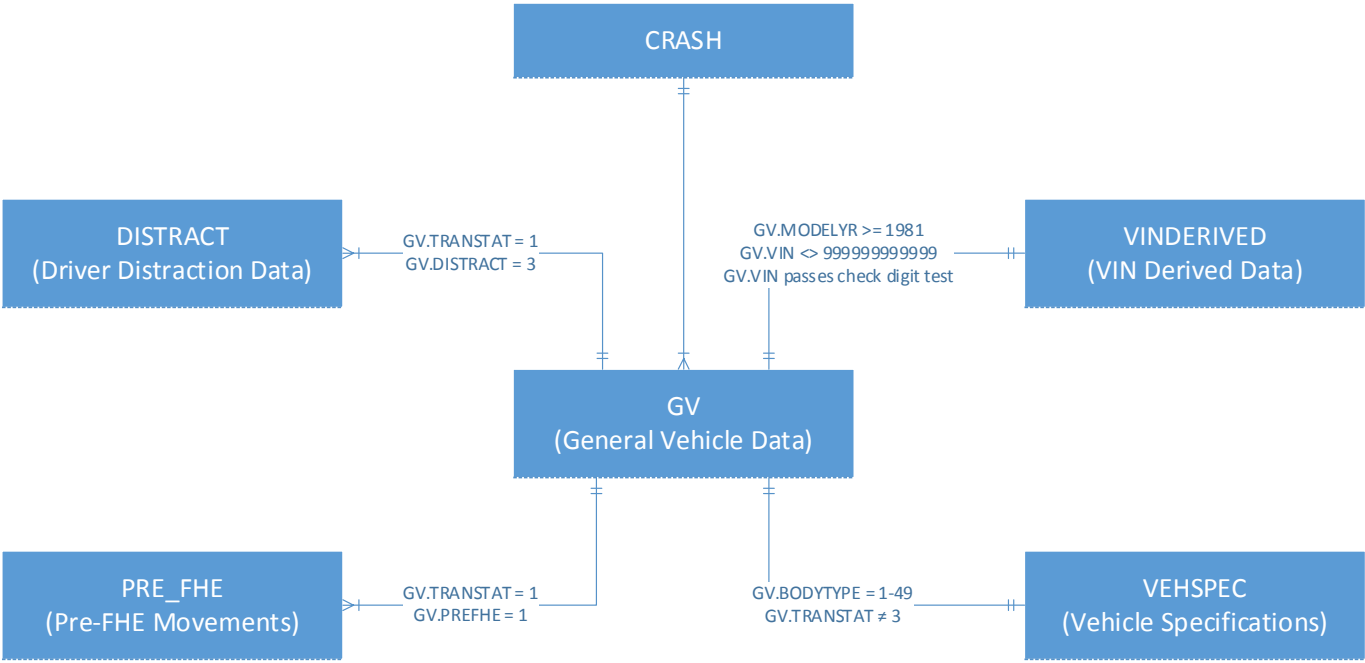
EXTERIOR VEHICLE DATA FILES

INTERIOR VEHICLE DATA FILES

PERSON DATA FILES

CRASH

GV

EJECT
(Ejection Info)

GV.BODYTYPE = 1-49
GV.TRANSTAT = 1
GV.TOWED = 2, 3 or 7

SEAT
(Seat Data)

CHILDSEAT
(Child Seat Info)
(May contain rows not
linked to an occupant)

OCC.CHILDSEATUSE
=
1

OCC
(Occupant Information)

SEATXBAG
(Seats by Air Bags)

EMSCARE
(EMS Care for This
Occupant)

OCC.EMSDATA = 1

OCC.INJSTATUS = 1

AIRBAG
(Air Bags in this occupant's
seating position)

INJURY
(Injuries sustained by this
occupant)

ICS
(Injury Causation Scenarios)

LOCALIZER
(Injury Localizers)

LEGEND

⊢⊢ ONE and ONLY ONE

⤙ MANY

⤙⊢ ONE or MANY

⤙○ ZERO, ONE, or MANY

○⊢ ZERO or ONE
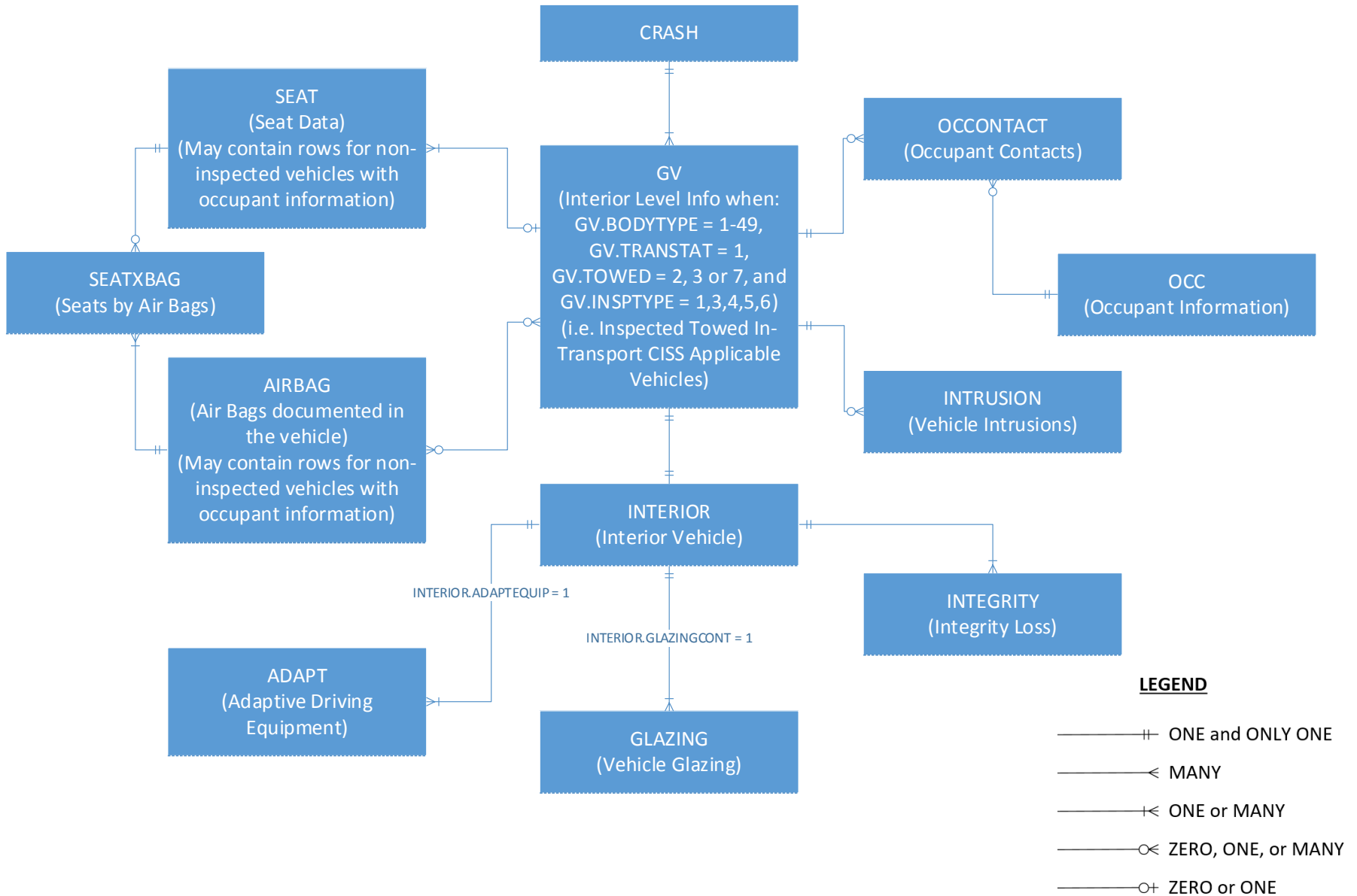
CISS VARIABLE ATTRIBUTE HISTORY

(SEE FOLLOWING PAGES)

Legend for SAS Codes:
= actual numeric value
* = attribute not valid for this data year
. = blank/missing data

ADAPT Dataset

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code		
					2017	2018	2019
ADAPT	ADAPTTIVE EQUIPMENT	ADAPT	ADAPTXXF	Hand controls for braking/acceleration	1	1	1
				Steering control devices (attached to OEM steering wheel)	2	2	2
				Steering knob attached to steering wheel	3	3	3
				Low effort power steering (unit or device)	4	4	4
				Replacement steering wheel (i.e. reduced diameter)	5	5	5
				Joy-stick steering controls	6	6	6
				Wheelchair tie-downs	7	7	7
				Modifications to seat belts (specify)	8	8	8
				Additional or relocated switches (specify)	9	9	9
				Raised roof	10	10	10
				Wall mounted head rest (used behind wheelchair)	11	11	11
				Pedal extender	12	12	12
				Unknown type of adaptive device	19	19	19
				Other adaptive device (specify)	98	98	98
ADAPT	SYSTEM CASE IDENTIFIER	CASEID	N/A	[Actual Value]	#	#	#
ADAPT	SEQUENTIAL CASE NUMBER	CASENO	N/A	[Actual Value]	#	#	#
ADAPT	CASE NUMBER	CASENUMBER	N/A	[Actual Value]	#	#	#
ADAPT	CASE WEIGHT	CASEWGT	N/A	[Actual Value]	#	#	#
ADAPT	CASE CATEGORY	CATEGORY	N/A	[Actual Value]	#	#	#
ADAPT	PRIMARY SAMPLING UNIT	PSU	N/A	[Actual Value]	#	#	#
ADAPT	PSU STRATIFICATION	PSUSTRAT	N/A	[Actual Value]	#	#	#
ADAPT	VEHICLE NUMBER	VEHNO	N/A	[Actual Value]	#	#	#
ADAPT	VERSION NUMBER	VERSION	N/A	[Actual Value]	2	3	4

AIRBAG Dataset

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
AIRBAG	AIR BAG DAMAGE	BAGDAMAGE	BAGDAMXXF	Not damaged	0	0	0
				Ruptured	1	1	1
				Cut	2	2	2
				Torn	3	3	3
				Holed	4	4	4
				Burned	5	5	5
				Abraded	6	6	6
				Other damage (specify)	8	8	8
				Damaged, details unknown	9	9	9
				Air Bag did not deploy	60	60	60
				Unknown if Air Bag deployed	69	69	69
				No Air Bag available for this crash (disconnected/not reinstalled	70	70	70
				Unknown status if Air Bag available for this crash	79	79	79
				Post crash damage	97	97	97
				Deployed, unknown if damaged	99	99	99
AIRBAG	AIR BAG DAMAGE SOURCE	BAGDAMSOURCE	BAGDAMSRC19F	Object worn by occupant (specify)	1	1	1
				Object carried by occupant (specify)	2	2	2
				Adaptive/assistive controls, (specify)	3	3	3
				Cover flaps	4	4	4
				Fire in vehicle	5	5	5
				Thermal burns	6	6	6
				Glazing	7	7	7
				Other damage source (specify)	8	8	8
				Damaged unknown source	9	9	9
				Air Bag Not Damaged	50	50	50
				Deployed, unknown if damaged	59	59	59
				Air Bag did not deploy	60	60	60

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	2018	2019
				Unknown if Air Bag deployed	69	69	69
				No Air Bag available for this crash (disconnected/not reinstalled	70	70	70
				Unknown status if Air Bag available for this crash	79	79	79
				Post crash damage	97	97	97
AIRBAG	AIR BAG DEPLOYMENT	BAGDEPLOY	BAGDEPLYXXF	Deployed during crash (as a result of impact)	1	1	1
				Deployed inadvertently just prior to crash	2	2	2
				Deployed, details unknown	3	3	3
				Non-collision deployment	4	4	4
				Not deployed	7	7	7
				No air bag available for this crash (disconnected/not reinstalled)	70	70	70
				Unknown status if air bag available for this crash	79	79	79
				Unknown if Deployed	99	99	99
AIRBAG	AIR BAG DELTA V - BARRIER EQUIVALENT SPEED	BAGDVBES	BAREQSPXXF	[Actual Value]	#	#	#
				Unknown	999	999	999
AIRBAG	AIR BAG DELTA V - ENERGY	BAGDVENERGY	ENERGYXXF	[Actual Value]	#	#	#
				Unknown	9999999	9999999	9999999
AIRBAG	AIR BAG DELTA V - ESTIMATE	BAGDVEST	DVESTXXF	Reconstruction Delta V coded	0	0	0
				Less than 10 kmph	1	1	1
				10 kmph < 25 kmph	2	2	2
				25 kmph < 40 kmph	3	3	3
				40 kmph < 55 kmph	4	4	4
				>= 55 kmph	5	5	5
				Minor	6	6	6
				Moderate	7	7	7
				Severe	8	8	8
				Unknown	9	9	9
AIRBAG	AIR BAG DELTA V - LATERAL	BAGDVLAT	DVLONLATXXF	[Actual Value]	#	#	#
				Unknown	999	999	999

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
AIRBAG	AIR BAG DELTA V - LONGITUDINAL	BAGDVLONG	DVLONLATXXF	[Actual Value]	#	#	#
				Unknown	999	999	999
AIRBAG	AIR BAG DELTA V - RANK	BAGDVRANK	DVRANKXXF	Highest Delta V	1	1	1
				Second Highest Delta V	2	2	2
				Other Delta V	8	8	8
AIRBAG	AIR BAG DELTA V - IMPACT SPEED	BAGDVSPEED	DVSPEEDXXF	[Actual Value]	#	#	#
				Damage and Trajectory run not made	998	998	998
				Unknown	999	999	999
AIRBAG	AIR BAG DELTA V - TOTAL	BAGDVTOTAL	DVTOTALXXF	[Actual Value]	#	#	#
				Unknown	999	999	999
AIRBAG	AIR BAG FLAP DAMAGE	BAGFLAPSDAM	FLAPDAMXXF	No	0	0	0
				Yes (specify)	1	1	1
				Not Deploy	60	60	60
				Unknown if deployed	69	69	69
				No Air Bag available for this crash	70	70	70
				Unknown if Air Bag available for this crash	79	79	79
				Unknown if flaps damaged	99	99	99
AIRBAG	AIR BAG FLAP OPEN AT TEAR POINTS	BAGFLAPSOPEN	FLAPOPENXXF	No	0	0	0
				Yes	1	1	1
				Air Bag did not deploy	60	60	60
				Unknown if Air Bag deployed	69	69	69
				No Air Bag available for this crash (disconnected/not reinstalled	70	70	70
				Unknown status if Air Bag available for this crash	79	79	79
				Unknown flaps/seams opened at tear points	99	99	99
AIRBAG	AIR BAG LOCATION	BAGLOCATION	BAGLOCXXF	Steering Wheel Hub	1	1	1
				Top Instrument Panel	2	2	2
				Mid Instrument Panel	3	3	3
				Bottom Instrument Panel	4	4	4
				Seat Back (Outboard)	5	5	5

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
				Seat Back (Inboard)	6	6	6
				Door/Panel	7	7	7
				Roof Side Rail	8	8	8
				Seat Belt	9	9	9
				Other (specify)	98	98	98
				Unknown	99	99	99
AIRBAG	AIR BAG MALFUNCTION	BAGMALFUNCTION	BAGMALFXXF	No	0	0	0
				Yes (specify)	1	1	1
				No Air Bag available for this crash (disconnected/not reinstalled)	70	70	70
				Unknown status if Air Bag available for this crash	79	79	79
				Unknown	99	99	99
AIRBAG	AIR BAG NUMBER	BAGNO	N/A	[Actual Value]	#	#	#
AIRBAG	AIR BAG STATUS	BAGSTATUS	BAGSTATXXF	Air Bag available	1	1	1
				Air Bag disconnected (specify):	2	2	2
				Air Bag not reinstalled	3	3	3
				Unknown status if available for this crash	9	9	9
AIRBAGA	AIR BAG TYPE	BAGTYPE	BAGTYPEXXF	Original manufacturer install	1	1	1
				Replacement Air Bag	2	2	2
				Retrofitted Air Bag	3	3	3
				No Air Bag available for this crash (disconnected/not reinstalled	70	70	70
				Unknown status if Air Bag available for this crash	79	79	79
				Unknown Type	99	99	99
AIRBAG	SYSTEM CASE IDENTIFIER	CASEID	N/A	[Actual Value]	#	#	#
AIRBAG	SEQUENTIAL CASE NUMBER	CASENO	N/A	[Actual Value]	#	#	#
AIRBAG	CASE NUMBER	CASENUMBER	N/A	[Actual Value]	#	#	#
AIRBAG	CASE WEIGHT	CASEWGT	N/A	[Actual Value]	#	#	#
AIRBAG	CASE CATEGORY	CATEGORY	N/A	[Actual Value]	#	#	#
AIRBAG	CDC FOR DEPLOYMENT IMPACT	CDCFORDEPLOY	BAGCDCXXF	Highest Delta V	1	1	1

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	2018	2019
				Second highest Delta V	2	2	2
				Other Delta V (specify)	3	3	3
				Air Bag did not deploy	60	60	60
				Unknown if Air Bag deployed	69	69	69
				No Air Bag available for this crash (disconnected/not reinstalled	70	70	70
				Unknown status if Air Bag available for this crash	79	79	79
				Deployed, unknown event	99	99	99
AIRBAG	AIR BAG DEPLOYMENT EVENT	DEPLOYEVENT	DEPLOYEVENTXXF	[Actual Value]	#	#	#
				Air Bag did not deploy	60	60	60
				Unknown if Air Bag deployed	69	69	69
				No Air Bag available for this crash (disconnected/not reinstalled)	70	70	70
				Unknown status if Air Bag available for this crash	79	79	79
				Deployed, unknown event	99	99	99
AIRBAG	VEHICLE IN PREVIOUS CRASHES	PREVCRASH	PREVCRASHXXF	No previous crashes	1	1	1
				Previous crash(es) without deployment(s)	2	2	2
				One previous crash with deployment	3	3	3
				More than one previous crash with at least one deployment	4	4	4
				Previous crashes, unknown deployment status	8	8	8
				Unknown	9	9	9
AIRBAG	PRIOR MAINTENANCE OR SERVICE	PRIORMAINT	PRIORMAINTXXF	No prior maintenance	1	1	1
				Yes, prior maintenance	2	2	2
				Unknown	9	9	9
AIRBAG	PRIMARY SAMPLING UNIT	PSU	N/A	[Actual Value]	#	#	#
AIRBAG	PSU STRATIFICATION	PSUSTRAT	N/A	[Actual Value]	#	#	#
AIRBAG	VEHICLE NUMBER	VEHNO	N/A	[Actual Value]	#	#	#
AIRBAG	VERSION NUMBER	VERSION	N/A	[Actual Value]	2	3	4

AVOID Dataset

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
AVOID	EQUIPMENT ACTIVATED	ACTIVATE	ACTIVATEXXF	Yes	1	1	1
				No	2	2	2
				No (Disabled)	3	3	3
				NA	8	8	8
				Unknown	9	9	9
AVOID	EQUIPMENT AVAILABLE	AVAIL	AVAILXXF	No	0	0	0
				Yes	1	1	1
				NA	8	8	8
				Unknown	9	9	9
AVOID	SYSTEM CASE IDENTIFIER	CASEID	N/A	[Actual Value]	#	#	#
AVOID	SEQUENTIAL CASE NUMBER	CASENO	N/A	[Actual Value]	#	#	#
AVOID	CASE NUMBER	CASENUMBER	N/A	[Actual Value]	#	#	#
AVOID	CASE WEIGHT	CASEWGT	N/A	[Actual Value]	#	#	#
AVOID	CASE CATEGORY	CATEGORY	N/A	[Actual Value]	#	#	#
AVOID	AVOIDANCE EQUIPMENT	EQUIP	EQUIPXXF	Lane Keeping Support	*	1	1
				Automatic Crash Notification	2	2	*
				Blind Spot Detection	3	3	*
				Daytime Running Lamps	*	4	4
				Rearview Video System	*	5	5
				Dynamic Brake Support	*	6	6
				Pedestrian Automatic Emergency Braking	*	7	7
				Advanced Lighting	*	8	8
				Adaptive Cruise Control	*	9	9
				Lane Departure Warning	*	10	10
				Crash Imminent Braking	*	11	11
				Forward Collision Warning	*	12	12
				FCW with Auto Braking	13	*	*
				FCW without Auto Braking	14	*	*

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	2018	2019
				LDW with Lane Keeping	15	*	*
				LDW without Lane Keeping	16	*	*
AVOID	PRIMARY SAMPLING UNIT	PSU	N/A	[Actual Value]	#	#	#
AVOID	PSU STRATIFICATION	PSUSTRAT	N/A	[Actual Value]	#	#	#
AVOID	VEHICLE NUMBER	VEHNO	N/A	[Actual Value]	#	#	#
AVOID	VERSION NUMBER	VERSION	N/A	[Actual Value]	2	3	4

CDC Dataset

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
CDC	C1 MEASUREMENT	C1	UNKNAXXF	[Actual Value]	#	#	#
				Not Applicable	888	888	888
				Unknown	999	999	999
CDC	C2 MEASUREMENT	C2	UNKNAXXF	[Actual Value]	#	#	#
				Not Applicable	888	888	888
				Unknown	999	999	999
CDC	C3 MEASUREMENT	C3	UNKNAXXF	[Actual Value]	#	#	#
				Not Applicable	888	888	888
				Unknown	999	999	999
CDC	C4 MEASUREMENT	C4	UNKNAXXF	[Actual Value]	#	#	#
				Not Applicable	888	888	888
				Unknown	999	999	999
CDC	C5 MEASUREMENT	C5	UNKNAXXF	[Actual Value]	#	#	#
				Not Applicable	888	888	888
				Unknown	999	999	999
CDC	C6 MEASUREMENT	C6	UNKNAXXF	[Actual Value]	#	#	#
				Not Applicable	888	888	888
				Unknown	999	999	999
CDC	SYSTEM CASE IDENTIFIER	CASEID	N/A	[Actual Value]	#	#	#
CDC	SEQUENTIAL CASE NUMBER	CASENO	N/A	[Actual Value]	#	#	#
CDC	CASE NUMBER	CASENUMBER	N/A	[Actual Value]	#	#	#
CDC	CASE WEIGHT	CASEWGT	N/A	[Actual Value]	#	#	#
CDC	CASE CATEGORY	CATEGORY	N/A	[Actual Value]	#	#	#
CDC	CDC	CDC	N/A	[Actual Value]	#	#	#
CDC	CDC DAMAGE DISTRIBUTION	CDCDISTRIB	$TDDXXF	Overhanging structure	A	A	A
				Corner	E	E	E
				Conversion impact type	K	K	K
				Narrow impact area	N	N	N

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
				Rollover (includes side)	O	O	O
				Sideswipe	S	S	S
				No residual deformation	U	U	U
				Wide impact area	W	W	W
				Unknown	9	9	9
CDC	CDC DAMAGE EXTENT	CDCEXTENT	$EXTENTXXF	One	01	01	01
				Two	02	02	02
				Three	03	03	03
				Four	04	04	04
				Five	05	05	05
				Six	06	06	06
				Seven	07	07	07
				Eight	08	08	08
				Nine	09	09	09
				Unknown	99	99	99
CDC	CDC LONGITUDINAL/LATERAL	CDCLONGLAT	$LONGLATXXF	B Side rear - left or right	B	B	B
				C Center - front or rear	C	C	C
				D Distributed-side or end	D	D	D
				F Side Front - left or right	F	F	F
				L Left - front or rear	L	L	L
				P Side center section - L or R	P	P	P
				R Right - front or rear	R	R	R
				Y Side (F + P) or end (L + C)	Y	Y	Y
				Z Side (P + B) or end (C + R)	Z	Z	Z
				Unknown	9	9	9
CDC	CDC PLANE OF IMPACT	CDCPLANE	$GADXXF	Front	F	F	F
				Back/Truck Back	B	B	B
				Left Side	L	L	L
				Right Side	R	R	R
				Top	T	T	T

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
				Undercarriage	U	U	U
				Unknown	9	9	9
CDC	CDC VERTICAL/LATERAL LOCATION	CDCVERTLAT	Not assigned due to duplicate codes	A All	A	A	A
				W Below undercarriage level (wheels and tires only)	W	W	W
				G Belt line and above	G	G	G
				C Center	C	C	C
				D Distributed	D	D	D
				E Everything below belt line	E	E	E
				L Frame - top of frame, frame, bottom of frame (including undercarriage)	L	L	L
				L Left	L	L	L
				Y Left and Center (L + C)	Y	Y	Y
				M Middle - top of frame to belt line or hood	M	M	M
				R Right	R	R	R
				Z Right and Center (R + C)	Z	Z	Z
				H Top of frame to top	H	H	H
				9 Unknown	9	9	9
CDC	C MAX MEASUREMENT	CMAX	UNKNAXXF	[Actual Value]	#	#	#
				Not Applicable	888	888	888
				Unknown	999	999	999
CDC	C MAX HEIGHT	CMAXHEIGHT	UNKNAXXF	[Actual Value]	#	#	#
				Not Applicable	888	888	888
				Unknown	999	999	999
CDC	CRUSH PROFILE C MAX LOCATION	CMAXLOCATION	N/A	[Actual Value]	#	#	#
CDC	DAMAGE TO A PILLAR	DAMAPILLAR	PILLARXXF	None	0	0	0
				Yes	1	1	1
				Not Applicable	8	8	8
				Unknown	9	9	9
CDC	DAMAGE TO B PILLAR	DAMBPILLAR	PILLARXXF	None	0	0	0

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
				Yes	1	1	1
				Not Applicable	8	8	8
				Unknown	9	9	9
CDC	DAMAGE TO C PILLAR	DAMCPILLAR	PILLARXXF	None	0	0	0
				Yes	1	1	1
				Not Applicable	8	8	8
				Unknown	9	9	9
CDC	DAMAGE TO OTHER PILLAR	DAMOTHPILLAR	PILLARXXF	None	0	0	0
				Yes	1	1	1
				Not Applicable	8	8	8
				Unknown	9	9	9
CDC	DIRECT L D	DIRECTD	UNKNAXXF	[Actual Value]	#	#	#
				Not Applicable	888	888	888
				Unknown	999	999	999
CDC	DIRECT L	DIRECTL	UNKNAXXF	[Actual Value]	#	#	#
				Not Applicable	888	888	888
				Unknown	999	999	999
CDC	CRUSH PROFILE DIRECT DAMAGE L	DIRECTLOCATION	N/A	[Actual Value]	#	#	#
CDC	DIRECT DAMAGE WIDTH	DIRECTWIDTH	UNKNAXXF	[Actual Value]	#	#	#
				Not Applicable	888	888	888
				Unknown	999	999	999
CDC	DOOR SILL DIFFERENTIAL	DOORSILLDIFF	UNKNAXXF	[Actual Value]	#	#	#
				Not Applicable	888	888	888
				Unknown	999	999	999
CDC	DELTA V BARRIER EQUIVALENT SPEED	DVBARRIER	BAREQSPXXF	[Actual Value]	#	#	#
				Unknown	999	999	999
CDC	DELTA V BASIS	DVBASIS	DVBASISXXF	SMASH - Damage only	1	1	1
				SMASH - Damage and trajectory	2	2	2
				SMASH - Missing vehicle	3	3	3
				SMASH - Damage with CDC only	4	4	4

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
				At least on vehicle is beyond the scope of SMASH	5	5	5
				Rollover	6	6	6
				Other non-horizontal forces	7	7	7
				Sideswipe type damage	8	8	8
				Severe override	9	9	9
				Yielding object	10	10	10
				Overlapping damage	11	11	11
				Insufficient data (specify)	12	12	12
				Other	98	98	98
CDC	DELTA V ENERGY	DVENERGY	ENERGYXXF	[Actual Value]	#	#	#
				Unknown	9999999	9999999	9999999
CDC	DELTA V ESTIMATED SEVERITY	DVESTIMATE	DVESTXXF	Reconstruction Delta V coded	0	0	0
				Less than 10 kmph	1	1	1
				10 kmph < 25 kmph	2	2	2
				25 kmph < 40 kmph	3	3	3
				40 kmph < 55 kmph	4	4	4
				>= 55 kmph	5	5	5
				Minor	6	6	6
				Moderate	7	7	7
				Severe	8	8	8
				Unknown	9	9	9
CDC	DELTA V LATERAL	DVLAT	DVLONLATXXF	[Actual Value]	#	#	#
				Unknown	999	999	999
CDC	DELTA V LONGITUDINAL	DVLONG	DVLONLATXXF	[Actual Value]	#	#	#
				Unknown	999	999	999
CDC	DELTA V MOMENT ARM	DVMOMENT	DVMOMENTXXF	[Actual Value]	#	#	#
				Unknown	999	999	999
CDC	DELTA V RANK	DVRANK	DVRANKXXF	Highest Delta V	1	1	1
				Second Highest Delta V	2	2	2
				Other Delta V	8	8	8

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	2018	2019
CDC	DELTA V IMPACT SPEED	DVSPEED	DVSPEEDXXF	[Actual Value]	#	#	#
				Damage and Trajectory run not made	998	998	998
				Unknown	999	999	999
CDC	DELTA V TOTAL	DVTOTAL	DVTOTALXXF	[Actual Value]	#	#	#
				Unknown	999	999	999
CDC	END SHIFT	ENDSHIFT	SHIFTXXF	No	0	0	0
				Yes	1	1	1
				Unknown	9	9	9
CDC	EVENT NUMBER	EVENTNO	N/A	[Actual Value]	#	#	#
CDC	FIELD L	FIELDL	UNKNAXXF	[Actual Value]	#	#	#
				Not Applicable	888	888	888
				Unknown	999	999	999
CDC	FIELD L D	FIELDLD	UNKNAXXF	[Actual Value]	#	#	#
				Not Applicable	888	888	888
				Unknown	999	999	999
CDC	CRUSH PROFILE FIELD L LOCATION	FIELDLLOCATION	N/A	[Actual Value]	#	#	#
CDC	HEADING ANGLE AT IMPACT	HEADINGANG	CDCHDGXXF	Not Applicable	888	888	888
				Unknown	999	999	999
CDC	OBJECT CONTACTED	OBJCONT	OBJCONTXXF	Vehicle 1-30	1 - 30	1 - 30	1 - 30
				Overturn - rollover (excludes end-over-end)	31	31	31
				Rollover - end-over-end	32	32	32
				Fire or explosion	33	33	33
				Jackknife	34	34	34
				Other intraunit damage (specify):	35	35	35
				Noncollision injury	36	36	36
				Other noncollision (specify):	38	38	38
				Noncollision - details unknown	39	39	39
				Tree (<= 10 cm in diameter)	41	41	41
				Tree (> 10 cm in diameter)	42	42	42
				Shrubbery or bush	43	43	43

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
				Embankment	44	44	44
				Breakaway pole or post (any diameter)	45	45	45
				Cable barrier guardrail	47	47	47
				Guardrail Face	48	48	48
				Guardrail End	49	49	49
				Nonbreakaway Pole or post (<= 10 cm in diameter)	50	50	50
				Nonbreakaway Pole or post (> 10 cm but <= 30 cm in diameter)	51	51	51
				Nonbreakaway Pole or post (> 30 cm in diameter)	52	52	52
				Nonbreakaway Pole or post (diameter unknown)	53	53	53
				Concrete traffic barrier	54	54	54
				Impact attenuator	55	55	55
				Other traffic barrier (specify):	56	56	56
				Fence	57	57	57
				Wall	58	58	58
				Building	59	59	59
				Ditch or culvert	60	60	60
				Ground	61	61	61
				Fire hydrant	62	62	62
				Curb	63	63	63
				Bridge	64	64	64
				Other fixed object (specify):	68	68	68
				Unknown fixed object	69	69	69
				Pedestrian	72	72	72
				Cyclist or cycle	73	73	73
				Other nonmotorist or conveyance (specify)	74	74	74
				Vehicle occupant	75	75	75
				Animal	76	76	76
				Railway vehicle	77	77	77
				Trailer, disconnected in transport	78	78	78
				Object fell from vehicle in-transport	79	79	79

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	2018	2019
				Other nonfixed object (specify):	88	88	88
				Unknown nonfixed object	89	89	89
				Other event (specify):	98	98	98
				Unknown event or object	99	99	99
CDC	OCLOCK	OCLOCK	CLOCKXXF	NO CDC	.	.	.
				NONHORIZ FORCE	0	0	0
				1 O'CLOCK	1	1	1
				2 O'CLOCK	2	2	2
				3 O'CLOCK	3	3	3
				4 O'CLOCK	4	4	4
				5 O'CLOCK	5	5	5
				6 O'CLOCK	6	6	6
				7 O'CLOCK	7	7	7
				8 O'CLOCK	8	8	8
				9 O'CLOCK	9	9	9
				10 O'CLOCK	10	10	10
				11 O'CLOCK	11	11	11
				12 O'CLOCK	12	12	12
				UNKNOWN DOF	99	99	99
CDC	OVERRIDE UNDERRIDE	OVERUNDER	UNDERRIDEXXF	None	0	0	0
				Override	1	1	1
				Underride	2	2	2
				Medium/heavy truck or bus override	7	7	7
				Unknown	9	9	9
CDC	PRINCIPLE DIRECTION OF FORCE	PDOF	PDOFXXF	[Actual Value]	#	#	#
				Non-Horizontal Force	998	998	998
				Unknown	999	999	999
CDC	PRIMARY SAMPLING UNIT	PSU	N/A	[Actual Value]	#	#	#
CDC	PSU STRATIFICATION	PSUSTRAT	N/A	[Actual Value]	#	#	#
CDC	ROLLOVER LATERAL MEASUREMENT	ROLLLAT	UNKNAXXF	[Actual Value]	#	#	#

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
				Not Applicable	888	888	888
				Unknown	999	999	999
CDC	ROLLOVER VERTICAL MEASUREMENT	ROLLVERT	UNKNAXXF	[Actual Value]	#	#	#
				Not Applicable	888	888	888
				Unknown	999	999	999
CDC	SILL HEIGHT	SILLHEIGHT	UNKNAXXF	[Actual Value]	#	#	#
				Not Applicable	888	888	888
				Unknown	999	999	999
CDC	VEHICLE NUMBER	VEHNO	N/A	[Actual Value]	#	#	#
CDC	VERSION NUMBER	VERSION	N/A	[Actual Value]	2	3	4

CHILDSEAT Dataset

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
CHILDSEAT	BELT RETRACTOR TYPE	BELTRETYPE	RETRACTYPEXXF	None Present	0	0	0
				Emergency Locking Retractor	1	1	1
				Automatic Locking Retractor	2	2	2
				Switchable Retractor in ELR Mode	3	3	3
				Switchable Retractor in ALR Mode	4	4	4
				Switchable Retractor in Unknown Mode	5	5	5
				Unknown Type of Retractor	9	9	9
CHILDSEAT	BELT ROUTING AND USE	BELTROUT	BELTROUTXXF	No belt routing	0	0	0
				No belt used	1	1	1
				Belt routed through belt positioning slots/channels	2	2	2
				Belt routed through forward facing slots/channels	3	3	3
				Belt routed through rear facing slots/channels	4	4	4
				Belt routed unconventianally (specify)	5	5	5
				Unknown belt path or if belt routed	9	9	9
CHILDSEAT	SYSTEM CASE IDENTIFIER	CASEID	N/A	[Actual Value]	#	#	#
CHILDSEAT	SEQUENTIAL CASE NUMBER	CASENO	N/A	[Actual Value]	#	#	#
CHILDSEAT	CASE NUMBER	CASENUMBER	N/A	[Actual Value]	#	#	#
CHILDSEAT	CASE WEIGHT	CASEWGT	N/A	[Actual Value]	#	#	#
CHILDSEAT	CASE CATEGORY	CATEGORY	N/A	[Actual Value]	#	#	#
CHILDSEAT	CHILD SEAT DATE OF MANUFACTURE	CHILDDATEMAN	$CRSDATEXXF	[Actual Value]	#	#	#
				Unknown	99999999	1E+10	1E+10
CHILDSEAT	CHILD SEAT MAKE	CHILDMAKE	CRSMAKEXXF	No Child Safety Seat	0	0	0
				Angel Guard Products	1	1	1
				Baby Trend	2	2	2
				Besi	3	3	3
				Britax	4	4	4
				BubbleBum	5	5	5

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	2018	2019
				Chicco	6	6	6
				Columbia Medical	7	7	7
				Car Seat Specialy	8	8	8
				Combi	9	9	9
				Diono	10	10	10
				Sunshine Kids	11	11	11
				Cosco	12	12	12
				Dorel Juvenile Group	13	13	13
				Eddie Bauer	14	14	14
				Maxi-Cosi	15	15	15
				Safety 1st	16	16	16
				EZ-On	17	17	17
				Cybex	18	18	18
				Evenflo	19	19	19
				Goodbaby International	20	20	20
				Regal Lager	21	21	21
				Urbini	22	22	22
				Graco	23	23	23
				Teutonia	24	24	24
				Happy Kidz	25	25	25
				Harmony	26	26	26
				IMMI	27	27	27
				Jupiter	28	28	28
				Safeguard	29	29	29
				Kiddy USA	30	30	30
				Lilly Gold	31	31	31
				Safeline	32	32	32
				Tripleplay Products	33	33	33
				Clek	34	34	34
				Magna	35	35	35

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	2018	2019
				Merritt Mft.	36	36	36
				Mia Moda	37	37	37
				Mifold	38	38	38
				Nania	39	39	39
				Safety Baby	40	40	40
				Team Tex	41	41	41
				Orbit Baby	42	42	42
				Peg Perego	43	43	43
				R82	44	44	44
				Snug Seat	45	45	45
				Recaro	46	46	46
				Renolux	47	47	47
				Safe Traffic Systems	48	48	48
				Safety Angel	49	49	49
				Sammons Preston	50	50	50
				Guardian	51	51	51
				Serenity Safety Products	52	52	52
				Special Tomato	53	53	53
				Compass	54	54	54
				Learning Curve	55	55	55
				Tomy	56	56	56
				The First Years	57	57	57
				Tumbel Forms	58	58	58
				Built-in child safety seat	95	95	95
				Other make	97	97	97
				Unknown Make	98	98	98
				Unknown if child safety seat used	99	99	99
CHILDSEAT	CHILD SEAT MANUFACTURER	CHILDMANUF	CRSMANXXF	No Child Safety Seat	0	0	0
				Angel Guard Products	1	1	1
				Baby Trend	2	2	2

