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National Automotive Sampling System – General Estimates Data System

Analytical User's Manual

1988-2015

DISCLAIMER

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New in 2013-2015 NASS GES

Vehicle Identification Number (VIN) Decode File: Availability of 2013, 2014 and 2015 Data

NASS GES added a VIN Decode data file that provides additional vehicle information starting with the 2013 file year. This file contains information derived from VINs in the Vehicle and Parkwork files, and from new VINs obtained by linking the NASS GES vehicles with R L Polk & Co. vehicle registration files for vehicles with missing or erroneous VINs. Over 100 VIN decoded data elements were added when decoding the VINs using Polk's VINtelligence product. Descriptions of the data elements and their contents can be found in the Polk VINtelligence Deluxe Package and Field Descriptions documentation in Appendix H: VIN Decoded Data Elements.

Pedestrian and Bicyclist Data: Availability of 2014 and 2015 Data

The development of effective countermeasures to prevent pedestrian and bicyclist crashes is often hindered by State crash files that contain insufficient details about these types of crashes. To remedy this issue, Pedestrian and Bicycle Crash Typing was developed to describe the pre-crash actions of the involved parties to better define the sequence of events and precipitating actions leading to crashes between motor vehicles and pedestrians or bicyclists. In 2010, the National Highway Traffic Safety Administration adopted parts of a stand-alone crash typing application called Pedestrian and Bicycle Crash Analysis Tool (PBCAT) into its two records based data collection systems, the Fatality Analysis Reporting System (FARS) and the National Automotive Sampling System (NASS) General Estimates System (GES). PBCAT was developed by the Federal Highway Administration's contractor, the University of North Carolina Highway Safety Research Center (UNC-HSRC).

As part of the integration, NHTSA performed extensive quality control checks and analysis using the 2010 and 2011 data. The results of the analysis highlighted definitional differences between the PBCAT application and the coded data elements already included in FARS and NASS GES. As a result, NHTSA removed the Pbtype data file from the 2010 and 2011 FARS and NASS GES while research was conducted on how improvements could be made. Throughout the 2012 and 2013 data collection years, NHTSA continued to collect the pedestrian and bicycle data for internal use so that it could be monitored for consistency and stability. During this period NHTSA and FHWA worked collaboratively to identify issues and implement improvements. Following this period of research and evaluation, NHTSA began capturing new and improved pedestrian and bicyclist data beginning with the 2014 data collection year resulting in the following Pbtype data elements being reinstated.

- PB30 – Crash Type - Pedestrian
- PB31 – Crash Type Location - Pedestrian
- PB32 – Pedestrian Position
- PB33 – Pedestrian Initial Direction of Travel
- PB34 – Motorist Direction
- PB35 – Motorist Maneuver
- PB36 – Intersection Leg
- PB37 – Pedestrian Scenario
- PB38 – Crash Group – Pedestrian
- PB30B – Crash Type - Bicycle
- PB31B – Crash Location - Bicycle
- PB32B – Bicyclist Position
- PB33B – Bicyclist Direction
- PB38B – Crash Group - Bicyclist

The Ped/Bike Wizard Application

In FARS and NASS GES, pedestrian and bicycle crash typing is accomplished through a software application referred to as the Ped/Bike Wizard. The wizard is embedded within a larger set of elements collected for non-motorists (see FARS/NASS GES Coding and Validation Manual). The wizard is automatically presented when a non-motorist with a certain person type is entered from the set of seven non-motorist person types collected in FARS and NASS GES. The Ped/Bike Wizard application is only presented for the following four person types:

- Pedestrian
- Persons on Personal Conveyances
- Bicyclist
- Other Cyclist

By following on-screen prompts and clicking on choices in the wizard, the FARS Analyst or NASS GES Case Coder enters data into the file without typing each specific data element's attribute (numeric code) represented in this manual. In the data entry process, the FARS Analyst or NASS GES Case Coder must analyze each crash and recognize the appropriate selection in the hierarchy established by the sequence of screens in the wizard. Entry of the data elements and attributes in this manual is structured in the Ped/Bike Wizard such that the selections available on each successive entry screen are limited by the prior choices. Consequently, while all of the data elements collected by the Ped/Bike Wizard are defined in this manual, the wizard entry screens are limited by the FARS Analyst's or NASS GES Case Coder's selection at each step through the application.

Data Elements with Attribute Changes in 2015

Below is a list of NASS GES data elements that have substantial changes for 2015. Changes are denoted in bold typeface (bold/italics for additions, bold/strikethrough for deletions). More detailed information on each data element can be found in the FARS/NASS GES Coding and Validation Manual. NHTSA publishes these manuals for each year of data collection and they can be found at the following Url.

NCSA Publications - FARS/NASS GES Manuals and Documentation

DATA ELEMENT #	DATA ELEMENT NAME	SAS TABLE.NAME	COMMENTS
D24	Related Factors - Driver Level	Vehicle.DR_SF1, Vehicle.DR_SF2, Vehicle.DR_SF3, Vehicle.DR_SF4	▪ Updated attributes: 36 (Operating the Vehicle in an Erratic, Reckless or Negligent Manner or ~~**Operating at Erratic or Suddenly Changing Speeds**~~) and 59 (Getting Off/Out of ~~**or On/In to**~~ a Vehicle).
PC19	Critical Event - Precrash (Event)	Vehicle.P_CRASH2	▪ Modify attribute name: 52 (Traveling in Same Direction With Lower ~~**or**~~ Steady Speed).
P18B/ NM17B	Alcohol Test Type	Person.ATST_TYP	▪ Modify attribute name: 02 (~~**Breath [Breathalyzer "BAC"]**~~ to ***(Breath Test [AC])***.
P18C/ NM17C	Alcohol Test Result	Person.ALC_RES	▪ Format change from 2 to 3 numeric. ▪ Modify attribute numbering (Subfield 3) from 2 digit to 3 digit: 00***0***-93***0*** (Actual Value), ***940*** (.94 or Greater), ***996*** (Test Not Given), ***997*** (AC Test Performed, Results Unknown), ***998*** (Positive Reading with No Actual Value), ***995*** (Not Reported) and ***999*** (Unknown if Tested).
D21	Violations Charged	Violatn.MVIOLATN	▪ Added new attribute: ***10 (Use of Telecommunications Device)***.
NM13	Non-Motorist Safety Equipment	Safetyeq.MSAFEQMT	▪ Updated attributes: 3 - Reflective ~~**Equipment/**~~Clothing (jacket, backpack, etc) and Protective Pads ~~**Used**~~ (elbows, knees, shins, etc.).

Summary of the SAS Naming Changes in 2015

Locator Code	2014 SAS Name	New 2015 SAS Name	Data Element Name
		None	

The data elements in RED are new to 2015 NASS GES.
The data elements in BLUE are changed in 2015 NASS GES.

Introduction

One of the primary objectives of NHTSA is to reduce the staggering human toll and property damage that motor vehicle traffic crashes impose on our society. Crashes each year result in thousands of lives lost, hundreds of thousands of injured victims, and billions of dollars in property damage. Accurate data are required to support the development, implementation, and assessment of highway safety programs aimed at reducing this toll. NHTSA uses data from many sources, including the National Automotive Sampling System (NASS) General Estimates System (GES) which began operation in 1988. Providing data about all types of crashes involving all types of vehicles, the NASS GES is used to identify highway safety problem areas, provide a basis for regulatory and consumer information initiatives, and form the basis for cost and benefit analyses of highway safety initiatives.

The NASS GES obtains its data from a nationally representative probability sample selected from the more than five million police-reported crashes which occur annually. These crashes include those that result in a fatality or injury and those involving major property damage. Although various sources suggest that there are many more crashes that are not reported to the police, the majority of these unreported crashes involve only minor property damage and no significant personal injury. By restricting attention to police-reported crashes, the NASS GES concentrates on those crashes of greatest concern to the highway safety community and the general public.

This multi-year analytical user's manual provides documentation on the historical coding practices of the NASS GES from 1988 to 2015. In other words, this manual presents the evolution of NASS GES coding from inception through present. The manual includes the data elements that are contained in the NASS GES and other useful information that will enable the users to become familiar with the data system. FARS/NASS GES Coding and Validation Manuals provide more detailed definitions for each data element and attribute for a given year.

The compilation of NASS GES data for more than three decades has been a priority for NHTSA. These data store valuable information that have been preserved over time and are available for present and future use. This analytical user's manual should help improve the usefulness and accessibility of the NASS GES data. With the exception of personal notes, there is no reason to keep older versions of this reference manual. All information in earlier editions has been retained in this newer version.

NASS GES Operations

The National Automotive Sampling System General Estimates System data are obtained from a nationally representative probability sample selected from all police-reported crashes. The data system began operation in 1988 and was sunset on December 31, 2015. The Crash Report Sampling System (CRSS) builds on the retiring, long running NASS GES in 2016. To be eligible for the NASS GES sample, a police accident report (PAR) must be completed for the crash, and the crash must involve at least one motor vehicle traveling on a trafficway and must result in property damage, injury, or death.

The NASS GES is directed by the National Center for Statistics and Analysis (NCSA), which is a component of NHTSA. The data are obtained by NASS GES data collectors in 60 geographic sites across the United States. These data collectors make weekly, biweekly, or monthly visits to approximately 400 police agencies within the 60 sites, where they randomly sample about 60,000 PARs per year (this number may vary from year to year). During the visit the data collectors compile a list of all qualifying crashes reported since their last visit and then select a sample of these crashes. The collectors send copies of the PARs for the selected crashes to the NASS quality control centers for coding. No other data are collected beyond the selected PARs—no driver license, vehicle registration, or medical information is obtained. To protect individual privacy, no personal information such as names, addresses, specific crash location, etc., is coded.

Trained personnel interpret and code data directly from the PARs onto an electronic data file. The data are automatically checked when entered for acceptable range values and for consistency, enabling the analyst to make corrections immediately. Several programs continually monitor and improve the completeness and accuracy of the data.

Each coder uses a coding manual which provides a set of written instructions on how to transfer the information from a police accident/crash report (PAR) to the NASS GES data. To augment the coding manual, classes are held each year to train the coders and reinforce uniform coding practices.

After the data file is created, quality checks are performed on the data. When these are completed, the electronic data are made available to the public. The NASS GES data are also used to respond to requests from the international and national highway safety communities, State and local governments, the Congress, Federal agencies, research organizations, industry, the media, and private citizens. Annual NASS GES data files are available for 1988 to 2015.

NASS GES Sample Design

The PARs from which the NASS GES data are coded are a probability sample of police-reported crashes that occurred in the United States. Since each crash that occurred in the survey year had a chance of being selected, the design makes it possible to compute not only national estimates but also probable errors associated with the estimates.

The selection of the sample of PARs for the NASS GES is accomplished in three stages. The first stage is a sample of geographic areas, called Primary Sampling Units (PSUs), from across the United States. A PSU is a central city, a county surrounding a central city, an entire county, or a group of contiguous counties. The NASS GES divides the United States into 1,195 PSUs. The PSUs are then grouped into categories according to the following geographic regions and types of PSUs.

- Geographic Region: Northeast, Midwest, South, and West
- Type: Large Central City, Large Suburban Area, and All Others.

The second stage of the design is a sample of police jurisdictions within each PSU. In most PSUs the number of police jurisdictions is more than can reasonably be visited by a data collector, so in most PSUs the police jurisdictions are sampled based upon probability proportional to the number of crashes investigated in the police jurisdiction. That is, as the number of crashes investigated increases, the probability of selecting that jurisdiction increases. An average of seven police jurisdictions have been selected within each PSU.