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
				Besi	3	3	3
				Britax	4	4	4
				BubbleBum	5	5	5
				Chicco	6	6	6
				Columbia Medical	7	7	7
				Combi	8	8	8
				Diono	9	9	9
				Dorel Juvenile Group	10	10	10
				EZ-On	11	11	11
				Goodbaby International	12	12	12
				Graco	13	13	13
				Happy Kidz	14	14	14
				Harmony	15	15	15
				IMMI	16	16	16
				Kiddy USA	17	17	17
				Lilly Gold	18	18	18
				Magna	19	19	19
				Merritt Mft.	20	20	20
				Mia Moda	21	21	21
				Nania	22	22	22
				Orbit Baby	23	23	23
				Peg Perego	24	24	24
				R82	25	25	25
				Recaro	26	26	26
				Renolux	27	27	27
				Safe Traffic Systems	28	28	28
				Safety Angel	29	29	29
				Sammons Preseton	30	30	30
				Serenity Safety Products	31	31	31
				Special Tomato	32	32	32

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	2018	2019
				Tomy	33	33	33
				Tumble Forms	34	34	34
				Mifold	35	35	35
				Built-in child safety seat	95	95	95
				Other make	97	97	97
				Unknown Make	98	98	98
				Unknown if child safety seat used	99	99	99
CHILDSEAT	CHILD SEAT MODEL	CHILDMODEL	CRSMODELXXF	No Child Safety Seat	0	0	0
				EZ Loc	1001	1001	1001
				Flex Loc	1002	1002	1002
				Latch Loc	1003	1003	1003
				Tahoe	1004	1004	1004
				Baby Safe	1005	1005	1005
				Baby Trend Latch-Loc	1006	1006	1006
				Chaperone	1007	1007	1007
				Companion	1008	1008	1008
				KeyFit	1009	1009	1009
				Shuttle	1010	1010	1010
				Light N Comfy	1011	1011	1011
				Deluxe Infant Car Seat	1012	1012	1012
				Infant Car Seat	1013	1013	1013
				Integrated Travel System	1014	1014	1014
				SureFit	1015	1015	1015
				Mico	1016	1016	1016
				Comfy Carry Elite	1017	1017	1017
				Designer 22	1018	1018	1018
				Starter	1019	1019	1019
				Aton	1020	1020	1020
				Embrace	1021	1021	1021
				Nurture	1022	1022	1022

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	2018	2019
				Port About	1023	1023	1023
				Tot Taxi	1024	1024	1024
				Sonti	1025	1025	1025
				CoachRider Travel System	1026	1026	1026
				DuoGlider Travel System	1027	1027	1027
				LiteRider	1028	1028	1028
				LiteRider Breeze	1029	1029	1029
				LiteRider Glider	1030	1030	1030
				LiteRider Sterling	1031	1031	1031
				MetroLite Travel System	1032	1032	1032
				Safe Seat Step 1	1033	1033	1033
				Snug Ride	1034	1034	1034
				Snug Ride DX5	1035	1035	1035
				t-tario 35	1036	1036	1036
				Doona	1037	1037	1037
				Evolution Pro 2	1038	1038	1038
				Certo	1039	1039	1039
				G2	1040	1040	1040
				Primo Viaggio	1041	1041	1041
				Via	1042	1042	1042
				onBoard 35	1043	1043	1043
				Secure Snap	1044	1044	1044
				Advantage	2001	2001	2001
				Advocate CS	2002	2002	2002
				Boulevard	2003	2003	2003
				Decathlon	2004	2004	2004
				Diplomat	2005	2005	2005
				Elite	2006	2006	2006
				Galaxy	2007	2007	2007
				Marathon	2008	2008	2008

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	2018	2019
				Roundabout	2009	2009	2009
				Wizard	2010	2010	2010
				Coccoro	2011	2011	2011
				Apt 40	2012	2012	2012
				Apt 50	2013	2013	2013
				Scenera	2014	2014	2014
				XRS 65	2015	2015	2015
				Priori	2016	2016	2016
				Comfort Ride	2017	2017	2017
				Complete Air with Air Protect	2018	2018	2018
				Forerunner	2019	2019	2019
				Uptown	2020	2020	2020
				Conquest V	2021	2021	2021
				Horizon V	2022	2022	2022
				Momentum 65 DLX	2023	2023	2023
				Odyssey V	2024	2024	2024
				Orion	2025	2025	2025
				Scout	2026	2026	2026
				Sonus	2027	2027	2027
				Titan	2028	2028	2028
				Titan 5	2029	2029	2029
				Tribute	2030	2030	2030
				Tribute 5	2031	2031	2031
				Triumph	2032	2032	2032
				ComfortSport	2033	2033	2033
				Contender	2034	2034	2034
				Head Wise 65/70	2035	2035	2035
				My Ride 65	2036	2036	2036
				MY SIze (70)	2037	2037	2037
				Sit n' Stroll	2038	2038	2038

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
				Sit n' Stroll	2039	2039	2039
				Fllo	2040	2040	2040
				Foonf	2041	2041	2041
				Como	2042	2042	2042
				ProRide	2043	2043	2043
				Signo	2044	2044	2044
				GT 2000	2045	2045	2045
				GT 4000	2046	2046	2046
				GT-5000 Turn-A-Tot	2047	2047	2047
				GT-7000	2048	2048	2048
				True Fit	2049	2049	2049
				Mighty Fit	2050	2050	2050
				Next Fit	2051	2051	2051
				Sequel (65)	2052	2052	2052
*	*			Guide 65	*	*	2053
*	*			Extend2Fit	*	*	2054
*	*			Primo Viaggio	*	*	2055
				Husky	3001	3001	3001
				Romer King	3002	3002	3002
				G3 Toddler Car Seat	3003	3003	3003
				Radian RXT	4001	4001	4001
				Easy Elite 3-in-1	4002	4002	4002
				Deluxe Convertible	4003	4003	4003
				All-in-One	4004	4004	4004
				Alpha Omega Elite	4005	4005	4005
				Alpha Sport 3 Phase	4006	4006	4006
				Enspira	4007	4007	4007
				Grow And Go	4008	4008	4008
				Intera	4009	4009	4009
				Symphony	4010	4010	4010

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
				4Ever All-in-One	4011	4011	4011
				Signature Series Smart Seat	4012	4012	4012
				Milestone 3-in-1	4013	4013	4013
				Everfit 3-in-1	4014	4014	4014
*				WAYZ	*	*	4015
*	*			Ranier 3-in-1	*	*	4016
*				Multifit 3-in-1	*	*	4017
				Hybrid 3-in-1	5001	5001	5001
				Frontier	5002	5002	5002
				Regent	5003	5003	5003
				High Back Booster	5005	5005	5005
				Summit	5006	5006	5006
				Ventura/Vision	5007	5007	5007
				High Back Booster	5008	5008	5008
				Apex 65	5009	5009	5009
				Prospect	5010	5010	5010
				Summit Deluxe	5011	5011	5011
				Surveyor	5012	5012	5012
				Vantage Point	5013	5013	5013
				Apollo	5014	5014	5014
				Bolero	5015	5015	5015
				Chase DLX	5016	5016	5016
				Comet	5017	5017	5017
				Express	5018	5018	5018
				Maestro	5019	5019	5019
				Traditions	5020	5020	5020
				Vision	5021	5021	5021
				Argos	5022	5022	5022
				CarGo	5023	5023	5023
				Cherished CarGo	5024	5024	5024

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
					2017	**2018**	**2019**
				Grand Cargo	5025	5025	5025
				Nautilus	5026	5026	5026
				Quest	5027	5027	5027
				Teasured Cargo	5028	5028	5028
				Ultra Cargo	5029	5029	5029
				Defender 360 3-in-1	5030	5030	5030
				ProSport	5031	5031	5031
				Young Sport	5032	5032	5032
				Finale	5033	5033	5033
*	*			My Fit	*	*	5034
				Built-in child safety seat	5950	5950	5950
				Recaro	6001	6001	6001
				Trend	6002	6002	6002
				Bodyguard	6003	6003	6003
				Cruiser	6004	6004	6004
				Monarch	6005	6005	6005
				Parkway	6006	6006	6006
				Stariser / Comfy	6007	6007	6007
				Inflatable Booster	6008	6008	6008
				Kobuk	6009	6009	6009
				Highrise	6010	6010	6010
				Pronto	6011	6011	6011
				Protek	6012	6012	6012
				Select Ride	6013	6013	6013
				Stack It BSS	6014	6014	6014
				Traveler	6015	6015	6015
				Valet	6016	6016	6016
				Vista	6017	6017	6017
				Voyager	6018	6018	6018
				Rodi	6019	6019	6019

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	2018	2019
				Highrider	6020	6020	6020
				Store N Go	6021	6021	6021
				Solution X-Fix	6022	6022	6022
				Big Kid	6023	6023	6023
				Booster Seat	6024	6024	6024
				Confidence	6025	6025	6025
				Secure Comfort	6026	6026	6026
				Sightseer Comfort Touch	6027	6027	6027
				Affix	6028	6028	6028
				AirBooster	6029	6029	6029
				My CarGo	6030	6030	6030
				TurboBooster	6031	6031	6031
				Secure Comfort Deluxe Booster	6032	6032	6032
				Youth Booster Seat	6033	6033	6033
				Grand Touring	6034	6034	6034
				Komfort Kruiser	6035	6035	6035
				Komfort Rider	6036	6036	6036
				Komfort Rider GT	6037	6037	6037
				Cruiser 3	6038	6038	6038
				Clek Olli	6039	6039	6039
				Clek Oobr	6040	6040	6040
				Clek Ozzi	6041	6041	6041
				Grab-and-Go	6042	6042	6042
				Start	6043	6043	6043
				Vivo	6044	6044	6044
				Booster	6045	6045	6045
				Ride Ryte	6046	6046	6046
				Double Up	6047	6047	6047
				Compass B500 Booster	6048	6048	6048
				Top Side	6049	6049	6049

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
				Amp Booster Seat	*	*	6050
				Vest	7001	7001	7001
				Tote 'n Go	7002	7002	7002
				E-Z-On Vest	7003	7003	7003
				Ride Safer Travel Vest	7004	7004	7004
				Travel Vest	7005	7005	7005
				Harness	8001	8001	8001
				SafeGuard	8002	8002	8002
				Safeguard Star Plus	8003	8003	8003
				Safeguard Star Standard	8004	8004	8004
				2000	9001	9001	9001
				Snug Seat Hippo	9002	9002	9002
				Traveller Plus	9003	9003	9003
				Pilot	9004	9004	9004
				Churchill EZ Up	9005	9005	9005
				Spirit APS	9006	9006	9006
				MPS Special Needs	9007	9007	9007
				Carrie Car Seat	9008	9008	9008
				Other model (specify)	9997	9997	9997
				Unknown Model	9998	9998	9998
CHILDSEAT	CHILD SEAT MODEL NUMBER	CHILDMODELNO	$CRSMODELNOXXF	[Actual Value]	#	#	#
				Unknown	99999999	99999999	99999999
CHILDSEAT	CHILD POSITION IN CHILD SEAT	CHILDPOSITION	CHILDPOSITIONXXF	Not occupied	0	0	0
				Upright	1	1	1
				Reclined/lying back	2	2	2
				Supine, facing upwards	3	3	3
				Slumped forward	4	4	4
				Slumped to the side	5	5	5
				Kneeling	6	6	6
				Other (specify)	8	8	8

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	2018	2019
				Unknown	9	9	9
CHILDSEAT	CHILD SEAT NUMBER	CHILDSEATNO	N/A	[Actual Value]	#	#	#
CHILDSEAT	CHILD SEAT TYPE	CHILDSEATYPE	CRSTYPEXXF	Infant seat (ISS)	1	1	1
				Convertible seat (CSS)	2	2	2
				Forward facing (FSS)	3	3	3
				Booster/Convertible facing seat (BSS/CSS)	4	4	4
				Booster/Forward facing seat (BSS/FSS)	5	5	5
				Booster seat (BSS)	6	6	6
				Vest (VSS)	7	7	7
				Harness (HSS)	8	8	8
				Special needs (SNSS)	9	9	9
				Integrated seat (INT)	96	96	96
				Other (specify)	97	97	97
				Unknown	99	99	99
CHILDSEAT	CHILD SEAT DATA SOURCE	DATASOURCE	CRSSOURCEXXF	Vehicle	1	1	1
				Interview	2	2	2
				Vehicle and Interview	3	3	3
				Photographs Only	4	4	4
				Official Records	5	5	5
CHILDSEAT	HARNESS DESIGN	HARNESSDESIGN	HARNDESIGNXXF	No harness/shield available (or not designed with harness/shield	0	0	0
				3 pt	1	1	1
				5 pt	2	2	2
				6 pt	3	3	3
				T-Shield	4	4	4
				Tray Shield	5	5	5
				Shield	6	6	6
				Unknown	9	9	9
CHILDSEAT	HARNESS USE	HARNESSUSE	HARNUSEXXF	Not designed with harness	0	0	0
				Harness/shield not used	1	1	1

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
				Harness straps in Top/Highest slots	2	2	2
				Harness straps in the Middle slots	3	3	3
				Harness straps in the Bottom/Lower slots	4	4	4
				Harness used - slot use unknown	5	5	5
				Retrofitted with Harness	6	6	6
				Shield used	7	7	7
				Other (specify)	8	8	8
				Unknown if harness/shield used	9	9	9
CHILDSEAT	CHILD SEAT HOW USED	HOWUSED	CRSUSEXXF	Infant seat (ISS)	1	1	1
				Forward facing (FSS)	2	2	2
				Booster seat (BSS)	3	3	3
				Integrated seat (INT)	4	4	4
				Harness (HSS)	5	5	5
				Vest (VSS)	6	6	6
				Special needs (SNSS)	7	7	7
				Other (specify)	8	8	8
				Unknown	9	9	9
CHILDSEAT	LATCH ANCHOR	LATCHANCHOR	LATCHANCHORXXF	No	0	0	0
				Yes	1	1	1
				Unknown if anchor	9	9	9
CHILDSEAT	LATCH DESIGN	LATCHDESIGN	LATCHDESIGNXXF	No lower anchors available (or not designed with lower anchors)	0	0	0
				Lower anchors available (or designed with lower anchors)	1	1	1
				Unknown	9	9	9
CHILDSEAT	LATCH PLATE TYPE	LATCHPLATE	LATCHPLATEXXF	Not used/not available	0	0	0
				Sliding	1	1	1
				Light weight locking/cinching	2	2	2
				Locking	3	3	3
				Switchable	4	4	4

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
				Sewn on	5	5	5
				Unknown Type	9	9	9
CHILDSEAT	LATCH TETHER	LATCHTETHER	LATCHTETHERXXF	No	0	0	0
				Yes	1	1	1
				Unknown if tether	9	9	9
CHILDSEAT	LATCH USE	LATCHUSE	LATCHUSEXXF	Not designed with lower anchors	0	0	0
				Lower anchors used	1	1	1
				Lower anchors - not used	3	3	3
				Unknown if lower anchors used	9	9	9
CHILDSEAT	LOCKING CLIP USE	LOCKCLIPUSE	LOCKUSEXXF	None present	0	0	0
				Locking clip used on lap and shoulder belt	1	1	1
				Locking clip used on lap belt only	2	2	2
				Locking clip used on shoulder belt only	3	3	3
				Internal belt lock present and used	4	4	4
				Internal belt lock present and not used	5	5	5
				Internal belt lock present, use unknown	6	6	6
				Other	8	8	8
				Unknown	9	9	9
CHILDSEAT	OCCUPANT NUMBER	OCCNO	N/A	[Actual Value]	#	#	#
CHILDSEAT	CHILD SEAT ORIENTATION	ORIENTATION	CRSORIENTXXF	Rear facing	1	1	1
				Forward facing	2	2	2
				Supine	3	3	3
				Other	8	8	8
				Unknown	9	9	9
CHILDSEAT	CHILD SEAT PLACEMENT	PLACEMENT	CRSPLACEXXF	Seat	1	1	1
				Floor	2	2	2
				Lap of other occupant	3	3	3
				Console	4	4	4
				Other	8	8	8
				Unknown	9	9	9

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
CHILDSEAT	PRIMARY SAMPLING UNIT	PSU	N/A	[Actual Value]	#	#	#
	PSU STRATIFICATION	PSUSTRAT	N/A	[Actual Value]	#	#	#
CHILDSEAT	RETRAINER CLIP DESIGN	RETRAINERCLIPDESIGN	CLIPDESIGNXXF	No clip available, or not designed with retainer clip	0	0	0
				Clip available	1	1	1
				Unknown	9	9	9
CHILDSEAT	RETRAINER CLIP USE	RETRAINERCLIPUSE	CLIPUSEXXF	Not designed with retainer clip	0	0	0
				Retainer clip not used	1	1	1
				Retrainer clip used - neck level	2	2	2
				Retrainer clip used - chest/armpit Level	3	3	3
				Retrainer clip used - stomach level	4	4	4
				Retrainer clip used - unknown level	5	5	5
				Retrofitted with retainer clip	6	6	6
				Unknown if retainer clip used	9	9	9
CHILDSEAT	SEAT LOCATION	SEATLOC	N/A	[Actual Value]	#	#	#
CHILDSEAT	TETHER DESIGN	TETHERDESIGN	TETHERDESIGNXXF	No tether available (or not designed with Tether)	0	0	0
				Tether available (or designed with Tether)	1	1	1
				Unknown	9	9	9
CHILDSEAT	TETHER USE	TETHERUSE	TETHERUSEXXF	Not designed with Tether	0	0	0
				Tether not used	1	1	1
				Tether used	2	2	2
				Unknown if Tether Used	9	9	9
CHILDSEAT	VEHICLE NUMBER	VEHNO	N/A	[Actual Value]	#	#	#
CHILDSEAT	VERSION NUMBER	VERSION	N/A	[Actual Value]	2	3	4

CRASH Dataset

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	2018	2019
CRASH	ALCOHOL INVOLVEMENT	ALCINV	YESNOUNKXXF	Yes	1	1	1
				No	2	2	2
				Unknown	9	9	9
CRASH	MAXIMUM KNOWN AIS IN THIS CRASH	CAIS	N/A	[Actual Value]	#	#	#
CRASH	SYSTEM CASE IDENTIFIER	CASEID	N/A	[Actual Value]	#	#	#
CRASH	SEQUENTIAL CASE NUMBER	CASENO	N/A	[Actual Value]	#	#	#
CRASH	CASE NUMBER	CASENUMBER	N/A	[Actual Value]	#	#	#
CRASH	CASE WEIGHT	CASEWGT	N/A	[Actual Value]	#	#	#
CRASH	CASE CATEGORY	CATEGORY	N/A	[Actual Value]	#	#	#
CRASH	NUMBER OF SERIOUSLY INJURED OCCUPANTS	CINJSEV	N/A	[Actual Value]	#	#	#
CRASH	NUMBER OF INJURED OCCUPANTS	CINJURED	N/A	[Actual Value]	#	#	#
CRASH	MAXIMUM ISS SCORE IN THIS CASE	CISS	ISSXXF	Not Injured	0	0	0
				[Actual Value]	#	#	#
				Not a towed CISS applicable vehicle	95	95	95
				Injury, Unknown Severity	97	97	97
				Unknown if Injured	99	99	99
CRASH	CRASH CONFIGURATION	CONFIG	CRCONFIGXXF	Head-on	1	*	*
				Angle / sideswipe	2	*	*
				Rear end	3	*	*
				Rollover	4	*	*
				Object off road	5	*	*
				Object on road	6	*	*
				Noncollision	7	*	*
CRASH	CRASH MONTH	CRASHMONTH	MONTHXXF	January	1	1	1
				February	2	2	2
				March	3	3	3
				April	4	4	4

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code		
					2017	2018	2019
				May	5	5	5
				June	6	6	6
				July	7	7	7
				August	8	8	8
				September	9	9	9
				October	10	10	10
				November	11	11	11
				December	12	12	12
CRASH	CRASH TIME	CRASHTIME	N/A	[Actual Value]	#	#	#
				Unknown	99:99	99:99	99:99
CRASH	CRASH YEAR	CRASHYEAR	N/A	[Actual Value]	#	#	#
CRASH	MAXIMUM TREATMENT IN CRASH	CTREAT	TREATXXF	NO TREATMENT	0	0	0
				FATAL	1	1	1
				FATAL - RULED DISEASE	2	2	2
				HOSPITALIZED	3	3	3
				TRANSPORTED AND RELEASED	4	4	4
				TREATMENT AT SCENE, NOT TRANSPORTED	5	5	5
				TREATMENT-LATER	6	6	6
				TREATMENT-OTHER	7	7	7
				TRANSPORTED TO A MEDICAL FACILITY - UNK IF TREATED	8	8	8
				UNKNOWN	9	9	9
CRASH	DAY OF WEEK	DAYWEEK	DAYWEEKXXF	Sunday	1	1	1
				Monday	2	2	2
				Tuesday	3	3	3
				Wednesday	4	4	4
				Thursday	5	5	5
				Friday	6	6	6
				Saturday	7	7	7
CRASH	DRUG INVOLVEMENT	DRGINV	YESNOUNKXXF	Yes	1	1	1

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code		
					2017	2018	2019
				No	2	2	2
				Unknown	9	9	9
CRASH	NUMBER OF EVENTS	EVENTS	N/A	[Actual Value]	#	#	#
CRASH	MANNER OF COLLISION	MANCOLL	MANCOLLXXF	NOT COLLISION WITH VEHICLE IN TRANSPORT	0	0	0
				REAR-END	1	1	1
				HEAD-ON	2	2	2
				ANGLE	4	4	4
				SIDESWIPE, SAME DIRECTION	5	5	5
				SIDESWIPE, OPPOSITE DIRECTION	6	6	6
				UNKNOWN	9	9	9
CRASH	PRIMARY SAMPLING UNIT	PSU	N/A	[Actual Value]	#	#	#
CRASH	PSU STRATIFICATION	PSUSTRAT	N/A	[Actual Value]	#	#	#
CRASH	CRASH SUMMARY	SUMMARY	N/A	[Actual Value]	#	#	#
CRASH	VEHICLE NUMBER	VEHNO	N/A	[Actual Value]	#	#	#
CRASH	VERSION NUMBER	VERSION	N/A	[Actual Value]	2	3	4

DISTRACT Dataset

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
DISTRACT	SYSTEM CASE IDENTIFIER	CASEID	N/A	[Actual Value]	#	#	#
DISTRACT	SEQUENTIAL CASE NUMBER	CASENO	N/A	[Actual Value]	#	#	#
DISTRACT	CASE NUMBER	CASENUMBER	N/A	[Actual Value]	#	#	#
DISTRACT	CASE WEIGHT	CASEWGT	N/A	[Actual Value]	#	#	#
DISTRACT	CASE CATEGORY	CATEGORY	N/A	[Actual Value]	#	#	#
DISTRACT	DISTRACTION	DISTRACTN	DISTTYPEXXF	Sleepy or fell asleep	1	1	1
				Inattentive or lost in thought	2	2	2
				Manually operating an electronic communication device (texting, typing, dialing, etc)	3	3	3
				Talking on hands-free electronic device	4	4	4
				Talking on hand-held electronic device	5	5	5
				Other device brought into the vehicle (navigation, game, video, etc)	6	6	6
				Device/Control integral to the vehicle	7	7	7
				Passenger	8	8	8
				Other inside the vehicle (eating, personal hygiene, smoking, etc)	9	9	9
				Outside the vehicle (includes unspecified external distractions)	10	10	10
				Distracted, unknown type	99	99	99
DISTRACT	PRIMARY SAMPLING UNIT	PSU	N/A	[Actual Value]	#	#	#
DISTRACT	PSU STRATIFICATION	PSUSTRAT	N/A	[Actual Value]	#	#	#
DISTRACT	VEHICLE NUMBER	VEHNO	N/A	[Actual Value]	#	#	#
DISTRACT	VERSION NUMBER	VERSION	N/A	[Actual Value]	2	3	4

EDRCOLLECT Dataset

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	2018	2019
EDRCOLLECT	SYSTEM CASE IDENTIFIER	CASEID	N/A	[Actual Value]	#	#	#
EDRCOLLECT	SEQUENTIAL CASE NUMBER	CASENO	N/A	[Actual Value]	#	#	#
EDRCOLLECT	CASE NUMBER	CASENUMBER	N/A	[Actual Value]	#	#	#
EDRCOLLECT	CASE WEIGHT	CASEWGT	N/A	[Actual Value]	#	#	#
EDRCOLLECT	CASE CATEGORY	CATEGORY	N/A	[Actual Value]	#	#	#
EDRCOLLECT	EDR IMAGING METHOD	EDRMETHOD	EDRMETHXXF	DLC	1	1	1
				Fuse Block	2	2	2
				Direct to Module	3	3	3
				Third Party	4	4	4
EDRCOLLECT	WAS EDR INFORMATION OBTAINED	EDROBTAINED	EDROBTXXF	Yes - Data entered	1	1	1
				Yes - No event recorded	2	2	2
				EDR information not obtained - Vehicle make/model not supported by software or hardware.	3	3	3
				EDR information not obtained - Vehicle damage prevents accessing EDR data.	4	4	4
		-		EDR information not obtained - Permission not received (specify)	5	5	5
				EDR information not obtained - Hardware issue (specify)	6	6	6
				EDR information not obtained - Software issue (specify)	7	7	7
				EDR information not obtained - EDR submitted to manufacturer	8	8	8
				EDR information not obtained - Other reasons (specify)	9	9	9
				Unknown	99	99	99
EDRCOLLECT	PRIMARY SAMPLING UNIT	PSU	N/A	[Actual Value]	#	#	#
EDRCOLLECT	PSU STRATIFICATION	PSUSTRAT	N/A	[Actual Value]	#	#	#
EDRCOLLECT	VEHICLE NUMBER	VEHNO	N/A	[Actual Value]	#	#	#
EDRCOLLECT	VERSION NUMBER	VERSION	N/A	[Actual Value]	2	3	4

EDREVENT Dataset

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	2018	2019
EDREVENT	SYSTEM CASE IDENTIFIER	CASEID	N/A	[Actual Value]	#	#	#
EDREVENT	SEQUENTIAL CASE NUMBER	CASENO	N/A	[Actual Value]	#	#	#
EDREVENT	CASE NUMBER	CASENUMBER	N/A	[Actual Value]	#	#	#
EDREVENT	CASE WEIGHT	CASEWGT	N/A	[Actual Value]	#	#	#
EDREVENT	CASE CATEGORY	CATEGORY	N/A	[Actual Value]	#	#	#
EDREVENT	RELATED CDC EVENT	CDCEVENT	CDCEVENT18F	[Actual Value]	*	#	#
				Related, unknown event	*	95	95
				Event not related to this crash	*	97	97
				Unknown	*	99	99
EDREVENT	EDR EVENT NUMBER	EDREVENTNO	N/A	[Actual Value]	#	#	#
EDREVENT	EDR SUMMARY NUMBER	EDRSUMMNO	N/A	[Actual Value]	#	#	#
EDREVENT	TIME FROM EVENT 1 TO 2	EVENT1TO2	EDRTIMEXXF	[Actual Value]	#	#	#
				Reported - Data Not Valid	8888	8888	8888
				Time between events exceeds 5.0 seconds	9995	9995	9995
				Not reported	9997	9997	9997
EDREVENT	EDR EVENT DESCRIPTION	EVENTDESC	N/A	[Actual Value]	#	#	#
EDREVENT	COMPLETE FILE RECORDED	FILEREC	FILERECXXF	No	0	0	0
				Yes	1	1	1
				Not reported	7	7	7
				Reported - Data Not Valid	8	8	8
EDREVENT	IGNITION CYCLE - CRASH	IGCYCRASH	IGCYCLEXXF	[Actual Value]	#	#	#
				Reported - Data Not Valid	999997	999997	999997
				Not reported	999998	999998	999998
EDREVENT	MAX DELTA V - LATERAL	MAXDVLAT	EDRDVXXF	[Actual Value]	#	#	#
				Reported - Data Not Valid	888	888	888
				Not reported	997	997	997
EDREVENT	TIME TO MAX DELTA V - LATERAL	MAXDVLATTIME	EDRTIMEXXF	[Actual Value]	#	#	#
				Reported - Data Not Valid	8888	8888	8888

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
				Time between events exceeds 5.0 seconds	9995	9995	9995
				Not reported	9997	9997	9997
EDREVENT	MAX DELTA V - LONGITUDINAL	MAXDVLONG	EDRDVXXF	[Actual Value]	#	#	#
				Reported - Data Not Valid	888	888	888
				Not reported	997	997	997
EDREVENT	TIME TO MAX DELTA V - LONGITUDINAL	MAXDVLONGTIME	EDRTIMEXXF	[Actual Value]	#	#	#
				Reported - Data Not Valid	8888	8888	8888
				Time between events exceeds 5.0 seconds	9995	9995	9995
				Not reported	9997	9997	9997
EDREVENT	TIME TO MAX DELTA V - RESULTANT	MAXDVRESTIME	EDRTIMEXXF	[Actual Value]	#	#	#
				Reported - Data Not Valid	8888	8888	8888
				Time between events exceeds 5.0 seconds	9995	9995	9995
				Not reported	9997	9997	9997
EDREVENT	MULTI-EVENT, NUMBER OF EVENTS	NUMEVENTS	N/A	[Actual Value]	#	#	#
EDREVENT	PRIMARY SAMPLING UNIT	PSU	N/A	[Actual Value]	#	#	#
EDREVENT	PSU STRATIFICATION	PSUSTRAT	N/A	[Actual Value]	#	#	#
EDREVENT	VEHICLE NUMBER	VEHNO	N/A	[Actual Value]	#	#	#
EDREVENT	VERSION NUMBER	VERSION	N/A	[Actual Value]	2	3	4
EDREVENT	FRONTAL AIR BAG WARNING LAMP	WARNLAMP	WARNLAMPXXF	Off	0	0	0
				On	1	1	1
				Not reported	7	7	7
				Reported - Data Not Valid	8	8	8

EDRPOSTCRASH Dataset

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	2018	2019
EDRPOSTCRASH	SYSTEM CASE IDENTIFIER	CASEID	N/A	[Actual Value]	#	#	#
EDRPOSTCRASH	SEQUENTIAL CASE NUMBER	CASENO	N/A	[Actual Value]	#	#	#
EDRPOSTCRASH	CASE NUMBER	CASENUMBER	N/A	[Actual Value]	#	#	#
EDRPOSTCRASH	CASE WEIGHT	CASEWGT	N/A	[Actual Value]	#	#	#
EDRPOSTCRASH	CASE CATEGORY	CATEGORY	N/A	[Actual Value]	#	#	#
EDRPOSTCRASH	EDR EVENT NUMBER	EDREVENTNO	N/A	[Actual Value]	#	#	#
EDRPOSTCRASH	EDR SUMMARY NUMBER	EDRSUMMNO	N/A	[Actual Value]	#	#	#
EDRPOSTCRASH	EDR POINT TYPE	PCODE	CODETYPEXXF	Delta-V, Longitudinal	2010	2010	2010
				Delta-V, Lateral	2020	2020	2020
				Acceleration, Longitudinal (g)	2030	2030	2030
				Acceleration, Lateral (g)	2040	2040	2040
				Acceleration, Normal (g)	2050	2050	2050
				Roll Angle (g)	2060	2060	2060
EDRPOSTCRASH	PRIMARY SAMPLING UNIT	PSU	N/A	[Actual Value]	#	#	#
EDRPOSTCRASH	PSU STRATIFICATION	PSUSTRAT	N/A	[Actual Value]	#	#	#
EDRPOSTCRASH	EDR POINT TIME	PTIME	PTIMEXXF	[Actual Value]	#	#	#
				Reported - Data Not Valid	9996	9996	9996
				Not reported	9997	9997	9997
EDRPOSTCRASH	EDR POINT VALUE	PVALUE	N/A	[Actual Value]	#	#	#
EDRPOSTCRASH	VEHICLE NUMBER	VEHNO	N/A	[Actual Value]	#	#	#
EDRPOSTCRASH	VERSION NUMBER	VERSION	N/A	[Actual Value]	2	3	4

EDRPRECRASH Dataset

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	2018	2019
EDRPRECRASH	SYSTEM CASE IDENTIFIER	CASEID	N/A	[Actual Value]	#	#	#
EDRPRECRASH	SEQUENTIAL CASE NUMBER	CASENO	N/A	[Actual Value]	#	#	#
EDRPRECRASH	CASE NUMBER	CASENUMBER	N/A	[Actual Value]	#	#	#
EDRPRECRASH	CASE WEIGHT	CASEWGT	N/A	[Actual Value]	#	#	#
EDRPRECRASH	CASE CATEGORY	CATEGORY	N/A	[Actual Value]	#	#	#
EDRPRECRASH	EDR EVENT NUMBER	EDREVENTNO	N/A	[Actual Value]	#	#	#
EDRPRECRASH	EDR SUMMARY NUMBER	EDRSUMMNO	N/A	[Actual Value]	#	#	#
EDRPRECRASH	EDR POINT TYPE	PCODE	CODETYPEXXF	Vehicle Speed	1010	1010	1010
				Engine Throttle (% full)	1020	1020	1020
				Accelerator Pedal (% full)	1030	1030	1030
				Service Brake	1040	1040	1040
				Engine RPM	1050	1050	1050
				ABS Activity	1060	1060	1060
				Stability Control	1070	1070	1070
				Steering input (deg)	1080	1080	1080
EDRPRECRASH	PRIMARY SAMPLING UNIT	PSU	N/A	[Actual Value]	#	#	#
EDRPRECRASH	PSU STRATIFICATION	PSUSTRAT	N/A	[Actual Value]	#	#	#
EDRPRECRASH	EDR POINT TIME	PTIME	PTIMEXXF	[Actual Value]	#	#	#
				Reported - Data Not Valid	9996	9996	9996
				Not reported	9997	9997	9997
EDRPRECRASH	EDR POINT VALUE	PVALUE	N/A	[Actual Value]	#	#	#
EDRPRECRASH	VEHICLE NUMBER	VEHNO	N/A	[Actual Value]	#	#	#
EDRPRECRASH	VERSION NUMBER	VERSION	N/A	[Actual Value]	2	3	4

EDRREST Dataset

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	2018	2019
EDRREST	SYSTEM CASE IDENTIFIER	CASEID	N/A	[Actual Value]	#	#	#
EDRREST	SEQUENTIAL CASE NUMBER	CASENO	N/A	[Actual Value]	#	#	#
EDRREST	CASE NUMBER	CASENUMBER	N/A	[Actual Value]	#	#	#
EDRREST	CASE WEIGHT	CASEWGT	N/A	[Actual Value]	#	#	#
EDRREST	CASE CATEGORY	CATEGORY	N/A	[Actual Value]	#	#	#
EDRREST	EDR EVENT NUMBER	EDREVENTNO	N/A	[Actual Value]	#	#	#
EDRREST	EDR SUMMARY NUMBER	EDRSUMMNO	N/A	[Actual Value]	#	#	#
EDRREST	DRIVER TIME TO STAGE 1 FRONTAL DEPLOYMENT	LF1STAGEDEP	EDRSTAG1XXF	[Actual Value]	#	#	#
				Reported - Data Not Valid	8888	8888	8888
				Frontal air bag deployed, no time specified	9994	9994	9994
				Frontal air bag not deployed	9995	9995	9995
				No event recorded	9996	9996	9996
				Not reported	9997	9997	9997
EDRREST	DRIVER TIME TO STAGE 2 FRONTAL DEPLOYMENT	LF2STAGEDEP	EDRSTAG2XXF	[Actual Value]	#	#	#
				Reported - Data Not Valid	8888	8888	8888
				Frontal air bag deployed, no time specified	9994	9994	9994
				Frontal air bag not deployed	9995	9995	9995
				No event recorded	9996	9996	9996
				Not reported	9997	9997	9997
EDRREST	DRIVER BELT STATUS	LFBELT	EDRBELTXXF	Unbuckled	0	0	0
				Buckled	1	1	1
				No event recorded	6	6	6
				Not reported	7	7	7
				Reported - Data Not Valid	8	8	8
EDRREST	DRIVER TIME TO BUCKLE PRETENSIONER DEPLOYMENT	LFBUCKDEPTIME	EDRTIMEPRETXXF	[Actual Value]	#	#	#

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
				Reported - Data Not Valid	8888	8888	8888
				Pretensioner not deployed	9995	9995	9995
				No event recorded	9996	9996	9996
				Not reported	9997	9997	9997
EDRREST	DRIVER TIME TO CURTAIN/TUBE BAG DEPLOYEMENT	LFCURTDEPTIME	EDRTIMECURXXF	[Actual Value]	#	#	#
				Reported - Data Not Valid	8888	8888	8888
				Curtain air bag deployed, no time specified	9994	9994	9994
				Curtain air bag not deployed	9995	9995	9995
				No event recorded	9996	9996	9996
				Not reported	9997	9997	9997
EDRREST	DRIVER AIR BAG DISPOSAL	LFDISPOSAL	EDRDISPOSALXXF	Second stage deployment was not for the purpose of disposal	0	0	0
				Second stage deployment was a disposal	1	1	1
				No event recorded	6	6	6
				Not reported	7	7	7
				Reported - Data Not Valid	8	8	8
EDRREST	DRIVER OUT OF POSITION	LFOCCPOS	OCCPOSXXF	No	0	0	0
				Yes	1	1	1
				No event recorded	6	6	6
				Not reported	7	7	7
				Reported - Data Not Valid	8	8	8
EDRREST	DRIVER OCCUPANT SIZE CLASSIFICATION	LFOCCSIZE	OCCSIZEXXF	Empty	0	0	0
				Child	1	1	1
				5th percentile female	2	2	2
				Larger than 5th percentile female	3	3	3
				Child or Empty	4	4	4
				Adult, size not specified	5	5	5
				No event recorded	6	6	6
				Not reported	7	7	7