The third and final stage is the selection of crashes within the sampled police jurisdictions. The first step in this process is for the NASS GES data collector to compile a list of every crash that was reported in the police jurisdiction since their last visit. In some very large police jurisdictions the number of crashes is too large for each to be listed. In these jurisdictions the data collector selects a subsample of PARs, with those listed depending on the PAR number. These "listed" crashes are then grouped into 6 strata depending on the type of vehicle(s) involved, the severity of the injuries, and the tow status of the vehicle(s) involved. Within each of these six groups a systematic sample of crashes is selected, based on different sampling ratios.

From 2002 to the present, crashes have been grouped into six strata:

- Group 1L: NASS crashes where an occupant of a towed passenger vehicle is killed. This category also includes crashes where an occupant of a towed passenger vehicle received an incapacitating injury and is transported for treatment. If the crash involves two or more passenger vehicles, at least two passenger vehicles must be towed and at least one of the occupants of a towed passenger vehicle must receive an incapacitating injury and be transported for treatment. No medium or heavy trucks may be involved.
- Group 1M: NASS crashes not qualifying for Group 1L, but at least one occupant of a towed passenger vehicle is injured and transported for treatment. No medium or heavy trucks may be involved.
- Group 1N: NASS crashes not qualifying for Group 1L or Group 1M, but a passenger vehicle is towed. No medium or heavy trucks may be involved.
- Group 2: NASS crashes not qualifying for Group 1, involving at least one medium or heavy truck in which a vehicle was towed due to damage or at least one involved person had a police-reported injury of K, A, B, or C;
- Group 3: NASS crashes not qualifying for Group 1 or 2 in which none of the vehicles involved in the crash was a medium or heavy truck and at least one person involved in the crash had a police-reported injury of K, A, or B; and,

- Group 4: NASS crashes not qualifying for Group 1, 2, or 3, No one in the crash can receive a K, A, or B injury.

From 1990 to 2001 there were four strata:

- Group 1: NASS crashes involving at least one passenger vehicle, i.e., a passenger car, sport utility vehicle, pickup truck or van) towed due to damage from the crash scene and no medium or heavy trucks are involved.
- Group 2: NASS crashes not qualifying for Group 1 involving at least one medium or heavy truck in which a vehicle was towed due to damage or at least one involved person had a police-reported injury of K, A, B, or C.
- Group 3: NASS crashes not qualifying for Group 1 or 2 in which none of the vehicles involved in the crash was a medium or heavy truck and at least one person involved in the crash had a police-reported injury of K, A, or B.
- Group 4: NASS crashes not qualifying for Group 1, 2 or 3. No one in the crash can receive a K, A, or B injury.

In 1988 and 1989 there were three strata:

- Group 1: NASS crashes involving at least one passenger vehicle, i.e., a passenger car, sport utility vehicle, pickup truck or van) towed due to damage from the crash scene.
- Group 2: NASS crashes not qualifying for Group 1 in which at least one person involved in the crash had a police reported injury K, A or B. No passenger vehicles involved in the crash were towed due to damage.
- Group 3: NASS not qualifying for Group 1 or 2. No one in the crash can receive a K, A or B injury.

In 2015, approximately 57,078 PARs were sampled and coded.

A thorough discussion of the sample design can be found in the ***National Accident Sampling System General Estimates System Technical Note***, DOT HS 807 796. Available at:

National Accident Sampling System General Estimates System Technical Note

National Estimates

Since the NASS GES data are obtained from a probability sample of police-reported traffic crashes, national estimates can be made from these data. In order to calculate estimates of national crash characteristics, data from each PAR on the data file must be weighted. The national weight has been added to the data file for each PAR and is called "WEIGHT". Technically, this weight is the product of the inverse of the probabilities of selection at each of the three stages in the sampling process.

In 1995, the methodology for calculating the national weight in the NASS GES was evaluated. Based on 1992 State data obtained through State agencies for each of the 1,195 Primary Sampling Units (PSUs), it was determined that the number of fatal and injury crashes increased throughout the 12 geographical and urbanization areas, and that the changes were large enough to warrant some modification in procedures. PSUs in the NASS GES had not been reselected since the 1986 redesign because of the cost and time required to do so. To account for shifts in the distribution of crashes, the procedures used to stratify and select the PSUs in 1979 and 1986 were followed, without actually resampling the PSUs. Rather, the weights of the current PSUs were adjusted to reflect changes. The revised weights were phased into the 1993, 1994 and 1995 NASS GES data files. Therefore, estimates from the NASS GES for 1993-95 were revised.

Because some of the changes were so dramatic, NHTSA decided to make adjustments to the PSU weights every three years. For more information on reweighting of the PSUs in the NASS GES, refer to the research note, ***Reweighting of the Primary Sampling Units in the National Automotive Sampling System***, published September 1997.

The second round for making adjustments to the PSU weights was implemented in 1998. Some of the same procedures used in the first round also were used in the second round. Using 1995 State data obtained through State agencies, the number of fatal and injury crashes throughout the 12 regional and urbanization areas were evaluated. Overall, there was a decrease in the number of crashes. The PSU weights were revised to reflect the shift and the revised weights were phased into the 1996 and 1997 NASS GES data files. Therefore, estimates from the NASS GES for 1996-98 were revised.

A weight data element is provided in the NASS GES data files that produces the national estimates (see Case Weight in the Data Elements Definitions and Codes section).

The national estimates produced from NASS GES data may differ from the true values because they are based on a probability sample of crashes and not a census of all crashes. The size of these differences may vary depending on which sample of crashes was selected. The standard error of an estimate is a measure of the precision or reliability with which an estimate from this particular NASS GES sample approximates the results of a census.

It is impractical to compute a standard error for each national estimate crash characteristic. Instead, generalized standard errors for estimates of totals, and the method used to produce them, are provided in *Appendix C: Statistical Methods*.

For more information on NASS GES estimation and the reliability of these estimates, refer to the ***National Accident Sampling System General Estimates System Technical Note***, Report No. DOT HS 807 796. Available at:

https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/807796

NASS GES Imputation

The NASS GES data are obtained either directly from an item on the PAR or by interpreting the information provided in the PAR through reviewing the crash diagram, the Officer's written summary of the crash, or combinations of data elements on the PAR. Because of this interpretation, and because the police officer may not have entered some item of information or provided complete information, data can be missing. Different statistical procedures have been used on NASS GES data to complete values for unknown data: univariate imputation and hot-deck imputation from 1988 to 2009, and sequential regression imputation as instituted in 2010. A thorough discussion of the 2009 and earlier imputation procedures can be found in Imputation in the NASS General Estimates System, Report No. DOT HS 807 985. Available at:

https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/807796

The proportion of unknowns for a given data element varies from year to year. In some years the proportion is so low that it seems redundant to provide an imputed data element, however imputed data elements are not removed for those years to avoid rounds of removing and then reinstating data elements in the SAS data files.

The univariate imputation procedure was developed in SAS to randomly assign values to the unknowns in the same proportion as the known values for that one data element. Since these imputed values are randomly assigned the analyst should use them only for univariate frequency distributions. The following is an example of univariate imputation using the data element *EJECTION*. The original distribution might be:

No	**60**
Yes	**40**
Unknown	**5**
Total	**105**

The SAS univariate imputation program would assign values to the five unknown values in the following proportions:

No	**60/100**
Yes	**40/100**

The new data element, *EJECT_I* would have these values:

No	**63**
Yes	**42**
Total	**105**

Hot-deck imputation differs from univariate imputation in that the unknown values for a data element are replaced based on information from correlated data elements. For example, the hot-deck imputation program for *SEX* used the following correlated data elements: *AGE, HOUR, DAY OF WEEK, VIOLATIONS CHARGED, PERSON TYPE, SEATING POSITION, DRUG & ALCOHOL INVOLVEMENT, and NUMBER OF OCCUPANTS & VEHICLES INVOLVED*. When *SEX* was unknown for a person record, the hot-deck program searches for another record that has a set of data elements similar to the unknown sex record. When that record is found, the *SEX* value is used for the unknown *SEX* record.

From 1988 to 2009, hot-deck and univariate imputed data elements can be identified by the _H or _I suffix in their SAS names. Hot-deck imputed *Body Type* is labeled *BDYTYP_H* and univariate imputed *EJECTION* is labeled *EJECT_I*. The imputed data elements do not replace the originals; all original data elements still exist on the data files.

Imputation by sequential regression was instituted in 2010 using a software package called IVEware, developed at the University of Michigan. In this method, covariates are selected automatically using stepwise regression. Since it can be done in an automated fashion, this method replaced both univariate and hot-deck imputation in 2010. The only exception was body type, which was imputed in a univariate method. The specific data elements imputed are consistent with those imputed in 1998-2009, except for five derived data elements at the crash level that are no longer derived in 2010 (see table).

Starting in 2010, all imputed data elements except body type use the sequential regression method and are identified by the _IM suffix. As before, the imputed data elements do not replace the originals; all original data elements still exist on the data files.

The following table gives the summary of the SAS name changes from 2009 and prior to 2010:

SAS Data File	Label	Data Elements			Imputed Data Elements	
		2009 SAS Name	2010 SAS Name	2011-Later SAS Name	1998-2009	2010-Later
ACCIDENT	Alcohol Involved	ALCOHOL	ALCOHOL	ALCOHOL	ALCHL_I	ALCHL_IM
ACCIDENT	Roadway Alignment	ALIGNMNT	Deleted	Deleted	ALIGN_I	Discontinued
ACCIDENT	Day Of The Week	DAY_WEEK	DAY_WEEK	DAY_WEEK	WKDY_I	WKDY_IM
ACCIDENT	First Harmful Event	EVENT1	EVENT1	HARM_EV	EVENT1_I	EVENT1_IM
ACCIDENT	Hour	HOUR	HOUR	HOUR	HOUR_I	HOUR_IM
ACCIDENT	Light Condition	LGT_COND	LGT_COND	LGT_COND	LGTCON_I	LGTCON_IM
ACCIDENT	Manner Of Collision	MAN_COL	MAN_COL	MAN_COLL	MANCOL_I	MANCOL_IM
ACCIDENT	Maximum Injury Severity	MAX_SEV	MAX_SEV	MAX_SEV	MAXSEV_I	MAXSEV_IM
ACCIDENT	Minute	MINUTE	MINUTE	MINUTE	MINUTE_I	MINUTE_IM
ACCIDENT	Number Of Injured	NUM_INJ	NUM_INJ	NUM_INJ	NO_INJ_I	NO_INJ_IM
ACCIDENT	Roadway Grade	PROFILE	Deleted	Deleted	PROFIL_I	Discontinued
ACCIDENT	Relation To Junction	REL_JCT	changed in 2010	changed in 2010	RELJCT_I	changed in 2010
ACCIDENT	Relation To Junction - Within Interchange Area		RELJCT1	RELJCT1		RELJCT1_IM

SAS Data File	Label	Data Elements			Imputed Data Elements	
		2009 SAS Name	2010 SAS Name	2011-Later SAS Name	1998-2009	2010-Later
ACCIDENT	Relation To Junction - Junction		RELJCT2	RELJCT2		RELJCT2_IM
ACCIDENT	Speed Limit	SP_LIMIT	Deleted	Deleted	SPDLIM_H	Discontinued
ACCIDENT	Roadway Surface Condition	SUR_COND	Deleted	Deleted	SURCON_I	Discontinued
ACCIDENT	Traffic Control Devices	TRAF_CON	Deleted	Deleted	TRFCON_I	Discontinued
ACCIDENT	Atmospheric Condition	WEATHER	WEATHER	WEATHER	WEATHR_I	WEATHR_IM
VEHICLE	Body Type	BODY_TYP	BODY_TYP	BODY_TYP	BDYTYP_H	BDYTYP_IM
VEHICLE	Hit And Run	HIT_RUN	HIT_RUN	HIT_RUN	HITRUN_I	HITRUN_IM
VEHICLE	Area Of Impact - Initial	IMPACT	IMPACT1	IMPACT1	IMPACT_H	IMPACT1_IM
VEHICLE	Max Injury Severity	MAX_VSEV	MAX_VSEV	MAX_VSEV	MXVSEV_I	MXVSEV_IM
VEHICLE	Model Year	MODEL_YR	MODEL_YR	MOD_YEAR	MDLYR_I	MDLYR_IM
VEHICLE	Number Injured In Vehicle	NUM_INJV	NUM_INJV	NUM_INJV	NUMINJ_I	NUMINJ_IM
VEHICLE	Movement Prior To Critical Event	P_CRASH1	P_CRASH1	P_CRASH1	MANEUV_I	PCRASH1_IM
VEHICLE	Vehicle Role	VEH_ROLE	deleted in 2010	deleted in 2010	VROLE_I	deleted in 2010
VEHICLE	Driver Violations	VIOLATN	only in its own table	only in its own table	VLTN_I	deleted in 2010
VEHICLE	Driver Drinking In Vehicle	VEH_ALCH	VEH_ALCH	VEH_ALCH	V_ALCH_I	V_ALCH_IM
VEHICLE	Most Harmful Event	V_EVENT	V_EVENT	M_HARM	V_EVNT_H	VEVENT_IM
PERSON	Age	AGE	AGE	AGE	AGE_H	AGE_IM
PERSON	Ejection	EJECTION	EJECTION	EJECTION	EJECT_I	EJECT_IM
PERSON	Injury Severity	INJ_SEV	INJ_SEV	INJ_SEV	INJSEV_H	INJSEV_IM
PERSON	Police-Reported Alcohol Involvement	PER_ALCH	PER_ALCH	DRINKING	PERALC_H	PERALCH_IM
PERSON	Seating Position	SEAT_POS	SEAT_POS	SEAT_POS	SEAT_H	SEAT_IM
PERSON	Sex	SEX	SEX	SEX	SEX_H	SEX_IM

NASS GES SAS Data Files

NASS GES data are made available to the public in Statistical Analysis System (SAS) data files as well as database files. Over the years, changes have been made to the type of data collected and the way the data are presented in the data files. Some data files have been discontinued and new ones have been created. For the current data collection year there are 19 data files.

This manual describes the 19 current data files as well as previously discontinued data files. The 19 current data files are: Accident, Vehicle, Person, Parkwork, Pbtype, Cevent, Vevent, Vsoe, Distract, Factor, Drimpair, Nmimpair, Maneuver, Nmprior, Nmcrash, Safetyeq, Violatn, Vision and Damage data files. The following data files: Distract, Factor, Drimpair, Nmimpair, Maneuver, Nmprior, Nmcrash, Safetyeq, Violatn, Vision, and Damage contain data elements in which the analyst could code multiple responses. Hence, the FARS/NASS GES Coding and Validation Manual instructs coders to "select all that apply" for these data elements. Discontinued data files are included after the current data files. Some data files were replaced with similar data files and their data element history can be found in the replcement data files. These replacements include the Event data file that was replaced by the Cevent data file, the Parked data file that was replaced by the Parkwork data file and the Impair data file that was replaced with the Drimpair and Nmimpair data files.

The data files are presented with their data elements in the Data Elements Definitions and Codes section. For each of the data elements, a brief definition is provided along with any additional information which could assist analyses. SAS names and values are also provided for the data elements. Discontinued data elements are moved to the end of the data file.

The SAS data files and years of availability are:

- ***Accident*** - *(1988-current)*: This data file contains information about crash characteristics and environmental conditions at the time of the crash. There is one record per crash.
- ***Vehicle*** - *(1988-current)*: This data file contains information describing the in-transport motor vehicles and the drivers of in-transport motor vehicles who are involved in the crash: There is one record per in-transport motor vehicle. Parked and working vehicle information is in the Parkwork data file.
- ***Person*** - *(1988-current)*: This data file contains information describing all persons involved in the crash including motorists (i.e., drivers and passengers of in-transport motor vehicles) and non-motorists (e.g., pedestrians and pedalcyclists). It provides information such as age, sex, vehicle occupant restraint use, and injury severity. There is one record per person.
- ***Parkwork*** – *(2011-current)*: This data file was called the Parked data file from 2005-2010. It contains information about parked and working vehicles which were involved in GES crashes. A parked vehicle is a motor vehicle which is stopped off the roadway, i.e., parked off the roadway. A working vehicle is a motor vehicle involved in trafficway maintenance, construction, or utility activities. It excludes vehicles performing private maintenance, construction, or utility activities. Data users are strongly advised to consult the annual FARS/NASS GES Coding and Validation Manuals for a detailed discussion. There is one record per parked/working vehicle.
- ***Pbtype*** – *(2014-current):* This data set contains information about crashes between motor vehicles and pedestrians, people on personal conveyances and bicyclists. Data from the crash are enter into the Pedestrian and Bicycle Crash Analysis Tool (PBCAT). The output fields from PBCAT, including the pre-crash actions of the parties involved

(crash type), are included in this data set. There is one record for each pedestrian, bicyclist or person on a personal conveyance.

- ***Cevent*** - *(2010-current)*: This data file contains information for all of the qualifying events (both harmful and non-harmful) which occurred in the crash. This is a modification to the Event data file to include non-harmful events. This data file details the chronological sequence of events resulting from an unstabilized situation that constitutes a motor vehicle traffic crash. There is one record per event. Included in each record is a description of the event or object contacted (e.g., ran off road-right, crossed center line, guardrail, parked motor vehicle), the vehicles involved, and the vehicles' area of impact.
- ***Vevent*** - *(2010-current)*: This data file contains the sequence of events for each in-transport motor vehicle involved in the crash. This data file has the same data elements as the Cevent data file. In addition, this data file has a data element that records the sequential event number for each vehicle (VEVENTNUM). There is one record for each event for each in-transport motor vehicle.
- ***Vsoe*** – *(2011-current)*: This data file contains the sequence of events for each in-transport motor vehicle involved in the crash. This data file has a subset of the data elements contained in the Vevent data file (It is a simplified Vevent data file). There is one record for each event for each in-transport motor vehicle.
- ***Damage*** – *(2012-current):* This data set contains information about all of the areas on this vehicle that were damaged in the crash. There is one record per damaged area.
- ***Distract*** - *(2002-current)*: This data file contains information about driver distractions. There is at least one record per in-transport motor vehicle. Each distraction is a separate record.
- ***Drimpair*** - *(2011-current)*: This data file contains information about physical impairments of drivers of motor vehicles. There is one record per impairment and there is at least one record for each driver of an in-transport motor vehicle.
- ***Factor*** - *(2002-current)*: This data file contains information about vehicle circumstances which may have contributed to the crash. There is at least one record per in-transport motor vehicle. Each factor is a separate record.
- ***Maneuver*** - *(2002-current)*: This data file contains information about actions taken by the driver to avoid something or someone in the road. There is at least one record per in-transport motor vehicle. Each maneuver is a separate record.
- ***Violatn*** - *(2002-current)*: This data file contains information about violations which were charged to drivers. There is at least one record per in-transport motor vehicle. Each violation is a separate record.
- ***Vision*** - *(2002-current)*: This data file contains information about circumstances which may have obscured the driver's vision. There is at least one record per in-transport motor vehicle. Each obstruction is a separate record.
- ***Nmcrash*** - *(2010-current)*: This data file contains information about contributing circumstances or any improper actions of people who are not occupants of motor vehicles (e.g., pedestrians and bicyclists) noted on the PAR. There is one record per action and there is at least one record for each person who is not an occupant of a motor vehicle.
- ***Nmimpair*** - *(2011-current)*: This data file contains information about physical impairments of people who are not occupants of motor vehicles. There is one record per impairment and there is at least one record for each person who is not an occupant of a motor vehicle.

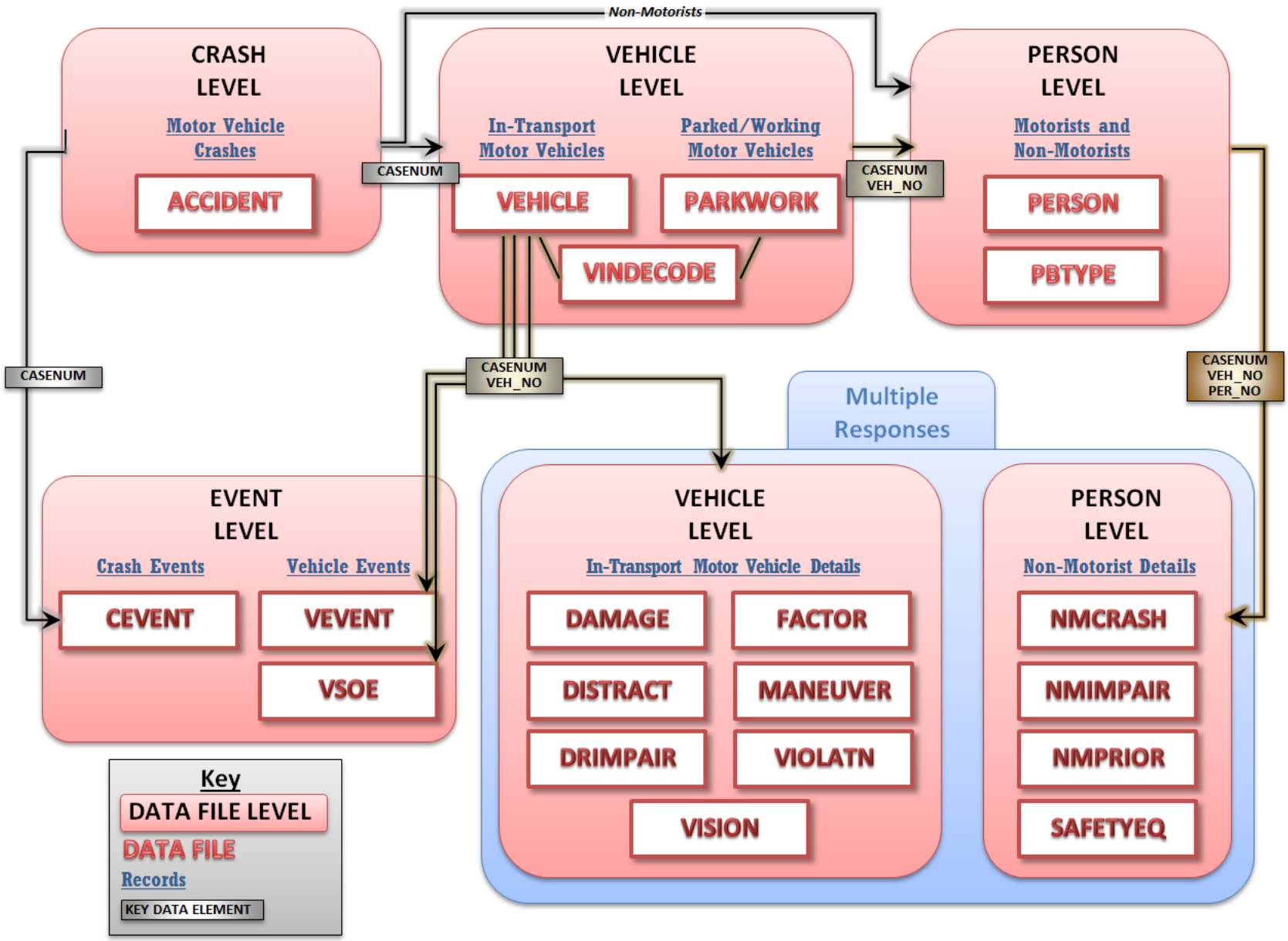
- ***Nmprior*** - *(2010-current)*: This data file contains information about the actions of people who are not occupants of motor vehicles (e.g., pedestrians and bicyclists) at the time of their involvement in the crash. There is one record per action and there is at least one record for each person who is not an occupant of a motor vehicle.
- ***Safetyeq*** - *(2002-current):* This data file contains information about safety equipment used by people who are not occupants of motor vehicles. There is one record per equipment item, and there is at least one record for each person who is not an occupant of a motor vehicle.
- ***Vindecode*** - *(2013-current)*: This data file contains vehicle descriptors for all vehicles, mainly passenger vehicles, trucks and motorcycles, based on the vehicle's VIN which is decoded using the VINtelligence program. There is one record per vehicle.