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	2018	2019
				Reported - Data Not Valid	8	8	8
EDRREST	DRIVER TIME TO PRETENSIONER DEPLOYMENT	LFPRETENDEPTIME	EDRTIMEPRETXXF	[Actual Value]	#	#	#
				Reported - Data Not Valid	8888	8888	8888
				Pretensioner deployed, no time specified	9994	9994	9994
				Pretensioner not deployed	9995	9995	9995
				No event recorded	9996	9996	9996
				Not reported	9997	9997	9997
EDRREST	DRIVER TIME TO RETRACTOR DEPLOYMENT	LFRETRACTDEPTIME	EDRTIMEBUCKXXF	[Actual Value]	#	#	#
				Reported - Data Not Valid	8888	8888	8888
				Pretensioner not deployed	9995	9995	9995
				No event recorded	9996	9996	9996
				Not reported	9997	9997	9997
				Pretensioner deployed, no time specified	9999	9999	9999
EDRREST	DRIVER TIME TO SIDE AIR BAG DEPLOYMENT	LFSIDEPTIME	EDRTIMESIDEXXF	Reported - Data Not Valid	8888	8888	8888
				Side air bag deployed, no time specified	9994	9994	9994
				Side air bag not deployed	9995	9995	9995
				No event recorded	9996	9996	9996
				Not reported	9997	9997	9997
EDRREST	DRIVER AIR BAG SUPRESSION SWITCH	LFSWITCH	EDRSWITCHXXF	Off	0	0	0
				On	1	1	1
				Auto	2	2	2
				No event recorded	6	6	6
				Not reported	7	7	7
				Reported - Data Not Valid	8	8	8
EDRREST	DRIVER SEAT TRACK POSITION, FOREMOST	LFTRACKPOS	TRACKPOSXXF	No	0	0	0
				Yes	1	1	1
				No event recorded	6	6	6
				Not reported	7	7	7
				Reported - Data Not Valid	8	8	8
EDRREST	PRIMARY SAMPLING UNIT	PSU	N/A	[Actual Value]	#	#	#

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	2018	2019
EDRREST	PSU STRATIFICATION	PSUSTRAT	N/A	[Actual Value]	#	#	#
EDRREST	PASSENGER TIME TO STAGE 1 FRONTAL DEPLOYMENT	RF1STAGEDEP	EDRSTAG1XXF	[Actual Value]	#	#	#
				Reported - Data Not Valid	8888	8888	8888
				Frontal air bag deployed, no time specified	9994	9994	9994
				Frontal air bag not deployed	9995	9995	9995
				No event recorded	9996	9996	9996
				Not reported	9997	9997	9997
EDRREST	PASSENGER TIME TO STAGE 2 FRONTAL DEPLOYMENT	RF2STAGEDEP	EDRSTAG2XXF	[Actual Value]	#	#	#
				Reported - Data Not Valid	8888	8888	8888
				Frontal air bag deployed, no time specified	9994	9994	9994
				Frontal air bag not deployed	9995	9995	9995
				No event recorded	9996	9996	9996
				Not reported	9997	9997	9997
EDRREST	PASSENGER BELT STATUS	RFBELT	EDRBELTXXF	Unbuckled	0	0	0
				Buckled	1	1	1
				No event recorded	6	6	6
				Not reported	7	7	7
				Reported - Data Not Valid	8	8	8
EDRREST	PASSENGER TIME TO BUCKLE PRETENSIONER DEPLOYMENT	RFBUCKDEPTIME	EDRTIMEPRETXXF	[Actual Value]	#	#	#
				Reported - Data Not Valid	8888	8888	8888
				Pretensioner deployed, no time specified	9994	9994	9994
				Pretensioner not deployed	9995	9995	9995
				No event recorded	9996	9996	9996
				Not reported	9997	9997	9997
EDRREST	PASSENGER TIME TO CURTAIN/TUBE BAG DEPLOYEMENT	RFCURTDEPTIME	EDRTIMECURXXF	[Actual Value]	#	#	#
				Reported - Data Not Valid	8888	8888	8888

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
				Curtain air bag deployed, no time specified	9994	9994	9994
				Curtain air bag not deployed	9995	9995	9995
				No event recorded	9996	9996	9996
				Not reported	9997	9997	9997
EDRREST	PASSENGER AIR BAG DISPOSAL	RFDISPOSAL	EDRDISPOSALXXF	Second stage deployment was not for the purpose of disposal	0	0	0
				Second stage deployment was a disposal	1	1	1
				No event recorded	6	6	6
				Not reported	7	7	7
				Reported - Data Not Valid	8	8	8
EDRREST	PASSENGER OUT OF POSITION	RFOCCPOS	OCCPOSXXF	No	0	0	0
				Yes	1	1	1
				No event recorded	6	6	6
				Not reported	7	7	7
				Reported - Data Not Valid	8	8	8
EDRREST	PASSENGER OCCUPANT SIZE CLASSIFICATION	RFOCCSIZE	OCCSIZEXXF	Empty	0	0	0
				Child	1	1	1
				5th percentile female	2	2	2
				Larger than 5th percentile female	3	3	3
				Child or Empty	4	4	4
				Adult, size not specified	5	5	5
				No event recorded	6	6	6
				Not reported	7	7	7
				Reported - Data Not Valid	8	8	8
EDRREST	PASSENGER TIME TO PRETENSIONER DEPLOYMENT	RFPRETENDEPTIME	EDRTIMEPRETXXF	[Actual Value]	#	#	#
				Reported - Data Not Valid	8888	8888	8888
				Pretensioner deployed, no time specified	9994	9994	9994
				Pretensioner not deployed	9995	9995	9995
				No event recorded	9996	9996	9996

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	2018	2019
				Not reported	9997	9997	9997
EDRREST	PASSENGER TIME TO RETRACTOR DEPLOYMENT	RFRETRACTDEPTIME	EDRTIMEBUCKXXF	[Actual Value]	#	#	#
				Reported - Data Not Valid	8888	8888	8888
				Pretensioner not deployed	9995	9995	9995
				No event recorded	9996	9996	9996
				Not reported	9997	9997	9997
EDRREST	PASSENGER TIME TO SIDE AIR BAG DEPLOYMENT	RFSIDEPTIME	EDRTIMESIDEXXF	Reported - Data Not Valid	8888	8888	8888
				Side air bag deployed, no time specified	9994	9994	9994
				Side air bag not deployed	9995	9995	9995
				No event recorded	9996	9996	9996
				Not reported	9997	9997	9997
EDRREST	PASSENGER AIR BAG SUPRESSION SWITCH	RFSWITCH	EDRSWITCHXXF	Off	0	0	0
				On	1	1	1
				Auto	2	2	2
				No event recorded	6	6	6
				Not reported	7	7	7
				Reported - Data Not Valid	8	8	8
EDRREST	PASSENGER SEAT TRACK POSITION, FOREMOST	RFTRACKPOS	TRACKPOSXXF	No	0	0	0
				Yes	1	1	1
				No event recorded	6	6	6
				Not reported	7	7	7
				Reported - Data Not Valid	8	8	8
EDRREST	VEHICLE NUMBER	VEHNO	N/A	[Actual Value]	#	#	#
EDRREST	VERSION NUMBER	VERSION	N/A	[Actual Value]	2	3	4

EDRSUMM Dataset

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	2018	2019
EDRSUMM	SYSTEM CASE IDENTIFIER	CASEID	N/A	[Actual Value]	#	#	#
EDRSUMM	SEQUENTIAL CASE NUMBER	CASENO	N/A	[Actual Value]	#	#	#
EDRSUMM	CASE NUMBER	CASENUMBER	N/A	[Actual Value]	#	#	#
EDRSUMM	CASE WEIGHT	CASEWGT	N/A	[Actual Value]	#	#	#
EDRSUMM	CASE CATEGORY	CATEGORY	N/A	[Actual Value]	#	#	#
EDRSUMM	CDR VERSION COLLECTED	CDRVERCOLL	N/A	[Actual Value]	#	#	#
EDRSUMM	CDR VERSION REPORTED	CDRVERREPT	N/A	[Actual Value]	#	#	#
EDRSUMM	EDR SUMMARY NUMBER	EDRSUMMNO	N/A	[Actual Value]	#	#	#
EDRSUMM	IGNITION CYCLE DOWNLOAD	IGCYCDOWN	IGCYCLEXXF	[Actual Value]	#	#	#
				Reported - Data Not Valid	999997	999997	999997
				Not reported	999998	999998	999998
EDRSUMM	CDR MODULE TYPE	MODTYPE	MODTYPEXXF	Air Bag Control Module	1	1	1
				Powertrain Control Module	2	2	2
				Rollover Sensor	3	3	3
				Pedestrian Protection Module	4	4	4
				Not reported	7	7	7
				Reported - Data Not Valid	8	8	8
EDRSUMM	NUMBER OF EDR EVENTS	NUMEVENTS	N/A	[Actual Value]	#	#	#
EDRSUMM	PRIMARY SAMPLING UNIT	PSU	N/A	[Actual Value]	#	#	#
EDRSUMM	PSU STRATIFICATION	PSUSTRAT	N/A	[Actual Value]	#	#	#
EDRSUMM	VEHICLE NUMBER	VEHNO	N/A	[Actual Value]	#	#	#
EDRSUMM	VERSION NUMBER	VERSION	N/A	[Actual Value]	2	3	4

EJECT Dataset

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	2018	2019
EJECT	SYSTEM CASE IDENTIFIER	CASEID	N/A	[Actual Value]	#	#	#
EJECT	SEQUENTIAL CASE NUMBER	CASENO	N/A	[Actual Value]	#	#	#
EJECT	CASE NUMBER	CASENUMBER	N/A	[Actual Value]	#	#	#
EJECT	CASE WEIGHT	CASEWGT	N/A	[Actual Value]	#	#	#
EJECT	CASE CATEGORY	CATEGORY	N/A	[Actual Value]	#	#	#
EJECT	EJECTION AREA	EJECTAREA	EJECTAREAXXF	No Ejection	0	0	0
				Windshield	1	1	1
				Left front	2	2	2
				Right front	3	3	3
				Left rear	4	4	4
				Right rear	5	5	5
				Rear	6	6	6
				Roof	7	7	7
				Unknown if ejected	89	89	89
				Other area	98	98	98
				Unknown	99	99	99
EJECT	EJECTION MEDIUM	EJECTMED	EJECTMEDXXF	No Ejection	0	0	0
				Door/hatch/tailgate	1	1	1
				Non-fixed roof structure	2	2	2
				Fixed glazing	3	3	3
				Non-fixed glazing (specify)	4	4	4
				Integral structure	5	5	5
				Unknown ejection area	79	79	79
				Unknown if ejected	89	89	89
				Other medium (specify)	98	98	98
				Unknown	99	99	99
EJECT	EJECTION MEDIUM STATUS	EJECTMEDSTAT	EJECTMEDSTXXF	No ejection	0	0	0
				Open	1	1	1

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
				Closed	2	2	2
				Integral Structure	3	3	3
				Unknown ejection area	79	79	79
				Unknown if ejected	89	89	89
				Unknown status	99	99	99
EJECT	EJECTION NUMBER	EJECTNO	N/A	[Actual Value]	#	#	#
EJECT	EJECTION TYPE	EJECTTYPE	EJECTIONXXF	Not Ejected	0	0	0
				Ejected, Totally	1	1	1
				Ejected, Partially	2	2	2
				Ejection - Unknown Degree	3	3	3
				Unknown	9	9	9
EJECT	OCCUPANT NUMBER	OCCNO	N/A	[Actual Value]	#	#	#
EJECT	PRIMARY SAMPLING UNIT	PSU	N/A	[Actual Value]	#	#	#
EJECT	PSU STRATIFICATION	PSUSTRAT	N/A	[Actual Value]	#	#	#
EJECT	VEHICLE NUMBER	VEHNO	N/A	[Actual Value]	#	#	#
EJECT	VERSION NUMBER	VERSION	N/A	[Actual Value]	2	3	4

EMSCARE Dataset

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
EMSCARE	SYSTEM CASE IDENTIFIER	CASEID	N/A	[Actual Value]	#	#	#
EMSCARE	SEQUENTIAL CASE NUMBER	CASENO	N/A	[Actual Value]	#	#	#
EMSCARE	CASE NUMBER	CASENUMBER	N/A	[Actual Value]	#	#	#
EMSCARE	CASE WEIGHT	CASEWGT	N/A	[Actual Value]	#	#	#
EMSCARE	CASE CATEGORY	CATEGORY	N/A	[Actual Value]	#	#	#
EMSCARE	OCCUPANT NUMBER	OCCNO	N/A	[Actual Value]	#	#	#
EMSCARE	PRIMARY SAMPLING UNIT	PSU	N/A	[Actual Value]	#	#	#
EMSCARE	PSU STRATIFICATION	PSUSTRAT	N/A	[Actual Value]	#	PSU	#
EMSCARE	VEHICLE NUMBER	VEHNO	N/A	[Actual Value]	#	#	#
EMSCARE	EMS NUMBER	EMSNO	N/A	[Actual Value]	#	#	#
EMSCARE	EMS AGENCY	EMSAGENCY	EMSAGNCYXXF	Fire Department	1	1	1
				Rescue Squad	2	2	2
				Police Department	3	3	3
				Trauma Unit	4	4	4
				Disaster Unit	5	5	5
				Ambulance Service Unit	6	6	6
				Hospital	7	7	7
				Mortuaries/Funeral Home	8	8	8
				Other	98	98	98
				Unknown	99	99	99
EMSCARE	TYPE OF EMS CARE RECEIVED	EMSCARE	EMSCAREXXF	No Care Administration	0	0	0
				Basic Life Support	1	1	1
				Advanced Life Support	2	2	2
				Care administered, type unknown	3	3	3
				Unknown if care administered	9	9	9
EMSCARE	EMS UNIT MODE OF TRANSPORTATION	EMSMODE	EMSMODEXXF	Land	1	1	1
				Air	2	2	2
EMSCARE	TYPE OF EMS UNIT	EMSTYPE	EMSTYPEXXF	Ambulance	1	1	1

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
				Fire Truck/Apparatus	2	2	2
				Other	8	8	8
				Unknown	9	9	9
EMSCARE	ELAPSED TIME FROM CRASH THAT EMS WAS NOTIFIED	NOTIFIED	EMSTIMEXXF	[Actual Value]	#	#	#
				Transport refused	9997	9997	9997
				Not Applicable	9998	9998	9998
				Unknown	9999	9999	9999
EMSCARE	ELASPED TIME FROM CRASH THAT EMS UNIT ARRIVED AT SCENE	SCENEARR	EMSLAPSXXF	[Actual Value]	#	#	#
				Transport refused	9997	9997	9997
				Not Applicable	9998	9998	9998
				Unknown	9999	9999	9999
EMSCARE	ELAPSED TIME BETWEEN CRASH AND EMS SCENE DEPARTURE	SCENEDEP	EMSLAPSXXF	[Actual Value]	#	#	#
				Transport refused	9997	9997	9997
				Not Applicable	9998	9998	9998
				Unknown	9999	9999	9999
EMSCARE	ELAPSED TIME FROM CRASH THAT EMS UNIT ARRIVED AT MEDICAL	ARRMEDICAL	EMSLAPSXXF	[Actual Value]	#	#	#
				Transport refused	9997	9997	9997
				Not Applicable	9998	9998	9998
				Unknown	9999	9999	9999
EMSCARE	ELAPSED TIME FROM CRASH THAT EMS UNIT DEPARTED SCENE	ATSCENE	EMSLAPSXXF	[Actual Value]	#	#	#
				Transport refused	9997	9997	9997
				Not Applicable	9998	9998	9998
				Unknown	9999	9999	9999
EMSCARE	VERSION NUMBER	VERSION	N/A	[Actual Value]	2	3	4

EVENT Dataset

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
EVENT	SYSTEM CASE IDENTIFIER	CASEID	N/A	[Actual Value]	#	#	#
EVENT	SEQUENTIAL CASE NUMBER	CASENO	N/A	[Actual Value]	#	#	#
EVENT	CASE NUMBER	CASENUMBER	N/A	[Actual Value]	#	#	#
EVENT	CASE WEIGHT	CASEWGT	N/A	[Actual Value]	#	#	#
EVENT	CASE CATEGORY	CATEGORY	N/A	[Actual Value]	#	#	#
EVENT	CLASS OF VEHICLE - FIRST VEHICLE	CLASS1	VEHCLASSXXF	Subcompact/mini (wheelbase < 254 cm)	1	1	1
				Compact (wheelbase 254 but < 265 cm)	2	2	2
				Intermediate (wheelbase >=265 but < 278 cm)	3	3	3
				Full size (wheelbase >=278 but < 291 cm)	4	4	4
				Largest (wheelbase >=291 cm)	5	5	5
				Unknown passenger car size	9	9	9
				Compact utility vehicle	14	14	14
				Large utility vehicle (<=4,536 kgs GVWR)	15	15	15
				Utility station wagon (<=4,536 kgs GVWR)	16	16	16
				Unknown utility type	19	19	19
				Minivan (<=4,536 kgs GVWR)	20	20	20
				Large van (<=4,536 kgs GVWR)	21	21	21
				Van based school bus (<=4,536 kgs GVWR)	24	24	24
				Other van type (<=4,536 kgs GVWR)	28	28	28
				Unknown van type (<=4,536 kgs GVWR)	29	29	29
				Compact pickup truck (<=4,536 kgs GVWR)	30	30	30
				Large pickup truck (<=4,536 kgs GVWR)	31	31	31
				Other pickup truck (<=4,536 kgs GVWR)	38	38	38
				Unknown pickup truck type (<=4,536 kgs GVWR)	39	39	39
				Other light truck (<=4,536 kgs GVWR)	45	45	45
				Unknown light truck type (<=4,536 kgs GVWR)	48	48	48
				Unknown light vehicle type	49	49	49

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
				School bus (excludes van based) (> 4,536 kgs GVWR)	50	50	50
				Other bus (> 4,536 kgs GVWR)	58	58	58
				Unknown Bus Type	59	59	59
				Truck (> 4,536 kgs GVWR)	60	60	60
				Tractor without trailer	67	67	67
				Tractor - trailer(s)	68	68	68
				Unknown medium/heavy truck type	78	78	78
				Unknown light/medium/heavy truck type	79	79	79
				Motored cycle	80	80	80
				Other vehicle	90	90	90
				Unknown	99	99	99
EVENT	CLASS OF VEHICLE - OTHER VEHICLE	CLASS2	VEHCLASSXXF	Not a motor vehicle	0	0	0
				Subcompact/mini (wheelbase < 254 cm)	1	1	1
				Compact (wheelbase 254 but < 265 cm)	2	2	2
				Intermediate (wheelbase >=265 but < 278 cm)	3	3	3
				Full size (wheelbase >=278 but < 291 cm)	4	4	4
				Largest (wheelbase >=291 cm)	5	5	5
				Unknown passenger car size	9	9	9
				Compact utility vehicle	14	14	14
				Large utility vehicle (<=4,536 kgs GVWR)	15	15	15
				Utility station wagon (<=4,536 kgs GVWR)	16	16	16
				Unknown utility type	19	19	19
				Minivan (<=4,536 kgs GVWR)	20	20	20
				Large van (<=4,536 kgs GVWR)	21	21	21
				Van based school bus (<=4,536 kgs GVWR)	24	24	24
				Other van type (<=4,536 kgs GVWR)	28	28	28
				Unknown van type (<=4,536 kgs GVWR)	29	29	29
				Compact pickup truck (<=4,536 kgs GVWR)	30	30	30
				Large pickup truck (<=4,536 kgs GVWR)	31	31	31

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
				Other pickup truck (<=4,536 kgs GVWR)	38	38	38
				Unknown pickup truck type (<=4,536 kgs GVWR)	39	39	39
				Other light truck (<=4,536 kgs GVWR)	45	45	45
				Unknown light truck type (<=4,536 kgs GVWR)	48	48	48
				Unknown light vehicle type	49	49	49
				School bus (excludes van based) (> 4,536 kgs GVWR)	50	50	50
				Other bus (> 4,536 kgs GVWR)	58	58	58
				Unknown Bus Type	59	59	59
				Truck (> 4,536 kgs GVWR)	60	60	60
				Tractor without trailer	67	67	67
				Tractor - trailer(s)	68	68	68
				Unknown medium/heavy truck type	78	78	78
				Unknown light/medium/heavy truck type	79	79	79
				Motored cycle	80	80	80
				Other vehicle	90	90	90
				Unknown	99	99	99
EVENT	CRASH EVENT SEQUENCE NUMBER	EVENTNO	N/A	[Actual Value]	#	#	#
EVENT	GENERAL AREA OF DAMAGE - FIRST VEHICLE	GAD1	$GADXXF	Back/Truck Back	B	B	B
				Rear of cab	C	C	C
				Back (rear of tractor)	D	D	D
				Front	F	F	F
				Left Side	L	L	L
				Noncollision	N	N	N
				Right Side	R	R	R
				Top	T	T	T
				Undercarriage	U	U	U
				Front of cargo area	V	V	V
				Unknown	9	9	9

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
EVENT	GENERAL AREA OF DAMAGE - OTHER VEHICLE	GAD2	$GADXXF	Not a motor vehicle	0	0	0
				Back/Truck Back	B	B	B
				Rear of cab	C	C	C
				Back (rear of tractor)	D	D	D
				Front	F	F	F
				Left Side	L	L	L
				Noncollision	N	N	N
				Right Side	R	R	R
				Top	T	T	T
				Undercarriage	U	U	U
				Front of cargo area	V	V	V
				Unknown	9	9	9
EVENT	OTHER VEHICLE NUMBER OR OBJECT CONTACTED	OBJCONT	OBJCONTXXF	Vehicle 1	1	1	1
				Vehicle 2	2	2	2
				Vehicle 3	3	3	3
				Vehicle 4	4	4	4
				Vehicle 5	5	5	5
				Vehicle 6	6	6	6
				Vehicle 7	7	7	7
				Vehicle 8	8	8	8
				Vehicle 9	9	9	9
				Vehicle 10	10	10	10
				Vehicle 11	11	11	11
				Vehicle 12	12	12	12
				Vehicle 13	13	13	13
				Vehicle 14	14	14	14
				Vehicle 15	15	15	15
				Vehicle 16	16	16	16

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	2018	2019
				Vehicle 17	17	17	17
				Vehicle 18	18	18	18
				Vehicle 19	19	19	19
				Vehicle 20	20	20	20
				Vehicle 21	21	21	21
				Vehicle 22	22	22	22
				Vehicle 23	23	23	23
				Vehicle 24	24	24	24
				Vehicle 25	25	25	25
				Vehicle 26	26	26	26
				Vehicle 27	27	27	27
				Vehicle 28	28	28	28
				Vehicle 29	29	29	29
				Vehicle 30	30	30	30
				Overturn - rollover (excludes end-over-end)	31	31	31
				Rollover - end-over-end	32	32	32
				Fire or explosion	33	33	33
				Jackknife	34	34	34
				Other intraunit damage (specify):	35	35	35
				Noncollision injury	36	36	36
				Other noncollision (specify):	38	38	38
				Noncollision - details unknown	39	39	39
				Tree (<= 10 cm in diameter)	41	41	41
				Tree (> 10 cm in diameter)	42	42	42
				Shrubbery or bush	43	43	43
				Embankment	44	44	44
				Breakaway pole or post (any diameter)	45	45	45
				Cable barrier guardrail	47	47	47
				Guardrail Face	48	48	48
				Guardrail End	49	49	49

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code		
					2017	2018	2019
				Nonbreakaway Pole or post (<= 10 cm in diameter)	50	50	50
				Nonbreakaway Pole or post (> 10 cm but <= 30 cm in diameter)	51	51	51
				Nonbreakaway Pole or post (> 30 cm in diameter)	52	52	52
				Nonbreakaway Pole or post (diameter unknown)	53	53	53
				Concrete traffic barrier	54	54	54
				Impact attenuator	55	55	55
				Other traffic barrier (specify):	56	56	56
				Fence	57	57	57
				Wall	58	58	58
				Building	59	59	59
				Ditch or culvert	60	60	60
				Ground	61	61	61
				Fire hydrant	62	62	62
				Curb	63	63	63
				Bridge	64	64	64
				Other fixed object (specify):	68	68	68
				Unknown fixed object	69	69	69
				Pedestrian	72	72	72
				Cyclist or cycle	73	73	73
				Other nonmotorist or conveyance (specify)	74	74	74
				Vehicle occupant	75	75	75
				Animal	76	76	76
				Railway vehicle	77	77	77
				Trailer, disconnected in transport	78	78	78
				Object fell from vehicle in-transport	79	79	79
				Other nonfixed object (specify):	88	88	88
				Unknown nonfixed object	89	89	89
				Other event (specify):	98	98	98

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
				Unknown event or object	99	99	99
EVENT	PRIMARY SAMPLING UNIT	PSU	N/A	[Actual Value]	#	#	#
EVENT	PSU STRATIFICATION	PSUSTRAT	N/A	[Actual Value]	#	#	#
EVENT	VEHICLE NUMBER	VEHNO	N/A	[Actual Value]	#	#	#
EVENT	VERSION NUMBER	VERSION	N/A	[Actual Value]	2	3	4

FIRE Dataset

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
FIRE	SYSTEM CASE IDENTIFIER	CASEID	N/A	[Actual Value]	#	#	#
FIRE	SEQUENTIAL CASE NUMBER	CASENO	N/A	[Actual Value]	#	#	#
FIRE	CASE NUMBER	CASENUMBER	N/A	[Actual Value]	#	#	#
FIRE	CASE WEIGHT	CASEWGT	N/A	[Actual Value]	#	#	#
FIRE	CASE CATEGORY	CATEGORY	N/A	[Actual Value]	#	#	#
FIRE	FIRE OCCURRENCE	FIRE	FIREXXF	No fire	0	0	0
				Minor fire	1	1	1
				Major fire	2	2	2
				Unknown	9	9	9
FIRE	FIRE ORGIN	FIREORGIN	FIREORIGXXF	No fire	0	0	0
				Vehicle exterior (front, side, back, top)	1	1	1
				Exhaust system	2	2	2
				Fuel tank (and other fuel retention system parts)	3	3	3
				Engine compartment	4	4	4
				Cargo/trunk compartment	5	5	5
				Instrument panel	6	6	6
				Passenger compartment area	7	7	7
				Other location (specify):	8	8	8
				Unknown	9	9	9
FIRE	PRIMARY SAMPLING UNIT	PSU	N/A	[Actual Value]	#	#	#
FIRE	PSU STRATIFICATION	PSUSTRAT	N/A	[Actual Value]	#	#	#
FIRE	VEHICLE NUMBER	VEHNO	N/A	[Actual Value]	#	#	#
FIRE	VERSION NUMBER	VERSION	N/A	[Actual Value]	2	3	4

FUEL Dataset

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	2018	2019
FUEL	SYSTEM CASE IDENTIFIER	CASEID	N/A	[Actual Value]	#	#	#
FUEL	SEQUENTIAL CASE NUMBER	CASENO	N/A	[Actual Value]	#	#	#
FUEL	CASE NUMBER	CASENUMBER	N/A	[Actual Value]	#	#	#
FUEL	CASE WEIGHT	CASEWGT	N/A	[Actual Value]	#	#	#
FUEL	CASE CATEGORY	CATEGORY	N/A	[Actual Value]	#	#	#
FUEL	DAMAGE TO FUEL CELL	CELLDAM	CELLDAMXXF	No damage to cell	1	1	1
				Deformed, no seam separation	2	2	2
				Deformed, with a seam separation	3	3	3
				Punctured	4	4	4
				Lacerated (ripped)	5	5	5
				Abraded (scraped)	6	6	6
				Filler neck separation from the fuel cell	7	7	7
				Other damage (specify):	8	8	8
				Unknown	9	9	9
FUEL	LOCATION OF FILLER CAP	FILLCAP	FILLCAPXXF	On back plane	1	1	1
				Over the rear axle on left side plane	2	2	2
				Over the rear axle on right side plane	3	3	3
				Aft of rear axle on left side plane	4	4	4
				Aft of rear axle on right side plane	5	5	5
				Forward of rear axle on left side plane	6	6	6
				Forward of rear axle on right side plane	7	7	7
				Other (specify):	8	8	8
				Electric/solar powered	77	77	77
				Not Applicable	88	88	88
				Unknown	99	99	99
FUEL	TYPE OF FUEL CELL	FUELCELL	CELLTYPEXXF	Electric/solar Powered	0	0	0
				Metallic	1	1	1
				Non-Metallic	2	2	2

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	2018	2019
				Not Applicable	8	8	8
				Unknown	9	9	9
FUEL	PRE-CRASH CONDITION	FUELCOND	FUELCONDXXF	Electric/solar powered	0	0	0
				No damage	1	1	1
				Corroded	2	2	2
				Leaking	3	3	3
				Abraded	4	4	4
				Other (specify):	7	7	7
				Not Applicable	8	8	8
				Unknown	9	9	9
FUEL	FUEL LEAKAGE LOCATION	FUELEAK	FUELLEAKXXF	No fuel leakage	1	1	1
				Cell	2	2	2
				Filler neck	3	3	3
				Cap	4	4	4
				Lines/pump/filter	5	5	5
				Vent/emission recovery	6	6	6
				Other (specify):	7	7	7
				Unknown	9	9	9
FUEL	LOCATION OF FUEL CELL	FUELLOC	CELLLOCXXF	Aft of rear axle centered	1	1	1
				Aft of rear axle left side	2	2	2
				Aft of rear axle right side	3	3	3
				Forward of rear axle centered	4	4	4
				Forward of rear axle left side	5	5	5
				Forward of rear axle right side	6	6	6
				Over the rear axle	7	7	7
				Other (specify):	8	8	8
				Not Applicable	88	88	88
				Unknown	99	99	99
FUEL	FUEL SYSTEM NUMBER	FUELNO	N/A	[Actual Value]	#	#	#
FUEL	FUEL SYSTEM TYPE	FUELTYPE	FUELTYPEXXF	Gasoline	1	1	1

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
				Gasoline/Ethanol (E85)	2	2	2
				Gasoline/Methanol (M85)	3	3	3
				Diesel	4	4	4
				CNG (Compressed Natural Gas)	5	5	5
				LPG (Liquid Petroleum Gas) also known as Propane	6	6	6
				LNG (Liquid Natural Gas)	7	7	7
				Ethanol (E100)	8	8	8
				Methanol (M100)	9	9	9
				Hydrogen Fuel Cell	10	10	10
				Lithium-ion Battery	11	11	11
				Nickel-Metal Hydride (NiMH)	12	12	12
				Other (specify):	98	98	98
				Unknown fuel type	99	99	99
FUEL	PRIMARY SAMPLING UNIT	PSU	N/A	[Actual Value]	#	#	#
FUEL	PSU STRATIFICATION	PSUSTRAT	N/A	[Actual Value]	#	#	#
FUEL	VEHICLE NUMBER	VEHNO	N/A	[Actual Value]	#	#	#
FUEL	VERSION NUMBER	VERSION	N/A	[Actual Value]	2	3	4

GLAZING Dataset

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
GLAZING	SYSTEM CASE IDENTIFIER	CASEID	N/A	[Actual Value]	#	#	#
GLAZING	SEQUENTIAL CASE NUMBER	CASENO	N/A	[Actual Value]	#	#	#
GLAZING	CASE NUMBER	CASENUMBER	N/A	[Actual Value]	#	#	#
GLAZING	CASE WEIGHT	CASEWGT	N/A	[Actual Value]	#	#	#
GLAZING	CASE CATEGORY	CATEGORY	N/A	[Actual Value]	#	#	#
GLAZING	GLAZING IMPACT DAMAGE	GLAZIMP	GLIMPXXF	No glazing damage from impact forces	1	1	1
				Glazing in place and cracked from impact forces	2	2	2
				Glazing in place and holed from impact forces	3	3	3
				Glazing out-of-place (cracked or not) and not holed from impact forces	4	4	4
				Glazing out-of-place and holed from impact forces	5	5	5
				Glazing disintegrated from impact forces	6	6	6
				Glazing removed prior to crash	7	7	7
				Unknown if damaged	9	9	9
GLAZING	GLAZING LOCATION	GLAZLOC	GLLOCXXF	Windshield (WS)	1	1	1
				Left front window (driver`s window) (LF)	2	2	2
				Right front window (RF)	3	3	3
				Left rear window (adjacent to LF window) (LR)	4	4	4
				2nd left rear window (adjacent to LR window) (LR2)	5	5	5
				3rd left rear window (adjacent to LR2 window) LR3	6	6	6
				Right rear window (adjacent to RF window) (RR)	7	7	7
				2nd right rear window (adjacent to RR window) RR2	8	8	8
				3rd right rear window (adjacent to RR2 window) RR3	9	9	9
				Backlight, tailgate/hatchback/liftgate window (BL)	10	10	10
				Left backlight (left side of a divided backlight, i.e., rear doors on some vans)(LBL)	11	11	11
				Right backlight (right side of a divided backlight, i.e., rear doors on some vans) (RBL)	12	12	12

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	2018	2019
				Sun roof, moon roof, "T" roof, etc. (Roof)	13	13	13
				Other sidelights, door wing windows, and any other light not identified above (Other)	98	98	98
GLAZING	GLAZING OCCUPANT DAMAGE	GLAZOCC	GLOCCXXF	No occupant contact	1	1	1
				Glazing contacted by occupant but no glazing damage	2	2	2
				Glazing in place and cracked by occupant contact	3	3	3
				Glazing in place and holed by occupant contact	4	4	4
				Glazing out-of-place (cracked or not) by occupant contact and not holed by occupant contact	5	5	5
				Glazing out-of-place by occupant contact and holed by occupant contact	6	6	6
				Glazing removed prior to crash	7	7	7
				Glazing disintegrated by occupant contact	8	8	8
				Unknown if contacted by occupant	9	9	9
GLAZING	GLAZING PRE-CRASH STATUS	GLAZPRE	GLPREXXF	Fixed	1	1	1
				Closed	2	2	2
				Partially opened	3	3	3
				Fully opened	4	4	4
				Glazing removed prior to crash	7	7	7
				Unknown	9	9	9
GLAZING	GLAZING TYPE	GLAZTYPE	GLTYPEXXF	AS-1 - Laminated	1	1	1
				AS-2 - Tempered	2	2	2
				AS-2 - Laminated	3	3	3
				AS-2 - Laminated-with after market tint	4	4	4
				AS-2 - Tempered-with after market tint	5	5	5
				AS-3 - Tempered-tinted (original)	6	6	6
				AS-3 - Laminated tinted (original)	7	7	7
				AS-3 - Laminated tinted (with additional after market tint)	8	8	8

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	2018	2019
				AS-3 - Tempered-tinted (with additional after market tint)	9	9	9
				AS-6 - Flexible plastic safety glazing	10	10	10
				Glazing removed prior to crash	11	11	11
				Other (specify):	98	98	98
				Unknown	99	99	99
GLAZING	PRIMARY SAMPLING UNIT	PSU	N/A	[Actual Value]	#	#	#
GLAZING	PSU STRATIFICATION	PSUSTRAT	N/A	[Actual Value]	#	#	#
GLAZING	VEHICLE NUMBER	VEHNO	N/A	[Actual Value]	#	#	#
GLAZING	VERSION NUMBER	VERSION	N/A	[Actual Value]	2	3	4

GV Dataset

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code		
					2017	**2018**	**2019**
GV	ALCOHOL TEST PERFORMED	ALCTEST	ALCTESTXXF	None Given	0	0	0
				Test Performed	1	1	1
				Test Refused	2	2	2
				No Driver Present	7	7	7
				BAC test performed, results unknown	8	8	8
				Unknown if test given	9	9	9
GV	ALCOHOL TEST RESULT	ALCTESTRESULT	ALCRESULTXXF	[Actual Value]	#	#	#
				No driver present	887	887	887
				None Given	995	995	995
				Test Refused	996	996	996
				BAC Test Performed, Results Unknown	997	997	997
				Unknown if test given	998	998	998
				Unknown	999	999	999
GV	ALCOHOL TEST RESULT SOURCE	ALCTESTSRC	ALCSOURCEXXF	No alcohol test result	0	0	0
				Police reported	1	1	1
				Medical record	2	2	2
				Autopsy	3	3	3
				Lay coroner	4	4	4
				No driver present	6	6	6
				Other (specify)	7	7	7
				Not Applicable	8	8	8
GV	ROADWAY ALIGNMENT	ALIGNMENT	ALIGNMNTXXF	Straight	1	1	1
				Curve Right	2	2	2
				Curve Left	3	3	3
				Unknown	9	9	9
GV	BODY TYPE CATEGORY	BODYCAT	BODYCATXXF	Automobiles	1	1	1
				Automobile Derivatives	2	2	2
				Utility Vehicles	3	3	3

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
				Van Based Light Trucks	4	4	4
				Light Conventional Trucks	5	5	5
				Other Light Trucks	6	6	6
				Buses (Excludes Van Based GVWR <= 4,536 kgs)	7	7	7
				Medium/heavy Trucks	8	8	8
				Motored Cycles	9	9	9
				Other Vehicles	10	10	10
				Motor Homes	11	11	11
				Unknown Body Type	99	99	99
GV	BODY TYPE	BODYTYPE	BODYTYPEXXF	Convertible(excludes sun-roof,t-bar)	1	1	1
				2-door sedan,hardtop,coupe	2	2	2
				3-door/2-door hatchback	3	3	3
				4-door sedan, hardtop	4	4	4
				5-door/4-door hatchback	5	5	5
				Station Wagon (excluding van and truck based)	6	6	6
				Hatchback, number of doors unknown	7	7	7
				Sedan/Hardtop, number of doors unknown	8	8	8
				Other or Unknown automobile type	9	9	9
				Auto-based pickup (includes El Camino, Caballero, Ranchero, SSR, G8-ST, Subaru Brat, Rabbit Pickup)	10	10	10
				Auto-based panel (cargo station wagon, auto-based ambulance or hearse)	11	11	11
				Large Limousine-more than four side doors or stretched chassis	12	12	12
				Three-wheel automobile or automobile derivative	13	13	13