Discontinued Data Files

- ***Event*** - *(2000-2009)*: This data file contains information for each harmful event which occurred in the crash, including the vehicles or objects involved and the general area of damage. It details the chronological sequence of events resulting from an unstabilized situation that constitutes a motor vehicle traffic crash. There is one record per event. This data file was replaced with the Cevent data file in 2010. See the Cevent data file in the Data Element Definitions and Codes section for the element history of this data file.
- ***Nmaction*** - *(2002-2009)*: This data file contains information on actions of non-motorists that may have contributed to the crash. There is one record per action, and there is at least one record for each non-motorist.
- ***Trafcon*** – *(2002-2009)*: This data file contains information about traffic control devices for each in-transport motor vehicle in a crash. There is one record per traffic control device, and at least one record for every in-transport motor vehicle.
- ***Biketraf*** – *(2002-2010)*: This data file contains information about traffic control devices for each cyclist. There is one record per traffic control device, and at least one record for every cyclist.
- ***Impair*** - *(2002-2010)*: This data file contains information about physical impairments. From 2002 through 2009 this information is published for drivers and non-motorists (includes people in parked/working vehicles). Starting in 2010 this information is published for drivers and people who are not occupants of motor vehicles (does not include people in parked/working vehicles). There is one record per impairment and there is at least one record for each driver and non-motorist (2002-2009) or each driver and person who is not an occupant of a motor vehicle (2010). This data file was replaced in 2011 with the Drimpair and Nmimpair data files. See the Drimpair and Nmimpair data files in the Data Element Definitions and Codes section for the element history of this data file.
- ***Parked*** – *(2005-2010)*: This data file contains information about parked and working vehicles which were involved in GES crashes. A parked vehicle is a motor vehicle which is stopped off the roadway, i.e., parked off the roadway. The definition of working vehicles has changed over the study years. From 2005 to 2008 working vehicles were defined as transport devices being used as equipment which would be classified under ANSI D16.1-1996 as motor vehicles, if not being used as equipment. In 2009 the definition changed to include only vehicles involved in trafficway maintenance, construction, or utility activities. Also, vehicles performing private maintenance, construction, or utility activities were excluded. Data users are strongly advised to consult the annual FARS/NASS GES Coding and Validation Manuals for a detailed

discussion. There is one record per parked/working vehicle. This data file was replaced in 2011 with the Parkwork data file. See the Parkwork data file in the Data Element Definitions and Codes section for the element history of this data file.

- ***Parkevnt*** – *(2005-2010)*: This data file contains information about events in which parked/working vehicles are involved. The structure of this data file is similar to the Event data file (2005-2009) and the Cevent data file (2010), with one record per event involving a parked/working vehicle. However, there are several differences between Event/Cevent and Parkevnt. In Event/Cevent, struck parked/working vehicles are not individually identified. Instead, parked vehicles are coded as "parked vehicle or other motor vehicle not in-transport" (2005-2009) or "parked vehicle" (2010) and working motor vehicles are coded as non-fixed objects (2005-2008) or "parked vehicle or other motor vehicle not in-transport" (2009) or as "working motor vehicle" (2010). In Parkevnt each parked/working vehicle is identified by parked vehicle number, event number, and case number. Merging Event/Cevent and Parkevnt data files by CASENUM and EVENTNUM produces a list of events in which parked/working vehicles were involved and identifies the specific vehicles involved (both in-transport and parked/working).


Non-Motorists
CRASH LEVEL
Motor Vehicle Crashes
ACCIDENT
CASENUM
VEHICLE LEVEL
In-Transport Motor Vehicles
Parked/Working Motor Vehicles
VEHICLE
PARKWORK
VINDECODE
CASENUM VEH_NO
PERSON LEVEL
Motorists and Non-Motorists
PERSON
PBTYPE
CASENUM
CASENUM VEH_NO
CASENUM VEH_NO PER_NO
Multiple Responses
EVENT LEVEL
Crash Events
Vehicle Events
CEVENT
VEVENT
VSOE
VEHICLE LEVEL
In-Transport Motor Vehicle Details
DAMAGE
FACTOR
DISTRACT
MANEUVER
DRIMPAIR
VIOLATN
VISION
PERSON LEVEL
Non-Motorist Details
NMCRASH
NMIMPAIR
NMPRIOR
SAFETYEQ
Key
DATA FILE LEVEL
DATA FILE
Records
KEY DATA ELEMENT

NASS GES Data Element List

The following lists all SAS data elements with their SAS data file locations.

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C3A	Number of Persons Not in Motor Vehicles in Transport (MVIT)	PERNOTMVIT	41
C4	Number of Total Motor Vehicles	VE_TOTAL	42
C4A	Number of Motor Vehicles in Transport (MVIT)	VE_FORMS	42
C4B	Number of Parked/Working Vehicles	PVH_INVL	43
C5A	Number of Persons in Motor Vehicles in Transport (MVIT)	PERMVIT	44
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C8CI	Imputed Day of Week	WKDY_IM	46
C8D	Year of Crash	YEAR	46
C9A	Hour of Crash	HOUR	47
C9AI	Imputed Hour of Crash	HOUR_IM	47
C9B	Minute of Crash	MINUTE	48
C9BI	Imputed Minute of Crash	MINUTE_IM	48
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C19I	Imputed First Harmful Event	EVENT1_IM	51
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Data Element Definitions and Codes

This section represents the majority of the manual. It provides detailed information on the data elements, including definitions, SAS names, attribute codes and attribute labels. Over the years, changes have been made to the type of data collected. Some data elements have been dropped, new ones added, and coding of individual data elements has changed. Coding changes and the years for which individual data items are available are shown for each data element. The FARS/NASS GES Coding and Validation Manual contains a detailed description of each data element including coding instructions and attribute definitions. The Coding Manual is published for each year of data collection.

The data elements are listed here under the primary data file in which the data are stored. Some data elements are provided in more than one data file to facilitate common analyses. For example, Month of Crash (MONTH) is a crash-level data element but for convenience it is also provided in the Vehicle, Parkwork and Person files.

All data elements are numeric except the following which are character:

- V13 Vehicle Identification Number (VIN) *[12]*
- D6 Driver's ZIP Code (DZIPCODE) *[5],* 2002-2010, numeric all other years
- V16 & V16B Motor Carrier ID (MCARR_ID) *[11]*, (MCARR_I2) *[9]* Since 2002, numeric all prior years
- V200-V280 VIN decoded data elements in the Vindecode data file *[255]*

All of the data files contain the following seven crash-level data elements:

Key Data Elements

Case Number

Definition: This data element is the unique case number assigned to each crash. It appears on each data file and is used to merge information from the data files together.

Additional Information: This data element is assigned by the data entry system to each crash and is the unique identifier for the crash within the year. It is used as the key, when any two of these files from the same year are merged.

SAS Name: CASENUM

Attribute Codes

1988-Later

xx NASS GES Case Number

Primary Sampling Unit (PSU)

Definition: This data element identifies the general geographic location from where the police report was sampled. A PSU is either a large central city, a county surrounding a city, or a group of counties. There are 60 possible values ranging from 1 to 97.

Additional Information: See the section NASS GES Sample Design for more information.

SAS Name: PSU

Attribute Codes

1988-Later

1-97 Primary Sampling Unit Number

Primary Sampling Unit Stratum

Definition: The PSUs are grouped into 14 strata to reflect the first stage of the sample selection. This data element is used by statistical software packages that use complex sample design for calculating variances, such as SUDAAN and SAS V9.

Additional Information: Prior to 2011 this data element only appeared in the Accident and Vehicle data files.

See Appendix C: Statistical Methods for more information.

SAS Name: PSUSTRAT

Attribute Codes

1988-Later

1 to 14

Region of the Country

Definition: This data element identifies the region of the country where the crash occurred.

Additional Information: This data element is derived based on the State in which the Primary Sampling Unit is located where the crash occurred.

SAS Name: REGION

Attribute Codes

1988-Later

1 Northeast *(PA, NJ, NY, NH, VT, RI, MA, ME, CT)*
2 Midwest *(OH, IN, IL, MI, WI, MN, ND, SD, NE, IA, MO, KS)*
3 South *(MD, DE, DC, WV, VA, KY, TN, NC, SC, GA, FL, AL, MS, LA, AR, OK, TX)*
4 West *(MT, ID, WA, OR, CA, NV, NM, AZ, UT, CO, WY, AK, HI)*

C34 Case Stratum

Definition: This data element identifies the number of the category in which the PAR was originally listed in NASS GES PAR Program or Stratification Record.

Additional Information: See NASS GES Sample Design for more information.

Prior to 2015, this data element's Locator Code or Data Element Number was C33.

SAS Name: STRATUM

Attribute Codes

1988-1989

1 Group 1: NASS crashes involving at least one passenger vehicle, i.e., a passenger car, sport utility vehicle, pickup truck or van) towed due to damage from the crash scene.
2 Group 2: NASS crashes not qualifying for Group 1 in which at least one person involved in the crash had a police reported injury K, A or B. No passenger vehicles involved in the crash were towed due to damage.
3 Group 3: NASS not qualifying for Group 1 or 2. No one in the crash can receive a K, A or B injury.

1990-2001

1 Group 1: NASS crashes involving at least one passenger vehicle, i.e., a passenger car, sport utility vehicle, pickup truck or van) towed due to damage from the crash scene and no medium or heavy trucks are involved.
2 Group 2: NASS crashes not qualifying for Group 1 involving at least one medium or heavy truck in which a vehicle was towed due to damage or at least one involved person had a police-reported injury of K, A, B, or C.
3 Group 3: NASS crashes not qualifying for Group 1 or 2 in which none of the vehicles involved in the crash was a medium or heavy truck and at least one person involved in the crash had a police-reported injury of K, A, or B.
4 Group 4: NASS crashes not qualifying for Group 1, 2 or 3 . No one in the crash can receive a K, A, or B injury.

2002-Later

1 Group 1L: NASS crashes where an occupant of a towed passenger vehicle is killed. This category also includes crashes where an occupant of a towed passenger vehicle received an incapacitating injury and is transported for treatment. If the crash involves two or more passenger vehicles, at least two passenger vehicles must be towed and at least one of the occupants of a towed passenger vehicle must receive an incapacitating injury and be transported for treatment. No medium or heavy trucks may be involved
2 Group 2: NASS crashes not qualifying for Group 1 involving at least one medium or heavy truck in which a vehicle was towed due to damage or at least one involved person had a police-reported injury of K, A, B, or C.
3 Group 3: NASS crashes not qualifying for Group 1 or 2 in which none of the vehicles involved in the crash was a medium or heavy truck and at least one person involved in the crash had a police-reported injury of K, A, or B.
4 Group 4: NASS crashes not qualifying for Group 1, 2 or 3 . No one in the crash can receive a K, A, or B injury.

C33 Case Stratum *(continued)*

5 Group 1M: NASS crashes not qualifying for Group 1L, but at least one occupant of a towed passenger vehicle is injured and transported for treatment. No medium or heavy trucks may be involved.

6 Group 1N: NASS crashes not qualifying for Group 1L or Group 1M, but a passenger vehicle is towed and no medium or heavy trucks are involved.

C35 Police Jurisdiction (PJ)

Definition: This data element identifies the number of the police jurisdiction from which the PAR was originally sampled.

Additional Information: Prior to 2015, this data element's Locator Code or Data Element Number was C34.