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	2018	2019
				Compact Utility (Utility Vehicle Categories "Small" and "Midsize")	14	14	14
				Large utility (ANSI D16.1 Utility Vehicle Categories and "Full Size" and "Large")	15	15	15
				Utility station wagon (includes suburban limousines, Suburban, Travellall, Grand Wagoneer)	16	16	16
				3-door coupe	17	17	17
				Utility Vehicle, Unknown body type	19	19	19
				Minivan (Chrysler Town and Country, Caravan, Grand Caravan, Voyager, Voyager, Honda-Odyssey, ...)	20	20	20
				Large Van-Includes van-based buses (B150-B350, Sportsman, Royal Maxiwagon, Ram, Tradesman,...)	21	21	21
				Step-van or walk-in van (<= 10,000 lbs. GVWR)	22	22	22
				Step-van or walk-in van (GVWR less than or equal to 10,000 lbs.)	22	22	22
				Other van type (Hi-Cube Van, Kary)	28	28	28
				Unknown van type	29	29	29
				Compact pickup (GVWR <4,500 lbs.) (D50,Colt P/U, Ram 50, Dakota, Arrow Pickup [foreign], Ranger, ..)	30	30	30
				Standard pickup (GVWR 4,500 to 10,00 lbs.)(Jeep Pickup, Comanche, Ram Pickup, D100-D350, ...)	31	31	31
				Pickup with slide-in camper	32	32	32
				Convertible pickup	33	33	33
				Light Pickup	34	34	34

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
					2017	**2018**	**2019**
				Unknown (pickup style) light conventional truck type	39	39	39
				Cab Chassis Based (includes Rescue Vehicle, Light Stake, Dump, and Tow Truck)	40	40	40
				Truck based panel	41	41	41
				Light Truck Based Motorhome (Chassis Mounted)	42	42	42
				Other light conventional truck type	45	45	45
				Unknown light truck type	48	48	48
				Unknown light vehicle type (automobile,utility vehicle, van, or light truck)	49	49	49
				School Bus	50	50	50
				Cross Country/Intercity Bus	51	51	51
				Transit Bus (City Bus)	52	52	52
				Van-Based Bus GVWR > 10,000 lbs.	55	55	55
				Van-Based Bus GVWR greater than 10,000 lbs.	55	55	55
				Other Bus Type	58	58	58
				Unknown Bus Type	59	59	59
				Step van (>10,000 lbs. GVWR)	60	60	60
				Step van (GVWR greater than 10,000 lbs.)	60	60	60
				Single-unit straight truck or Cab-Chassis (10,000 lbs. < GVWR < or = 19,500 lbs.)	61	61	61
				Single-unit straight truck or Cab-Chassis (19,500 lbs. < GVWR < or = 26,000 lbs.)	62	62	62
				Single-unit straight truck or Cab-Chassis (GVWR > 26,000 lbs.)	63	63	63
				Single-unit straight truck or Cab-Chassis (GVWR unknown)	64	64	64

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	2018	2019
				Medium/heavy truck based motorhome	65	65	65
				Truck-tractor (Cab only, or with any number of trailing unit; any weight)	66	66	66
				Medium/heavy Pickup (>10,000 lbs. GVWR)	67	67	67
				Unknown if single unit or combination unit Medium Truck (10,000 lbs. < GVWR < 26,000 lbs.)	71	71	71
				Unknown if single unit or combination unit Heavy Truck (GVWR > 26,000 lbs.)	72	72	72
				Camper or motorhome, unknown truck type	73	73	73
				Unknown medium/heavy truck type	78	78	78
				Unknown truck type (light/medium/heavy)	79	79	79
				Motorcycle	80	80	80
				Moped (motorized bicycle)	81	81	81
				Three-wheel Motorcycle or Moped - not All-Terrain Vehicle	82	82	82
				Off-road Motorcycle (2-wheel)	83	83	83
				Motor Scooter	84	84	84
				Unenclosed Three Wheel Motorcycle / Unenclosed Autocycle (1 Rear Wheel)	85	85	85
				Enclosed Three Wheel Motorcycle / Enclosed Autocycle (1 Rear Wheel)	86	86	86
				Unknown Three Wheel Motorcycle Type	87	87	87
				Other motored cycle type (mini-bikes, motor scooters, pocket motorcycles, "pocket bikes")	88	88	88
				Unknown motored cycle type	89	89	89
				ATV/ATC [All-Terrain Cycle]	90	90	90
				Snowmobile	91	91	91
				Farm equipment other than trucks	92	92	92

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
				Construction equipment other than trucks (includes graders)	93	93	93
				Low Speed Vehicle (LSV) / Neighborhood Electric Vehicle (NEV)	94	94	94
				Golf Cart	95	95	95
				Recreational Off-Highway Vehicle	96	96	96
				Other vehicle type (includes go-cart, fork-lift, city street sweeper dunes/swamp buggy)	97	97	97
				Not Reported	98	98	98
				Unknown body type	99	99	99
GV	CARGO WEIGHT SOURCE	CARGOSRC	CARGOSRCXXF	Vehicle Inspection	1	1	1
				Interview	2	2	2
				PAR	3	3	3
				Tow Yard Operator	4	4	4
				Non-CISS Vehicle	5	5	5
				Other (specify):	8	8	8
				Cargo weight unknown	9	9	9
GV	CARGO WEIGHT	CARGOWT	CARGOWTXXF	[Actual Value]	#	#	#
				Unknown	9999	9999	9999
GV	SYSTEM CASE IDENTIFIER	CASEID	N/A	[Actual Value]	#	#	#
GV	SEQUENTIAL CASE NUMBER	CASENO	N/A	[Actual Value]	#	#	#
GV	CASE NUMBER	CASENUMBER	N/A	[Actual Value]	#	#	#
GV	CASE WEIGHT	CASEWGT	N/A	[Actual Value]	#	#	#
GV	CASE CATEGORY	CATEGORY	N/A	[Actual Value]	#	#	#
GV	CRASH TYPE CATEGORY	CRASHCAT	CATTYPEXXF	Single Driver	1	1	1
				Same Trafficway, Same Direction	2	2	2
				Same Trafficway, Opposite Direction	3	3	3
				Changing Trafficway, Vehicle Turning	4	4	4
				Intersecting Paths (Vehicle Damage)	5	5	5

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
				Miscellaneous	6	6	6
GV	CRASH TYPE CONFIGURATION	CRASHCONF	$CATCONFXXF	Right Roadside Departure	A	A	A
				Left Roadside Departure	B	B	B
				Forward Impact	C	C	C
				Rear-End	D	D	D
				Forward Impact	E	E	E
				Angle, Sideswipe	F	F	F
				Head-On	G	G	G
				Forward Impact	H	H	H
				Angle, Sideswipe	I	I	I
				Turn Across Path	J	J	J
				Turn Into Path	K	K	K
				Straight Paths	L	L	L
				Backing, Etc.	M	M	M
GV	CRASH TYPE	CRASHTYPE	CRASHTYPEXXF	No Impact	0	0	0
				Drive Off Road	1	1	1
				Control/Traction Loss	2	2	2
				Avoid Collision with Vehicle, Pedestrian, Animal	3	3	3
				Specifics Other	4	4	4
				Specifics Unknown	5	5	5
				Drive Off Road	6	6	6
				Control/Traction Loss	7	7	7
				Avoid Collision with Vehicle, Pedestrian, Animal	8	8	8
				Specifics Other	9	9	9
				Specifics Unknown	10	10	10
				Parked Vehicle	11	11	11
				Stationary Object	12	12	12
				Pedestrian/Animal	13	13	13

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	2018	2019
				End Departure	14	14	14
				Specifics Other	15	15	15
				Specifics Unknown	16	16	16
				Stopped	20	20	20
				Stopped, going left	21	21	21
				Stopped, Left	22	22	22
				Stopped, Right	23	23	23
				Slower	24	24	24
				Slower, Going Straight	25	25	25
				Slower, Going Left	26	26	26
				Slower, Going Right	27	27	27
				Decelerating	28	28	28
				Decelerating, Going Straight	29	29	29
				Decelerating, Going Left	30	30	30
				Decelerating, Going Right	31	31	31
				Specifics Other	32	32	32
				Specifics Unknown	33	33	33
				This Vehicle's Frontal Area Impacts Another Vehicle	34	34	34
				This Vehicle Is Impacted by Frontal Area of Another Vehicle	35	35	35
				This Vehicle's Frontal Area Impacts Another Vehicle	36	36	36
				This Vehicle Is Impacted by Frontal Area of Another Vehicle	37	37	37
				This Vehicle's Frontal Area Impacts Another Vehicle	38	38	38
				This Vehicle Is Impacted by Frontal Area of Another Vehicle	39	39	39

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code		
					2017	2018	2019
				This Vehicle's Frontal Area Impacts Another Vehicle	40	40	40
				This Vehicle Is Impacted by Frontal Area of Another Vehicle	41	41	41
				Specifics Other	42	42	42
				Specifics Unknown	43	43	43
				Straight Ahead on Left	44	44	44
				Straight Ahead on Left/Right	45	45	45
				Changing Lanes to the Right	46	46	46
				Changing Lanes to the Left	47	47	47
				Specifics Other	48	48	48
				Specifics Unknown	49	49	49
				Lateral Move (Left/Right)	50	50	50
				Lateral Move (Going Straight)	51	51	51
				Specifics Other	52	52	52
				Specifics Unknown	53	53	53
				This Vehicle's Frontal Area Impacts Another Vehicle	54	54	54
				This Vehicle Is Impacted by Frontal Area of Another Vehicle	55	55	55
				This Vehicle's Frontal Area Impacts Another Vehicle	56	56	56
				This Vehicle Is Impacted by Frontal Area of Another Vehicle	57	57	57
				This Vehicle's Frontal Area Impacts Another Vehicle	58	58	58
				This Vehicle Is Impacted by Frontal Area of Another Vehicle	59	59	59
				This Vehicle's Frontal Area Impacts Another Vehicle	60	60	60

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	2018	2019
				This Vehicle Is Impacted by Frontal Area of Another Vehicle	61	61	61
				Specifics Other	62	62	62
				Specifics Unknown	63	63	63
				Lateral Move (Left/Right)	64	64	64
				Lateral Move (Going Straight)	65	65	65
				Specifics Other	66	66	66
				Specifics Unknown	67	67	67
				Initial Opposite Directions (Left/Right)	68	68	68
				Initial Opposite Directions (Going Straight)	69	69	69
				Initial Same Directions (Turning Right)	70	70	70
				Initial Same Directions (Going Straight)	71	71	71
				Initial Same Directions (Turning Left)	72	72	72
				Initial Same Directions (Going Straight)	73	73	73
				Specifics Other	74	74	74
				Specifics Unknown	75	75	75
				Turn Into Same Direction (Turning Left)	76	76	76
				Turn Into Same Direction (Going Straight)	77	77	77
				Turn Into Same Direction (Turning Right)	78	78	78
				Turn Into Same Direction (Going Straight)	79	79	79
				Turn Into Opposite Directions (Turning Right)	80	80	80
				Turn Into Opposite Directions (Going Straight)	81	81	81
				Turn Into Opposite Directions (Turning Left)	82	82	82
				Turn Into Opposite Directions (Going Straight)	83	83	83
				Specifics Other	84	84	84
				Specifics Unknown	85	85	85
				Striking from the Right	86	86	86

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
				Struck on the Right	87	87	87
				Striking from the Left	88	88	88
				Struck on the Left	89	89	89
				Specifics Other	90	90	90
				Specifics Unknown	91	91	91
				Backing Vehicle	92	92	92
				Other Vehicle or Object	93	93	93
				Other Crash Type	98	98	98
				Unknown Crash Type	99	99	99
GV	PRE-CRASH CRITICAL EVENT CATEGORY	CRITCAT	PREEVCATXXF	This Vehicle Loss of Control	1	1	1
				This Vehicle Traveling	2	2	2
				Other Motor Vehicle in Lane	3	3	3
				Other Motor Vehicle Encroaching Into Lane	4	4	4
				Pedestrian or Pedacyclist, or Other Non-Motorist	5	5	5
				Object or Animal	6	6	6
				Other (Specify):	8	8	8
				Unknown	9	9	9
GV	PRE-CRASH CRITICAL EVENT	CRITEVENT	PREEVENTXXF	Blow out/flat tire	1	1	1
				Stalled engine	2	2	2
				Disabling vehicle failure (e.g., wheel fell off) (specify:)	3	3	3
				Non-disabling vehicle problem (e.g., hood flew up) (specify):	4	4	4
				Poor road conditions (puddle, ice, pothole, etc.) (specify):	5	5	5
				Traveling too fast for conditions	6	6	6
				Other cause of control loss (specify):	8	8	8
				Unknown cause of control loss	9	9	9
				Over the lane line on left side of travel lane	10	10	10

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	2018	2019
				Over the lane line on right side of travel lane	11	11	11
				Off the edge of the road on the left side	12	12	12
				Off the edge of the road on the right side	13	13	13
				End departure	14	14	14
				Turning left	15	15	15
				Turning right	16	16	16
				Crossing over (passing through) intersection	17	17	17
				This vehicle decelerating	18	18	18
				Unknown travel direction	19	19	19
				This vehicle backing	20	20	20
				This vehicle making a u-turn	21	21	21
				Other vehicle stopped	50	50	50
				Traveling in same direction with lower steady speed	51	51	51
				Traveling in same direction while decelerating	52	52	52
				Traveling in same direction with higher speed	53	53	53
				Traveling in opposite direction	54	54	54
				In crossover	55	55	55
				Backing	56	56	56
				Unknown travel direction of the other motor vehicle in lane	59	59	59
				From adjacent lane (same direction) over left lane line	60	60	60
				From adjacent lane (same direction) over right lane line	61	61	61
				From opposite direction over left lane line	62	62	62
				From opposite direction over right lane line	63	63	63

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	2018	2019
				From parking lane/shoulder	64	64	64
				From crossing street, turning into same direction	65	65	65
				From crossing street, across path	66	66	66
				From crossing street, turning into opposite direction	67	67	67
				From crossing street, intended path not known	68	68	68
				From driveway, turning into same direction	70	70	70
				From driveway, across path	71	71	71
				From driveway, turning into opposite direction	72	72	72
				From driveway, intended path not known	73	73	73
				From entrance to limited access highway	74	74	74
				Encroachment by other vehicle details unknown	78	78	78
				Pedestrian in road	80	80	80
				Pedestrian approaching road	81	81	81
				Pedestrian unknown location	82	82	82
				Pedalcyclist or other non-motorist in road (specify):	83	83	83
				Pedalcyclist or other non-motorist approaching road (specify):	84	84	84
				Pedalcyclist or other non-motorist unknown location (specify):	85	85	85
				Animal in road	87	87	87
				Animal approaching road	88	88	88
				Animal - unknown location	89	89	89
				Object in road	90	90	90
				Object approaching road	91	91	91

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
				Object unknown location	92	92	92
				Other Critical Pre-Crash Event (specify):	98	98	98
				Unknown	99	99	99
GV	CURB WEIGHT SOURCE	CURBSRC	CURBSRCXXF	AAMA	1	1	1
				Automotive News	2	2	2
				Branham Automobile Reference Book	3	3	3
				Gasoline Truck, Import, Truck and Diesel Truck Index	4	4	4
				Canadian Specifications	5	5	5
				Other (specify):	8	8	8
				Curb weight unknown	9	9	9
GV	CURB WEIGHT	CURBWT	CURBWTXXF	[Actual Value]	#	#	#
				Unknown	9999	9999	9999
GV	MOST SEVERE DAMAGE PLANE	DAMPLANE	$GADXXF	Back/Truck Back	B	B	B
				Rear of cab	C	C	C
				Back (rear of tractor)	D	D	D
				Front	F	F	F
				Left Side	L	L	L
				Noncollision	N	N	N
				Right Side	R	R	R
				Top	T	T	T
				Undercarriage	U	U	U
				Front of cargo area	V	V	V
				Unknown	9	9	9
GV	MOST SEVERE DAMAGE SEVERITY	DAMSEV	DAMSEVXXF	Light	1	1	1
				Moderate	2	2	2
				Severe	3	3	3
				Unknown	9	9	9
GV	DRIVER DISTRACTION / INATTENTION	DISTRACT	DRIVDISTXXF	No driver present	0	0	0
				Attentive or not distracted	1	1	1

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
				Looked but did not see	2	2	2
				Inattentive or distracted	3	3	3
				Unknown	9	9	9
GV	DRIVER PRESENT IN VEHICLE	DRPRESENT	DRPRESXXF	No Driver Present	0	0	0
				Yes	1	1	1
				Unknown	9	9	9
GV	DRUG TEST RESULT	DRUGTEST	SPECOTHXXF	No specimen test given	0	0	0
				Drug(s) not found in specimen	1	1	1
				Drug(s) found in specimen, (specify)	2	2	2
				Specimen test given, results unknown or not obtained	3	3	3
				No driver present	8	8	8
				Unknown if specimen test given	9	9	9
GV	HIGHEST DELTA V HDG ANGLE - OTHER VEH	DVANGOTH	ANGLEXXF	[Actual Value]	#	#	#
				Not a CISS Vehicle	888	888	888
				Non-horizontal impact	996	996	996
				Non-collision	997	997	997
				Impact with object	998	998	998
				Unknown	999	999	999
GV	HIGHEST DELTA V HDG ANGLE - THIS VEH	DVANGTHIS	ANGLEXXF	[Actual Value]	#	#	#
				Not a CISS Vehicle	888	888	888
				Non-horizontal impact	996	996	996
				Non-collision	997	997	997
				Impact with object	998	998	998
				Unknown	999	999	999
GV	BASIS FOR HIGHEST DELTA V	DVBASIS	DVBASISXXF	Not Inspected	0	0	0
				SMASH - Damage only	1	1	1
				SMASH - Damage and trajectory	2	2	2

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	2018	2019
				SMASH - Missing vehicle	3	3	3
				SMASH - Damage with CDC only	4	4	4
				At least one vehicle is beyond the scope of SMASH	5	5	5
				Rollover	6	6	6
				Other non-horizontal forces	7	7	7
				Sideswipe type damage	8	8	8
				Severe override	9	9	9
				Yielding object	10	10	10
				Overlapping damage	11	11	11
				Insufficient data (specify)	12	12	12
				Other (specify)	98	98	98
				Unknown	99	99	99
GV	HIGHEST DELTA V BARRIER EQUIVALENT	DVBES	BAREQSPXXF	[Actual Value]	#	#	#
				Unknown	999	999	999
GV	HIGHEST DELTA V CONFIDENCE LEVEL	DVCONF	DVCONFIDXXF	No reconstruction	0	0	0
				Collision fits model - results appear reasonable	1	1	1
				Collision fits model - results appear high	2	2	2
				Collision fits model - results appear low	3	3	3
				Borderline reconstruction	4	4	4
GV	HIGHEST DELTA V ENERGY	DVENERGY	ENERGYXXF	[Actual Value]	#	#	#
				Unknown	9999999	9999999	9999999
GV	HIGHEST DELTA V ESTIMATED	DVEST	DVESTXXF	Reconstruction Delta V coded	0	0	0
				Less than 10 kmph	1	1	1
				10 kmph < 25 kmph	2	2	2
				25 kmph < 40 kmph	3	3	3
				40 kmph < 55 kmph	4	4	4
				>= 55 kmph	5	5	5
				Minor	6	6	6

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
				Moderate	7	7	7
				Severe	8	8	8
				Unknown	9	9	9
GV	EVENT NUMBER FOR HIGHEST DELTA V	DVEVENT	DVEVENTXXF	Not Inspected	0	-	-
				[Actual Value]	#	#	#
				Unknown Event	-	99	99
GV	HIGHEST DELTA V LATERAL	DVLAT	DVLONLATXXF	[Actual Value]	#	#	#
				Unknown	999	999	999
GV	HIGHEST DELTA V LONGITUDINAL	DVLONG	DVLONLATXXF	[Actual Value]	#	#	#
				Unknown	999	999	999
GV	HIGHEST DELTA V MOMENT ARM	DVMOMENT	DVMOMENT	[Actual Value]	#	#	#
				Unknown	999	999	999
GV	HIGHEST DELTA V SPEED	DVSPEED	DVSPEEDXXF	[Actual Value]	#	#	#
				Damage and Trajectory run not made	998	998	998
				Unknown	999	999	999
GV	HIGHEST DELTA V TOTAL	DVTOTAL	DVTOTALXXF	[Actual Value]	#	#	#
				Unknown	999	999	999
GV	DRIVER'S ETHNICITY	ETHNICITY	ETHNICIT17	Hispanic or Latino	1	1	1
				Not Hispanic or Latino	2	2	2
				No Driver Present	8	8	8
				Unknown	9	9	9
GV	HEADING ANGLE CATEGORY	HEADANGLECAT	HEADANGCATXXF	Impact with Vehicle	995	995	995
				Non Horizontal Impact	996	996	996
				Non Collision	997	997	997
				Impact with Object	998	998	998
				Unknown	999	999	999
GV	TRAVEL LANE FOR THIS VEHICLE	INITLANE	LANESINITXXF	One	1	1	1
				Two	2	2	2
				Three	3	3	3
				Four	4	4	4

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
				Five	5	5	5
				Six	6	6	6
				Seven	7	7	7
				Eight	8	8	8
				Other (Specify):	98	98	98
				Unknown	99	99	99
GV	ROLLOVER INITIATING OBJECT CLASS	INITOBJCLASS	OBJCLASSXXF	No rollover	0	0	0
				Vehicle	1	1	1
				Non-collision	2	2	2
				Collision with Fixed Object	3	3	3
				Collision with Nonfixed Object	4	4	4
				Other event (specify):	7	7	7
				Rollover end-over-end	8	8	8
				Unknown Event or Object	9	9	9
GV	INSPECTION TYPE	INSPTYPE	INSPTYPEXXF	No inspection	0	0	0
				Complete inspection	1	1	1
				Partial inspection-Non tow	2	2	2
				Partial inspection-Partially repaired	3	3	3
				Partial inspection-Photos only	4	4	4
				Partial inspection-other (specify)	5	5	5
				Vehicle fully repaired - no damage evident	6	6	6
GV	INSPECTION LAG TIME	INSPLAG	INSPLAGXXF	[Actual Value]	*	*	#
				Not Inspected	*	*	998
GV	LIGHTING CONDITIONS	LIGHTCOND	LGTCONDXXF	Daylight	1	1	1
				Dark	2	2	2
				Dark,but lighted	3	3	3
				Dawn	4	4	4
				Dusk	5	5	5
				Unknown	9	9	9
GV	LINE TYPE LEFT	LINELEFT	LINETYPEXXF	None	0	0	0

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
				Solid White	1	1	1
				Solid Yellow	2	2	2
				Dotted/Dashed White	3	3	3
				Dotted/Dashed Yellow	4	4	4
				Raised Pavement Marker	5	5	5
				Unknown	9	9	9
GV	LINE TYPE RIGHT	LINERIGHT	LINETYPEXXF	None	0	0	0
				Solid White	1	1	1
				Solid Yellow	2	2	2
				Dotted/Dashed White	3	3	3
				Dotted/Dashed Yellow	4	4	4
				Raised Pavement Marker	5	5	5
				Unknown	9	9	9
GV	VEHICLE MAKE	MAKE	MAKEXXF	American Motors	1	1	1
				Jeep / Kaiser-Jeep / Willys- Jeep	2	2	2
				AM General	3	3	3
				Chrysler	6	6	6
				Dodge	7	7	7
				Imperial	8	8	8
				Plymouth	9	9	9
				Eagle	10	10	10
				Ford	12	12	12
				Lincoln	13	13	13
				Mercury	14	14	14
				Buick / Opel	18	18	18
				Cadillac	19	19	19
				Chevrolet	20	20	20
				Oldsmobile	21	21	21
				Pontiac	22	22	22
				GMC	23	23	23

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
				Saturn	24	24	24
				Grumman	25	25	25
				Coda	26	26	26
				Other Domestic Manufacturers	29	29	29
				Volkswagen	30	30	30
				Alfa Romeo	31	31	31
				Audi	32	32	32
				Austin/Austin Healey	33	33	33
				BMW	34	34	34
				Datsun/Nissan	35	35	35
				Fiat	36	36	36
				Honda	37	37	37
				Isuzu	38	38	38
				Jaguar	39	39	39
				Lancia	40	40	40
				Mazda	41	41	41
				Mercedes-Benz	42	42	42
				MG	43	43	43
				Peugeot	44	44	44
				Porsche	45	45	45
				Renault	46	46	46
				Saab	47	47	47
				Subaru	48	48	48
				Toyota	49	49	49
				Triumph	50	50	50
				Volvo	51	51	51
				Mitsubishi	52	52	52
				Suzuki	53	53	53
				Acura	54	54	54
				Hyundai	55	55	55

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	2018	2019
				Merkur	56	56	56
				Yugo	57	57	57
				Infiniti	58	58	58
				Lexus	59	59	59
				Daihatsu	60	60	60
				Sterling	61	61	61
				Land Rover	62	62	62
				KIA	63	63	63
				Daewoo	64	64	64
				Smart	65	65	65
				Scion	67	67	67
				Other Import	69	69	69
				BSA	70	70	70
				Ducati	71	71	71
				Harley-Davidson	72	72	72
				Kawasaki	73	73	73
				Moto-Guzzi	74	74	74
				Norton	75	75	75
				Yamaha	76	76	76
				Victory	77	77	77
				Brockway	80	80	80
				Diamond Reo/Reo	81	81	81
				Freightliner	82	82	82
				FWD	83	83	83
				International Harvester/Navistar	84	84	84
				Kenworth	85	85	85
				Mack	86	86	86
				Peterbilt	87	87	87
				Iveco/Magirus	88	88	88
				White/Autocar White/GMC	89	89	89

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
				Bluebird	90	90	90
				Eagle Coach	91	91	91
				Gillig	92	92	92
				MCI	93	93	93
				Thomas Built	94	94	94
				Not Reported	97	97	97
				Other Make	98	98	98
				Unknown Make	99	99	99
GV	PRE-CRASH MANEUVER	MANEUVER	MANEUVERXXF	No driver present	0	0	0
				No Avoidance Maneuver	1	1	1
				Braking	2	2	2
				Braking and steering left	3	3	3
				Braking and steering right	4	4	4
				Braking and unknown steering direction	5	5	5
				Releasing brakes	6	6	6
				Steering left	7	7	7
				Steering right	8	8	8
				Accelerating	9	9	9
				Accelerating and steering left	10	10	10
				Accelerating and steering right	11	11	11
				Other action	98	98	98
				Unknown	99	99	99
GV	VEHICLE MODEL	MODEL	N/A	[Actual Value]	#	#	#
GV	VEHICLE MODEL YEAR	MODELYR	MODYRXXF	[Actual Value]	#	#	#
				Unknown	9999	9999	9999
GV	PAR REPORTED ALCOHOL PRESENCE	PARALCOHOL	DRINKINGXXF	No alcohol Present	0	0	0
				Yes- alcohol present	1	1	1
				No Driver Present	7	7	7
				Not Reported	8	8	8
				Unknown	9	9	9

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	2018	2019
GV	PAR REPORTED OTHER DRUG PRESENCE	PARDRUG	DRUGSXXF	No other drug(s) present	0	0	0
				Yes other drug(s) present	1	1	1
				Not Reported	7	7	7
				No Driver Present	8	8	8
				Unknown	9	9	9
GV	PRE-FIRST HARMFUL EVENTS CODED	PREFHE	PREFHEXXF	No pre first harmful event sequence	0	0	0
				Yes	1	1	1
				No driver present	8	8	8
GV	PRE-CRASH LOCATION	PRELOC	PREILOCXXF	No driver present	0	0	0
				Stayed in original travel lane	1	1	1
				Stayed on roadway, but left original travel lane	2	2	2
				Stayed on roadway, not known if left original travel lane	3	3	3
				Departed roadway	4	4	4
				Remained off roadway	5	5	5
				Returned to roadway	6	6	6
				Entered roadway	7	7	7
				Unknown	9	9	9
GV	PRE-EVENT MOVEMENT	PREMOVE	PREMOVEXXF	No Driver Present	0	0	0
				Going straight	1	1	1
				Decelerating in road	2	2	2
				Accelerating in road	3	3	3
				Starting in road	4	4	4
				Stopped in road	5	5	5
				Passing or overtaking another vehicle	6	6	6
				Disabled or parked in travel lane	7	7	7
				Leaving a parking position	8	8	8
				Entering a parking position	9	9	9
				Turning right	10	10	10

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
				Turning left	11	11	11
				Making a U-turn	12	12	12
				Backing up (other than for parking position)	13	13	13
				Negotiating a curve	14	14	14
				Changing lanes	15	15	15
				Merging	16	16	16
				Successful avoidance maneuver to a previous critical event	17	17	17
				Other (specify):	98	98	98
				Unknown	99	99	99
GV	PRE-CRASH STABILITY	PRESTAB	PREISTABXXF	No driver present	0	0	0
				Tracking	1	1	1
				Skidding longitudinally rotation less than 30 degrees	2	2	2
				Skidding laterally clockwise rotation	3	3	3
				Skidding laterally counter-clockwise rotation	4	4	4
				Other vehicle loss-of-control (specify):	8	8	8
				Precrash stability unknown	9	9	9
GV	ROADWAY PROFILE	PROFILE	PROFILEXXF	Level	1	1	1
				Uphill grade (>2%)	2	2	2
				Hillcrest	3	3	3
				Downhill grade (>2%)	4	4	4
				Sag	5	5	5
				Unknown	9	9	9
GV	PRIMARY SAMPLING UNIT	PSU	N/A	[Actual Value]	#	#	#
GV	PSU STRATIFICATION	PSUSTRAT	N/A	[Actual Value]	#	#	#
GV	DRIVER'S RACE	RACE	DRRACEXXF	White	1	1	1
				Black or African American	2	2	2
				Asian	3	3	3

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
				Native Hawaiian or Other Pacific Islander	4	4	4
				American Indian or Alaska Native	5	5	5
				Other (specify):	7	7	7
				No Driver present	8	8	8
				Unknown	9	9	9
GV	TRAVEL LANES FOR ROADWAY	RDLANES	LANESRDXXF	One	1	1	1
				Two	2	2	2
				Three	3	3	3
				Four	4	4	4
				Five	5	5	5
				Six	6	6	6
				Seven or More	7	7	7
				Unknown	9	9	9
GV	RELATION TO INTERCHANGE OR JUNCTION	RELTOJUNCT	RELINTERXXF	Non-interchange area and non-junction	0	0	0
				Interchange area related	1	1	1
				Intersection related/non-interchange	2	2	2
				Driveway , alley access related/non-interchange	3	3	3
				Other junction (specify)/non-interchange	4	4	4
				Unknown type of junction/non-interchange	5	5	5
				Unknown	9	9	9
GV	ROLLOVER DIRECTION OF ROLL	ROLLDIR	ROLINDIRXXF	No Rollover	0	0	0
				Roll right-primarily about the longitudinal axis	1	1	1
				Roll left-primarily about the longitudinal axis	2	2	2
				End over end	8	8	8
				Unknown roll direction	9	9	9
GV	ROLLOVER ESTIMATED DISTANCE	ROLLDIST	ROLLDISTXXF	No Rollover	0	0	0

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
				[Actual Value]	#	#	#
				End over end	998	998	998
				Unknown	999	999	999
GV	ROLLOVER INITIATION TYPE	ROLLINITYP	ROLINTYPEXXF	No rollover	0	0	0
				Trip-over	1	1	1
				Flip-over	2	2	2
				Turn-over (specify):	3	3	3
				Climb-over	4	4	4
				Fall-over	5	5	5
				Bounce-over	6	6	6
				Collision with another vehicle	7	7	7
				Other rollover initiation type (specify):	8	8	8
				End over end	98	98	98
				Unknown	99	99	99
GV	ROLLOVER INITIATION LOCATION	ROLLINLOC	ROLINLOCXXF	No rollover	0	0	0
				On roadway	1	1	1
				On shoulder - paved	2	2	2
				On shoulder - unpaved	3	3	3
				On roadside or divided trafficway median	4	4	4
				End over end	8	8	8
				Unknown	9	9	9
GV	ROLLOVER INTERUPTED	ROLLINTRPT	INTEROLLXXF	No rollover	0	0	0
				Yes	1	1	1
				No	2	2	2
				End over end	8	8	8
				Unknown	9	9	9
GV	ROLLOVER INITIATION OBJECT	ROLLOBJ	ROLLOBJXXF	No rollover	0	0	0
				Vehicle 1-30	#	#	#
				Overturn - rollover (excludes end-over-end)	31	31	31

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
				Rollover - end-over-end	32	32	32
				Jackknife	34	34	34
				Tree (<= 10 cm in diameter)	41	41	41
				Tree (> 10 cm in diameter)	42	42	42
				Shrubbery or bush	43	43	43
				Embankment	44	44	44
				Breakaway pole or post (any diameter)	45	45	45
				Cable barrier guardrail	47	47	47
				Guardrail Face	48	48	48
				Guardrail End	49	49	49
				Nonbreakaway Pole or post (<= 10 cm in diameter)	50	50	50
				Nonbreakaway Pole or post (> 10 cm but <= 30 cm in diameter)	51	51	51
				Nonbreakaway Pole or post (> 30 cm in diameter)	52	52	52
				Nonbreakaway Pole or post (diameter unknown)	53	53	53
				Concrete traffic barrier	54	54	54
				Impact attenuator	55	55	55
				Other traffic barrier (specify)	56	56	56
				Fence	57	57	57
				Wall	58	58	58
				Building	59	59	59
				Ditch or culvert	60	60	60
				Ground	61	61	61
				Fire hydrant	62	62	62
				Curb	63	63	63
				Bridge	64	64	64
				Other fixed object (specify):	68	68	68

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
				Unknown fixed object	69	69	69
				Other nonmotorist or conveyance (specify):	74	74	74
				Animal	76	76	76
				Railway vehicle	77	77	77
				Trailer, disconnected in transport	78	78	78
				Object fell from vehicle in-transport	79	79	79
				Other nonfixed object (specify):	88	88	88
				Unknown nonfixed object	89	89	89
				Other event (specify):	98	98	98
				Unknown event or object	99	99	99
GV	ROLLOVER PRE-EVENT MANEUVER	ROLLPREMAN	PROLLMANXXF	No rollover	0	0	0
				Departing roadway (to paved surface)	1	1	1
				Departed roadway (to non-paved surface)	2	2	2
				Returning to roadway (from paved surface)	3	3	3
				Returning to roadway (from non-paved surface)	4	4	4
				On roadway maneuver	5	5	5
				Off roadway maneuver	6	6	6
				Rollover end-over-end	8	8	8
				Unknown	9	9	9
GV	ROLLOVER LOCATION OF TRIP FORCE	ROLLTRIP	TRIPLOCXXF	No Rollover	0	0	0
				Wheels/tires	1	1	1
				Side plane	2	2	2
				End plane	3	3	3
				Undercarriage	4	4	4
				Other location on vehicle (specify):	5	5	5
				Non-contact rollover forces (specify):	6	6	6
				End over end	8	8	8
				Unknown	9	9	9
GV	ROLLOVER QUARTER TURNS	ROLLTURN	ROLLTURNSXXF	No rollover	0	0	0

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	2018	2019
				[Actual Value]	#	#	#
				End over end	98	98	98
				Unknown	99	99	99
GV	ROLLOVER TYPE	ROLLTYPE	ROLLOVERXXF	No rollover (no overturning)	0	0	0
				Rollover -- Longitudinal axis	1	1	1
				Rollover -- end-over-end (i.e., primarily about the lateral axis)	2	2	2
				Not a CISS Vehicle	7	7	7
				Overturn, details unknown	9	9	9
GV	RUMBLE STRIP INITIAL TRAVEL LANE	RUMBINIT	RUMBELXXF	None	0	0	0
				Left Rumble Strip Present	1	1	1
				Right Rumble Strip Present	2	2	2
				Left and Right Rumble Strips Present	3	3	3
				Unknown	9	9	9
GV	RUMBLE STRIP ROAD	RUMBROAD	RUMBLEXXF	None	0	0	0
				Left Rumble Strip Present	1	1	1
				Right Rumble Strip Present	2	2	2
				Left and Right Rumble Strips Present	3	3	3
				Unknown	9	9	9
GV	VEHICLE SPECIAL USE	SPECUSE	VEHUSEXXF	No Special Function	0	0	0
				Taxi	1	1	1
				Vehicle used as school bus	2	2	2
				Vehicle used as other bus	3	3	3
				Military	4	4	4
				Police	5	5	5
				Ambulance	6	6	6
				Fire Truck	7	7	7
				Non-transport Emergency Services Vehicle	8	8	8
				Incident Response	9	9	9
				Unknown	99	99	99

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
GV	SPEED LIMIT	SPEEDLIMIT	SPLIMITXXF	No Statutory Limit	0	0	0
				[Actual Value]	#	#	#
				Unknown	999	999	999
GV	ROADWAY SURFACE CONDITION	SURFCOND	SURCONDXXF	Dry	1	1	1
				Wet	2	2	2
				Snow	3	3	3
				Slush	4	4	4
				Ice/Frost	5	5	5
				Water (Standing, Moving)	6	6	6
				Sand	7	7	7
				Mud, Dirt, Gravel	8	8	8
				Oil	9	9	9
				Other, (specify):	98	98	98
				Unknown	99	99	99
GV	ROADWAY SURFACE TYPE	SURFTYPE	SURTYPEXXF	Concrete	1	1	1
				Bituminous (asphalt)	2	2	2
				Brick or Block	3	3	3
				Slag, gravel or stone	4	4	4
				Dirt	5	5	5
				Other, specify:	8	8	8
				Unknown	9	9	9
GV	TOWED TRAILING UNIT	TOWHITCH	TOWHITCHXXF	No Trailing Units	0	0	0
				Yes, Towed Trailing Unit	1	1	1
				Not a CISS Vehicle	8	8	8
				Unknown	9	9	9
GV	PAR REPORTED TOW STATUS	TOWSTAT	TOWPARXXF	Not Towed	0	0	*
				Towed	1	1	*
				Unknown	9	9	*
GV	POLICE REPORTED VEHICLE REMOVAL	TOWED	TOWEDXXF	Towed Due to Disabling Damage	*	*	2
				Towed Not Due to Disabling Damage	*	*	3