SAS Name: PJ

Attribute Codes

1988-Later

1-120 Police Jurisdiction Number

Case Weight

Definition: This data element is used to produce national estimates from the data.

Additional Information: See the section National Estimates for more information.

SAS Name: **WEIGHT**

All of the vehicle level data files contain the preceding accident level data elements as well as VEH_NO:

V3/D3/PC3/P3/NM4 Vehicle Number

Definition: This data element is the consecutive number assigned to each vehicle in the case. This data element appears on each vehicle level data file and is used in conjunction with the CASENUM data element to merge information from vehicle level data files.

Additional Information: Starting in 2011, all vehicles (motor vehicles in-transport as well as parked/working vehicles) are sequentially ordered starting with 1. Prior to 2011, all motor vehicles in-transport were sequentially ordered starting with 1 and all parked/working motor vehicles were sequentially ordered separately starting with 1. The Vehicle Number of parked/working motor vehicles in the Parked data file (2005-2010) was identified by the SAS name PVEHNO.

SAS Name: **VEHNO** ***1988-2010***
VEH_NO ***2011-Later***

Attribute Codes

1988-2010	*2011-Later*	
0	0	Non-Motorist
1-100	1-999	Assigned Vehicle Number

All of the person level data files contain the preceding accident level and vehicle level data elements as well as PER_NO:

P4/NM3 Person Number

Definition: This data element is the consecutive number assigned to each person in the case (i.e., each occupant, pedestrian, or non-motorists involved in the crash). This data element appears on each person level data file and is used in conjunction with the CASENUM data element (and sometimes the VEH_NO data element) to merge information from person level data files.

Additional Information: This data element is computer assigned. Each occupant of the vehicle is numbered and each non-occupant is numbered; in the case of a non-occupant the vehicle number is zero. The numbers for occupants are consecutive, for each vehicle, beginning with 1. Numbers are never skipped. Drivers do not have to be coded 1. Non-occupants are identified by vehicle number 0 and are numbered consecutively starting with 1 for each non-motorist. To get drivers see data element PER_TYP, under Person Type.

SAS Name: **PERNO** ***1988-2010***
PER_NO ***2011-Later***

Attribute Codes

1988-Later

1-999 Assigned Person Number

The CEVENT and VEVENT data files contain the preceding crash level data elements as well as EVENTNUM:

C18 Event Number

Definition: This data element is the consecutive number assigned to each harmful and non-harmful event in a crash, in chronological order.

Additional Information: Prior to 2011 this data element was called "Crash Event Sequence Number" and only included harmful events. Qualifying events are those which involve an in-transport motor vehicle or an object set in motion by an in-transport motor vehicle.

Prior to 2015, this data element's Locator Code or Data Element Number was C17.

SAS Name: EVENTNUM

Attribute Codes

2000-2010	*2011-Later*	
1-100	1-999	Event Number

The VEVENT and VSOE data files contain the preceding crash level data elements and VEH_NO as well as VEVENTNUM:

C18 Vehicle Event Number

Definition: This data element is the consecutive number assigned to each harmful and non-harmful event for this vehicle, in chronological order.

Additional Information: The vehicle's event number shows the chronological sequence of the qualifying harmful and non-harmful events involving a particular vehicle. Qualifying events are those which involve an in-transport motor vehicle or an object set in motion by an in-transport motor vehicle.

Prior to 2015, this data element's Locator Code or Data Element Number was C17.

SAS Name: VEVENTNUM

Attribute Codes

2011-Later	
1-999	Vehicle Event Number

The ACCIDENT Data File

The Accident data file includes crash data. It contains the data elements CASENUM, PSU, PSUSTRAT, STRATUM, REGION, WEIGHT, and PJ, which are described in beginning of the Data Element Definitions and Codes section. The Accident data file also contains the data elements on the following pages.

CASENUM is the unique case identifier for each record.

C3 Number of Persons Not in Motor Vehicles

Definition: This data element is the number of Person Forms (Not a Motor Vehicle Occupant) that are applicable to this case (i.e., non-occupants).

Additional Information: This represents the number of forms created for persons *not* in motor vehicles. It is the number of persons in the crash where "Person Type" is in (4, 5, 6, 7, 8, 10 or 19).

Note: Persons where "Person Type" = 3 (Occupant of a Motor Vehicle Not In-Transport) are *not* included in this data element but are counted in C3A below.

SAS Name: PEDS

Attribute Codes

2011-Later

0-99 Number of Persons Not in Motor Vehicles

C3A Number of Persons Not in Motor Vehicles in Transport (MVIT)

Definition: This data element is a count of the number of non-motorists in the crash. A non-motorist is defined as a pedestrian, a cyclist, an occupant of a motor vehicle not in-transport, a person riding a horse, an occupant of an animal drawn conveyance, person associated with non-motorist conveyance (e.g., baby carriage, skate board, wheelchair), or an other non-motorist (e.g., person outside a trafficway, person in a house).

Additional Information: This data element is calculated as the count of all persons in the crash where "Person Type" is in (3, 4, 5, 6, 7, 8, 10 or 19).

SAS Name: NON_INVL ***1988-2010***

PERNOTMVIT ***2011-Later***

Attribute Codes

1988-1998	***1999-Later***	
0-25	0-98	Number of Persons Not in Motor Vehicles in Transport

C4 Number of Total Motor Vehicles

Definition: This data element is the number of contact motor vehicles that the officer reported on the PAR as a unit involved in the crash.

Additional Information: This number represents all of the vehicles in the crash. This includes the vehicles in-transport which are documented in the Vehicle data file and the vehicles not in-transport which are documented in the Parkwork data file. This data element only appears in the Accident data file.

SAS Name: VE_TOTAL

Attribute Codes

2011-Later

001-999	Number of Vehicles in Crash

C4A Number of Motor Vehicles in Transport (MVIT)

Definition: This data element is a count of the number of motor vehicles in-transport involved in the crash. Legally parked vehicles are not included.

Additional Information: This data element is derived as the count of all vehicles in the crash where "Unit Type" = 1. It is the number of records in the Vehicle data file.

This data element also appears in the Vehicle and Person data files, and in the Parkwork data file as PVE_FORMS.

SAS Name: **VEH_INVL** ***1988-2010***

VE_FORMS ***2011-Later***

Attribute Codes

1988-2010	***2011-Later***	
1-100	1-999	Number of Vehicles

C4B Number of Parked/Working Vehicles

Definition: This data element is a count of the number of parked and working vehicles involved in the crash.

Additional Information: This data element is derived as the count of all vehicles in the crash where "Unit Type" is in (2, 3 or 4). It is the number of records in the Parkwork data file.

From 2005 to 2008 working vehicles were defined as transport devices being used as equipment which would be classified under ANSI D16.1-1996 as motor vehicles, if not being used as equipment. In 2009 the definition changed to include only vehicles involved in trafficway maintenance, construction, or utility activities. Also, vehicles performing private maintenance, construction, or utility activities were excluded.

SAS Name: PVH_INVL

Attribute Codes

2005-2010	*2011-Later*	
0-30	0-999	Number of Parked/Working Vehicles in the Crash

C5A Number of Persons in Motor Vehicles in Transport (MVIT)

Definition: This data element is a count of the number of motorists in the crash. A motorist is a driver, passenger or unknown occupant type of a motor vehicle in-transport.

Additional Information: This data element is derived as the count of all persons in the crash where "Person Type" is in (1, 2 or 9).

Note: Persons where "Person Type" = 3 (Occupant of a Motor Vehicle Not In-Transport) are *not* included in this data element.

SAS Name: PERMVIT

Attribute Codes

2011-Later

0-999	Number of Persons in Motor Vehicles In-Transport

C8 Crash Date

C8A Month of Crash

Definition: This data element records the month in which the crash occurred.

Additional Information: This data element also appears in the Vehicle and Person data files and in the Parkwork data file as PMONTH.

SAS Name: MONTH

Attribute Codes

1988-Later

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

C8C Day of Week

Definition: This data element records the day of the week on which the crash occurred.

Additional Information: This data element is derived from the SAS Weekday function. The SAS Weekday function returns the day of the week from a date.

SAS Name: **WEEKDAY** ***1988-2008***
DAY_WEEK ***2009-Present***

Attribute Codes

1988-Later

1	Sunday
2	Monday
3	Tuesday
4	Wednesday
5	Thursday
6	Friday
7	Saturday
9	Unknown

C8CI Imputed Day of Week

Definition: This imputed data element has the same definition and data element values as Day of Week, excluding value 9 for unknown day of week.

Additional Information: See the NASS GES Imputation section of this manual.

SAS Name: **WKDY_I** ***1988-2009***
WKDY_IM ***2010-Later***

C8D Year of Crash

Definition: This data element records the year in which the crash occurred.

Additional Information: In 1999 year of the crash was changed to a four digit code.

SAS Name: **YEAR**

Attribute Codes

1988-1998	***1999-Later***	
xx	xxxx	Year of the Crash

C9 Crash Time

C9A Hour of Crash

Definition: This data element records the hour at which the crash occurred.

Additional Information: Military time is used. Noon is coded as "12."

From 1988-2008 midnight was coded as HOUR=24 and MINUTE=0. Starting in 2009 midnight is coded as HOUR=0 and MINUTE=0. For all years, hour is coded 0 for one minute after midnight to fifty-nine minutes after midnight.

This data element also appears in the Vehicle and Person data files and in the Parkwork data file as PHOUR.

SAS Name: **HOUR**

Attribute Codes

1988-2008	*2009-Later*	
0-24	0-23	Hour
99	99	Unknown

C9AI Imputed Hour of Crash

Definition: This imputed data element has the same definition and data element values as Hour of the Crash, excluding value 99 for unknown hour.

Additional Information: See the NASS GES Imputation section of this manual.

SAS Name: **HOUR_I** ***1988-2009***
HOUR_IM ***2010-Later***

C9B Minute of Crash

Definition: This data element records the minutes after the hour at which the crash occurred.

Additional Information: This data element also appears in the Vehicle and Person data files and in the Parkwork data file as PMINUTE.

SAS Name: MINUTE

Attribute Codes

1988-Later

0-59	Minute
99	Unknown

C9BI Imputed Minute of Crash

Definition: This imputed data element has the same definition and data element values as Minute of the Crash, excluding value 99 for unknown minutes.

Additional Information: See the NASS GES Imputation section of this manual.

SAS Name: **MINUTE_I** ***1988-2009***
MINUTE_IM ***2010-Later***

C19 First Harmful Event

Definition: This data element describes the first injury or damage producing event of the crash.

Additional Information: "First Harmful Event" applies to the crash. "Most Harmful Event" (M_HARM) applies to the vehicle. "First Harmful Event," "Most Harmful Event," and the "Sequence of Events" data elements have the same harmful event attributes. The harmful event attributes were modified to be consistent. "Sequence of Events" also has non-harmful event attributes.

Starting in 2010, this data element is derived from the "Sequence of Events" data element as the first value that is not between codes 60 and 71 (non-harmful events). Prior to 2015, this data element's Locator Code or Data Element Number was C18.

This data element also appears in the Vehicle and Person data files and in the Parkwork data file as PHARM_EV.

SAS Name: **EVENT1** ***1988-2010***
HARM_EV ***2011-Later***

Attribute Codes

1988-1991	*1992-1998*	*1999-2008*	*2009*	*2010*	*2011-Later*	
NONCOLLISION						
1	1	1	1	1	1	Rollover/Overturn
2	2	2	2	2	2	Fire/Explosion
3	3	3	3	3	3	Immersion *(or Partial Immersion, Since 2012)*
4	--	4	4	4	4	Gas Inhalation
5	5	5	5	--	--	Jackknife
--	--	--	--	5	51	Jackknife *(Harmful to This Vehicle)*
6	6	6	6	--	--	Noncollision Injury *(Injured In Vehicle Or Fell From Vehicle)*
--	50	7	7	7	44	Pavement Surface Irregularity *(Ruts, Potholes, Grates, etc.)*
8	8	8	8	8	7	Other Noncollision
9	9	9	9	--	--	Noncollision-No Details
10	10	10	10	10	16	Thrown or Falling Object
--	--	--	--	11	6	Injured in Vehicle *(Non-Collision)*
--	--	--	--	12	72	Cargo/Equipment Loss or Shift *(Harmful to This Vehicle)*
--	--	--	--	--	73	Object Fell From Motor Vehicle In-Transport *(Since 2013)*
--	--	--	--	13	5	Fell/Jumped from Vehicle
COLLISION WITH OBJECT NOT FIXED						
21	21	21	21	21	8	Pedestrian
22	22	22	22	--	--	Cycle or Cyclist *(Pedalcyclist or Pedalcycle)*
--	--	--	--	22	9	Pedalcyclist
23	23	23	23	--	--	Railway Train
--	--	--	--	23	10	Railway Vehicle

C19 First Harmful Event *(continued)*

Attribute Codes

1988-1991	*1992-1998*	*1999-2008*	*2009*	*2010*	*2011-Later*	
24	24	24	24	--	--	Animal
--	--	--	--	24	11	Live Animal
--	--	--	--	49	49	Ridden Animal or Animal Drawn Conveyance
25	25	25	25	--	--	Motor Vehicle in Transport
26	26	26	26	--	--	Parked Motor Vehicle *(or Other M.V. Not in Transport)*
27	27	27	27	--	--	Other Type Non-Motorist
--	--	--	--	27	15	Non-Motorist on Personal Conveyance
--	--	--	47	--	--	Vehicle Occupant
28	28	28	28	28	18	Other Object Not Fixed
29	29	29	29	--	--	Object Not Fixed-No Details
--	--	--	--	29	14	Parked Motor Vehicle
--	--	--	--	30	45	Working Motor Vehicle
COLLISION WITH FIXED OBJECT						
31	31	31	31	31	58	Ground
32	32	32	32	32	19	Building
33	33	33	33	33	20	Impact Attenuator/Crash Cushion
34	34	34	34	--	--	Bridge Structure *(Bridge Pier/Abutment/Parapet End/Rail)*
35	35	35	35	--	--	Guardrail
36	36	36	36	--	--	Concrete Traffic Barrier or Other Longitudinal Barrier Type
--	--	--	--	36	25	Concrete Traffic Barrier
37	37	37	37	--	--	Post, Pole or Support *(Sign Post, Utility Post)*
38	38	38	38	--	--	Culvert or Ditch
39	39	39	39	39	33	Curb
40	40	40	40	40	35	Embankment
41	41	41	41	41	38	Fence
42	42	42	42	42	39	Wall
43	43	43	43	43	40	Fire Hydrant
44	44	44	44	44	41	Shrubbery
45	45	45	45	--	--	Tree
--	--	--	--	45	42	Tree *(Standing Only)*
46	46	46	46	46	17	Boulder
48	59	58	58	58	43	Other Fixed Object
49	59	59	59	--	--	Fixed Object, No Details
--	--	--	--	71	50	Bridge Overhead Structure
--	--	--	--	72	21	Bridge Pier or Support
--	--	--	--	73	23	Bridge Rail *(Includes Parapet)*
--	--	--	--	74	24	Guardrail Face
--	--	--	--	75	52	Guardrail End

C19 First Harmful Event *(continued)*

Attribute Codes

1988-1991	*1992-1998*	*1999-2008*	*2009*	*2010*	*2011-Later*	
--	--	--	--	76	57	Cable Barrier
--	--	--	--	77	26	Other Traffic Barrier
--	--	--	--	78	59	Traffic Sign Support
--	--	--	--	79	46	Traffic Signal Support
--	--	--	--	80	30	Utility Pole/Light Support
--	--	--	--	81	31	Other Post, Other Pole or Other Supports
--	--	--	--	82	32	Culvert
--	--	--	--	83	34	Ditch
--	--	--	--	84	48	Snow Bank
--	--	--	--	85	53	Mail Box
COLLISION WITH MOTOR VEHICLE IN TRANSPORT						
--	--	--	--	90	12	Motor Vehicle In-Transport
--	--	--	--	91	54	Motor Vehicle In-Transport Strikes or is Struck by Cargo, Persons or Objects Set-in-Motion from/by Another Motor Vehicle In-Transport
--	--	--	--	92	55	Motor Vehicle in Motion Outside the Trafficway
NOT REPORTED AND UNKNOWN						
97	--	--	--	--	--	Other – No Details *(1988-1989)*
--	--	--	--	97	--	Not Reported
99	99	99	99	99	99	Unknown

C19I Imputed First Harmful Event

Definition: This imputed data element has the same definition as First Harmful Event, excluding value 99 for unknown first harmful event and value 97 for not reported first harmful event.

Additional Information: See the NASS GES Imputation section of this manual.

Prior to 2015, this data element's Locator Code or Data Element Number was C18I.

SAS Name: **EVENT1_I** ***1988-2009***
EVENT1_IM ***2010-Later***

C20 Manner of Collision

Definition: This data element describes the orientation of two motor vehicles in-transport when they are involved in the "First Harmful Event" of a collision crash. If the "First Harmful Event" is not a collision between two motor vehicles in-transport it is classified as such.

Additional Information: Prior to 2015, this data element's Locator Code or Data Element Number was C19.

This data element also appears in the Vehicle and Person data files and in the Parkwork data file as PMAN_COLL.

SAS Name: **MAN_COL** ***1988-2010***
MAN_COLL ***2011-Later***

Attribute Codes

1988-1998	*1999-2009*	*2010*	*2011-Later*	
0	0	0	0	Not Collision with Motor Vehicle in Transport
1	1	--	--	Rear-End
--	--	1	1	Front-to-Rear
2	2	--	--	Head-On
--	--	2	2	Front-to-Front
3	3	3	10	Rear-to-Rear
4	4	4	6	Angle
5	5	5	7	Sideswipe, Same Direction
6	6	6	8	Sideswipe, Opposite Direction
--	--	7	9	Rear-to-Side
8	--	8	11	Other
9	9	9	99	Unknown
--	--	97	98	Not Reported

C20I Imputed Manner of Collision

Definition: This imputed data element has the same definition and data element values as "Manner of Collision," excluding value 99 (value 9 prior to 2011) for unknown manner of collision and value 98 (value 97 prior to 2011) for not reported manner of collision.

Additional Information: See the NASS GES Imputation section of this manual.

Prior to 2015, this data element's Locator Code or Data Element Number was C19I.

SAS Name: **MANCOL_I** ***1988-2009***
MANCOL_IM ***2010-Later***

C21 Relation to Junction

C21A Relation to Junction- Within Interchange Area

Definition: This data element identifies the crash's location with respect to presence in an interchange area. The coding of this data element is done in two sub-fields (see also C20B) and is based on the location of the "First Harmful Event" of the crash.

Additional Information: Prior to 2015, this data element's Locator Code or Data Element Number was C20A.

SAS Name: **RELJCT1**

Attribute Codes

2010-Later

0 No
1 Yes
8 Not Reported
9 Unknown

C21AI Imputed Relation to Junction- Within Interchange Area

Definition: This imputed data element has the same definition and data element values as Relation to Junction – Within Interchange Area excluding value 8 for not reported and 9 for unknown.

Additional Information: See the NASS GES Imputation section of this manual.

Prior to 2015, this data element's Locator Code or Data Element Number was C20BI.

SAS Name: **RELJCT1_IM**

C21B Relation to Junction- Specific Location

Definition: This data element identifies the crash's location with respect to presence in or proximity to components typically in junction or interchange areas. The coding of this data element is done in two sub-fields (see also C20A) and is based on the location of the "First Harmful Event" of the crash.

Additional Information: Prior to 2015, this data element's Locator Code or Data Element Number was C20B.

SAS Name: **REL_JCT** ***1988-2009***
RELJCT2 ***2010-Later***

Attribute Codes

1988-1991

0	Non-Junction
1	Intersection
2	Intersection Related
3	Interchange Area
4	Driveway, Alley Access, Etc.
5	Entrance/Exit Ramp
6	Rail Grade Crossing
8	Other
9	Unknown

1992-1994	***1995-1998***	***1999-2009***	
NON-INTERCHANGE AREA			
0	0	0	Non-Junction
1	1	1	Intersection
2	2	2	Intersection Related
3	3	3	Driveway, Alley Access, Etc.
4	4	4	Entrance/Exit Ramp
5	5	5	Rail Grade Crossing
	6	6	On A Bridge
		7	Crossover Related
8	8	8	Other, Non-interchange
9	9	9	Unknown, Non-interchange
INTERCHANGE AREA			
10	10	10	Non-Junction
11	11	11	Intersection
12	12	12	Intersection Related
13	13	13	Driveway, Alley Access, Etc.
14	14	14	Entrance/Exit Ramp
	16	16	On A Bridge
		17	Crossover Related
18	18	18	Other Location in Interchange
19	19	19	Unknown, Interchange Area
99	99	99	Unknown if Interchange

C21B Relation to Junction- Specific Location *(continued)*

2010-2012	*2013*	*2014-Later*	
1	1	1	Non-Junction
2	2	2	Intersection
3	3	3	Intersection Related
4	4	4	Driveway Access
5	5	5	Entrance/Exit Ramp Related
6	6	6	Railway Grade Crossing
7	7	7	Crossover Related
8	8	8	Driveway Access Related
16	16	--	Shared-Use Path or Trail
--	--	16	Shared-Use Path Crossing
17	17	17	Acceleration/Deceleration Lane
18	18	18	Through Roadway
19	19	19	Other Location Within Interchange Area
--	20	20	Entrance/Exit Ramp
98	98	98	Not Reported
99	99	99	Unknown

C21BI Imputed Relation to Junction- Specific Location

Definition: Starting in 2010, this imputed data element has the same definition and data element values as Relation to Junction – Specific Location, excluding value 98 for not reported and 99 for unknown. Prior to 2010, the single imputed variable has the same values as Relation to Junction (RELJCT) excluding values 9, 19, and 99.

Additional Information: See the NASS GES Imputation section of this manual.

Prior to 2015, this data element's Locator Code or Data Element Number was C20BI.

SAS Name: **RELJCT_I** ***1988-2009***
RELJCT2_IM ***2010-Later***

C22 Type of Intersection

Definition: This data element identifies and allows separation of various intersection types.

Additional Information: Prior to 2015, this data element's Locator Code or Data Element Number was C21.

SAS Name: TYP_INT

Attribute Codes

2010	*2011-2012*	*2013-Later*	
0	1	1	Not an Intersection
1	2	2	Four-Way Intersection
2	3	3	T-Intersection
3	4	4	Y-Intersection
4	5	5	Traffic Circle
5	6	6	Roundabout
6	7	7	Five-Point, or More
--	--	10	L-Intersection
7	8	98	Not Reported
9	9	99	Unknown

C23 Relation to Trafficway

Definition: This data element identifies the location of the crash as it relates to its position within or outside the trafficway based on the "First Harmful Event."

Additional Information: Prior to 2009, this data element was called "Relation to Roadway." Prior to 2015, this data element's Locator Code or Data Element Number was C22.