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
				Not Towed	*	*	5
				Towed, Unknown Reason	*	*	7
				Not Reported	*	*	8
				Unknown	*	*	9
GV	TRAFFIC CONTROL DEVICE	TRAFDEV	TRAFCONTXXF	No traffic control(s)	0	0	0
				Traffic control signal (not RR crossing)	1	1	1
				Stop Sign	2	2	2
				Yield Sign	3	3	3
				School zone sign	4	4	4
				Other regulatory sign (specify):	5	5	5
				Warning sign (not RR crossing)	6	6	6
				Unknown Sign	7	7	7
				Miscellaneous/other controls including RR controls (specify):	8	8	8
				Unknown	9	9	9
GV	TRAFFICWAY FLOW	TRAFFLOW	TRAFFLOWXXF	Divided trafficway-median strip without positive barrier	1	1	1
				Divided trafficway-median strip with positive barrier	2	2	2
				One-Way Traffic	3	3	3
				Not physically divided (two way traffic)	4	4	4
				Not physically divided with two way left turn lane	5	5	5
				Unknown	9	9	9
GV	TRAFFIC CONTROL DEVICE FUNCTIONING	TRAFFUNCT	TRCTLFCTXXF	No traffic control(s)	0	0	0
				Traffic control device not functioning (specify):	1	1	1
				Traffic control device functioning properly	2	2	2
				Unknown	9	9	9

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
GV	DOCUMENTATION OF TRAJECTORY DATA	TRAJDOC	TRAJDOCXXF	No	0	0	0
				Yes	1	1	1
GV	TRANSPORT STATUS	TRANSTAT	TRANSXXF	In-Transport	1	1	1
				Not in Transport	2	2	2
				Working Vehicle	3	3	3
GV	POST COLLISION CONDITION OF TREE OR POLE	TREEPOLE	CONDTREEXXF	Not Collision (for Highest Delta V) with tree or pole	0	0	0
				Not damaged	1	1	1
				Cracked/Sheared	2	2	2
				Tilted < 45 Degrees	3	3	3
				Tilted >= 45 Degrees	4	4	4
				Uprooted Tree	5	5	5
				Separated pole from base	6	6	6
				Pole replaced	7	7	7
				Other (specify):	8	8	8
				Unknown	9	9	9
GV	VEHICLE CLASS	VEHCLASS	VEHCLASSXXF	Subcompact/mini (wheelbase < 254 cm)	1	1	1
				Compact (wheelbase 254 but < 265 cm)	2	2	2
				Intermediate (wheelbase >=265 but < 278 cm)	3	3	3
				Full size (wheelbase >=278 but < 291 cm)	4	4	4
				Largest (wheelbase >=291 cm)	5	5	5
				Unknown passenger car size	9	9	9
				Compact utility vehicle	14	14	14
				Large utility vehicle (<=4,536 kgs GVWR)	15	15	15
				Utility station wagon (<=4,536 kgs GVWR)	16	16	16
				Unknown utility type	19	19	19
				Minivan (<=4,536 kgs GVWR)	20	20	20
				Large van (<=4,536 kgs GVWR)	21	21	21

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
				Van based school bus (<=4,536 kgs GVWR)	24	24	24
				Other van type (<=4,536 kgs GVWR)	28	28	28
				Unknown van type (<=4,536 kgs GVWR)	29	29	29
				Compact pickup truck (<=4,536 kgs GVWR)	30	30	30
				Large pickup truck (<=4,536 kgs GVWR)	31	31	31
				Other pickup truck (<=4,536 kgs GVWR)	38	38	38
				Unknown pickup truck type (<=4,536 kgs GVWR)	39	39	39
				Other light truck (<=4,536 kgs GVWR)	45	45	45
				Unknown light truck type (<=4,536 kgs GVWR)	48	48	48
				Unknown light vehicle type	49	49	49
				School bus (excludes van based) (> 4,536 kgs GVWR)	50	50	50
				Other bus (> 4,536 kgs GVWR)	58	58	58
				Unknown Bus Type	59	59	59
				Truck (> 4,536 kgs GVWR)	60	60	60
				Tractor without trailer	67	67	67
				Tractor - trailer(s)	68	68	68
				Unknown medium/heavy truck type	78	78	78
				Unknown light/medium/heavy truck type	79	79	79
				Motored cycle	80	80	80
				Other vehicle	90	90	90
				Unknown	99	99	99
GV	VEHICLE NUMBER	VEHNO	N/A	[Actual Value]	#	#	#
GV	VERSION NUMBER	VERSION	N/A	[Actual Value]	2	3	4
GV	VEHICLE IDENTIFICATION NUMBER	VIN	N/A	[Actual Value]	#	#	#
GV	NUMBER OF INJURED OCCUPANTS THIS VEHICLE	VINJURED	INJSEVXXF	[Actual Value]	#	#	#
				Not a towed CISS applicable vehicle	95	95	95

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
GV	VIN LENGTH	VINLENGTH	N/A	[Actual Value]	#	#	#
GV	MAXIMUM ISS FOR THIS VEHICLE	VISS	ISSXXF	Not Injured	0	0	0
				[Actual Value]	#	#	#
				Not a towed CISS applicable vehicle	95	95	95
				Injury, Unknown Severity	97	97	97
				Unknown if Injured	99	99	99
GV	MAXIMUM AIS SEVERITY FOR THIS VEHICLE	VMAIS	VAISXXF	Not injured	0	0	0
				Minor injury	1	1	1
				Moderate injury	2	2	2
				Serious injury	3	3	3
				Severe injury	4	4	4
				Critical injury	5	5	5
				Maximum (untreatable) injury	6	6	6
				Injured, severity unknown	7	7	7
				Not a towed CISS applicable vehicle	95	95	95
				Unknown if injured	99	99	99
GV	MAXIMUM TREATMENT IN VEHICLE	VTREAT	VTREATXXF	NO TREATMENT	0	0	0
				FATAL	1	1	1
				FATAL - RULED DISEASE	2	2	2
				HOSPITALIZED	3	3	3
				TRANSPORTED AND RELEASED	4	4	4
				TREATMENT AT SCENE, NOT TRANSPORTED	5	5	5
				TREATMENT-LATER	6	6	6
				TREATMENT-OTHER	7	7	7
				TRANSPORTED TO A MEDICAL FACILITY - UNK IF TREATED	8	8	8
				NOT A TOWED CISS APPLICABLE VEHICLE	95	95	95
				UNKNOWN	99	99	99
GV	WEATHER CONDITIONS	WEATHER	WEATHERXXF	Clear	1	1	1

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
				Rain	2	2	2
				Sleet or Hail	3	3	3
				Snow	4	4	4
				Fog, Smog, Smoke	5	5	5
				Severe Crosswinds	6	6	6
				Blowing Sand, Soil, Dirt	7	7	7
				Cloudy	8	8	8
				Blowing Snow	9	9	9
				Freezing Rain or Freezing Drizzle	10	10	10
				Other, (specify):	98	98	98
				Unknown	99	99	99
GV	DRIVER'S ZIP CODE	ZIP	$DRZIPXXF	Not a Resident of U.S. or Territories	00001	00001	00001
				[Actual Value]	#	#	#
				No driver present	99998	99998	99998
				Unknown	99999	99999	99999
GV	SHOULDER WIDTH	SHLDRWIDTH	SHLDRWIDTHXXF	[Actual Value]	*	#	#
				>= 9.7 meters	*	9.7	9.7
				Not Applicable	*	9.8	9.8
				Unknown	*	9.9	9.9
GV	STRUCK OBJECT LENGTH	STRKLENGTH	STRUCKOBJECTXXF	[Actual Value]	*	#	#
				>= 120 centimeters	*	120	120
				Not Applicable	*	998	998
				Unknown	*	999	999
GV	STRUCK OBJECT HEIGHT	STRKHEIGHT	STRUCKOBJECTXXF	[Actual Value]	*	#	#
				>= 120 centimeters	*	120	120
				<= -120 centimeters	*	*	-120
				Not Applicable	*	998	998
				Unknown	*	999	999
GV	STRUCK OBJECT WIDTH	STRKWIDTH	STRUCKOBJECTXXF	[Actual Value]	*	#	#
				>= 120 centimeters	*	120	120

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
				Not Applicable	*	998	998
				Unknown	*	999	999
GV	DISTANCE FROM EDGE OF ROADWAY X	EDGEDIST X	ROADEDGEXXF	On road edge	*	0	0
				[Actual Value]	*	#	#
				>= 99 meters	*	99	99
				Not Applicable	*	99.8	99.8
				Unknown	*	99.9	99.9
GV	DISTANCE FROM EDGE OF ROADWAY Y	EDGEDIST Y	ROADEDGEXXF	On road edge	*	0	0
				[Actual Value]	*	#	#
				>= 99 meters	*	99	99
				Not Applicable	*	99.8	99.8
				Unknown	*	99.9	99.9
GV	DISTANCE FROM EDGE OF ROADWAY Z	EDGEDIST Z	ROADEDGEXXF	On road edge	*	0	0
				[Actual Value]	*	#	#
				>= 99 meters	*	99	99
				Not Applicable	*	99.8	99.8
				Unknown	*	99.9	99.9

ICS Dataset

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
ICS	BODY REGION INJURED	BRI	VAIDBRIXXF	Head/Face	1	1	1
				Neck	2	2	2
				Cervical Spine	3	3	3
				Thoracic Spine	4	4	4
				Lumbar Spine	5	5	5
				Shoulder	6	6	6
				Arm	7	7	7
				Elbow	8	8	8
				Forearm	9	9	9
				Wrist	10	10	10
				Hand	11	11	11
				Thorax	12	12	12
				Abdomen	13	13	13
				Pelvis	14	14	14
				Hip	15	15	15
				Thigh	16	16	16
				Knee	17	17	17
				Leg	18	18	18
				Ankle	19	19	19
				Foot	20	20	20
				Unknown	99	99	99
ICS	SYSTEM CASE IDENTIFIER	CASEID	N/A	[Actual Value]	#	#	#
ICS	SEQUENTIAL CASE NUMBER	CASENO	N/A	[Actual Value]	#	#	#
ICS	CASE NUMBER	CASENUMBER	N/A	[Actual Value]	#	#	#
ICS	CASE WEIGHT	CASEWGT	N/A	[Actual Value]	#	#	#
ICS	CASE CATEGORY	CATEGORY	N/A	[Actual Value]	#	#	#
ICS	CONTRIBUTING FACTOR 1-5	FACTOR1-5	VAIDFACTORXXF	Not applicable	.	.	.
				None	0	0	0

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
				High DV	1	1	1
				Seat belt interaction	2	2	2
				Intrusion	3	3	3
				Full Ejection	4	4	4
				Partial Ejection	5	5	5
				Comorbidity	6	6	6
				CRS used improperly	7	7	7
				Unbelted case occupant	8	8	8
				Unbelted other occupant	9	9	9
				Pretensioner	10	10	10
				Loose cargo	11	11	11
				Possible late air bag deployment	12	12	12
				Seat belt payout due to load limiter	13	13	13
				Other	98	98	98
ICS	ICS CONFIDENCE	ICSCONFIDENCE	VAIDCONFIDENCEXXF	Certain	1	1	1
				Probable	2	2	2
				Possible	3	3	3
				Caused by other injury	*	*	8
				Unknown	9	9	9
ICS	ICS NOTE	ICSNOTE	N/A	[Actual Value]	*	*	#
ICS	ICS NUMBER	ICSNO	N/A	[Actual Value]	#	#	#
ICS	ICS TYPE	ICS_TYPE	ICSTYPEXXF	Basic	1	1	1
				Isolated IPC	2	2	2
				Critical IPC 2-point	3	3	3
				Critical IPC 3-point	4	4	4
				Tandem IPC	5	5	5
ICS	INJURY NUMBER	INJNO	N/A	[Actual Value]	#	#	#
ICS	IPC COMPONENT - #1 - PRIMARY	IPC1	VAIDIPCXXF	Windshield	101	101	101
ICS	IPC COMPONENT - #2 - PRIMARY	IPC2	VAIDIPCXXF	Mirror	102	102	102
ICS	IPC COMPONENT - #3 - PRIMARY	IPC3	VAIDIPCXXF	Sunvisor	103	103	103

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
ICS	IPC COMPONENT - #1 ALTERNATE	IPC1_ALT	VAIDIPCXXF	Steering wheel rim	104	104	104
ICS	IPC COMPONENT - #2 ALTERNATE	IPC2_ALT	VAIDIPCXXF	Steering wheel hub/spoke	105	105	105
ICS	IPC COMPONENT - #3 ALTERNATE	IPC3_ALT	VAIDIPCXXF	Steering wheel (combination of rim and hub/spoke)	106	106	106
ICS	TANDEM IPC SECONDARY	IPC_2ND	VAIDIPCXXF	Steering column, transmission selector lever, other attachment	107	107	107
ICS	TANDEM IPC TERTIARY	IPC_3RD	VAIDIPCXXF	Mounted electronic equipment (phone, laptop, GPS, etc.)	108	108	108
				Glove compartment door	109	109	109
				Other front object (specify):	110	110	110
				Left instrument panel	111	111	111
				Center instrument panel	112	112	112
				Right instrument panel	113	113	113
				Left, center instrument panel, junction	114	114	114
				Right, center instrument panel, junction	115	115	115
				Left lower instrument panel (includes knee bolster)	116	116	116
				Center lower instrument panel (includes knee bolster)	117	117	117
				Right lower instrument panel (includes knee bolster)	118	118	118
				Left lower instrument panel, center console, junction	119	119	119
				Right lower instrument panel, center console, junction	120	120	120
				Left A (A1/A2)-pillar	201	201	201
				Left B-pillar	202	202	202
				Other left pillar (specify):	203	203	203
				Left side window glass	211	211	211
				Left side window frame	212	212	212

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	2018	2019
				Left side window sill	213	213	213
				Left side panel forward of A1/A2 pillar	221	221	221
				Left side panel rear of the B-pillar	222	222	222
				Left A-pillar, instrument panel, door, junction	231	231	231
				Left A-pillar, windshield header, roof side rail, roof, junction	232	232	232
				Left B-pillar, roof side rail, roof, junction	233	233	233
				Left B-pillar, door, junction	234	234	234
				Left C-pillar, roof side rail, roof, junction	235	235	235
				Other left side object (specify)	298	298	298
				Left forward upper quadrant	301	301	301
				Left forward lower quadrant	302	302	302
				Left rear upper quadrant	303	303	303
				Left rear lower quadrant	304	304	304
				Left door panel unknown/multiple quadrant	309	309	309
				Left hardware/armrest forward upper quadrant	311	311	311
				Left hardware/armrest forward lower quadrant	312	312	312
				Left hardware/armrest rear upper quadrant	313	313	313
				Left hardware/armrest rear lower quadrant	314	314	314
				Left hardware/armrest unknown/multiple quadrant	319	319	319
				Right A (A1/A2)-pillar	401	401	401
				Right B-pillar	402	402	402
				Other right pillar (specify):	403	403	403
				Right side window glass	411	411	411
				Right side window frame	412	412	412
				Right side window sill	413	413	413
				Right side panel forward of A1/A2 pillar	421	421	421
				Right side panel rear of the B-pillar	422	422	422
				Right A-pillar, instrument panel, door, junction	431	431	431

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code		
					2017	2018	2019
				Right A-pillar, windshield header, roof side rail, roof, junction	432	432	432
				Right B-pillar, roof side rail, roof, junction	433	433	433
				Right B-pillar, door, junction	434	434	434
				Right C-pillar, roof side rail, roof, junction	435	435	435
				Other right side object (specify)	498	498	498
				Right forward upper quadrant	501	501	501
				Right forward lower quadrant	502	502	502
				Right rear upper quadrant	503	503	503
				Right rear lower quadrant	504	504	504
				Right door panel unknown/multiple quadrant	509	509	509
				Right hardware/armrest forward upper quadrant	511	511	511
				Right hardware/armrest forward lower quadrant	512	512	512
				Right hardware/armrest rear upper quadrant	513	513	513
				Right hardware/armrest rear lower quadrant	514	514	514
				Right hardware/armrest unknown/multiple quadrant	519	519	519
				This occupants seat cushion	601	601	601
				This occupants seat back	602	602	602
				Seat latch points for child restraints	603	603	603
				This occupants seat, unknown cushion or back	609	609	609
				Other seating position seat cushion	611	611	611
				Other seating position seat back	612	612	612
				Other seating position, unknown cushion or back	613	613	613
				Lap portion of belt restraint	621	621	621
				Shoulder portion of belt restraint	622	622	622

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
				Belt restraint B-pillar or door frame attachment point	623	623	623
				Other restraint system component (specify):	624	624	624
				This occupants head restraint	631	631	631
				Other seating position head restraint	632	632	632
				Other occupants (specify):	641	641	641
				Interior loose objects (specify):	642	642	642
				Transmission shifter	651	651	651
				Grab handles	652	652	652
				Engine shroud/cover	653	653	653
				Seatback trays	654	654	654
				Center console first row	661	661	661
				Center console second row	662	662	662
				Center console other row	663	663	663
				Fold down armrest first row	671	671	671
				Fold down armrest second row	672	672	672
				Fold down armrest other row	673	673	673
				Child safety seat shell, (i.e., interior, exterior, base, cup holder, padding, head restraint, handle)	681	681	681
				Child safety seat harness system, (i.e., straps, retainer clip, latchplate, buckle)	682	682	682
				Unknown child safety seat component	683	683	683
				Same occupant contact (specify) (ex. knee)	696	696	696
				Cargo in vehicle	697	697	697
				Other interior object(s) (specify):	698	698	698
				Front header	701	701	701
				Rear header	702	702	702
				Roof left side rail	703	703	703
				Roof right side rail	704	704	704

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
				Roof or convertible top	705	705	705
				Roof map light/console	706	706	706
				Sunroof/components	707	707	707
				Roll bar	708	708	708
				Floor (including toe pan)	801	801	801
				Parking brake handle	802	802	802
				Foot controls including parking brake	803	803	803
				Backlight (rear window)	901	901	901
				Backlight storage rack, door, etc.	902	902	902
				Other rear object (specify):	998	998	998
				Steering control devices (attached to OEM steering wheel)	1001	1001	1001
				Steering knob attached to steering wheel	1002	1002	1002
				Replacement steering wheel (i.e., reduced diameter)	1003	1003	1003
				Joy stick steering controls	1004	1004	1004
				Wheelchair tie-downs	1005	1005	1005
				Modification to seat belts,(specify):	1006	1006	1006
				Additional or relocated switches, (specify):	1007	1007	1007
				Raised roof	1008	1008	1008
				Wall mounted head rest (used behind wheel chair)	1009	1009	1009
				Other adaptive device (specify):	1098	1098	1098
				Hood	1101	1101	1101
				Outside hardware (e.g., outside mirror, antenna)	1102	1102	1102
				Other exterior surface or tires (specify):	1198	1198	1198
				Unknown exterior objects	1199	1199	1199
				Front bumper	1201	1201	1201
				Hood edge	1202	1202	1202

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
				Other front of vehicle (specify):	1203	1203	1203
				Hood	1204	1204	1204
				Hood ornament	1205	1205	1205
				Windshield, roof rail, A-pillar	1206	1206	1206
				Side surface	1207	1207	1207
				Side mirrors	1208	1208	1208
				Other side protrusions (specify):	1209	1209	1209
				Rear surface	1210	1210	1210
				Undercarriage	1211	1211	1211
				Tires and wheels	1212	1212	1212
				Other exterior of other motor vehicle (specify):	1298	1298	1298
				Unknown exterior of other motor vehicle	1299	1299	1299
				Ground	1301	1301	1301
				Tree	1302	1302	1302
				Pole	1303	1303	1303
				Traffic barrier (includes: jersey barrier, guardrail, etc.)	1304	1304	1304
				Other object (specify):	1398	1398	1398
				Unknown object (specify)	1399	1399	1399
				Fire in vehicle	1401	1401	1401
				Flying glass	1402	1402	1402
				Air bag exhaust gases	1403	1403	1403
				Other noncontact injury source (specify):	1498	1498	1498
				Steering wheel hub	1501	1501	1501
				Steering wheel hub compartment cover	1502	1502	1502
				Left bottom instrument panel	1503	1503	1503
				Left bottom instrument panel- compartment cover	1504	1504	1504
				Left seat back	1505	1505	1505

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
				Left door / panel	1506	1506	1506
				Left roof side rail	1507	1507	1507
				Left seat belt	1508	1508	1508
				Left other air bag (specify)	1598	1598	1598
				Right top instrument panel	1601	1601	1601
				Right top instrument panel- compartment cover	1602	1602	1602
				Right middle instrument panel	1603	1603	1603
				Right middle instrument panel - compartment cover	1604	1604	1604
				Right bottom instrument panel	1605	1605	1605
				Right bottom instrument panel- compartment cover	1606	1606	1606
				Right seat back	1607	1607	1607
				Right door / panel	1608	1608	1608
				Right roof side rail	1609	1609	1609
				Right seat belt	1610	1610	1610
				Right other air bag (specify)	1698	1698	1698
				Caused by other injury	*	*	8888
				Injured, unknown source	9999	9999	9999
ICS	IPC AREA - #1 - PRIMARY	IPCAREA1	VAIDAREAXXF	Front	1	1	1
ICS	IPC AREA - #2 - PRIMARY	IPCAREA2	VAIDAREAXXF	Left Side	2	2	2
ICS	IPC AREA - #3 - PRIMARY	IPCAREA3	VAIDAREAXXF	Left Door Panel	3	3	3
ICS	IPC AREA - #1 - ALTERNATE	IPCAREA1_ALT	VAIDAREAXXF	Right Side	4	4	4
ICS	IPC AREA - #2 - ALTERNATE	IPCAREA2_ALT	VAIDAREAXXF	Right Door Panel	5	5	5
ICS	IPC AREA - #3 - ALTERNATE	IPCAREA3_ALT	VAIDAREAXXF	Interior	6	6	6
ICS	TANDEM IPC SECONDARY AREA	IPCAREA_2ND	VAIDAREAXXF	Roof	7	7	7
ICS	TANDEM IPC TERTIARY AREA	IPCAREA_3RD	VAIDAREAXXF	Floor	8	8	8
				Rear	9	9	9
				Adaptivedriving Equipment	10	10	10

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
				Exterior Of Occupant's Vehicle	11	11	11
				Exterior Of Other Motor Vehicle	12	12	12
				Other Vehicle Or Object	13	13	13
				Noncontact Injury	14	14	14
				Left Air Bag	15	15	15
				Right Air Bag	16	16	16
				Caused by other injury	*	*	88
				Injured, Unknown Source	99	99	99
ICS	IPC CONFIDENCE - #1 - PRIMARY	IPCCONF1	VAIDCONFIDENCEXXF	Certain	1	1	1
ICS	IPC CONFIDENCE - #2 - PRIMARY	IPCCONF2	VAIDCONFIDENCEXXF	Probable	2	2	2
ICS	IPC CONFIDENCE - #3 - PRIMARY	IPCCONF3	VAIDCONFIDENCEXXF	Possible	3	3	3
ICS	IPC CONFIDENCE - #1 - ALTERNATE	IPCCONF1_ALT	VAIDCONFIDENCEXXF	Caused by other injury	*	*	8
ICS	IPC CONFIDENCE - #2 - ALTERNATE	IPCCONF2_ALT	VAIDCONFIDENCEXXF	Unknown	9	9	9
ICS	IPC CONFIDENCE - #3 - ALTERNATE	IPCCONF3_ALT	VAIDCONFIDENCEXXF				
ICS	TANDEM IPC SECONDARY CONFIDENCE	IPCCONF_2ND	VAIDCONFIDENCEXXF				
ICS	TANDEM IPC TERTIARY CONFIDENCE	IPCCONF_2ND	VAIDCONFIDENCEXXF				
ICS	TANDEM IPC SECONDARY CONFIDENCE	IPCCONF_2ND	VAIDCONFIDENCEXXF				
ICS	TANDEM IPC TERTIARY CONFIDENCE	IPCCONF_3RD	VAIDCONFIDENCEXXF				
ICS	LOAD PATH - #1 - PRIMARY	LOADPATH1	VAIDLOADXXF	Head/Face to C-Spine to Neck	101	101	101
ICS	LOAD PATH - #2 - SECONDARY	LOADPATH2	VAIDLOADXXF	Head/Face to C-Spine	102	102	102
ICS	LOAD PATH - #3 - TERTIARY	LOADPATH3	VAIDLOADXXF	Head/Face to C-Spine to T-Spine	103	103	103
ICS	LOAD PATH - #1 - PRIMARY ALTERNATE	LOADPATH1_ALT	VAIDLOADXXF	Head/Face to C-Spine to T-Spine to L-Spine	104	104	104
ICS	LOAD PATH - #2 - SECONDARY ALTERNATE	LOADPATH2_ALT	VAIDLOADXXF	Neck to C-Spine to Head/Face	201	201	201
ICS	LOAD PATH - #3 - TERTIARY ALTERNATE	LOADPATH3_ALT	VAIDLOADXXF	Neck to C-spine to Shoulder	202	202	202
ICS	LOAD PATH - TANDEM SECONDARY	LOADPATH_2ND	VAIDLOADXXF	Neck to C-Spine	203	203	203
ICS	LOAD PATH - TANDEM TERTIARY	LOADPATH_3RD	VAIDLOADXXF	Neck to C-Spine to T-Spine	204	204	204
				Neck to C-Spine to T-Spine to L-Spine	205	205	205
				Thorax to T-Spine to C-Spine to Head/Face	401	401	401
				Thorax to T-Spine to C-Spine to Neck	402	402	402
				Thorax to Shoulder	403	403	403

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	2018	2019
				Thorax to T-Spine to C-Spine	404	404	404
				Thorax to T-Spine	405	405	405
				Thorax to T-Spine to L-Spine	406	406	406
				Shoulder to Thorax	601	601	601
				Shoulder to Arm	602	602	602
				Shoulder to Arm to Elbow	603	603	603
				Shoulder to Arm to Elbow to Forearm	604	604	604
				Shoulder to Arm to Elbow to Forearm to Wrist	605	605	605
				Shoulder to Arm to Elbow to Forearm to Wrist to Hand	606	606	606
				Arm to Shoulder	701	701	701
				Arm to Elbow	702	702	702
				Arm to Elbow to Forearm	703	703	703
				Arm to Elbow to Forearm to Wrist	704	704	704
				Arm to Elbow to Forearm to Wrist to Hand	705	705	705
				Elbow to Arm to Shoulder	801	801	801
				Elbow to Arm	802	802	802
				Elbow to Forearm	803	803	803
				Elbow to Forearm to Wrist	804	804	804
				Elbow to Forearm to Wrist to Hand	805	805	805
				Forearm to Elbow to Arm to Shoulder	901	901	901
				Forearm to Elbow to Arm	902	902	902
				Forearm to Elbow	903	903	903
				Forearm to Wrist	904	904	904
				Forearm to Wrist to Hand	905	905	905
				Wrist to Forearm to Elbow to Arm to Shoulder	1001	1001	1001
				Wrist to Forearm to Elbow to Arm	1002	1002	1002
				Wrist to Forearm to Elbow	1003	1003	1003
				Wrist to Forearm	1004	1004	1004
				Wrist to Hand	1005	1005	1005

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	2018	2019
				Hand to Wrist to Forearm to Elbow to Arm to Shoulder	1101	1101	1101
				Hand to Wrist to Forearm to Elbow to Arm	1102	1102	1102
				Hand to Wrist to Forearm to Elbow	1103	1103	1103
				Hand to Wrist to Forearm	1104	1104	1104
				Hand to Wrist	1105	1105	1105
				Abdomen to L-Spine to T-Spine to C-Spine to Head/Face	1301	1301	1301
				Abdomen to L-Spine to T-Spine to C-Spine to Neck	1302	1302	1302
				Abdomen to L-Spine to T-Spine to C-Spine	1303	1303	1303
				Abdomen to L-Spine to T-Spine	1304	1304	1304
				Abdomen to L-Spine	1305	1305	1305
				Pelvis to Hip	1401	1401	1401
				Pelvis to L-Spine to T-Spine to C- Spine	1402	1402	1402
				Pelvis to L-Spine to T-Spine	1403	1403	1403
				Pelvis to L-Spine	1404	1404	1404
				Hip to Pelvis	1501	1501	1501
				Hip to Thigh	1502	1502	1502
				Hip to Thigh to Knee	1503	1503	1503
				Hip to Thigh to Knee to Leg	1504	1504	1504
				Hip to Thigh to Knee to Leg to Ankle	1505	1505	1505
				Hip to Thigh to Knee to Leg to Ankle to Foot	1506	1506	1506
				Thigh to Hip	1601	1601	1601
				Thigh to Knee	1602	1602	1602
				Thigh to Knee to Leg	1603	1603	1603
				Thigh to Knee to Leg to Ankle	1604	1604	1604
				Thigh to Knee to Leg to Ankle to Foot	1605	1605	1605
				Knee to Thigh to Hip to Pelvis	1701	1701	1701
				Knee to Thigh to Hip	1702	1702	1702

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	2018	2019
				Knee to Thigh	1703	1703	1703
				Knee to Leg	1704	1704	1704
				Knee to Leg to Ankle	1705	1705	1705
				Knee to Leg Ankle to Foot	1706	1706	1706
				Leg to Knee to Thigh to Hip to Pelvis	1801	1801	1801
				Leg to Knee to Thigh to Hip	1802	1802	1802
				Leg to Knee to Thigh	1803	1803	1803
				Leg to Knee	1804	1804	1804
				Leg to Ankle	1805	1805	1805
				Leg to Ankle to Foot	1806	1806	1806
				Ankle to Leg to Knee to Thigh to Hip to Pelvis	1901	1901	1901
				Ankle to Leg to Knee to Thigh to Hip	1902	1902	1902
				Ankle to Leg to Knee to Thigh	1903	1903	1903
				Ankle to Leg to Knee	1904	1904	1904
				Ankle to Leg	1905	1905	1905
				Ankle to Foot	1906	1906	1906
				Foot to Ankle to Leg to Knee to Thigh to Hip to Pelvis	2001	2001	2001
				Foot to Ankle to Leg to Knee to Thigh to Hip	2002	2002	2002
				Foot to Ankle to Leg to Knee to Thigh	2003	2003	2003
				Foot to Ankle to Leg to Knee	2004	2004	2004
				Foot to Ankle to Leg	2005	2005	2005
				Foot to Ankle	2006	2006	2006
				Caused by other injury	*	*	8888
				N/A	9997	9997	9997
				Other	9998	9998	9998
				Unknown	9999	9999	9999
ICS	OCCUPANTNUMBER	OCCNO	N/A	[Actual Value]	#	#	#
ICS	PRIMARY SAMPLING UNIT	PSU	N/A	[Actual Value]	#	#	#
ICS	PSU STRATIFICATION	PSUSTRAT	N/A	[Actual Value]	#	#	#

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	2018	2019
ICS	BODY REGION CONTACTED - #1 - PRIMARY	REGCONTACT1	VAIDBRCXXF	Head/Face	1	1	1
ICS	BODY REGION CONTACTED - #2 - SECONDARY	REGCONTACT2	VAIDBRCXXF	Neck	2	2	2
ICS	BODY REGION CONTACTED - #3 - TERTIARY	REGCONTACT3	VAIDBRCXXF	Cervical Spine	3	3	3
ICS	BODY REGION CONTACTED - #1 - ALTERNATE	REGCONTACT1_ALT	VAIDBRCXXF	Thoracic Spine	4	4	4
ICS	BODY REGION CONTACTED - #2 - ALTERNATE	REGCONTACT2_ALT	VAIDBRCXXF	Lumbar Spine	5	5	5
ICS	BODY REGION CONTACTED - #3 - ALTERNATE	REGCONTACT3_ALT	VAIDBRCXXF	Shoulder	6	6	6
ICS	BODY REGION CONTACTED - TANDEM SECONDARY	REGCONTACT_2ND	VAIDBRCXXF	Arm	7	7	7
ICS	BODY REGION CONTACTED - TANDEM TERTIARY	REGCONTACT_3RD	VAIDBRCXXF	Elbow	8	8	8
				Forearm	9	9	9
				Wrist	10	10	10
				Hand	11	11	11
				Thorax	12	12	12
				Abdomen	13	13	13
				Pelvis	14	14	14
				Hip	15	15	15
				Thigh	16	16	16
				Knee	17	17	17
				Leg	18	18	18
				Ankle	19	19	19
				Foot	20	20	20
				Caused by other injury	*	*	88
				Unknown	99	99	99
ICS	SOURCE OF ENERGY	SOE	VAIDSOEXXF	Crash - Event#(specific EVENT.EVENTNO)	1##	1##	1##
				Crash - Event unknown	199	199	199
				Airbag -#(specific AIRBAG.BAGNO)	2##	2##	2##
				Pretensioner	300	300	300
				Fire	400	*	*
				Another Injury	5##	5##	5##
ICS	VEHICLE NUMBER	VEHNO	N/A	Unknown	999	999	999

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	2018	2019
ICS	VERSION NUMBER	VERSION	N/A	[Actual Value]	#	#	#
2	3	4		[Actual Value]	2	3	4

INJURY Dataset

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
INJURY	AIS SEVERITY	AIS	AISXXF	Minor Injury	1	1	1
				Moderate Injury	2	2	2
				Serious Injury	3	3	3
				Severe Injury	4	4	4
				Critical Injury	5	5	5
				Maximum Injury	6	6	6
				Injured, Unknown Severity	9	9	9
INJURY	AIS CODE	AISCODE	N/A	[Actual Value]	#	#	#
INJURY	SYSTEM CASE IDENTIFIER	CASEID	N/A	[Actual Value]	#	#	#
INJURY	SEQUENTIAL CASE NUMBER	CASENO	N/A	[Actual Value]	#	#	#
INJURY	CASE NUMBER	CASENUMBER	N/A	[Actual Value]	#	#	#
INJURY	CASE WEIGHT	CASEWGT	N/A	[Actual Value]	#	#	#
INJURY	CASE CATEGORY	CATEGORY	N/A	[Actual Value]	#	#	#
INJURY	AIS INJURY LEVEL	INJLEVEL	N/A	[Actual Value]	#	#	#
INJURY	INJURY NUMBER	INJNO	N/A	[Actual Value]	#	#	#
INJURY	OCCUPANT NUMBER	OCCNO	N/A	[Actual Value]	#	#	#
INJURY	PRIMARY SAMPLING UNIT	PSU	N/A	[Actual Value]	#	#	#
INJURY	PSU STRATIFICATION	PSUSTRAT	N/A	[Actual Value]	#	#	#
INJURY	AIS BODY REGION	REGION	REGIONXXF	Head	1	1	1
				Face	2	2	2
				Neck	3	3	3
				Thorax	4	4	4
				Abdomen	5	5	5
				Spine	6	6	6
				Upper Extremity	7	7	7
				Lower Extremity	8	8	8
				Unspecified	9	9	9
INJURY	AIS SPECIFIC ANATOMIC STRUCTURE	STRUSPEC	N/A	[Actual Value]	#	#	#

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
INJURY	AIS TYPE OF ANATOMIC STRUCTURE	STRUTYPE	N/A	[Actual Value]	#	#	#
INJURY	VEHICLE NUMBER	VEHNO	N/A	[Actual Value]	#	#	#
INJURY	VERSION NUMBER	VERSION	N/A	[Actual Value]	2	3	4

INTEGRITY Dataset

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	2018	2019
INTEGRITY	SYSTEM CASE IDENTIFIER	CASEID	N/A	[Actual Value]	#	#	#
INTEGRITY	SEQUENTIAL CASE NUMBER	CASENO	N/A	[Actual Value]	#	#	#
INTEGRITY	CASE NUMBER	CASENUMBER	N/A	[Actual Value]	#	#	#
INTEGRITY	CASE WEIGHT	CASEWGT	N/A	[Actual Value]	#	#	#
INTEGRITY	CASE CATEGORY	CATEGORY	N/A	[Actual Value]	#	#	#
INTEGRITY	COMPARTMENT INTEGRITY	INTEGRITY	INTEGRITYXXF	No Integrity Loss	0	0	0
				Windshield	1	1	1
				Door (side)	2	2	2
				Door/hatch (back door)	3	3	3
				Roof	4	4	4
				Roof glass	5	5	5
				Side window	6	6	6
				Rear window (backlight)	7	7	7
				Unknown	9	9	9
INTEGRITY	PRIMARY SAMPLING UNIT	PSU	N/A	[Actual Value]	#	#	#
INTEGRITY	PSU STRATIFICATION	PSUSTRAT	N/A	[Actual Value]	#	#	#
INTEGRITY	VEHICLE NUMBER	VEHNO	N/A	[Actual Value]	#	#	#
INTEGRITY	VERSION NUMBER	VERSION	N/A	[Actual Value]	2	3	4

INTERIOR Dataset

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	2018	2019
INTERIOR	ADAPTIVE EQUIPMENT PRESENCE	ADAPTEQUIP	ADAPTEQXXF	No adaptive driving equipment	0	0	0
				Yes, adaptive driving equipment installed, check all that apply	1	1	1
				Unknown	9	9	9
INTERIOR	SYSTEM CASE IDENTIFIER	CASEID	N/A	[Actual Value]	#	#	#
INTERIOR	SEQUENTIAL CASE NUMBER	CASENO	N/A	[Actual Value]	#	#	#
INTERIOR	CASE NUMBER	CASENUMBER	N/A	[Actual Value]	#	#	#
INTERIOR	CASE WEIGHT	CASEWGT	N/A	[Actual Value]	#	#	#
INTERIOR	CASE CATEGORY	CATEGORY	N/A	[Actual Value]	#	#	#
INTERIOR	LF DOOR DAMAGE	DAMAGELF	DRDAMXXF	No door/gate/hatch	0	0	0
				Door not opened	1	1	1
				Door operational	2	2	2
				Latch/striker separation due to damage	3	3	3
				Hinge separation due to damage	4	4	4
				Door structure separation due to damage	5	5	5
				Door support (i.e., pillar, sill, roof side rail, etc.) separation due to damage	6	6	6
				Latch/striker and hinge separation due to damage	7	7	7
				Other separation (specify):	8	8	8
				Unknown	9	9	9
INTERIOR	LR DOOR DAMAGE	DAMAGELR	DRDAMXXF	No door/gate/hatch	0	0	0
				Door not opened	1	1	1
				Door operational	2	2	2
				Latch/striker separation due to damage	3	3	3
				Hinge separation due to damage	4	4	4
				Door structure separation due to damage	5	5	5
				Door support (i.e., pillar, sill, roof side rail, etc.) separation due to damage	6	6	6