SAS Name: **REL_RWY** ***1988-2008***
REL_ROAD ***2009-Later***

Attribute Codes

1988-1998	*1999-2001*	*2002-2010*	*2011-Later*	
1	1	1	1	On Roadway
2	--	--	--	On Shoulder or Parking Lane
--	2	2	2	On Shoulder
3	--	--	--	Off Roadway/Shoulder/Parking Lane
4	3	3	3	On Median
--	4	4	4	On Roadside
--	5	5	5	Outside Trafficway
--	6	6	6	Off Roadway – Location Unknown
--	7	7	7	In Parking Lane/Zone
8	--	--	--	Other
--	8	8	8	Gore
--	--	9	11	Continuous Left Turn Lane
--	10	10	10	Separator
--	--	97	98	Not Reported
9	99	99	99	Unknown

C24 Work Zone

Definition: This data element identifies a motor vehicle traffic crash in which the first harmful event occurs within the boundaries of a work zone or on an approach to or exit from a work zone, resulting from an activity, behavior, or control related to the movement of the traffic units through the work zone.

Additional Information: This data element identifies a "Work Zone Accident" as defined in ANSI D16.1, 7th Edition. If the crash qualifies as a "Work Zone Accident" then the type of work activity is identified. Use of the codes does not imply that the crash was caused by the construction, maintenance, or work activity.

From 1995 to 2003 this data element indicated whether the first harmful event occurred in a construction area or work zone. From 2004 to 2008 it was expanded to identify first harmful events that were related to, but did not necessarily occur in, a construction or work zone. Starting in 2009 it describes a "Work Zone Crash".

Prior to 2015, this data element's Locator Code or Data Element Number was C23.

SAS Name: WRK_ZONE

Attribute Codes

1995-2003

0 No
1 Yes, First Harmful Event In a Construction or Work Zone

2004-2008

3 No
4 Yes, First Harmful Event in Work or Construction Zone
5 Yes, First Harmful Event Related to, But Not In, Work or Construction Zone
6 Yes, First Harmful Event is In or is Related to a Work or Construction Zone, But it is Not Known Which
9 Unknown

2009	*2010*	*2011*	*2012-Later*	
0	0	0	0	None
1	1	1	1	Construction
2	2	2	2	Maintenance
3	3	3	3	Utility
4	4	4	4	Work Zone, Type Unknown
--	7	8	--	Not Reported

C25 Light Condition

Definition: This data element records the type/level of light that existed at the time of the crash as indicated in the PAR.

Additional Information: Prior to 2015, this data element's Locator Code or Data Element Number was C24.

SAS Name: **LGHT_CON** ***1988-2008***
LGT_COND ***2009-Later***

Attribute Codes

1988-1998	*1999-2008*	*2009*	*2010-Later*	
1	1	1	1	Daylight
2	2	--	--	Dark
--	--	2	2	Dark – Not Lighted
3	3	3	3	Dark – Lighted
4	4	4	4	Dawn
5	5	5	5	Dusk
6	--	--	--	Dawn or Dusk
--	--	6	6	Dark – Unknown Lighting
--	--	7	7	Other
--	--	--	8	Not Reported
9	9	9	9	Unknown

C25I Imputed Light Condition

Definition: This imputed data element has the same definition and data element values as Light Condition, excluding value 9 for unknown light condition and value 8 for not reported light condition.

Additional Information: See the NASS GES Imputation section of this manual.

Prior to 2015, this data element's Locator Code or Data Element Number was C24I.

SAS Name: **LGTCON_I** ***1988-2009***
LGTCON_IM ***2010-Later***

C26 Atmospheric Conditions

Definition: This data element records the prevailing atmospheric conditions that existed at the time of the crash as indicated in the PAR.

Additional Information: This data element identifies up to two values. If more than two atmospheric conditions were reported, the two conditions that most affect visibility were selected. Accident.WEATHER1 and Accident.WEATHER2 are coded data elements, and Accident.WEATHER is derived from these two.

Prior to 2015, this data element's Locator Code or Data Element Number was C25.

See Appendix E: Rules for Derived Data Elements for an expanded explanation of this data element and how it is derived.

SAS Name: **WEATHER** ***1988-2009***
WEATHER , WEATHER1 , WEATHER2 ***2010-Later***

Attribute Codes

1988-2009

1	No Adverse Conditions
2	Rain
3	Sleet
4	Snow
5	Fog
6	Rain and Fog
7	Sleet and Fog
8	Other *(Smog, Smoke, Blowing Sand/Dust/Snow, Crosswind, Hail)*
9	Unknown

2010-2012	***2013-Later***	
0	0	No Additional Atmospheric Conditions
1	1	Clear
2	2	Rain
3	--	Sleet or Hail *(Freezing Rain or Drizzle)*
--	3	Sleet or Hail
4	4	Snow
5	5	Fog, Smog, Smoke
6	6	Severe Crosswinds
7	7	Blowing Sand, Soil, Dirt
8	8	Other
10	10	Cloudy
11	11	Blowing Snow
--	12	Freezing Rain or Drizzle
98	98	Not Reported
99	99	Unknown

C26I Imputed Atmospheric Conditions

Definition: This imputed data element has the same definition and data element values as Atmospheric Conditions, excluding value 99 (value 9 prior to 2010) for unknown atmospheric conditions and value 98 for not reported atmospheric conditions.

Additional Information: See the NASS GES Imputation section of this manual.

Prior to 2015, this data element's Locator Code or Data Element Number was C25I.

SAS Name: **WEATHR_I** ***1988-2009***
WEATHR_IM ***2010-Later***

C27 School Bus Related

Definition: This data element identifies if a school bus, or motor vehicle functioning as a school bus, is related to the crash.

Additional Information: The number of school bus related crashes may not equal the number of crashes with school buses involved. For example, if a vehicle goes around a stopped school bus and hits a pedestrian, the school bus usually will not be coded, but the crash is school bus related.

Prior to 2015, this data element's Locator Code or Data Element Number was C26.

This data element also appears on the Person data file starting in 2011.

SAS Name: **SCHL_BUS** ***1988-2008***
SCH_BUS ***2009-Later***

Attribute Codes

1988-2009	*2010*	*2011-2012*	*2013-Later*	
0	0	0	0	No
1	1	1	1	Yes
--	7	8	--	Not Reported

C32 Related Factors - Crash Level

Definition: This data element records factors related to the crash expressed by the investigating officer.

Additional Information: There are also vehicle-level-related factors in the Vehicle data file, VEH_SC1 and VEH_SC2 and driver-related factors, also in the Vehicle data file, namely DR_SF1, DR_SF2, DR_SF3, and DR_SF4. In addition there are person-related factors P_SF1, P_SF2, and P_SF3 in the Person data file.

The NASS GES analyst may have used any of the three data elements to code a related factor. One must test all three data elements to insure that the selected related factor is included.

Prior to 2015, this data element's Locator Code or Data Element Number was C31.

SAS Name: CF1, CF2, CF3

Attribute Codes

2012	*2013-Later*	
0	0	None
3	3	Other Maintenance or Construction-Created Condition
5	5	Surface Under Water
7	7	Surface Washed Out *(Caved in, Road Slippage)*
13	13	Aggressive Driving/Road Rage by Non-Contact Vehicle Driver
14	14	Motor Vehicle Struck by Falling Cargo or Something That Came Loose From or Something That Was Set in Motion by a Vehicle
15	15	Non-Occupant Struck by Falling Cargo, or Something Came Loose From or Something That Was Set In Motion by A Vehicle
16	16	Non-Occupant Struck Vehicle
17	17	Vehicle Set In Motion by Non-Driver
19	19	Recent Previous Crash Scene Nearby
20	20	Police-Pursuit-Involved
21	21	Within Designated School Zone
23	23	Indication of a Stalled/Disabled Vehicle
24	24	Unstabilized Situation Began and All Harmful Events Occurred Off of the Roadway
25	--	Toll Plaza Related
--	25	Toll Booth/Plaza Related
--	26	Backup Due to Prior Non-Recurring Incident
--	27	Backup Due to Prior Crash
--	28	Backup Due to Regular Congestion
99	99	Unknown

C33 Interstate Highway

Definition: This data element identifies whether the crash occurred on an interstate highway. Interstate highway is a Federal Highway Administration classification.

Additional Information: Prior to 2015, this data element's Locator Code or Data Element Number was C32.

SAS Name: INT_HWY

Attribute Codes

1988-Later

0 No
1 Yes
9 Unknown

C90 Maximum Injury Severity in Crash

Definition: This data element records the most severe injury of all persons involved in the crash, and is derived from "Injury Severity" in the Person data file.

Additional Information: The following order of severity has been used since 2001.

- 4-Fatal
- 3- Incapacitating
- 2-Non- incapacitating
- 1-Possible Injury
- 5-Injured, Unknown Severity
- 0-No Injury
- 6-Died Prior
- 9-Unknown if Injured
- 8-No Person Involved in the Crash

From 1999 to 2000 the priority was different: Unknown if Injured had priority over No Injury.

See Appendix E: Rules for Derived Data Elements for an expanded explanation of this data element and how it is derived.

SAS Name: MAX_SEV

Attribute Codes

1988-2009	*2010-2012*	*2013-Later*	
0	0	--	No Injury
--	--	0	No Apparent Injury
1	1	1	Possible Injury
2	2	--	Non-incapacitating Injury
--	--	2	Suspected Minor Injury
3	3	--	Incapacitating Injury
--	--	3	Suspected Serious Injury
4	4	4	Fatal
5	5	5	Injured, Severity Unknown
6	6	6	Died Prior to Crash
8	8	8	No Person Involved in the Crash
9	--	--	Unknown if Injured
--	9	9	Unknown if Injured/Not Reported

C90I Imputed Maximum Injury Severity in Crash

Definition: This imputed data element has the same definition and data element values as Maximum Injury Severity in Crash, excluding value 9 for unknown maximum injury severity.

Additional Information: See the NASS GES Imputation section of this manual.

This data element is derived from "Imputed Injury Severity" in the Person data file.

SAS Name: **MAXSEV_I** ***1988-2009***
MAXSEV_IM ***2010-Later***

C91 Number Known Injured in Crash

Definition: This data element records the number of persons injured in the crash and is derived by counting all persons with "Injury Severity" of (1, 2, 3, 4, or 5) in the crash. This count includes fatally injured occupants.

Additional Information: See Appendix E: Rules for Derived Data Elements for an expanded explanation of this data element and how it is derived.

SAS Name: NUM_INJ

Attribute Codes

1988-Later

0	No Person Injured/Property Damage Only Crash
x	Number of Known Injured
98	No Person Involved in the Crash
99	All Persons in Crash are Unknown If Injured.

C91I Imputed Number Known Injured in Crash

Definition: This imputed data element has the same definition and data element values as Number Known Injured in Crash, excluding value 99 for unknown number injured, which is imputed, and the attribute code 98, which is converted to code 0.

Additional Information: See the NASS GES Imputation section of this manual.

This data element is derived from "Imputed Injury Severity" in the Person data file.

SAS Name: **NO_INJ_I** ***1988-2009***
NO_INJ_IM ***2010-Later***

C92 Alcohol Involved in Crash

Definition: This data element records alcohol use for drivers, pedestrians, cyclists and other types of non-motorists (except occupants of motor vehicles not in-transport) involved in the crash. The data element is derived from "Police-Reported Alcohol Involvement" in the Person data file.

Additional Information: 8 (No Applicable Person) is coded if the crash involved only passengers of in-transport motor vehicles, occupants of motor vehicles not in-transport or unknown occupant types who are in an in-transport motor vehicle where there is no driver present.

See Appendix E: Rules for Derived Data Elements for an expanded explanation of this data element and how it is derived.

SAS Name: **ALCOHOL**

Attribute Codes

1988-1990	*1991-1998*	*1999-Later*	
1	1	1	Alcohol Involved
2	2	2	No Alcohol Involved
8	--	8	No Applicable Person
9	9	9	Unknown

C92I Imputed Alcohol Involved in Crash

Definition: This data element has the same definition and data element values as Alcohol Involved in Crash, excluding value 9 for unknown alcohol involvement, which is imputed, and the value 8, which is converted to attribute code 2.

Additional Information: See the NASS GES Imputation section of this manual.

This imputed data element is derived from "Imputed Police-Reported Alcohol Involvement" in the Person data file.