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
				Latch/striker and hinge separation due to damage	7	7	7
				Other separation	8	8	8
				Unknown	9	9	9
INTERIOR	RF DOOR DAMAGE	DAMAGERF	DRDAMXXF	No door/gate/hatch	0	0	0
				Door not opened	1	1	1
				Door operational	2	2	2
				Latch/striker separation due to damage	3	3	3
				Hinge separation due to damage	4	4	4
				Door structure separation due to damage	5	5	5
				Door support (i.e., pillar, sill, roof side rail, etc.) separation due to damage	6	6	6
				Latch/striker and hinge separation due to damage	7	7	7
				Other separation	8	8	8
				Unknown	9	9	9
INTERIOR	RR DOOR DAMAGE	DAMAGERR	DRDAMXXF	No door/gate/hatch	0	0	0
				Door not opened	1	1	1
				Door operational	2	2	2
				Latch/striker separation due to damage	3	3	3
				Hinge separation due to damage	4	4	4
				Door structure separation due to damage	5	5	5
				Door support (i.e., pillar, sill, roof side rail, etc.) separation due to damage	6	6	6
				Latch/striker and hinge separation due to damage	7	7	7
				Other separation	8	8	8
				Unknown	9	9	9
INTERIOR	TAILGATE/HATCH DAMAGE	DAMAGETG	DRDAMXXF	No door/gate/hatch	0	0	0
				Door not opened	1	1	1
				Door operational	2	2	2
				Latch/striker separation due to damage	3	3	3
				Hinge separation due to damage	4	4	4

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	2018	2019
				Door structure separation due to damage	5	5	5
				Door support (i.e., pillar, sill, roof side rail, etc.) separation due to damage	6	6	6
				Latch/striker and hinge separation due to damage	7	7	7
				Other separation	8	8	8
				Unknown	9	9	9
INTERIOR	EJECTION OR GLAZING CONTACT	GLAZINGCONT	IVGLAZEXXF	No	0	0	0
				Yes	1	1	1
				Unknown	9	9	9
INTERIOR	LF DOOR OPENING	OPENLF	DROPENXXF	No door/gate/hatch	0	0	0
				Door/gate/hatch remained closed and operational	1	1	1
				Door/gate/hatch jammed shut	2	2	2
				Door/gate/hatch came open during collision	3	3	3
				Others (specify):	8	8	8
				Unknown	9	9	9
INTERIOR	LR DOOR OPENING	OPENLR	DROPENXXF	No door/gate/hatch	0	0	0
				Door/gate/hatch remained closed and operational	1	1	1
				Door/gate/hatch jammed shut	2	2	2
				Door/gate/hatch came open during collision	3	3	3
				Others (specify):	8	8	8
				Unknown	9	9	9
INTERIOR	RF DOOR OPENING	OPENRF	DROPENXXF	No door/gate/hatch	0	0	0
				Door/gate/hatch remained closed and operational	1	1	1
				Door/gate/hatch jammed shut	2	2	2
				Door/gate/hatch came open during collision	3	3	3
				Others (specify):	8	8	8
				Unknown	9	9	9
INTERIOR	RR DOOR OPENING	OPENRR	DROPENXXF	No door/gate/hatch	0	0	0
				Door/gate/hatch remained closed and operational	1	1	1
				Door/gate/hatch jammed shut	2	2	2

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	2018	2019
				Door/gate/hatch came open during collision	3	3	3
				Others (specify):	8	8	8
				Unknown	9	9	9
INTERIOR	TG DOOR OPENING	OPENTG	DROPENXXF	No door/gate/hatch	0	0	0
				Door/gate/hatch remained closed and operational	1	1	1
				Door/gate/hatch jammed shut	2	2	2
				Door/gate/hatch came open during collision	3	3	3
				Others (specify):	8	8	8
				Unknown	9	9	9
INTERIOR	POST-CRASH INTEGRITY LOSS	POSTINTEGLOSS	YESNOXXF	No	0	0	0
				Yes	1	1	1
INTERIOR	PRIMARY SAMPLING UNIT	PSU	N/A	[Actual Value]	#	#	#
INTERIOR	PSU STRATIFICATION	PSUSTRAT	N/A	[Actual Value]	#	#	#
INTERIOR	RIM DEFORMATION MEASUREMENT	RIMDEF	RIMDEFXXF	[Actual Value]	#	#	#
				Not applicable	88	88	88
				Unknown	99	99	99
INTERIOR	RIM DEFORMATION LOCATION	RIMDEFLOC	RIMLOCXXF	No steering rim deformation	0	0	0
				Section A	1	1	1
				Section B	2	2	2
				Section C	3	3	3
				Section D	4	4	4
				Upper half of rim/spoke	5	5	5
				Lower half of rim/spoke	6	6	6
				Left half of rim/spoke	7	7	7
				Right half of rim/spoke	8	8	8
				Complete steering wheel collapse	9	9	9
				Undetermined location	10	10	10
				Unknown	99	99	99
INTERIOR	FRONT ROW WIDTH	ROWIDTH1	IVROWXXF	[Actual Value]	#	#	#
				Not applicable	888	888	888

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	2018	2019
				Unknown	999	999	999
INTERIOR	SECOND ROW WIDTH	ROWIDTH2	IVROWXXF	[Actual Value]	#	#	#
				Not applicable	888	888	888
				Unknown	999	999	999
INTERIOR	THIRD ROW WIDTH	ROWIDTH3	IVROWXXF	[Actual Value]	#	#	#
				Not applicable	888	888	888
				Unknown	999	999	999
INTERIOR	FOURTH ROW WIDTH	ROWIDTH4	IVROWXXF	[Actual Value]	#	#	#
				Not applicable	888	888	888
				Unknown	999	999	999
INTERIOR	FIFTH ROW WIDTH	ROWIDTH5	IVROWXXF	[Actual Value]	#	#	#
				Not applicable	888	888	888
				Unknown	999	999	999
INTERIOR	STEERING COLUMN TYPE	STEERINGTYPE	COLMTYPEXXF	Fixed column	1	1	1
				Tilt column	2	2	2
				Telescoping column	3	3	3
				Tilt and telescoping column	4	4	4
				Other column type (specify):	8	8	8
				Unknown	9	9	9
INTERIOR	TELESCOPING STEERING COLUMN ADJUSTMENT	STEERTELEADJ	COLMTELEXXF	No telescoping steering column	0	0	0
				Full back	1	1	1
				Between full back and midpoint	2	2	2
				Midpoint	3	3	3
				Between midpoint and full forward	4	4	4
				Full forward	5	5	5
				Unknown	9	9	9
INTERIOR	TILT STEERING COLUMN ADJUSTMENT	STEERTILTADJ	COLMTILTXXF	No tilt steering column	0	0	0
				Full up	1	1	1
				Between full up and center	2	2	2

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
				Center	3	3	3
				Between center and full down	4	4	4
				Full down	5	5	5
				Unknown	9	9	9
INTERIOR	VEHICLE NUMBER	VEHNO	N/A	[Actual Value]	#	#	#
INTERIOR	VERSION NUMBER	VERSION	N/A	[Actual Value]	2	3	4

INTRUSION Dataset

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	2018	2019
INTRUSION	SYSTEM CASE IDENTIFIER	CASEID	N/A	[Actual Value]	#	#	#
INTRUSION	SEQUENTIAL CASE NUMBER	CASENO	N/A	[Actual Value]	#	#	#
INTRUSION	CASE NUMBER	CASENUMBER	N/A	[Actual Value]	#	#	#
INTRUSION	CASE WEIGHT	CASEWGT	N/A	[Actual Value]	#	#	#
INTRUSION	CASE CATEGORY	CATEGORY	N/A	[Actual Value]	#	#	#
INTRUSION	INTRUSION COMPONENT	INTCOMP	INCOMPXXF	Steering assembly	1	1	1
				Instrument panel left	2	2	2
				Instrument panel center	3	3	3
				Instrument panel right	4	4	4
				Toe pan	5	5	5
				Floor pan (includes sill)	6	6	6
				A (A1/A2)-pillar	7	7	7
				B-pillar	8	8	8
				C-pillar	9	9	9
				D-pillar	10	10	10
				Grab Handles	11	11	11
				Side panel - forward of the A1/A2-pillar	12	12	12
				Side panel - rear of the Bpillar	13	13	13
				Door/Forward upper quadrant	14	14	14
				Door/Forward lower quadrant	15	15	15
				Door/Rear upper quadrant	16	16	16
				Door/Rear lower quadrant	17	17	17
				Door-Undetermined Location	18	18	18
				Roof (or convertible top)	19	19	19
				Roof side rail	20	20	20
				Windshield	21	21	21
				Windshield header	22	22	22
				Window frame	23	23	23

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
					2017	**2018**	**2019**
				Front seat back	24	24	24
				Second seat back	25	25	25
				Third seat back	26	26	26
				Fourth seat back	27	27	27
				Fifth seat back	28	28	28
				Seat cushion	29	29	29
				Backlight header	30	30	30
				Back door/panel (e.g., tailgate)	31	31	31
				Other interior component (specify):	32	32	32
				Hood	33	33	33
				Outside surface of this vehicle (specify):	34	34	34
				Other exterior object in the environment (specify):	35	35	35
				Unknown exterior object	36	36	36
				Multiple/Other severe intrusions	96	96	96
				Catastrophic	97	97	97
				Intrusion of unlisted component(s)	98	98	98
				Unknown	99	99	99
INTRUSION	INTRUSION DIRECTION	INTDIRECT	INDIRXXF	Vertical	1	1	1
				Longitudinal	2	2	2
				Lateral	3	3	3
				Catastrophic	7	7	7
				Multiple/Other Severe Intrusions	8	8	8
				Unknown	9	9	9
INTRUSION	INTRUSION MAGNITUDE	INTMAG	INMAGXXF	<= 2 cm	0	0	0
				>= 3 cm but < 8 cm	1	1	1
				>= 8 cm but < 15 cm	2	2	2
				>= 15 cm but < 30 cm	3	3	3
				>= 30 cm but < 46 cm	4	4	4
				>= 46 cm but < 61 cm	5	5	5
				>=61 cm	6	6	6

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
				Catastrophic	7	7	7
				Multiple/Other Severe Intrusions	8	8	8
				Unknown	9	9	9
INTRUSION	INTRUSION NUMBER	INTRUNO	N/A	[Actual Value]	#	#	#
INTRUSION	INTRUDED VALUE	INTRUSION	INTUNKNAXXF	[Actual Value]	#	#	#
				Not Applicable	888	888	888
				Catastrophic	997	997	997
				Unknown	999	999	999
INTRUSION	PRIMARY SAMPLING UNIT	PSU	N/A	[Actual Value]	#	#	#
INTRUSION	PSU STRATIFICATION	PSUSTRAT	N/A	[Actual Value]	#	#	#
INTRUSION	SEAT LOCATION	SEATLOC	SEATPOSXXF	Front Left	11	11	11
				Front Middle	12	12	12
				Front Right	13	13	13
				Front Other	14	14	14
				Second Left	21	21	21
				Second Middle	22	22	22
				Second Right	23	23	23
				Second Other	24	24	24
				Third Left	31	31	31
				Third Middle	32	32	32
				Third Right	33	33	33
				Third Other	34	34	34
				Fourth Left	41	41	41
				Fourth Middle	42	42	42
				Fourth Right	43	43	43
				Fourth Other	44	44	44
				Fifth Left	51	51	51
				Fifth Middle	52	52	52
				Fifth Right	53	53	53
				Fifth Other	54	54	54

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
				In or on unenclosed area	97	97	97
				Other enclosed area	98	98	98
				Unknown	99	99	99
INTRUSION	VEHICLE NUMBER	VEHNO	N/A	[Actual Value]	#	#	#
INTRUSION	VERSION NUMBER	VERSION	N/A	[Actual Value]	2	3	4

LOCALIZER Dataset

					SAS Code		
Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	2017	2018	2019
LOCALIZER	SYSTEM CASE IDENTIFIER	CASEID	N/A	[Actual Value]	#	#	#
LOCALIZER	SEQUENTIAL CASE NUMBER	CASENO	N/A	[Actual Value]	#	#	#
LOCALIZER	CASE NUMBER	CASENUMBER	N/A	[Actual Value]	#	#	#
LOCALIZER	CASE WEIGHT	CASEWGT	N/A	[Actual Value]	#	#	#
LOCALIZER	CASE CATEGORY	CATEGORY	N/A	[Actual Value]	#	#	#
LOCALIZER	INJURY NUMBER	INJNO	N/A	[Actual Value]	#	#	#
LOCALIZER	L1 LOCALIZER	L1	$L1XXF	No Further Specificity	00	00	00
				Anterior	01	01	01
				Central / Middle / Medial	02	02	02
				Posterior	03	03	03
				Superior / Upper	04	04	04
				Inferior / Lower	05	05	05
				Lamina	06	06	06
				Pedicle	07	07	07
				Transverse Process	08	08	08
				Facet	09	09	09
				Right	10	10	10
				Right Anterior	11	11	11
				Right Central / Middle / Medial	12	12	12
				Right Posterior	13	13	13
				Right Superior / Upper	14	14	14
				Right Inferior / Lower	15	15	15
				Right Lamina	16	16	16
				Right Pedicle	17	17	17
				Right Transverse Process	18	18	18
				Right Facet	19	19	19
				Left	20	20	20
				Left Anterior	21	21	21

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
				Left Central / Middle / Medial	22	22	22
				Left Posterior	23	23	23
				Left Superior / Upper	24	24	24
				Left Inferior / Lower	25	25	25
				Left Lamina	26	26	26
				Left Pedicle	27	27	27
				Left Transverse Process	28	28	28
				Left Facet	29	29	29
				Right Body/Shaft	30	30	30
				Right Multiple	31	31	31
				Right Lateral	32	32	32
				Right Anterolateral	33	33	33
				Right Posterolateral	34	34	34
				Right Spinous Process	35	35	35
				Left Body/Shaft	40	40	40
				Left Multiple	41	41	41
				Left Lateral	42	42	42
				Left Anterolateral	43	43	43
				Left Posterolateral	44	44	44
				Left Spinous Process	45	45	45
				Bilateral	50	50	50
				Bilateral Anterior	51	51	51
				Bilateral Central / Middle / Medial	52	52	52
				Bilateral Posterior	53	53	53
				Bilateral Superior / Upper	54	54	54
				Bilateral Inferior / Lower	55	55	55
				Bilateral Lamina	56	56	56
				Bilateral Pedicle	57	57	57
				Bilateral Transverse Process	58	58	58
				Bilateral Facet	59	59	59

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
					2017	2018	2019
				Body/Shaft	90	90	90
				Multiple	91	91	91
				Lateral	92	92	92
				Anterolateral	93	93	93
				Posterolateral	94	94	94
				Spinous Process	95	95	95
LOCALIZER	L2 LOCALIZER	L2		No Further Specificity	00	00	00
				Vertebrae C1	01	01	01
				Vertebrae C2	02	02	02
				Vertebrae C3	03	03	03
				Vertebrae C4	04	04	04
				Vertebrae C5	05	05	05
				Vertebrae C6	06	06	06
				Vertebrae C7	07	07	07
				Vertebrae T1	08	08	08
				Vertebrae T2	09	09	09
				Vertebrae T3	10	10	10
				Vertebrae T4	11	11	11
				Vertebrae T5	12	12	12
				Vertebrae T6	13	13	13
				Vertebrae T7	14	14	14
				Vertebrae T8	15	15	15
				Vertebrae T9	16	16	16
				Vertebrae T10	17	17	17
				Vertebrae T11	18	18	18
				Vertebrae T12	19	19	19
				Vertebrae L1	20	20	20
				Vertebrae L2	21	21	21
				Vertebrae L3	22	22	22
				Vertebrae L4	23	23	23

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	2018	2019
				Vertebrae L5	24	24	24
				1 Finger / Toe	25	25	25
				2 Finger / Toe	26	26	26
				3 Finger / Toe	27	27	27
				4 Finger / Toe	28	28	28
				5 Finger / Toe	29	29	29
				Rib 1	31	31	31
				Rib 2	32	32	32
				Rib 3	33	33	33
				Rib 4	34	34	34
				Rib 5	35	35	35
				Rib 6	36	36	36
				Rib 7	37	37	37
				Rib 8	38	38	38
				Rib 9	39	39	39
				Rib 10	40	40	40
				Rib 11	41	41	41
				Rib 12	42	42	42
				Teeth-Central Incisor	43	43	43
				Teeth-Lateral Incisor	44	44	44
				Teeth-Canine	45	45	45
				Teeth-First Premolar	46	46	46
				Teeth-Second Premolar	47	47	47
				Teeth-First Molar	48	48	48
				Teeth-Second Molar	49	49	49
				Teeth-Third Molar	50	50	50
				Scalp	51	51	51
				Forehead	52	52	52
				Face	53	53	53
				Eye	54	54	54

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
					2017	2018	2019
				Eyelid	55	55	55
				Ear	56	56	56
				Nose	57	57	57
				Lip	58	58	58
				Neck	59	59	59
				Shoulder	60	60	60
				Arm	61	61	61
				Elbow	62	62	62
				Forearm	63	63	63
				Wrist	64	64	64
				Hand	65	65	65
				Fingers	66	66	66
				Torso	67	67	67
				Back	68	68	68
				Flank	69	69	69
				Chest	70	70	70
				Abdomen	71	71	71
				Buttock	72	72	72
				Genitalia	73	73	73
				Perineum	74	74	74
				Hip	75	75	75
				Thigh	76	76	76
				Knee	77	77	77
				Leg	78	78	78
				Ankle	79	79	79
				Foot	80	80	80
				Toe	81	81	81
				Metacarpal / Metatarsal	82	82	82
				Eyebrow	83	83	83
				Cheek	84	84	84

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	2018	2019
				Chin	85	85	85
				Groin	86	86	86
				Frontal	AA	AA	AA
				Parietal	AB	AB	AB
				Temporal	AC	AC	AC
				Occipital	AD	AD	AD
				Hard Palate Bone	AE	AE	AE
				Lacrimal Bone	AF	AF	AF
				Maxillary Bone	AG	AG	AG
				Nasal Bone	AH	AH	AH
				Nasal Concha Bone	AI	AI	AI
				Vomer Bone	AJ	AJ	AJ
				Zygomatic Bone	AK	AK	AK
				Orbital Bone	AL	AL	AL
				Mandible Bone	AM	AM	AM
				Medula	AN	AN	AN
				Hypothalamus	AO	AO	AO
				Midbrain	AP	AP	AP
				Pons	AQ	AQ	AQ
				Buccinator Muscle	BA	BA	BA
				Depressor Anguli Oris Muscle	BB	BB	BB
				Depressor Labii Muscle	BC	BC	BC
				Digastric Muscle	BD	BD	BD
				Frontalis Muscle	BE	BE	BE
				Hyoglossus Muscle	BF	BF	BF
				Levator Anguli Oris Muscle	BG	BG	BG
				Levator Labii Anterior Muscle	BH	BH	BH
				Levator Labii Superioris Muscle	BI	BI	BI
				Masseter Muscle	BJ	BJ	BJ
				Mentalis Muscle	BK	BK	BK

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	2018	2019
				Mylohyoid Muscle	BL	BL	BL
				Orbicularis Oculi Muscle	BN	BN	BN
				Orbicularis Oris Muscle	BO	BO	BO
				Procerus Muscle	BP	BP	BP
				Risorius Muscle	BQ	BQ	BQ
				Stylohyoid Muscle	BR	BR	BR
				Temporal Muscle	BS	BS	BS
				Zygomaticus Major Muscle	BT	BT	BT
				Zygomaticus Minor Muscle	BU	BU	BU
				Alveolar Ridge with Teeth	BV	BV	BV
				Maxillary Alveolar Ridge	BW	BW	BW
				Mandibular Alveolar Ridge	BX	BX	BX
				External Carotid	BY	BY	BY
				Nasalis Superior Muscle	BZ	BZ	BZ
				Nasalis Inferior Muscle	CA	CA	CA
				Levator Scapula Muscle	DA	DA	DA
				Omohyoid Muscle	DB	DB	DB
				Platysma Muscle	DC	DC	DC
				Scalene Anterior Muscle	DD	DD	DD
				Scalene Middle Muscle	DE	DE	DE
				Scalene Posterior Muscle	DF	DF	DF
				Semispinalis Caervicis Muscle	DG	DG	DG
				Semispinalis Capitis Muscle	DH	DH	DH
				Splenius Capitis Muscle	DI	DI	DI
				Sternocleidomastoid Muscle	DJ	DJ	DJ
				Sternohyoid Muscle	DK	DK	DK
				Sternothyroid Muscle	DL	DL	DL
				Thyrohyoid Muscle	DM	DM	DM
				Trapezius Muscle	DN	DN	DN
				Internal Carotid	DO	DO	DO

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	2018	2019
				Common Carotid	DP	DP	DP
				External Carotid	DQ	DQ	DQ
				Sublingual Glands	DR	DR	DR
				Submandibular Gland	DS	DS	DS
				Parotid Gland	DT	DT	DT
				Thyroid Gland	DU	DU	DU
				Epiglottis	DV	DV	DV
				Diaphragm Muscle	EA	EA	EA
				Iliocostalis Muscle	EB	EB	EB
				Intercostal Large Front Muscle	EC	EC	EC
				Intercostal Large Muscle	ED	ED	ED
				Intercostal Small Muscle	EE	EE	EE
				Latissimus Dorsi Muscle	EF	EF	EF
				Longissimus Muscle	EG	EG	EG
				Pectoralis Major Muscle	EH	EH	EH
				Pectoralis Minor Muscle	EI	EI	EI
				Rhomboid Major Muscle	EJ	EJ	EJ
				Rhomboid Minor Muscle	EK	EK	EK
				Serratus Anterior Muscle	EL	EL	EL
				Spinalis Muscle	EM	EM	EM
				Inferior Vena Cava Artery	EN	EN	EN
				Superior Vena Cava Artery	EO	EO	EO
				Thoracic Veins	EP	EP	EP
				Coronary Vein	EQ	EQ	EQ
				Costal Ribs Bones	ER	ER	ER
				Lung Lobe 1	ES	ES	ES
				Lung Lobe 2	ET	ET	ET
				Lung Lobe 3	EU	EU	EU
				Sternum	EV	EV	EV
				Atria	EW	EW	EW

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	2018	2019
				Ventricle	EX	EX	EX
				External Oblique Muscle	GA	GA	GA
				Internal Oblique Muscle	GB	GB	GB
				Psoas Major Muscle	GC	GC	GC
				Psoas Minor Muscle	GD	GD	GD
				Quadratus Lumborum Muscle	GE	GE	GE
				Rectus Abdominis Muscle	GF	GF	GF
				Transverse Abdominis Muscle	GG	GG	GG
				Colon	GH	GH	GH
				Ascending Colon	GI	GI	GI
				Descending Colon	GJ	GJ	GJ
				Transverse Colon	GK	GK	GK
				Sigmoid Colon	GL	GL	GL
				Gonadal Arteries	GM	GM	GM
				Hepatic Arteries	GN	GN	GN
				Gonadal Veins	GO	GO	GO
				Hepatic Veins	GP	GP	GP
				Inferior Mesenteric Vein	GQ	GQ	GQ
				Portal Veins	GR	GR	GR
				Renal Veins	GS	GS	GS
				Common Iliac Artery	GT	GT	GT
				Biceps Lateral Muscle	HA	HA	HA
				Biceps Medial Muscle	HB	HB	HB
				Brachialis Muscle	HC	HC	HC
				Coracobrachialis Muscle	HD	HD	HD
				Triceps Lateral Muscle	HE	HE	HE
				Triceps Long Muscle	HF	HF	HF
				Triceps Medial Muscle	HG	HG	HG
				Abductor Pollicis Longus Muscle	HH	HH	HH
				Anconeous Muscle	HI	HI	HI

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	2018	2019
				Brachioradialis Muscle	HJ	HJ	HJ
				Extensor Carpi Radialis Brevis Muscle	HK	HK	HK
				Extensor Carpi Radialis Longus Muscle	HL	HL	HL
				Abductor Minimi Digiti Muscle	HM	HM	HM
				Abductor Pollicis Brevis Muscle	HN	HN	HN
				Adductor Pollicis Muscle	HO	HO	HO
				Bicep Brachii Muscle	HP	HP	HP
				Extensor Carpi Ulnaris Muscle	HQ	HQ	HQ
				Extensor Digiti Minimi Muscle	HR	HR	HR
				Extensor Digitorum Muscle	HS	HS	HS
				Flexor Carpi Radialis Muscle	HT	HT	HT
				Flexor Carpi Ulnaris Muscle	HU	HU	HU
				Flexor Digitorum Profundus Muscle	HV	HV	HV
				Flexor Digitorum Superficialis Muscle	HW	HW	HW
				Flexor Pollicis Longus Muscle	HX	HX	HX
				Pronator Quadratus Muscle	HY	HY	HY
				Pronator Teres Muscle	HZ	HZ	HZ
				Supinator Muscle	IA	IA	IA
				Extensor Indicis Muscle	IB	IB	IB
				Extensor Pollicis Brevis Muscle	IC	IC	IC
				Extensor Pollicis Longus Muscle	ID	ID	ID
				Palm Muscles	IE	IE	IE
				Palmaris Longus Muscle	IF	IF	IF
				Deltoid Muscle	IG	IG	IG
				Infraspinatus Right Muscle	IH	IH	IH
				Subscapularis Muscle	II	II	II
				Supraspinatus Muscle	IJ	IJ	IJ
				Teres Major Muscle	IK	IK	IK
				Teres Minor Muscle	IL	IL	IL
				Triceps Tendon	IM	IM	IM

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	2018	2019
				Flexor Retinaculum Tendon	IN	IN	IN
				Hand Ligaments	IO	IO	IO
				Wrist Ligaments	IP	IP	IP
				Sternoclavicular Ligament	IQ	IQ	IQ
				Interosseus Membrane of Forearm	IR	IR	IR
				Shoulder Ligaments	IS	IS	IS
				Capsule Ligament	IT	IT	IT
				Elbow Ligaments	IU	IU	IU
				Bicipital Aponeurosis	IV	IV	IV
				Upper Extremity Arteries	IW	IW	IW
				Interosseous Artery	IX	IX	IX
				Profunda Arteries	IY	IY	IY
				Radial Artery	IZ	IZ	IZ
				Ulnar Artery	JA	JA	JA
				Palmer Arch Arteries	JB	JB	JB
				Upper Extremity Veins	JC	JC	JC
				Forearm Veins	JD	JD	JD
				Interseous Vein	JE	JE	JE
				Median Cubital Vein	JF	JF	JF
				Radial Vein	JG	JG	JG
				Ulnar Vein	JH	JH	JH
				Palm Veins	JI	JI	JI
				Axillary Vein	JJ	JJ	JJ
				Cephalic Vein	JK	JK	JK
				Humerus Bone	JL	JL	JL
				Radius Bone	JM	JM	JM
				Ulna Bone	JN	JN	JN
				Clavicle Bone	JO	JO	JO
				Scapula Bone	JP	JP	JP
				Wrist Bone-Pisiform	JQ	JQ	JQ

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	2018	2019
				Wrist Bone-Scaphoid	JR	JR	JR
				Wrist Bone-Trapezium	JS	JS	JS
				Wrist Bone-Trapezoid	JT	JT	JT
				Wrist Bone-Triquetral	JU	JU	JU
				Wrist Bone-Capitate	JV	JV	JV
				Wrist Bone-Hamate	JW	JW	JW
				Wrist Bone-Lunate	JX	JX	JX
				Abductor Digiti Minimi Muscle	LA	LA	LA
				Abductor Hallucis Muscle	LB	LB	LB
				Extensor Digitorium Brevis Muscle	LC	LC	LC
				Extensor Hallucis Brevis Muscle	LD	LD	LD
				Flexor Digitorium Brevis Muscle	LE	LE	LE
				Gluteus Maximus Muscle	LF	LF	LF
				Gluteus Medius Muscle	LG	LG	LG
				Gluteus Minimus Muscle	LH	LH	LH
				Iliacus Muscle	LI	LI	LI
				Inferior Gemellus Muscle	LJ	LJ	LJ
				Obturator Externus Muscle	LK	LK	LK
				Obturator Internus Muscle	LL	LL	LL
				Pisiformis Muscle	LM	LM	LM
				Quadratus Femoris Muscle	LN	LN	LN
				Superior Gemellus Muscle	LO	LO	LO
				Extensor Digitorium Longus Muscle	LP	LP	LP
				Extensor Hallucis Longus Muscle	LQ	LQ	LQ
				Flexor Digitorium Longus Muscle	LR	LR	LR
				Flexor Hallucis Muscle	LS	LS	LS
				Gastrocnemius Muscle	LT	LT	LT
				Peroneus Brevis Muscle	LU	LU	LU
				Peroneus Longus Muscle	LV	LV	LV
				Soleus Muscle	LW	LW	LW

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
				Tibialis Anterior Muscle	LX	LX	LX
				Tibialis Posterior Muscle	LY	LY	LY
				Adductor Brevis Muscle	LZ	LZ	LZ
				Adductor Longus Muscle	MA	MA	MA
				Adductor Magnus Muscle	MB	MB	MB
				Bicep Femoris Muscle	MC	MC	MC
				Gracilis Muscle	MD	MD	MD
				Pectineus Muscle	ME	ME	ME
				Rectus Femoris Muscle	MF	MF	MF
				Sartorius Muscle	MG	MG	MG
				Semimembranosus Muscle	MH	MH	MH
				Semitendinosus Muscle	MI	MI	MI
				Tensor Faciae Latae Muscle	MJ	MJ	MJ
				Vastus Intermedius Muscle	MK	MK	MK
				Vastus Lateralis Muscle	ML	ML	ML
				Vastus Medialis Muscle	MM	MM	MM
				Tibial Collateral Ligament	MN	MN	MN
				Fibular Collateral Ligament	MO	MO	MO
				Achilles Tendon	MP	MP	MP
				Ankle Ligaments	MQ	MQ	MQ
				Hip Ligaments	MR	MR	MR
				Joints of Lower Extremities Ligaments	MS	MS	MS
				Knee Ligaments	MT	MT	MT
				Patellar Ligament	MU	MU	MU
				Sacrotuberous Ligament	MV	MV	MV
				Tibial Anterior Artery	MW	MW	MW
				Tibial Posterior Artery	MX	MX	MX
				Peroneal Artery	MY	MY	MY
				Plantar Veins	MZ	MZ	MZ
				Saphenous Small Vein	NA	NA	NA

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	2018	2019
				Tibial Vein Anterior	NB	NB	NB
				Tibial Vein Posterior	NC	NC	NC
				Saphenous Vein	ND	ND	ND
				Femoral Lateral Nerve	NE	NE	NE
				Femoral Posterior Nerve	NF	NF	NF
				Femoral Nerve	NG	NG	NG
				Gluteal Superior Nerve	NH	NH	NH
				Inferior Gluteal Nerve	NI	NI	NI
				Obturator Nerve	NJ	NJ	NJ
				Pudendal Nerve	NK	NK	NK
				Sacral Plexus	NL	NL	NL
				Sciatic Nerve	NM	NM	NM
				SI Joint	NN	NN	NN
				Pelvic Bone Back	NO	NO	NO
				Pelvic Bone	NP	NP	NP
				Pelvic Bone Front	NQ	NQ	NQ
				Sacrum Bone	NR	NR	NR
				Symphysis Pubis Bone	NS	NS	NS
				Illium Bone	NT	NT	NT
				Ischium Bone	NU	NU	NU
				Pubic Rami	NV	NV	NV
				Coccyx Bone	NW	NW	NW
				LE Above Knee	NX	NX	NX
				LE Below Knee	NY	NY	NY
				Anterior Cruciate Ligament	OA	OA	OA
				Posterior Cruciate Ligament	OB	OB	OB
				Acetabulofemoral Ligament	OC	OC	OC
LOCALIZER	LOCALIZER DEFINITION	LDEF	N/A	[Actual Value]	#	#	#
LOCALIZER	OCCUPANT NUMBER	OCCNO	N/A	[Actual Value]	#	#	#
LOCALIZER	PRIMARY SAMPLING UNIT	PSU	N/A	[Actual Value]	#	#	#

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code		
					2017	2018	2019
LOCALIZER	PSU STRATIFICATION	PSUSTRAT	N/A	[Actual Value]	#	#	#
LOCALIZER	VEHICLE NUMBER	VEHNO	N/A	[Actual Value]	#	#	#
LOCALIZER	VERSION NUMBER	VERSION	N/A	[Actual Value]	2	3	4

OCC Dataset

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
OCC	OCCUPANT'S AGE	AGE	AGEXXF	[Actual Value]	#	#	#
				Unknown	999	999	999
OCC	BELT ANCHORAGE ADJUSTMENT	BELTANCHOR	BELTANCHORXXF	No manual shoulder belt	0	0	0
				None for manual shoulder belt	1	1	1
				In full up position	2	2	2
				In mid position	3	3	3
				In full down position	4	4	4
				Position unknown	5	5	5
				Unknown if adjuster present	9	9	9
OCC	BELT AVAILABILITY	BELTAVAIL	BELTAVAILXXF	None available	0	0	0
				Belt removed/destroyed	1	1	1
				Shoulder belt	2	2	2
				Lap belt	3	3	3
				Lap and shoulder belt	4	4	4
				Belt available - type unknown	5	5	5
				Shoulder belt (lap belt destroyed/removed)	6	6	6
				Lap belt (shoulder belt destroyed/removed)	7	7	7
				Other belt (specify)	8	8	8
				Unknown	9	9	9
OCC	BELT GUIDE ROUTING	BELTGUIDE	BELTGUIDEXXF	Not Applicable	0	0	0
				Yes	1	1	1
				No	2	2	2
				Unknown	9	9	9
OCC	LAP BELT POSITION	BELTLAPPOS	BELTLAPXXF	Not equipped/not available/not used	0	0	0
				Snug and low across hips	1	1	1
				Across abdomen	2	2	2
				Used to install child restraint	3	3	3
				Low across hips with extra "slack room"	4	4	4

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
				Across abdomen with extra "slack room"	5	5	5
				Other position (specify)	8	8	8
				Unknown position	9	9	9
OCC	BELT MALFUNCTION	BELTMALF	BELTMALFXXF	None used/not available/removed or destroyed	0	0	0
				No belt malfunction(s)	1	1	1
				Torn webbing (stretched webbing not included)	2	2	2
				Broken buckle or latch plate	3	3	3
				Upper anchorage separated	4	4	4
				Other anchorage separated (specify)	5	5	5
				Broken retractor	6	6	6
				Combination of above (specify)	7	7	7
				Other belt malfunction (specify)	8	8	8
				Unknown	9	9	9
OCC	BELT POSITIONING DEVICE PRESENCE	BELTPOSDEVPRES	BELTPOSPRESXXF	None present	0	0	0
				Safety belt guide	1	1	1
				Belt extender	2	2	2
				Shoulder belt fit adjuster	3	3	3
				Other (specify)	8	8	8
				Unknown if present	9	9	9
OCC	BELT POSITIONING DEVICE USE	BELTPOSDEVUSE	BELTPOSUSEXXF	None present	0	0	0
				Device not used	1	1	1
				Device used	2	2	2
				Unknown if device used	9	9	9
OCC	SHOULDER BELT POSITION	BELTSHLPOS	BELTSHLDERXXF	Not equipped/not available/not used	0	0	0
				Snugly across the collarbone and over shoulder	1	1	1
				Resting on neck	2	2	2
				On edge of shoulder	3	3	3
				Under arm	4	4	4

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	2018	2019
				Behind occupant's back or seat	5	5	5
				Used to install child restraint	6	6	6
				Across the collarbone and over shoulder with extra "slack room"	7	7	7
				Resting on neck with extra "slack room"	8	8	8
				On edge of shoulder with extra "slack room"	9	9	9
				Under arm with extra "slack room"	10	10	10
				Other position (specify)	98	98	98
				Unknown belt position	99	99	99
OCC	BELT USE DETERMINATION	BELTUSE	BELTUSEXXF	None used not available/removed or destroyed	0	0	0
				Inoperative (specify)	1	1	1
				Shoulder belt	2	2	2
				Lap belt	3	3	3
				Lap and shoulder belt	4	4	4
				Belt used - type unknown	5	5	5
				Other belt used (specify)	8	8	8
				Shoulder belt with child safety seat	12	12	12
				Lap belt with child safety seat	13	13	13
				Lap and shoulder belt with child safety seat	14	14	14
				Belt with child safety seat - type unknown	15	15	15
				Other belt with child safety seat (specify)	18	18	18
				Unknown if belt used	99	99	99
OCC	SOURCE OF BELT USE	BELTUSESRC	BELTSOURCEXXF	Not equipped/not available	0	0	0
				Vehicle Inspection	1	1	1
				Official Injury Data	2	2	2
				Driver/occupant interview	3	3	3
				Other (specify)	8	8	8
				Unknown if belt used	9	9	9
OCC	COMPUTED BODY MASS INDEX	BMI	N/A	[Actual Value]	#	#	#
				BMI UNKNOWN	99.9	99.9	99.9

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	2018	2019
OCC	COMORBIDITY - CARDIOVASUCLAR CONDITION	CARDIOCOND	COMORBIDITYXXF	No	0	0	0
				Yes	1	1	1
OCC	SYSTEM CASE IDENTIFIER	CASEID	N/A	[Actual Value]	#	#	#
OCC	SEQUENTIAL CASE NUMBER	CASENO	N/A	[Actual Value]	#	#	#
OCC	CASE NUMBER	CASENUMBER	N/A	[Actual Value]	#	#	#
OCC	CASE WEIGHT	CASEWGT	N/A	[Actual Value]	#	#	#
OCC	CASE CATEGORY	CATEGORY	N/A	[Actual Value]	#	#	#
OCC	1ST MEDICALLY REPORTED CAUSE OF DEATH	CAUSE1	CAUSEXXF	[Actual Value]	#	#	#
				Mode given but not linked to Injuries (Specify)	96	96	96
				Other result (includes fatal ruled disease) (specify)	97	97	97
				Unknown	99	99	99
OCC	2ND MEDICALLY REPORTED CAUSE OF DEATH	CAUSE2	CAUSEXXF	[Actual Value]	#	#	#
				Mode given but not linked to Injuries (Specify)	96	96	96
				Other result (includes fatal ruled disease) (specify)	97	97	97
				Unknown	99	99	99
OCC	3RD MEDICALLY REPORTED CAUSE OF DEATH	CAUSE3	CAUSEXXF	[Actual Value]	#	#	#
				Mode given but not linked to Injuries (Specify)	96	96	96
				Other result (includes fatal ruled disease) (specify)	97	97	97
				Unknown	99	99	99
OCC	CHILD SEAT USE BY THIS OCCUPANT	CHILDSEATUSE	YESNOUNKXXF	No	0	0	0
				Yes	1	1	1
OCC	COMORBIDITY - OTHER	COMORBOTH	COMORBIDITYXXF	No	0	0	0
				Yes	1	1	1
OCC	ELAPSED TIME FROM CRASH TO TIME OF DEATH	DEATH	DEATHXXF	Not Fatal	0	0	0
				[Actual Value]	#	#	#
				Fatal, ruled disease	96	96	96
				Unknown	99	99	99

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
OCC	WAS EMS DATA OBTAINED	EMSDATA	EMSDATAXXF	No	0	0	0
				Yes	1	1	1
OCC	EMS DIASTOLIC RATE	EMSDIASTOLIC	HEARTXXF	[Actual Value]	#	#	#
				Palpable	888	888	888
				Not Reported	997	997	997
				Unknown	999	999	999
OCC	EMS OBSERVED GCS	EMSGCS	GCSTOTALXXF	[Actual Value]	#	#	#
				Not Reported	97	97	97
				Unknown	99	99	99
OCC	EMS GCS EYE SCORE	EMSGCSEYE	GCSEYEXXF	1	1	1	1
				2	2	2	2
				3	3	3	3
				4	4	4	4
				Not Reported	7	7	7
				Unknown	9	9	9
OCC	LOCATION EMS GCS DATA OBSERVED	EMSGCSLOC	EMSLOCATIONXXF	Not Available or None	0	0	0
				At Crash Site	1	1	1
				EMS Vehicle	2	2	2
				Pre-Hospital, Not Specified	9	9	9
				Other (Specify)	98	98	98
				Unknown	99	99	99
OCC	EMS GCS MODIFIER	EMSGCSMOD	GCSMODXXF	Legitimate	1	1	1
				Intubated	2	2	2
				Tubed & Paralized	3	3	*
				Intubated and Sedated	*	*	3
				Sedated	4	4	*
				Chemically Sedated	*	*	4
				(Spinal cord Injury)/Unk	5	5	*
				Spinal Cord Injury	*	*	5
				Not Reported	7	7	7

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
OCC	EMS GCS MOTOR SCORE	EMSGCSMOTOR	GCSMOTORXXF	1	1	1	1
				2	2	2	2
				3	3	3	3
				4	4	4	4
				5	5	5	5
				6	6	6	6
				Not Reported	7	7	7
				Unknown	9	9	9
OCC	ELAPSED TIME FROM CRASH EMS GCS OBSERVED	EMSGCSTIME	ELAPSEDTIMEXXF	[Actual Value]	#	#	#
				Not Reported	9997	9997	9997
				Unknown	9999	9999	9999
OCC	EMS GCS VERBAL SCORE	EMSGCSVERB	GCSVERBXXF	1	1	1	1
				2	2	2	2
				3	3	3	3
				4	4	4	4
				5	5	5	5
				Not Reported	7	7	7
				Unknown	9	9	9
OCC	EMS PULSE RATE	EMSPULSE	HEARTXXF	[Actual Value]	#	#	#
				Palpable	888	888	888
				Not Reported	997	997	997
				Unknown	999	999	999
OCC	EMSRESPIRATORY RATE	EMSRESPRATE	RESPIRATORYXXF	[Actual Value]	#	#	#
				Agonal	888	888	888
				Not Reported	997	997	997
				Unknown	999	999	999
OCC	EMS SYSTOLIC RATE	EMSSYSTOLIC	HEARTXXF	[Actual Value]	#	#	#
				Palpable	888	888	888
				Not Reported	997	997	997
				Unknown	999	999	999

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
OCC	SOURCE OF EMS VITALS DATA	EMSVITALSRC	EMSSOURCEXXF	Not Available or None	0	0	0
				At Crash Site	1	1	1
				EMS Vehicle	2	2	2
				Pre-Hospital, Not Specified	11	11	11
				Other (Specify)	98	98	98
				Unknown	99	99	99
OCC	ELAPSED TIME FROM CRASH EMS VITALS WERE TAKEN	EMSVITALTIME	ELAPSEDTIMEXXF	[Actual Value]	#	#	#
				Not Reported	9997	9997	9997
				Unknown	9999	9999	9999
OCC	ELAPSED TIME FROM CRASH HOSPITAL VITALS WERE TAKEN	HOSPVITALTIME	ELAPSEDTIMEXXF	[Actual Value]	#	#	#
				Not Reported	9997	9997	9997
				Unknown	9999	9999	9999
OCC	HOSPITAL PULSE RATE	HOSPPULSE	HEARTXXF	[Actual Value]	#	#	#
				Palpable	*	888	888
				Not Reported	997	997	997
				Unknown	999	999	999
OCC	HOSPITAL SYSTOLIC RATE	HOSPSYSTOLIC	HEARTXXF	[Actual Value]	#	#	#
				Palpable	*	888	888
				Not Reported	997	997	997
				Unknown	999	999	999
OCC	HOSPITAL DIASTOLIC RATE	HOSPDIASTOLIC	HEARTXXF	[Actual Value]	#	#	#
				Palpable	*	888	888
				Not Reported	997	997	997
				Unknown	999	999	999
OCC	HOSPITAL RESPIRATORY RATE	HOSPRESP	RESPIRATORYXXF	[Actual Value]	#	#	#
				Agonal	888	888	888
				Not Reported	997	997	997
				Unknown	999	999	999

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	2018	2019
OCC	SOURCE OF HOSPITAL VITALS DATA	HOSPVITALSRC	HOSPSOURCEXXF	[Actual Value]	#	#	#
				Not Available or None	0	0	0
				Emergency Department	3	3	3
				Floor	4	4	4
				Intensive Care Unit	5	5	5
				Intermediate Care Unit	6	6	6
				Operating Room	8	8	8
				Other Hospital	10	10	10
				Pre-Hospital, Not Specified	11	11	11
				Radiology	12	12	12
				Resus. Room - not in ED	13	13	13
				Other	98	98	98
				Unknown	99	99	99
OCC	GCS OBTAINED	GCSOBTAINED	N/A	No	0	0	0
				Yes	1	1	1
OCC	ELAPSED TIME FROM CRASH HOSPITAL GCS OBSERVED	HOSPGCSTIME	ELAPSEDTIMEXXF	[Actual Value]	#	#	#
				Not Reported	9997	9997	9997
				Unknown	9999	9999	9999
OCC	LOCATION HOSPITAL GCS DATA OBSERVED	HOSPGCSLOC	GCSLOCXXF	Not Available or None	0	0	0
				Emergency Department	3	3	3
				Floor	4	4	4
				Intensive Care Unit	5	5	5
				Intermediate Care Unit	6	6	6
				Operating Room	8	8	8
				Other Hospital	10	10	10
				Pre-Hospital, Not Specified	11	11	11
				Radiology	12	12	12
				Resus. Room - not in ED	13	13	13
				Other (Specify)	98	98	98

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
				Unknown	99	99	99
OCC	HOSPITAL OBSERVED GCS	HOSPGCS	GCSTOTALXXF	[Actual Value]	#	#	#
				Not Reported	97	97	97
				Unknown	99	99	99
OCC	HOSPITAL GCS EYE SCORE	HOSPGCSEYE	GCSEYEXXF	1	1	1	1
				2	2	2	2
				3	3	3	3
				4	4	4	4
				Not Reported	7	7	7
				Unknown	9	9	9
OCC	HOSPITAL GCS VERBAL SCORE	HOSPGCSVERB	GCSVERBXXF	1	1	1	1
				2	2	2	2
				3	3	3	3
				4	4	4	4
				5	5	5	5
				Not Reported	7	7	7
				Unknown	9	9	9
OCC	HOSPITAL GCS MOTOR SCORE	HOSPGCSMOTOR	GCSMOTORXXF	1	1	1	1
				2	2	2	2
				3	3	3	3
				4	4	4	4
				5	5	5	5
				6	6	6	6
				Not Reported	7	7	7
				Unknown	9	9	9
OCC	HOSPITAL GCS MODIFIER	HOSPGCSMOD	GCSMODIFERXXF	Legitimate	1	1	1
				Intubated	2	2	2
				Tubed & Paralized	3	3	*
				Intubated and Sedated	*	*	3
				Sedated	4	4	*

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	2018	2019
				Chemically Sedated	*	*	4
	5			(Spinal cord Injury)/Unk	5	5	*
	*			Spinal Cord Injury	*	*	5
				Not Reported	7	7	7
OCC	COMORBIDITY - IMPAIRED COAGULATION	IMPAIREDCOAG	COMORBIDITYXXF	No	0	0	0
				Yes	1	1	1
OCC	COMORBIDITY - HISTORY OF IMPLANT, SURG, FUSION	IMPLANTFUS	COMORBIDITYXXF	No	0	0	0
				Yes	1	1	1
OCC	NUMBER OF CODED INJURIES FOR THIS OCCUPANT	INJNUM	N/A	[Actual Value]	#	#	#
OCC	INJURED STATUS	INJSTATUS	INJSTATXXF	Not Injured	0	0	0
				Injured	1	1	1
				Injured, Details Unknown	7	7	7
				Unknown if Injured	9	9	9
OCC	INJURY SEVERITY SCORE	ISS	N/A	Not Injured	0	0	0
				[Actual Value]	#	#	#
				Injured, Unknown Severity	97	97	97
				Unknown if Injured	99	99	99
OCC	MAXIMUM AIS	MAIS	N/A	Not injured	0	0	0
				Minor injury	1	1	1
				Moderate injury	2	2	2
				Serious injury	3	3	3
				Severe injury	4	4	4
				Critical injury	5	5	5
				Maximum (untreatable) injury	6	6	6
				Injured, severity unknown	7	7	7
				Unknown if injured	9	9	9
OCC	TYPE OF FACILITY FOR INITIAL TREATMENT	MEDFACILITY	MEDFACILXXF	Not treated at a medical facility	0	0	0
				Trauma center	1	1	1

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	2018	2019
				Hospital	2	2	2
				Medical clinic	3	3	3
				Physician`s office	4	4	4
				Treatment later at medical facility	5	5	5
				Other (specify)	8	8	8
				Unknown	9	9	9
OCC	OCCUPANT MOBILITY	MOBILITY	MOBILXXF	Exited from vehicle under own power	1	1	1
				Exited from vehicle with some assistance	2	2	2
				Removed from vehicle due to perceived serious injuries	3	3	3
				Removed from vehicle while unconscious or not oriented to time or place	4	4	4
				Occupant fatal before removed from vehicle	5	5	5
				Occupant fully ejected	6	6	6
				Removed from vehicle for other reasons (specify):	8	8	8
				Unknown	9	9	9
OCC	OCCUPANT MORTALITY	MORTALITY	MORTALITYXXF	Not Fatal	0	0	0
				Fatal	1	1	1
				Fatal - ruled disease (specify)	2	2	2
OCC	COMORBIDITY - OBESITY	OBESITY	COMORBIDITYXXF	No	0	0	0
				Yes	1	1	1
OCC	OCCUPANT NUMBER	OCCNO	N/A	[Actual Value]	#	#	#
OCC	COMORBIDITY - OSTEOPOROSIS OR OSTEOPENIA	OSTEOCOND	COMORBIDITYXXF	No	0	0	0
				Yes	1	1	1
OCC	POLICE REPORTED AIR BAG AVAILABILITY	PARAIRBAG	PARBAGXXF	No Air Bag Available	0	0	0
				Deployed	1	1	1
				Not Deployed	2	2	2
				Unknown if deployed	3	3	3

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
				Not Reported	7	7	7
				Police indicated "Unknown"	9	9	9
OCC	POLICE REPORTED BELT USE	PARBELTUSE	PARBELTXXF	None used	0	0	0
				Shoulder belt	1	1	1
				Lap belt	2	2	2
				Lap and shoulder belt	3	3	3
				Belt used, type not specified	4	4	4
				Child safety seat	5	5	5
				Automatic belt	6	6	6
				Other type belt (specify)	7	7	7
				Police indicated "unknown"	8	8	8
				Not Reported	9	9	9
OCC	POLICE REPORTED INJURY SEVERITY	PARINJSEV	PARSEVXXF	O- No Injury	0	0	0
				C- Possible Injury	1	1	1
				B- Nonincapacitating Injury	2	2	2
				A- Incapacitating Injury	3	3	3
				K- Killed	4	4	4
				U- Injury, severity unknown	5	5	5
				Died prior to crash	6	6	6
				Unknown	9	9	9
OCC	OCCUPANT'S POSTURE	POSTURE	POSTUREXXF	Normal posture	0	0	0
				Kneeling or standing on seat	1	1	1
				Lying on or across seat	2	2	2
				Kneeling, standing or sitting in front of seat	3	3	3
				Sitting sideways or turned	4	4	4
				Sitting on a console	5	5	5
				Lying back in a reclined seat position	6	6	6
				Bracing with feet or hands on a surface of the vehicle	7	7	7
				In the lap of anoother occupant	8	8	8

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	2018	2019
				Sharing a seat-sitting side by side	9	9	9
				In a child seat	10	10	10
				Other posture	98	98	98
				Unknown	99	99	99
OCC	COMORBIDITY - PREGNANCY	PREGNANT	COMORBIDITYXXF	No	0	0	0
				Yes	1	1	1
OCC	PRIMARY SAMPLING UNIT	PSU	N/A	[Actual Value]	#	#	#
OCC	PSU STRATIFICATION	PSUSTRAT	N/A	[Actual Value]	#	#	#
OCC	RACE OF OCCUPANT	RACE	RACEXXF	White	1	1	1
				Black or African American	2	2	2
				Asian	3	3	3
				Native Hawaiian or Other Pacific Islander	4	4	4
				American Indian or Alaska Native	5	5	5
				Other (specify):	7	7	7
				No driver present	8	8	8
				Unknown	9	9	9
OCC	OCCUPANT'S ROLE	ROLE	ROLEXXF	Driver	1	1	1
				Passenger	2	2	2
				Unknown	9	9	9
OCC	SEAT LOCATION	SEATLOC	SEATPOSXXF	Front Left	11	11	11
				Front Middle	12	12	12
				Front Right	13	13	13
				Front Other	14	14	14
				Second Left	21	21	21
				Second Middle	22	22	22
				Second Right	23	23	23
				Second Other	24	24	24
				Third Left	31	31	31
				Third Middle	32	32	32
				Third Right	33	33	33

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
				Third Other	34	34	34
				Fourth Left	41	41	41
				Fourth Middle	42	42	42
				Fourth Right	43	43	43
				Fourth Other	44	44	44
				Fifth Left	51	51	51
				Fifth Middle	52	52	52
				Fifth Right	53	53	53
				Fifth Other	54	54	54
				In or on unenclosed area	97	97	97
				Other enclosed area	98	98	98
				Unknown	99	99	99
OCC	OCCUPANT'S SEX	SEX	SEXXXF	Male	1	1	1
				Female	2	2	2
				Female, pregnant - 1st trimester (1st-3rd month)	3	3	3
				Female, pregnant - 2nd trimester (4th-6th month)	4	4	4
				Female, pregnant - 3rd trimester (7th-9th month)	5	5	5
				Female, pregnant - trimester unknown	6	6	6
				Unknown	9	9	9
OCC	COMORBIDITY - DEGENERATIVE SPINAL CONDITION	SPINEDEGEN	COMORBIDITYXXF	No	0	0	0
				Yes	1	1	1
OCC	OCCUPANT TREATMENT	TREATMENT	TREATMENTXXF	No treatment	0	0	0
				Treatment at scene - non-transported	1	1	1
				Transported and released	2	2	2
				Hospitalization	3	3	3
				Dead on Arrival (DOA) at hospital	4	4	4

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
				Dead Prior To Admission	5	5	5
				Transported to a medical facility - unknown if treated	6	6	6
				Treatment later	7	7	7
				Treatment - other (specify)	8	8	8
				Unknown	9	9	9
OCC	VEHICLE NUMBER	VEHNO	N/A	[Actual Value]	#	#	#
OCC	VERSION NUMBER	VERSION	N/A	[Actual Value]	2	3	4
OCC	OCCUPANT'S WEIGHT	WEIGHT	WEIGHTXXF	[Actual Value]	#	#	#
				Unknown	999	999	999
OCC	WORK DAYS LOST	WORKDAYS	WORKDAYSXXF	No working days lost	0	0	0
				[Actual Value]	#	#	#
				61 days or more	61	61	61
				Fatally injured	62	62	62
				Not working prior	97	97	97
				Unknown	99	99	99

OCCONTACT Dataset

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
OCCONTACT	BODY REGION CONTACTED	BODYREGION	CONTBODYXXF	Head	101	101	101
				Face	201	201	201
				Neck	301	301	301
				Chest	401	401	401
				Abdomen	501	501	501
				Flank - Left	511	511	511
				Flank - Right	512	512	512
				Flank - Unknown	519	519	519
				Genitals	521	521	521
				Back	601	601	601
				Shoulder - Left	711	711	711
				Shoulder - Right	712	712	712
				Shoulder - Unknown	719	719	719
				Upper Arm - Left	721	721	721
				Upper Arm - Right	722	722	722
				Upper Arm - Unknown	729	729	729
				Elbow - Left	731	731	731
				Elbow - Right	732	732	732
				Elbow - Unknown	739	739	739
				Lower Arm - Left	741	741	741
				Lower Arm - Right	742	742	742
				Lower Arm - Unknown	749	749	749
				Wrist - Left	751	751	751
				Wrist - Right	752	752	752
				Wrist - Unknown	759	759	759
				Hand - Left	761	761	761
				Hand - Right	762	762	762
				Hand - Unknown	769	769	769

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	2018	2019
				Hip-Left	811	811	811
				Hip - Right	812	812	812
				Hips-Both	813	813	813
				Pelvis	814	814	814
				Hip - Unknown	819	819	819
				Buttock - Left	821	821	821
				Buttock - Right	822	822	822
				Buttock - Both	823	823	823
				Buttock - Unknown	829	829	829
				Thigh - Left	831	831	831
				Thigh - Right	832	832	832
				Thigh - Unknown	839	839	839
				Knee - Left	841	841	841
				Knee - Right	842	842	842
				Knee - Unknown	849	849	849
				Lower Leg - Left	851	851	851
				Lower Leg - Right	852	852	852
				Lower Leg - Unknown	859	859	859
				Foot - Left	861	861	861
				Foot - Right	862	862	862
				Foot - Unknown	869	869	869
				Ankle - Left	871	871	871
				Ankle - Right	872	872	872
				Ankle - Unknown	879	879	879
				Unknown	999	999	999
OCCONTACT	SYSTEM CASE IDENTIFIER	CASEID	N/A	[Actual Value]	#	#	#
OCCONTACT	SEQUENTIAL CASE NUMBER	CASENO	N/A	[Actual Value]	#	#	#
OCCONTACT	CASE NUMBER	CASENUMBER	N/A	[Actual Value]	#	#	#
OCCONTACT	CASE WEIGHT	CASEWGT	N/A	[Actual Value]	#	#	#
OCCONTACT	CASE CATEGORY	CATEGORY	N/A	[Actual Value]	#	#	#

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
OCCONTACT	CONFIDENCE IN CONTACT	CONFIDENCE	CONTCONFXXF	Certain	1	1	1
				Probable	2	2	2
				Possible	3	3	3
				Unknown	4	4	4
OCCONTACT	CONTACT REFERENCE	CONTACT	N/A	[Actual Value]	#	#	#
OCCONTACT	CONTACTED COMPONENT AREA	CONTAREA	CONTAREAXXF	Front	1	1	1
				Left Side	2	2	2
				Left Door Panel	3	3	3
				Left Air Bag	4	4	4
				Right Side	5	5	5
				Right Door Panel	6	6	6
				Right Air Bag	7	7	7
				Interior	8	8	8
				Floor	9	9	9
				Roof	10	10	10
				Rear	11	11	11
				Adaptive (Assistive) Driving Equipment	12	12	12
OCCONTACT	CONTACTED COMPONENT	CONTCOMP	CONTCOMPXXF	Windshield	1	1	1
				Mirror	2	2	2
				Sunvisor	3	3	3
				Steering wheel rim	4	4	4
				Steering wheel hub/spoke	5	5	5
				Steering wheel rim/hub/spoke	6	6	6
				Steering column, transmission selector lever, other attachment	7	7	7
				Cellular telephone or CB radio	8	8	8
				Add on equipment (e.g., tape deck, air conditioner)	9	9	9
				Glove compartment door	13	13	13
				[Dr only] WS incl 1/+: fr hdr, A pill, instr pnl, mirror, or steering assembly	15	15	15

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
				[Pass only] WS incl 1/+: fr hdr, A pill, instr pnl, or mirror	16	16	16
				Windshield reinforced by exterior object (specify)	17	17	17
				Other front object (specify):	19	19	19
				Sunvisor reinforced by front header	20	20	20
				Left instrument panel	21	21	21
				Center instrument panel	22	22	22
				Right instrument panel	23	23	23
				Left lower instrument panel (includes knee bolster)	24	24	24
				Center lower instrument panel (includes knee bolster)	25	25	25
				Right lower instrument panel (includes knee bolster)	26	26	26
				Left A (A1/A2)-pillar	53	53	53
				Left B-pillar	54	54	54
				Other left pillar (specify):	55	55	55
				Left side window glass	56	56	56
				Left side window frame	57	57	57
				Left side window sill	58	58	58
				Lt side glass +: frame, win sill, A pill, B pill, or roof side rail	59	59	59
				Left side glass (Laminated) reinforced by exterior object (specify)	60	60	60
				Other left side object (specify):	61	61	61
				LeftSide panel forward A1/A2 pillar	62	62	62
				Left Side panel rear of Bpillar	63	63	63
				Right A (A1/A2) Pillar	103	103	103
				Right B-pillar	104	104	104
				Other right pillar (specify):	105	105	105
				Right side window glass	106	106	106

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code		
					2017	2018	2019
				Right side window frame	107	107	107
				Right side window sill	108	108	108
				Rt side glass +: frame, win sill, A pill, B pill, or roof side rail	109	109	109
				Right side glass (Laminated) reinforced by exterior object (specify)	110	110	110
				Other right side object (specify):	111	111	111
				Right Side panel forward A1/A2 pillar	112	112	112
				Right Side panel rear of Bpillar	113	113	113
				Seat, back support	151	151	151
				Belt restraint webbing/buckle	152	152	152
				Belt restraint B-pillar or door frame attachment point	153	153	153
				Other restraint system component (specify):	154	154	154
				Head restraint system	155	155	155
				Interior loose object (specify)	161	161	161
				Other interior object (specify):	162	162	162
				Center console first row	163	163	163
				Center console second row	164	164	164
				Center console other row	165	165	165
				Fold down armrest first row	166	166	166
				Fold down armrest second row	167	167	167
				Fold down armrest other row	168	168	168
				Front header	201	201	201
				Rear header	202	202	202
				Roof left side rail	203	203	203
				Roof right side rail	204	204	204
				Roof or convertible top	205	205	205
				Roof maplight/console	206	206	206
				Sunroof/components	207	207	207

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	2018	2019
				Roll bar	208	208	208
				Floor (including toe pan)	251	251	251
				Floor or console mounted transmission lever, including console	252	252	252
				Parking brake handle	253	253	253
				Foot controls including parking brake	254	254	254
				Backlight (rear window)	301	301	301
				Backlight storage rack, door, etc.	302	302	302
				Other rear object (specify):	303	303	303
				Hand controls for braking /acceleration	401	401	401
				Steering control devices (attached to OEM steering wheel)	402	402	402
				Steering knob attached to steering wheel	403	403	403
				Replacement steering wheel (i.e.,reduced diameter)	404	404	404
				Joy stick steering controls	406	406	406
				Wheelchair tie-downs	407	407	407
				Modification to seat belts,(specify):	408	408	408
				Additional or relocated switches,(specify):	409	409	409
				Raised roof	410	410	410
				Wall mounted head rest (used behind wheel chair)	411	411	411
				Other adaptive device (specify):	412	412	412
				Cargo in vehicle	571	571	571
				Seat LATCH points for child restraints	572	572	572
				Grab handles	573	573	573
				Engine shroud/cover	574	574	574
				Seatback trays	575	575	575
				Left forward upper quadrant	576	576	576
				Left forward lower quadrant	577	577	577
				Left rear upper quadrant	578	578	578

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	2018	2019
				Left rear lower quadrant	579	579	579
				Left armrest/hardware forward upper quadrant	580	580	580
				Left armrest/hardware forward lower quadrant	581	581	581
				Left armrest/hardware rear upper quadrant	582	582	582
				Left armrest/hardware rear lower quadrant	583	583	583
				Right door panel forward upper quadrant	584	584	584
				Right door panel forward lower quadrant	585	585	585
				Right door panel rear upper quadrant	586	586	586
				Right door panel rear lower quadrant	587	587	587
				Right armrest/hardware forward upper quadrant	588	588	588
				Right armrest/hardware forward lower	589	589	589
				Right armrest/hardware rear upper quadrant	590	590	590
				Right armrest/hardware rear lower quadrant	591	591	591
				Child safety seat shell	592	592	592
				Child safety seat harness	593	593	593
				Unknown child safety seat component	594	594	594
				Steering wheel hub	611	611	611
				Steering wheel hub compartment cover	612	612	612
				Left bottom instrument panel	615	615	615
				Left bottom instrument panel compartment cover	616	616	616
				Left seat back	617	617	617
				Left door / panel	618	618	618
				Left roof side rail	619	619	619
				Left seat belt	620	620	620
				Left other (specify)	621	621	621
				Right top instrument panel	631	631	631
				Right top instrument panel cover	632	632	632
				Right middle instrument panel	633	633	633
				Right middle instrument panel cover	634	634	634
				Right bottom instrument panel	635	635	635

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	2018	2019
				Right bottom instrument panel cover	636	636	636
				Right seat back	637	637	637
				Right door / panel	638	638	638
				Right roof side rail	639	639	639
				Right seat belt	640	640	640
				Right other (specify)	641	641	641
OCCONTACT	EVIDENCE OF CONTACT	EVIDENCE	CONTEVIDXXF	Bent	1	1	1
				Cracked	2	2	2
				Scuffed	3	3	3
				Transfer	4	4	4
				Deformed	5	5	5
				Blood	6	6	6
				Hair	7	7	7
				Stretched	8	8	8
				Scratched	9	9	9
				Teeth marks	10	10	10
				Imprint	11	11	11
				Spider Web	12	12	12
				Combination	96	96	96
				Other	98	98	98
OCCONTACT	OCCUPANT NUMBER	OCCNO	N/A	[Actual Value]	#	#	#
OCCONTACT	PRIMARY SAMPLING UNIT	PSU	N/A	[Actual Value]	#	#	#
OCCONTACT	PSU STRATIFICATION	PSUSTRAT	N/A	[Actual Value]	#	#	#
OCCONTACT	VEHICLE NUMBER	VEHNO	N/A	[Actual Value]	#	#	#
OCCONTACT	VERSION NUMBER	VERSION	N/A	[Actual Value]	2	3	4

PRE_FHE Dataset

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	2018	2019
PRE_FHE	SYSTEM CASE IDENTIFIER	CASEID	N/A	[Actual Value]	#	#	#
PRE_FHE	SEQUENTIAL CASE NUMBER	CASENO	N/A	[Actual Value]	#	#	#
PRE_FHE	CASE NUMBER	CASENUMBER	N/A	[Actual Value]	#	#	#
PRE_FHE	CASE WEIGHT	CASEWGT	N/A	[Actual Value]	#	#	#
PRE_FHE	CASE CATEGORY	CATEGORY	N/A	[Actual Value]	#	#	#
PRE_FHE	PRE_FIRST HARMFUL EVENT	PREEVENT	PREFHETYPEXXF	No driver present	0	0	0
				No pre first harmful event sequence	1	1	1
				Lane departure-left side	2	2	2
				Lane return-left side	3	3	3
				Lane departure-right side	4	4	4
				Lane return-right side	5	5	5
				Roadway departure-left side	6	6	6
				Roadway return-left side	7	7	7
				Roadway departure-right side	8	8	8
				Roadway return-right side	9	9	9
				Other (specify))	98	98	98
				Unknown	99	99	99
PRE_FHE	PRIMARY SAMPLING UNIT	PSU	N/A	[Actual Value]	#	#	#
PRE_FHE	PSU STRATIFICATION	PSUSTRAT	N/A	[Actual Value]	#	#	#
PRE_FHE	SEQUENCE NUMBER	SEQUENCE	N/A	[Actual Value]	#	#	#
PRE_FHE	VEHICLE NUMBER	VEHNO	N/A	[Actual Value]	#	#	#
PRE_FHE	VERSION NUMBER	VERSION	N/A	[Actual Value]	2	3	4

SEAT Dataset

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
SEAT	BELT ANCHORAGE ADJUSTMENT - INSPECTION	BELTANCHORINSP	BELTANCHORXXF	No manual shoulder belt	0	0	0
				None for manual shoulder belt	1	1	1
				In full up position	2	2	2
				In mid position	3	3	3
				In full down position	4	4	4
				Position unknown	5	5	5
				Unknown if adjuster present	9	9	9
SEAT	BELT AVAILABILITY - INSPECTION	BELTAVAILINSP	BELTAVAILXXF	None available	0	0	0
				Belt removed/destroyed	1	1	1
				Shoulder belt	2	2	2
				Lap belt	3	3	3
				Lap and shoulder belt	4	4	4
				Belt available - type unknown	5	5	5
				Shoulder belt (lap belt destroyed/removed)	6	6	6
				Lap belt (shoulder belt destroyed/removed)	7	7	7
				Other belt (specify)	8	8	8
				Unknown	9	9	9
SEAT	BELT GUIDE ROUTING - INSPECTION	BELTGUIDEINSP	BELTGUIDEXXF	Not Applicable	0	0	0
				Yes	1	1	1
				No	2	2	2
				Unknown	9	9	9
SEAT	BELT MALFUNCTION - INSPECTION	BELTMALFUNCTIONINSP	BELTMALFXXF	None used/not available/removed or destroyed	0	0	0
				No belt malfunction(s)	1	1	1
				Torn webbing (stretched webbing not included)	2	2	2
				Broken buckle or latch plate	3	3	3
				Upper anchorage separated	4	4	4
				Other anchorage separated (specify)	5	5	5
				Broken retractor	6	6	6

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
				Combination of above (specify)	7	7	7
				Other belt malfunction (specify)	8	8	8
				Unknown	9	9	9
SEAT	BELT POSITIONING DEVICE PRESENCE - INSPECTION	BELTPOSDEVPRESINSP	BELTPOSPRESXXF	None present	0	0	0
				Safety belt guide	1	1	1
				Belt extender	2	2	2
				Shoulder belt fit adjuster	3	3	3
				Other	8	8	8
				Unknown if present	9	9	9
SEAT	BELT PRETENSIONER ACTUATION - INSPECTION	BELTPRETENSIONINSP	BELTPRETENSE17	Not equpped	0	0	0
				Pretensioner not actuated	1	1	1
				Retractor type actuated	2	2	2
				Buckle type actuated	3	3	3
				Retractor and buckle type actuated	4	4	4
				Pretensioner present, Unknown if actuated	5	5	5
				Anchor type actuated	6	6	6
				Retractor and anchor type actuated	7	7	7
				Buckle and anchor type actuated	8	8	8
				Unknown if equipped	9	9	9
				Retractor, buckle, and anchor type actuated	10	10	10
				No Vehicle Inspection	99	99	99
SEAT	BELT USE DETERMINATION - INSPECTION	BELTUSEINSP	BELTUSEXXF	None used not available/removed or destroyed	0	0	0
				Inoperative (specify)	1	1	1
				Shoulder belt	2	2	2
				Lap belt	3	3	3
				Lap and shoulder belt	4	4	4
				Belt used - type unknown	5	5	5
				Other belt used (specify)	8	8	8
				Shoulder belt with child safety seat	12	12	12

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
				Lap belt with child safety seat	13	13	13
				Lap and shoulder belt with child safety seat	14	14	14
				Belt with child safety seat - type unknown	15	15	15
				Other belt with child safety seat (specify)	18	18	18
				Unknown if belt used	99	99	99
SEAT	SYSTEM CASE IDENTIFIER	CASEID	N/A	[Actual Value]	#	#	#
SEAT	SEQUENTIAL CASE NUMBER	CASENO	N/A	[Actual Value]	#	#	#
SEAT	CASE NUMBER	CASENUMBER	N/A	[Actual Value]	#	#	#
SEAT	CASE WEIGHT	CASEWGT	N/A	[Actual Value]	#	#	#
SEAT	CASE CATEGORY	CATEGORY	N/A	[Actual Value]	#	#	#
SEAT	ACTIVE HEAD RESTRAINT	HEADRESTACT	HEADACTIVEXXF	None Present	1	1	1
				Present	2	2	2
				Not Applicable	8	8	8
				Unknown	9	9	9
SEAT	HEAD RESTRAINT DAMAGE	HEADRESTDAM	HEADDAMXXF	Occupant not seated, or no seat	0	0	0
				No head restraints	1	1	1
				No damage	2	2	2
				Damaged during crash	3	3	3
				Not Applicable	8	8	8
				Unknown	9	9	9
SEAT	HEAD RESTRAINT TYPE	HEADRESTYPE	HEADTYPEXXF	Occupant not seated, or no seat	0	0	0
				No head restraints	1	1	1
				No damage	2	2	2
				Damaged during crash	3	3	3
				Not Applicable	8	8	8
				Unknown	9	9	9
SEAT	INTEGRATED RESTRAINT	INTRESTRAINT	INTEGRESTXXF	Occupant not seated, or no seat	0	0	0
				No	1	1	1
				Yes	2	2	2
				Not Applicable	8	8	8

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	2018	2019
				Unknown if integrated	9	9	9
SEAT	SEAT LOCATION	LOCATION	SEATLOCXXF	[Actual Value]	#	#	#
				Unknown	9	9	9
SEAT	SEAT ORIENTATION	ORIENTATION	ORIENTXXF	Occupant not seated, or no seat	0	0	0
				Forward facing seat	1	1	1
				Side facing seat (inward)	2	2	2
				Side facing seat (outward)	3	3	3
				Rear facing seat	4	4	4
				Other (specify):	7	7	7
				Not Applicable	8	8	8
				Unknown Orientation	9	9	9
SEAT	SEAT PERFORMANCE	PERFORMANCE	STPERFXXF	Occupant not seated, or no seat	0	0	0
				Seat assembly intact	1	1	1
				Seat adjuster mechanism separated/deformed	2	2	2
				Seat back folding locks or seat back structure separation (specify)	3	3	3
				Seat tracks/anchors separated/deformed	4	4	4
				Deformed by occupant of this seat	5	5	5
				Deformed by passenger compartment intrusion (specify)	6	6	6
				Deformed by Cargo	7	7	7
				Deformed by Other Occupant	8	8	8
				Combination of above (specify)	9	9	9
				Not Applicable	88	88	88
				Other (specify)	98	98	98
				Unknown	99	99	99
SEAT	PRIMARY SAMPLING UNIT	PSU	N/A	[Actual Value]	#	#	#
SEAT	PSU STRATIFICATION	PSUSTRAT	N/A	[Actual Value]	#	#	#
SEAT	ROLLOVER PROTECTION	ROLLPROTECTION	ROLLPROTECTXXF	No/Unknown	1	1	1
				Yes	2	2	2

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
SEAT	SEAT LOCATION	SEATLOC	SEATPOSXXF	Front Left	11	11	11
				Front Middle	12	12	12
				Front Right	13	13	13
				Front Other	14	14	14
				Second Left	21	21	21
				Second Middle	22	22	22
				Second Right	23	23	23
				Second Other	24	24	24
				Third Left	31	31	31
				Third Middle	32	32	32
				Third Right	33	33	33
				Third Other	34	34	34
				Fourth Left	41	41	41
				Fourth Middle	42	42	42
				Fourth Right	43	43	43
				Fourth Other	44	44	44
				Fifth Left	51	51	51
				Fifth Middle	52	52	52
				Fifth Right	53	53	53
				In or on unenclosed area	97	97	97
				Other enclosed area	98	98	98
				Unknown	99	99	99
SEAT	SEAT ROW	SEATROW	SEATROWXXF	[Actual Value]	#	#	#
				Unknown	9	9	9
SEAT	SEAT TYPE	SEATTYPE	SEATTYPEXXF	Occupant not seated, or no seat	0	0	0
				Bucket	1	1	1
				Bucket with folding back	2	2	2
				Bench	3	3	3
				Bench with separate back cushions	4	4	4
				Bench with folding back(s)	5	5	5

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	2018	2019
				Split bench with separate back cushions	6	6	6
				Split bench with folding back(s)	7	7	7
				Pedestal (i.e., column supported)	8	8	8
				Box mounted seat (i.e., van type)	9	9	9
				Other seat type (specify)	10	10	10
				Stowed/Removed	11	11	11
				In or on unenclosed area	97	97	97
				Other enclosed area	98	98	98
				Unknown Seat Type	99	99	99
SEAT	SEAT TRACK POSITION	TRACK	TRACKXXF	Occupant not seated, or no seat	0	0	0
				Non-adjustable seat track	1	1	1
				Seat at forward most track position	2	2	2
				Seat between forward most and middle track positions	3	3	3
				Seat at middle track position	4	4	4
				Seat between middle and rear most track position	5	5	5
				Seat at rear most track position	6	6	6
				Not Applicable	8	8	8
				Unknown Seat Track Position	9	9	9
SEAT	VEHICLE NUMBER	VEHNO	N/A	[Actual Value]	#	#	#
SEAT	VERSION NUMBER	VERSION	N/A	[Actual Value]	2	3	4

SEATXBAG Dataset

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
SEATXBAG	AIR BAG NUMBER	BAGNO	N/A	[Actual Value]	#	#	#
SEATXBAG	SYSTEM CASE IDENTIFIER	CASEID	N/A	[Actual Value]	#	#	#
SEATXBAG	SEQUENTIAL CASE NUMBER	CASENO	N/A	[Actual Value]	#	#	#
SEATXBAG	CASE NUMBER	CASENUMBER	N/A	[Actual Value]	#	#	#
SEATXBAG	CASE WEIGHT	CASEWGT	N/A	[Actual Value]	#	#	#
SEATXBAG	CASE CATEGORY	CATEGORY	N/A	[Actual Value]	#	#	#
SEATXBAG	PRIMARY SAMPLING UNIT	PSU	N/A	[Actual Value]	#	#	#
SEATXBAG	PSU STRATIFICATION	PSUSTRAT	N/A	[Actual Value]	#	#	#
SEATXBAG	SEAT LOCATION	SEATLOC	N/A	[Actual Value]	#	#	#
SEATXBAG	VEHICLE NUMBER	VEHNO	N/A	[Actual Value]	#	#	#
SEATXBAG	VERSION NUMBER	VERSION	N/A	[Actual Value]	2	3	4

TIRE Dataset

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	2018	2019
TIRE	SYSTEM CASE IDENTIFIER	CASEID	N/A	[Actual Value]	#	#	#
TIRE	SEQUENTIAL CASE NUMBER	CASENO	N/A	[Actual Value]	#	#	#
TIRE	CASE NUMBER	CASENUMBER	N/A	[Actual Value]	#	#	#
TIRE	CASE WEIGHT	CASEWGT	N/A	[Actual Value]	#	#	#
TIRE	CASE CATEGORY	CATEGORY	N/A	[Actual Value]	#	#	#
TIRE	PRIMARY SAMPLING UNIT	PSU	N/A	[Actual Value]	#	#	#
TIRE	PSU STRATIFICATION	PSUSTRAT	N/A	[Actual Value]	#	#	#
TIRE	TIRE LOCATION	TIRELOC	N/A	[Actual Value]	#	#	#
TIRE	TIRE MANUFACTURER	TIREMANUF	TIREMAKEXXF	AKURET	1	1	1
				ALLEGIANCEIV	2	2	2
				AMERICAN	3	3	3
				AMERICAN RADIAL	4	4	4
				APACHE	5	5	5
				ARIZONIAN	6	6	6
				ARMSTRONG	7	7	7
				ASTRO	8	8	8
				ATLAS	9	9	9
				AURORA	10	10	10
				AVON	11	11	11
				BARUM	12	12	12
				BFGOODRICH	13	13	13
				BIG O	14	14	14
				BILT-MOR	15	15	15
				BRADLEY	16	16	16
				BRIDGESTONE	17	17	17
				BRIGADIER	18	18	18
				BRUNSWICK	19	19	19
				CARQUEST	20	20	20

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	2018	2019
				CASCADE	21	21	21
				CAVALIER	22	22	22
				CEAT	23	23	23
				CENTENNIAL	24	24	24
				CHENG SHIN	25	25	25
				CONCORDE	26	26	26
				CONTENTAL/TAG	27	27	27
				CONTINENTAL	28	28	28
				CO-OP	29	29	29
				COOPER	30	30	30
				COOPER-EXPORT	31	31	31
				CORDOVAN	32	32	32
				CORNELL	33	33	33
				COSMO	34	34	34
				CRESTWOOD	35	35	35
				CROWN	36	36	36
				DANZIG	37	37	37
				DAYTON	38	38	38
				DEAN	39	39	39
				DEFINITY	40	40	40
				DELTA	41	41	41
				DENMAN	42	42	42
				DIAMOND	43	43	43
				DOMINATOR	44	44	44
				DORAL	45	45	45
				DOUBLE COIN	46	46	46
				DOUGLAS	47	47	47
				DUNLOP	48	48	48
				DURALON	49	49	49
				DYNASTAR	50	50	50

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code		
					2017	2018	2019
				ELDORADO	51	51	51
				ELECTRA	52	52	52
				EMBASSY	53	53	53
				ESCORT	54	54	54
				EUROTECH	55	55	55
				EXXON	56	56	56
				FALKEN	57	57	57
				FEDERAL	58	58	58
				FIRESTONE	59	59	59
				FISK	60	60	60
				FORMULA	61	61	61
				FRONTIER	62	62	62
				FULDA	63	63	63
				FUTURA	64	64	64
				FUZION	65	65	65
				GENERAL	66	66	66
				GILLETE	67	67	67
				GISLAVED	68	68	68
				GOODRICH	69	69	69
				GOODYEAR	70	70	70
				GT TIRE	71	71	71
				GT TIRE US	72	72	72
				GUARDIAN	73	73	73
				GUARDSMAN	74	74	74
				HALLMARK	75	75	75
				HANKOOK	76	76	76
				HERCULES	77	77	77
				HIGH COUNTRY	78	78	78
				HOOD	79	79	79
				HOOSIER	80	80	80

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	2018	2019
				JETZON	81	81	81
				JUPITER	82	82	82
				KELLY	83	83	83
				KELLY-SPRINGFIELD	84	84	84
				KINGSTAR	85	85	85
				KIRKLAND	86	86	86
				KIRKWOOD	87	87	87
				K-MART	88	88	88
				KUMHO	89	89	89
				LARAMIE	90	90	90
				LASSA	91	91	91
				LEE	92	92	92
				LEMANS	93	93	93
				LIBERATOR	94	94	94
				M&H	95	95	95
				MABOR	96	96	96
				MARSHAL	97	97	97
				MASTERCRAFT	98	98	98
				MAXXIS	99	99	99
				MEDALIST	100	100	100
				MENTOR	101	101	101
				MERIT	102	102	102
				MICHELIN	103	103	103
				MICKEY THOMPSON	104	104	104
				MILLER	105	105	105
				MITAS	106	106	106
				MODI	107	107	107
				MOHAWK	108	108	108
				MONARCH	109	109	109
				MONTGOMERY WARD	110	110	110

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code		
					2017	2018	2019
				MRF	111	111	111
				MULTI-MILE	112	112	112
				NANKANG/BRADLEY	113	113	113
				NATIONAL	114	114	114
				NEXEN	115	115	115
				NITTO	116	116	116
				NOKIAN	117	117	117
				NTB	118	118	118
				OHTSU	119	119	119
				PACEMARK	120	120	120
				PANTHER	121	121	121
				PARKWAY	122	122	122
				PARNELLI	123	123	123
				PATHFINDER	124	124	124
				PATRIOT	125	125	125
				PEERLESS	126	126	126
				PENSKE	127	127	127
				PHILLIPS	128	128	128
				PIRELLI	129	129	129
				POLARIS	130	130	130
				POS-A-TRAC	131	131	131
				POS-A-TRACTION	132	132	132
				PRIMEWELL	133	133	133
				REGUL	134	134	134
				RELIANT	135	135	135
				REMINGTON	136	136	136
				REPUBLIC	137	137	137
				REYNOLDS	138	138	138
				RIKEN	139	139	139
				ROAD KING	140	140	140

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	2018	2019
				ROADMASTER	141	141	141
				ROADPRO	142	142	142
				RUNWAY	143	143	143
				SEARS	144	144	144
				SEMPERIT	145	145	145
				SHELL	146	146	146
				SIDEWINDER	147	147	147
				SIEBERLING	148	148	148
				SIGMA	149	149	149
				SOLO-TECH	150	150	150
				SONIC	151	151	151
				SPARTAN	152	152	152
				SPORT IV	153	153	153
				STAR	154	154	154
				STARFIRE	155	155	155
				SUMITOMO	156	156	156
				SUMMIT	157	157	157
				SUPER SPORT	158	158	158
				TACOMA	159	159	159
				TBC	160	160	160
				TELSTAR	161	161	161
				TEMCO	162	162	162
				TIGAR	163	163	163
				TNT	164	164	164
				TOSCO 76	165	165	165
				TOURING SUPREME	166	166	166
				TOYO	167	167	167
				TREDTECH	168	168	168
				TRIBUNE	169	169	169
				TURNPIKE USA	170	170	170

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code		
					2017	2018	2019
				ULTRA-TECH	171	171	171
				UNION 76	172	172	172
				UNIROYAL	173	173	173
				UNIVERSAL	174	174	174
				VANDERBILT	175	175	175
				VIKING	176	176	176
				VISA	177	177	177
				VOGUE	178	178	178
				VREDESTEIN	179	179	179
				WANLI	180	180	180
				WESTERN AUTO	181	181	181
				WESTLAKE	182	182	182
				WINSTON	183	183	183
				WOOSUNG	184	184	184
				WYNSTAR	185	185	185
				YKS	186	186	186
				YOKOHAMA	187	187	187
				ANTARES	188	188	188
				AUTOGRIP	189	189	189
				BLACKLION	190	190	190
				DEXTERO	191	191	191
				JINYU	192	192	192
				LEAO	193	193	193
				LING LONG	194	194	194
				PEGASUS	195	195	195
				PROMETER	196	196	196
				ROADCLAW	197	197	197
				ROAD HUGGER	198	198	198
				SAILUN	199	199	199
				VELOZZA	*	*	200

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
				TIRE MISSING	887	887	887
				Other (specify)	998	998	998
				Unknown	999	999	999
TIRE	TIRE MODEL	TIREMODEL	N/A	[Actual Value]	#	#	#
TIRE	TIRE RESTRICTION	TIRERESTR	TIRERESTRXXF	No	0	0	0
				Yes	1	1	1
				Not applicable	8	8	8
				Unknown	9	9	9
TIRE	TIRE SIZE	TIRESIZE	N/A	[Actual Value]	#	#	#
TIRE	TIRE SIZE TYPE	TIRESIZETYPE	SIZETYPEXXF	P-Metric	1	1	1
				Light Truck Metric	2	2	2
				Light Truck Numeric	3	3	3
				Light Truck High Flotation	4	4	4
				Other	8	8	8
				Unknown	9	9	9
TIRE	TIRE TIN	TIRETIN	$TIRETINXXF	[Actual Value]	#	#	#
				Unknown	9999999999999	9999999999999	9999999999999
TIRE	TIRE TREAD DEPTH	TIRETREAD	TREADDEPTHXXF	[Actual Value]	#	#	#
				Unknown	99	99	99
TIRE	VEHICLE NUMBER	VEHNO	N/A	[Actual Value]	#	#	#
TIRE	VERSION NUMBER	VERSION	N/A	[Actual Value]	2	3	4

TIREDAMAGE Dataset

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
TIREDAMAGE	SYSTEM CASE IDENTIFIER	CASEID	N/A	[Actual Value]	#	#	#
TIREDAMAGE	SEQUENTIAL CASE NUMBER	CASENO	N/A	[Actual Value]	#	#	#
TIREDAMAGE	CASE NUMBER	CASENUMBER	N/A	[Actual Value]	#	#	#
TIREDAMAGE	CASE WEIGHT	CASEWGT	N/A	[Actual Value]	#	#	#
TIREDAMAGE	CASE CATEGORY	CATEGORY	N/A	[Actual Value]	#	#	#
TIREDAMAGE	TIRE DAMAGE	DAMAGE	DAMAGEXXF	None	0	0	0
				Tread separation	1	1	1
				Sidewall separation	2	2	2
				Tire puncture in tread	3	3	3
				Tire puncture in sidewall	4	4	4
				Tire cut/torn	5	5	5
				Tire rotted	6	6	6
				De-beaded	7	7	7
				Other (specify)	8	8	8
				Unknown	9	9	9
TIREDAAMGE	PRIMARY SAMPLING UNIT	PSU	N/A	[Actual Value]	#	#	#
TIREDAAMGE	PSU STRATIFICATION	PSUSTRAT	N/A	[Actual Value]	#	#	#
TIREDAAMGE	TIRE LOCATION	TIRELOC	N/A	[Actual Value]	#	#	#
TIREDAAMGE	VEHICLE NUMBER	VEHNO	N/A	[Actual Value]	#	#	#
TIREDAAMGE	VERSION NUMBER	VERSION	N/A	[Actual Value]	2	3	4

TIREPLAC Dataset

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	2018	2019
TIREPLAC	SYSTEM CASE IDENTIFIER	CASEID	N/A	[Actual Value]	#	#	#
TIREPLAC	SEQUENTIAL CASE NUMBER	CASENO	N/A	[Actual Value]	#	#	#
TIREPLAC	CASE NUMBER	CASENUMBER	N/A	[Actual Value]	#	#	#
TIREPLAC	CASE WEIGHT	CASEWGT	N/A	[Actual Value]	#	#	#
TIREPLAC	CASE CATEGORY	CATEGORY	N/A	[Actual Value]	#	#	#
TIREPLAC	GROSS AXLE WEIGHT RATING - FRONT	GAWRFRONT	GWRXXF	[Actual Value]	#	#	#
				Unknown	9998	9998	9999
TIREPLAC	GROSS AXLE WEIGHT RATING - REAR	GAWRREAR	GWRXXF	[Actual Value]	#	#	#
				Unknown	9998	9998	9999
TIREPLAC	GROSS VEHICLE WEIGHT RATING	GVWR	GWRXXF	[Actual Value]	#	#	#
				Unknown	9998	9998	9999
TIREPLAC	PRIMARY SAMPLING UNIT	PSU	N/A	[Actual Value]	#	#	#
TIREPLAC	PSU STRATIFICATION	PSUSTRAT	N/A	[Actual Value]	#	#	#
TIREPLAC	RECOMMENDED FRONT TIRE SIZE 1	RECFRONT1	N/A	[Actual Value]	#	#	#
TIREPLAC	RECOMMENDED FRONT TIRE SIZE 2	RECFRONT2	N/A	[Actual Value]	#	#	#
TIREPLAC	RECOMMENDED FRONT TIRE SIZE 3	RECFRONT3	N/A	[Actual Value]	#	#	#
TIREPLAC	RECOMMENDED FRONT PRESSURE 1	RECFRPRESS1	RECPRESSXXF	[Actual Value]	#	#	#
				Unknown	999	999	999
TIREPLAC	RECOMMENDED FRONT PRESSURE 2	RECFRPRESS2	RECPRESSXXF	[Actual Value]	#	#	#
				Unknown	999	999	999
TIREPLAC	RECOMMENDED FRONT PRESSURE 3	RECFRPRESS3	RECPRESSXXF	[Actual Value]	#	#	#
				Unknown	999	999	999
TIREPLAC	RECOMMENDED REAR TIRE SIZE 1	RECREAR1	N/A	[Actual Value]	#	#	#
TIREPLAC	RECOMMENDED REAR TIRE SIZE 2	RECREAR2	N/A	[Actual Value]	#	#	#
TIREPLAC	RECOMMENDED REAR TIRE SIZE 3	RECREAR3	N/A	[Actual Value]	#	#	#
TIREPLAC	RECOMMENDED REAR PRESSURE 1	RECRRRPRESS1	RECPRESSXXF	[Actual Value]	#	#	#
				Unknown	999	999	999
TIREPLAC	RECOMMENDED REAR PRESSURE 2	RECRRPRESS2	RECPRESSXXF	[Actual Value]	#	#	#

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	2018	2019
				Unknown	999	999	999
TIREPLAC	RECOMMENDED REAR PRESSURE 3	RECRRPRESS3	RECPRESSXXF	[Actual Value]	#	#	#
				Unknown	999	999	999
TIREPLAC	VEHICLE NUMBER	VEHNO	N/A	[Actual Value]	#	#	#
TIREPLAC	VERSION NUMBER	VERSION	N/A	[Actual Value]	2	3	4

VEHMEAS Dataset

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	2018	2019
VEHMEAS	BACK EXTENT - B PILLAR	BACKBPILL	MEASUNKNAXXF	[Actual Value]	#	#	#
				Not Applicable	887	887	887
				Unknown	999	999	999
VEHMEAS	BACK EXTENT - BACKLIGHT	BACKLIGHT	MEASUNKNAXXF	[Actual Value]	#	#	#
				Not Applicable	887	887	887
				Unknown	999	999	999
VEHMEAS	PICK-UP REAR EXTENT	BACKPICKUP	MEASUNKNAXXF	[Actual Value]	#	#	#
				Not Applicable	887	887	887
				Unknown	999	999	999
VEHMEAS	BACK EXTENT - TRUNK	BACKTRUNK	MEASUNKNAXXF	[Actual Value]	#	#	#
				Not Applicable	887	887	887
				Unknown	999	999	999
VEHMEAS	SYSTEM CASE IDENTIFIER	CASEID	N/A	[Actual Value]	#	#	#
VEHMEAS	SEQUENTIAL CASE NUMBER	CASENO	N/A	[Actual Value]	#	#	#
VEHMEAS	CASE NUMBER	CASENUMBER	N/A	[Actual Value]	#	#	#
VEHMEAS	CASE WEIGHT	CASEWGT	N/A	[Actual Value]	#	#	#
VEHMEAS	CASE CATEGORY	CATEGORY	N/A	[Actual Value]	#	#	#
VEHMEAS	FRONT BUMPER HEIGHT	FRNTBUMP	MEASUNKNAXXF	[Actual Value]	#	#	#
				Not Applicable	887	887	887
				Unknown	999	999	999
VEHMEAS	FRONT EXTENT - HOOD	FRNTHOOD	MEASUNKNAXXF	[Actual Value]	#	#	#
				Not Applicable	887	887	887
				Unknown	999	999	999
VEHMEAS	FRONT EXTENT - PILLAR	FRNTPILL	MEASUNKNAXXF	[Actual Value]	#	#	#
				Not Applicable	887	887	887
				Unknown	999	999	999
VEHMEAS	FRONT TRACK WIDTH	FRNTTRACK	MEASUNKNAXXF	[Actual Value]	#	#	#
				Not Applicable	887	887	887

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	2018	2019
				Unknown	999	999	999
VEHMEAS	FRONT EXTENT - WINDSHIELF	FRNTWIND	MEASUNKNAXXF	[Actual Value]	#	#	#
				Not Applicable	887	887	887
				Unknown	999	999	999
VEHMEAS	LEFT FRONT BUMPER CORNER	LFBC	MEASUNKNAXXF	[Actual Value]	#	#	#
				Not Applicable	887	887	887
				Unknown	999	999	999
VEHMEAS	LEFT FRONT OVERHANG	LFOH	MEASUNKNAXXF	[Actual Value]	#	#	#
				Not Applicable	887	887	887
				Unknown	999	999	999
VEHMEAS	LEFT REAR BUMPER CORNER	LRBC	MEASUNKNAXXF	[Actual Value]	#	#	#
				Not Applicable	887	887	887
				Unknown	999	999	999
VEHMEAS	LEFT REAR OVERHANG	LROH	MEASUNKNAXXF	[Actual Value]	#	#	#
				Not Applicable	887	887	887
				Unknown	999	999	999
VEHMEAS	PICK-UP BED LENGTH	PBED	MEASUNKNAXXF	[Actual Value]	#	#	#
				Not Applicable	887	887	887
				Unknown	999	999	999
VEHMEAS	PRIMARY SAMPLING UNIT	PSU	N/A	[Actual Value]	#	#	#
VEHMEAS	PSU STRATIFICATION	PSUSTRAT	N/A	[Actual Value]	#	#	#
VEHMEAS	REAR BUMPER HEIGHT	REARBUMP	MEASUNKNAXXF	[Actual Value]	#	#	#
				Not Applicable	887	887	887
				Unknown	999	999	999
VEHMEAS	REAR TRACK WIDTH	REARTRACK	MEASUNKNAXXF	[Actual Value]	#	#	#
				Not Applicable	887	887	887
				Unknown	999	999	999
VEHMEAS	RIGHT FRONT BUMPER CORNER	RFBC	MEASUNKNAXXF	[Actual Value]	#	#	#
				Not Applicable	887	887	887
				Unknown	999	999	999

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	2018	2019
VEHMEAS	RIGHT FRONT OVERHANG	RFOH	MEASUNKNAXXF	[Actual Value]	#	#	#
				Not Applicable	887	887	887
				Unknown	999	999	999
VEHMEAS	RIGHT REAR BUMPER CORNER	RRBC	MEASUNKNAXXF	[Actual Value]	#	#	#
				Not Applicable	887	887	887
				Unknown	999	999	999
VEHMEAS	RIGHT REAR OVERHANG	RROH	MEASUNKNAXXF	[Actual Value]	#	#	#
				Not Applicable	887	887	887
				Unknown	999	999	999
VEHMEAS	SIDE EXTENT - DOOR	SIDEDOOR	MEASUNKNAXXF	[Actual Value]	#	#	#
				Not Applicable	887	887	887
				Unknown	999	999	999
VEHMEAS	SIDE EXTENT - GLAZING	SIDEGLAZ	MEASUNKNAXXF	[Actual Value]	#	#	#
				Not Applicable	887	887	887
				Unknown	999	999	999
VEHMEAS	SIDE EXTENT - ROOF	SIDEROOF	MEASUNKNAXXF	[Actual Value]	#	#	#
				Not Applicable	887	887	887
				Unknown	999	999	999
VEHMEAS	VEHICLE NUMBER	VEHNO	N/A	[Actual Value]	#	#	#
VEHMEAS	VERSION NUMBER	VERSION	N/A	[Actual Value]	2	3	4
VEHMEAS	VERTICAL EXTENT - DOOR	VERTDOOR	MEASUNKNAXXF	[Actual Value]	#	#	#
				Not Applicable	887	887	887
				Unknown	999	999	999
VEHMEAS	VERTICAL EXTENT - GLAZING	VERTGLAZ	MEASUNKNAXXF	[Actual Value]	#	#	#
				Not Applicable	887	887	887
				Unknown	999	999	999
VEHMEAS	VERTICAL EXTENT - ROOF	VERTROOF	MEASUNKNAXXF	[Actual Value]	#	#	#
				Not Applicable	887	887	887
				Unknown	999	999	999
VEHMEAS	WHEELBASE - LEFT	WBLEFT	MEASUNKNAXXF	[Actual Value]	#	#	#

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	2018	2019
				Not Applicable	887	887	887
				Unknown	999	999	999
VEHMEAS	WHEELBASE - RIGHT	WBRIGHT	MEASUNKNAXXF	[Actual Value]	#	#	#
				Not Applicable	887	887	887
				Unknown	999	999	999

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
VEHSPEC	MULTI-STAGE OR ALTERED VEHICLE	ALTVEH	ALTXXF	No post manufacturer modifications	0	0	0
				Yes-post manufacturer modifications (specify)	1	1	1
				Unknown if vehicle is modified	9	9	9
VEHSPEC	SYSTEM CASE IDENTIFIER	CASEID	N/A	[Actual Value]	#	#	#
VEHSPEC	SEQUENTIAL CASE NUMBER	CASENO	N/A	[Actual Value]	#	#	#
VEHSPEC	CASE NUMBER	CASENUMBER	N/A	[Actual Value]	#	#	#
VEHSPEC	CASE WEIGHT	CASEWGT	N/A	[Actual Value]	#	#	#
VEHSPEC	CASE CATEGORY	CATEGORY	N/A	[Actual Value]	#	#	#
VEHSPEC	CURB WEIGHT	CURBWT	CURBWTXXF	[Actual Value]	#	#	#
				Unknown	9999	9999	9999
VEHSPEC	DRIVE WHEELS	DVRWHEELS	DRVWHEELSXXF	Front Wheel Drive	1	1	1
				Rear Wheel Drive	2	2	2
				Four Wheel Drive	3	3	3
				All Wheel Drive	4	4	4
				Unknown	9	9	9
VEHSPEC	ENGINE CYLINDERS	ENG_CYL	SPECENGXXF	[Actual Value]	#	#	#
				Not Applicable	98	98	98
				Unknown	99	99	99
VEHSPEC	ENGINE DISPLACEMENT	ENG_DISP	SPECENGXXF	[Actual Value]	#	#	#
				Not Applicable	98	98	98
				Unknown	99	99	99
VEHSPEC	MAXIMUM WIDTH	MAXWIDTH	SPECXXF	[Actual Value]	#	#	#
				Unknown	999	999	999
VEHSPEC	OVERALL WIDTH	OAL	SPECXXF	[Actual Value]	#	#	#
				Unknown	999	999	999
VEHSPEC	FRONT OVERHANG	OVERHANG_FRT	SPECXXF	[Actual Value]	#	#	#
				Unknown	999	999	999
VEHSPEC	REAR OVERHANG	OVERHANG_REAR	SPECXXF	[Actual Value]	#	#	#

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	2018	2019
				Unknown	999	999	999
VEHSPEC	PRIMARY SAMPLING UNIT	PSU	N/A	[Actual Value]	#	#	#
VEHSPEC	PSU STRATIFICATION	PSUSTRAT	N/A	[Actual Value]	#	#	#
VEHSPEC	SUSPECTED POST MANUFACTURER MODIFICATIONS	SUSPMODS	SUSPMODSXXF	No	0	0	0
				Yes	1	1	1
VEHSPEC	TRACK WIDTH	TRACKWIDTH	SPECXXF	[Actual Value]	#	#	#
				Unknown	999	999	999
VEHSPEC	TRANSMISSION	TRANSMISSION	TRANSMISSIONXXF	Manual	1	1	1
				Automatic	2	2	2
				Electric Motor Only	3	3	3
				Unknown	9	9	9
VEHSPEC	UNDERFORMED END WIDTH	UEW	SPECXXF	[Actual Value]	#	#	#
				Unknown	999	999	999
VEHSPEC	VEHICLE NUMBER	VEHNO	N/A	[Actual Value]	#	#	#
VEHSPEC	VERSION NUMBER	VERSION	N/A	[Actual Value]	2	2	2
VEHSPEC	WHEELBASE	WHEELBASE	SPECXXF	[Actual Value]	#	3	4
				Unknown	999	999	999

VINDERIVED Dataset

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
VINDERIVED	ADAPTIVE CRUISE CONTROL (ACC)	AdaptiveCruiseControl	N/A	[Actual Value]	#	#	#
VINDERIVED	ADAPTIVE HEADLIGHTS	adaptiveHeadlights	N/A	[Actual Value]	#	#	#
VINDERIVED	CURTAIN AIR BAG LOCATIONS	AirBagLocCurtain	N/A	[Actual Value]	#	#	#
VINDERIVED	FRONT AIR BAG LOCATIONS	AirBagLocKnee	N/A	[Actual Value]	#	#	#
VINDERIVED	KNEE AIR BAG LOCATIONS	AirBagLocSeatCusion	N/A	[Actual Value]	#	#	#
VINDERIVED	CUSHION AIR BAG LOCATIONS	AirBagLocSide	N/A	[Actual Value]	#	#	#
VINDERIVED	SIDE AIR BAG LOCATIONS	AntilockBrakeSystem	N/A	[Actual Value]	#	#	#
VINDERIVED	ANTI-LOCK BRAKING SYSTEM (ABS)	AutomaticEmergencyBraking	N/A	[Actual Value]	#	#	#
VINDERIVED	AXLE CONFIGURATION	AxleConfiguration	N/A	[Actual Value]	#	#	#
VINDERIVED	NUMBER OF AXLES	AxlesCount	N/A	[Actual Value]	#	#	#
VINDERIVED	NUMBER OF BATTERY CELLS PER MODULE	BatteryCellsPerModule	N/A	[Actual Value]	#	#	#
VINDERIVED	NUMBER OF BATTERY MODULES PER PACK	BatteryModulesPerPack	N/A	[Actual Value]	#	#	#
VINDERIVED	NUMBER OF BATTERY PACKS PER VEHICLE	BatteryPacksPerVehicle	N/A	[Actual Value]	#	#	#
VINDERIVED	BATTERY TYPE	BatteryType	N/A	[Actual Value]	#	#	#
VINDERIVED	BLIND SPOT MONITORING SYSTEM	BlindSpotMonitoring	N/A	[Actual Value]	#	#	#
VINDERIVED	BODY CLASS	BodyClass	N/A	[Actual Value]	#	#	#
VINDERIVED	BRAKE SYSTEM TYPE	BrakeSystemType	N/A	[Actual Value]	#	#	#
VINDERIVED	BUS FLOOR CONFIGURATION TYPE	BusFloorConfigurationType	N/A	[Actual Value]	#	#	#
VINDERIVED	BUS TYPE	BusType	N/A	[Actual Value]	#	#	#
VINDERIVED	SYSTEM CASE IDENTIFIER	CASEID	N/A	[Actual Value]	#	#	#
VINDERIVED	SEQUENTIAL CASE NUMBER	CASENO	N/A	[Actual Value]	#	#	#
VINDERIVED	CASE NUMBER	CASENUMBER	N/A	[Actual Value]	#	#	#
VINDERIVED	CASE WEIGHT	CASEWGT	N/A	[Actual Value]	#	#	#
VINDERIVED	CASE CATEGORY	CATEGORY	N/A	[Actual Value]	#	#	#
VINDERIVED	CHARGER LEVEL	ChargerLevel	N/A	[Actual Value]	#	#	#
VINDERIVED	CHARGER POWER (KW)	ChargerPowerKW	N/A	[Actual Value]	#	#	#
VINDERIVED	CURB WEIGHT (LBS.)	CurbWeightLP	N/A	[Actual Value]	#	#	#

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code		
					2017	2018	2019
VINDERIVED	CUSTOM MOTORCYCLE TYPE	CustomMotorcycleType	N/A	[Actual Value]	#	#	#
VINDERIVED	ENGINE DISPLACEMENT (CC)	DisplacementCC	N/A	[Actual Value]	#	#	#
VINDERIVED	NUMBER OF DOORS	DoorsCount	N/A	[Actual Value]	#	#	#
VINDERIVED	DRIVE TYPE	DriveType	N/A	[Actual Value]	#	#	#
VINDERIVED	DRIVER ASSIST	DriverAssist	N/A	[Actual Value]	#	#	#
VINDERIVED	ELECTRONIC STABILITY CONTROL (ESC)	ElectronicStabilityControl	N/A	[Actual Value]	#	#	#
VINDERIVED	ENGINE BRAKE (HP)	EngineBrakeHP	N/A	[Actual Value]	#	#	#
VINDERIVED	ENGINE BRAKE UP TO (HP)	EngineBrakeUpToHP	N/A	[Actual Value]	#	#	#
VINDERIVED	ENGINE CONFIGURATION	EngineConfiguration	N/A	[Actual Value]	#	#	#
VINDERIVED	ENGINE COOLING TYPE	EngineCoolingType	N/A	[Actual Value]	#	#	#
VINDERIVED	ENGINE NUMBER OF CYCLINDERS	EngineCyclindersCount	N/A	[Actual Value]	#	#	#
VINDERIVED	ENGINE ELECTRIFICATION LEVEL	EngineElectrificationLevel	N/A	[Actual Value]	#	#	#
VINDERIVED	ENGINE MANUFACTURER	EngineManufacturer	N/A	[Actual Value]	#	#	#
VINDERIVED	ENGINE MODEL	EngineModel	N/A	[Actual Value]	#	#	#
VINDERIVED	ENGINE POWER (KW)	EnginePowerKW	N/A	[Actual Value]	#	#	#
VINDERIVED	ENGINE STROKE CYCLES	EngineStrokeCycles	N/A	[Actual Value]	#	#	#
VINDERIVED	ENGINE TURBO	EngineTurbo	N/A	[Actual Value]	#	#	#
VINDERIVED	ENGINE VALVE TRAIN DESIGN	EngineValvetrainDesign	N/A	[Actual Value]	#	#	#
VINDERIVED	FORWARD COLLISION WARNING (FCW)	ForwardCollisionWarning	N/A	[Actual Value]	#	#	#
VINDERIVED	FUEL DELIVERTY / FUEL INJECTION TYPE	FuelDeliveryInjectionType	N/A	[Actual Value]	#	#	#
VINDERIVED	PRIMARY FUEL TYPE	FuelTypePrimary	N/A	[Actual Value]	#	#	#
VINDERIVED	SECONDARY FUEL TYPE	FuelTypeSecondary	N/A	[Actual Value]	#	#	#
VINDERIVED	GROSS VEHICLE WEIGHT RATING	GrossVehicleWeightRating	N/A	[Actual Value]	#	#	#
VINDERIVED	LANE DEPARTURE WARNING (LDW)	LaneDepartureWarning	N/A	[Actual Value]	#	#	#
VINDERIVED	LANE KEEPING SYSTEM (LKS)	LaneKeepSystem	N/A	[Actual Value]	#	#	#
VINDERIVED	MAKE	Make	N/A	[Actual Value]	#	#	#
VINDERIVED	MANUFACTURER COMMON NAME	ManufacturerCommonName	N/A	[Actual Value]	#	#	#
VINDERIVED	MANUFACTURER FULL NAME	ManufacturerFullName	N/A	[Actual Value]	#	#	#
VINDERIVED	MANUFACTURER ID	ManufacturerId	N/A	[Actual Value]	#	#	#

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code		
					2017	2018	2019
VINDERIVED	MANUFACTURER PARENT	ManufacturerParent	N/A	[Actual Value]	#	#	#
VINDERIVED	MODEL	Model	N/A	[Actual Value]	#	#	#
VINDERIVED	MODEL YEAR	Modelyear	N/A	[Actual Value]	#	#	#
VINDERIVED	MOTORCYCLE CHASSIS TYPE	MotorcycleChassisType	N/A	[Actual Value]	#	#	#
VINDERIVED	MOTORCYCLE SUSPENSION TYPE	MotorcycleSuspensionType	N/A	[Actual Value]	#	#	#
VINDERIVED	PRIMARY SAMPLING UNIT	PSU	N/A	[Actual Value]	#	#	#
VINDERIVED	PSU STRATIFICATION	PSUSTRAT	N/A	[Actual Value]	#	#	#
VINDERIVED	PARKING ASSIST	ParkAssist	N/A	[Actual Value]	#	#	#
VINDERIVED	PLANT CITY	PlantCity	N/A	[Actual Value]	#	#	#
VINDERIVED	PLANT COMPANY NAME	PlantCompanyName	N/A	[Actual Value]	#	#	#
VINDERIVED	PLANT COUNTRY	PlantCountry	N/A	[Actual Value]	#	#	#
VINDERIVED	PLANT STATE	PlantState	N/A	[Actual Value]	#	#	#
VINDERIVED	PRETENSIONER	Pretensioner	N/A	[Actual Value]	#	#	#
VINDERIVED	REAR VISIBILITY CAMERA	RearVisibilityCamera	N/A	[Actual Value]	#	#	#
VINDERIVED	SEAT BELTS TYPE	SeatBeltsType	N/A	[Actual Value]	#	#	#
VINDERIVED	NUMBER OF SEAT ROWS	SeatRowsCount	N/A	[Actual Value]	#	#	#
VINDERIVED	NUMBER OF SEATS	SSeatsCount	N/A	[Actual Value]	#	#	#
VINDERIVED	SERIES	Series	N/A	[Actual Value]	#	#	#
VINDERIVED	SERIES2	Series2	N/A	[Actual Value]	#	#	#
VINDERIVED	TIRE PRESSURE MONITORING SYSTEM (TPMS)	TPMS	N/A	[Actual Value]	#	#	#
VINDERIVED	TRACK WIDTH	TrackWidth	N/A	[Actual Value]	#	#	#
VINDERIVED	TRACTION CONTROL	TractionControl	N/A	[Actual Value]	#	#	#
VINDERIVED	TRAILER BODY TYPE	TrailerBodyType	N/A	[Actual Value]	#	#	#
VINDERIVED	TRAILER LENGTH (FT.)	TrailerLengthFT	N/A	[Actual Value]	#	#	#
VINDERIVED	TRAILER TYPE CONNECTION	TrailerTypeConnection	N/A	[Actual Value]	#	#	#
VINDERIVED	TRANSMISSION SPEEDS	TransmissionSpeeds	N/A	[Actual Value]	#	#	#
VINDERIVED	TRANSMISSION STYLE	TransmissionStyle	N/A	[Actual Value]	#	#	#
VINDERIVED	TRIM	Trim	N/A	[Actual Value]	#	#	#
VINDERIVED	TRIM2	Trim2	N/A	[Actual Value]	#	#	#
VINDERIVED	TRUCK BED LENGTH (INCHES)	TruckbedLengthIN	N/A	[Actual Value]	#	#	#

Data Set	Variable Name	SAS Name	SAS Format Name	Attribute Label	SAS Code 2017	SAS Code 2018	SAS Code 2019
VINDERIVED	TRUCK BED TYPE	TruckBedType	N/A	[Actual Value]	#	#	#
VINDERIVED	TRUCK BODY CAB TYPE	TruckBodyCabType	N/A	[Actual Value]	#	#	#
VINDERIVED	VEHICLE NUMBER	VEHNO	N/A	[Actual Value]	#	#	#
VINDERIVED	VERSION NUMBER	VERSION	N/A	[Actual Value]	2	3	4
VINDERIVED	VEHICLE IDENTIFICAITON NUMBER	VIN	N/A	[Actual Value]	#	#	#
VINDERIVED	VIN DECODE ERROR CODE	VINDecodeError	N/A	[Actual Value]	#	#	#
VINDERIVED	VIN DECODED ON	VINDecodedOn	DATETIME22.3	[Actual Value]	#	#	#
VINDERIVED	VEHICLE DESCRIPTOR	VehicleDescriptor	N/A	[Actual Value]	#	#	#
VINDERIVED	VEHICLE TYPE	VehicleType	N/A	[Actual Value]	#	#	#
VINDERIVED	WORLD MANUFACTURER IDENTIFIER	WMI	N/A	[Actual Value]	#	#	#
VINDERIVED	WHEEL BASE (INCHES)	WheelBaseIN	N/A	[Actual Value]	#	#	#
VINDERIVED	WHEEL BASE TYPE	WheelBaseType	N/A	[Actual Value]	#	#	#
VINDERIVED	WHEEL BASE UPTO (INCHES)	WheelBaseUpToIN	N/A	[Actual Value]	#	#	#
VINDERIVED	NUMBER OF WHEELS	WheelsCount	N/A	[Actual Value]	#	#	#

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