SAS Name: **ALCHL_I** ***1988-2009***
ALCHL_IM ***2010-Later***

C105 Land Use

Definition: This data element records the population of the area associated with the police jurisdiction from which the accident report is selected.

Additional Information: The data element was temporarily discontinued in 2009. This data element is derived based on the PSU and police jurisdiction from which the crash is selected.

SAS Name: LAND_USE

Attribute Codes

1988-Later

1 Within Area of Population 25,000-50,000
2 Within Area of Population 50,000-100,000
3 Within Area of Population 100,000+
8 Other Area
9 Unknown

Discontinued ACCIDENT Data Elements

EMS On Scene (discontinued)

Definition: Indicates whether an EMS vehicle was present at the scene of the crash.

Additional Information: This data element was discontinued in 2009.

SAS Name: EMS

Attribute Codes

2005-2008

0 No
1 Yes
6 Not on PAR
7 Not Coded
9 Unknown

National Highway System (NHS) Roadway Type (discontinued)

Definition: This data element was added to indicate whether this roadway is designated as part of the National Highway System and the urban or rural character of the area through which the roadway travels.

Additional Information: This data element was added to the accident data file in 1995 and removed in 1999.

SAS Name: NHS_RWTP

Attribute Codes

1995-1998

00 Not NHS Roadway

URBAN

1 Eisenhower Interstate *(EIS)*
2 Congressional High Priority Route
3 STRAHNET Route
4 STRAHNET Major Connector
5 Other NHS Route
9 Unknown Urban Route

RURAL

11 Eisenhower Interstate *(EIS)*
12 Congressional High Priority Route
13 STRAHNET Route
14 STRAHNET Major Connector
15 Other NHS Route
19 Unknown Urban Route

URBAN OR RURAL

21 Eisenhower Interstate *(EIS)*
22 Congressional High Priority Route
23 STRAHNET Route
24 STRAHNET Major Connector
25 Other NHS Route
98 Unknown if Urban or Rural
99 Unknown if NHS Route

Number of Non-Motorists Coded (discontinued)

Definition: This data element is derived by counting the number of records for non-motorists in the Person data file for the crash.

Additional Information: A value 0 is coded when there were no non-motorists coded in the crash. This data element was discontinued in 1990.

SAS Name: NON_COD

Attribute Codes

1988-1989

x Number of Non-Motorists

Number of Persons Coded (discontinued)

Definition: This data element is derived from the number of records in the Person data file for the crash.

Additional Information: A value 0 is coded when there are no persons coded in the crash. This number may be less than number of persons involved because some States report only the number of injured occupants, but no further information. This data element was discontinued in 1990.

SAS Name: PER_COD

Attribute Codes

1988-1989

x Number of Persons

Number of Persons Involved (discontinued)

Definition: The number of persons involved in the crash.

Additional Information: The value 0 is coded when there are no persons involved in the crash. For example, if a parked vehicle slips into gear, rolls down a driveway and hits a vehicle parked on the street, the number of persons involved is 0. This data element was discontinued in 1990.

SAS Name: PER_INVL

Attribute Codes

1988-1989

0-98	Number of Persons
99	Unknown

Number of Travel Lanes (discontinued)

Definition: Indicates the number of lanes of travel. If the roadway is a divided trafficway, the number of travel lanes counts only lanes in the direction of travel of the first harmful event. If the roadway is an undivided trafficway, the number of travel lanes are all the lanes regardless of their direction of travel.

Additional Information: If the crash involves vehicles traveling on different trafficways (e.g., first harmful event occurred in an intersection), the trafficway coded is based on the roadway surface type and number of travel lanes of the trafficways involved and a determination of which vehicle contributed most the cause of the crash.

From 1999 through 2003, the coding instructions were to code the value indicated on the PAR. In 2004, the coding instructions were modified to code the value indicated on the PAR which best represents the environment just prior to the vehicle's critical precrash event.

The information for this data element was collected at the vehicle level starting in 1999. The vehicle level data elements first appeared in the SAS data files in 2002.

Starting in 2002 this information is also available for each vehicle in a crash. The data element VNUM_LAN is in the Vehicle data file.

Starting in 2010, this data element is discontinued in the Accident data file and is only available in the Vehicle data file.

See Appendix E: Rules for Derived Data Elements for an expanded explanation of this data element and how it is derived.

SAS Name: **NUM_LAN** ***1988-2008***
NO_LANES ***2009***

Attribute Codes

1988-2009

1 One Lane
2 Two Lanes
3 Three Lanes
4 Four Lanes
5 Five Lanes
6 Six Lanes
7 Seven or More Lanes
9 Unknown

Number of Vehicles Coded (discontinued)

Definition: This data element was derived by counting the number of vehicles listed in the Vehicle data file for a crash.

Additional Information: This data element was discontinued in 1990.

SAS Name: VEH_COD

Attribute Codes

1988-1989

x Number of Vehicles

Pedestrian/Cyclist Crash Type (discontinued)

Definition: This data element describes the crash situation involving the pedestrian/bicyclist.

Additional Information: SAS codes 1 through 99 pertain to cyclist crashes and 110 through 920 pertain to pedestrian crashes. In 1989 4-digit codes were added pertaining to wheelchair crashes. Wheelchair codes are similar to those for pedestrians, with a 1 added as the first digit. For example a pedestrian involved with a commercial bus is coded 110 and a wheelchair occupant involved with a commercial bus is coded 1110.

If more than one qualifying non-motorist is involved, the data element is coded with respect to the first one involved. Within the selected non-motorist type (pedestrian or cyclist) coding is prioritized in the order listed below, if more than one crash type applies.

SAS Name: PED_ACC

Attribute Codes

1988-2009

0 No pedestrian/cyclist involved
9999 First qualifying non-motorist is an unknown person type

CYCLIST:

40 Play Vehicle *(Big Wheel, Other Tricycle, or Bicyclist With Training Wheels)*
11 Motorist Backing
29 Parking Lot, Other Open Area Or Location Such As Gas Station
97 Unknown Whether Parallel Or Crossing Approach Path

PARALLEL PATH 1: MOTORIST TURNS OR MERGES INTO THE PATH OF THE CYCLIST

35 Drive out – on Street Parking
22 Motorist Left Turn in Front of Cyclist
23 Motorist Left Turn Facing Cyclist
24 Motorist Right Turn in Front of Cyclist
61 Motorist Changes Lanes into Cyclist *(Added in 2009)*

PARALLEL PATH 2 CYCLIST TURNS OR MERGES INTO THE PATH OF THE MOTORIST

3 Ride-out from Sidewalk
18 Cyclist Left Turn, in Front of Traffic
19 Cyclist Left Turn, Facing Traffic
21 Cyclist Right Turn, from Wrong Side of Street
62 Cyclist Changes Lanes into Motorist *(Added in 2009)*

PARALLEL PATH 3 OPERATOR IS ON THE WRONG SIDE OF THE STREET

30 Head-on, Counteractive Evasive Actions
28 Wrong Way Motorist
26 Wrong Way Cyclist

Pedestrian/Cyclist Crash Type *(continued)*

PARALLEL PATH 4 MOTORIST IS OVERTAKING THE CYCLIST

13 Motorist Overtakes Undetected Cyclist
15 Motorist Overtaking, Counteractive Evasive Actions
16 Motorist Overtaking, Misjudges Passing Space
17 Motorist Overtaking Cyclist, Path Obstructed
39 Motorist Overtaking

PARALLEL PATH 5 CYCLIST IS OVERTAKING A MOTOR VEHICLE

27 Cyclist Overtaking

PARALLEL PATH 6 OPERATOR LOSES CONTROL AND INADVERTENTLY SWERVES INTO THE PATH OF THE OTHER VEHICLE

14 Motorist Lost Control
20 Cyclist Lost Control
98 Parallel Path, Unknown Type

CROSSING PATH 1 CYCLIST DOES NOT CLEAR INTERSECTION BEFORE LIGHT TURNS GREEN FOR CROSS TRAFFIC

6 Trapped
7 Multiple Threat

CROSSING PATH 2 MOTORIST FAILS TO YIELD TO THE CYCLIST

8 Drive Out, Driveway/Alley
12 Drive Through
9 Drive Out, Stop Sign
10 Right on Red
48 Drive Out, Intersection

CROSSING PATH 3 CYCLIST FAILS TO YIELD TO THE MOTORIST, MIDBLOCK

1 Ride Out, Residential Driveway
2 Ride Out, Commercial Driveway
4 Ride Out, Midblock
60 Ride Out – Unknown Driveway Type *(Added in 2009)*

CROSSING PATH 4 CYCLIST FAILS TO YIELD TO THE MOTORIST AT AN INTERSECTION

5 Ride Out, Stop Sign
49 Ride Out, Intersection
50 Ride Through *(Added in 2009)*

CROSSING PATH 5 MOTORIST IS TURNING

33 Motorist Cuts Corner
34 Motorist Swings Wide

CROSSING PATH 6 CYCLIST IS TURNING

31 Cyclist Cuts Corner
32 Cyclist Swings Wide

Pedestrian/Cyclist Crash Type *(continued)*

CROSSING PATH 7 CRASH OCCURS AT AN INTERSECTION

55 Controlled Intersection, Other
25 Uncontrolled Intersection, Other
90 Unknown if Controlled or Uncontrolled *(Added in 2009)*
99 Crossing Path, Unknown Type

PEDESTRIAN	*WHEEL CHAIR*	
110	1110	Commercial Bus
120	1120	School Bus
130	1130	Ice Cream Vendor
140	1140	Mailbox Related
150	1150	Entering/Exiting
210	1210	Driverless Vehicle
220	1220	Backing Vehicle
230	1230	Hot Pursuit
310	1310	To/from Disabled Vehicle
320	1320	Disabled Vehicle Related
330	1330	Emergency Vehicle Related
410	1410	Working on Roadway
420	1420	Play Vehicle-Related
430	1430	Playing in Roadway
510	1510	Hitchhiking
520	1520	Expressway Crossing
531	1531	Walking/Running along Roadway with Traffic
532	1532	Walking/Running along Roadway against Traffic
539	1539	Walking/Running along Roadway Can't Specify
610	1610	Waiting to Cross At or Near Curb
620	1620	Pedestrian / Wheel Chair Not in Roadway
710	1710	Multiple Threat, Intersection
720	1720	Vehicle Turn/Merge – at Intersection
730	1730	Intersection Dash
740	1740	Trapped
750	1750	Pedestrian Walked /Wheel Chair Rolled into Vehicle, Intersection
760	1760	Intersection, Driver Violation
790	1790	Intersection-other
810	1810	Multiple Threat, Mid-block
821	1821	Mid-block Dart-out, First half
822	1822	Mid-block Dart-out, Second half
829	1829	Mid-block Dart-out, Can't specify
830	1830	Mid-block dash
840	1840	Pedestrian Walked / Wheel Chair Rolled into Vehicle, Mid-block
890	1890	Mid-block-other
910	1910	Other-weird
920	1920	Inadequate information

Percentage Rural (discontinued)

Definition:

Additional Information: This data element was discontinued in 1997.

SAS Name: RUR_URB

Attribute Codes

1988-1996

0	Rural
1	10 % of Area is Rural
2	20 % of Area is Rural
3	30 % of Area is Rural
4	40 % of Area is Rural
5	50 % of Area is Rural
6	60 % of Area is Rural
7	70 % of Area is Rural
8	80 % of Area is Rural
9	90 % of Area is Rural
10	100 % of Area is Rural

Roadway Alignment (discontinued)

Definition: Horizontal alignment of roadway in the immediate vicinity of the first harmful event.

Additional Information: If the crash involves vehicles traveling on different trafficways (e.g., first harmful event occurred in an intersection), the trafficway coded is based on the roadway surface type and number of travel lanes of the trafficways involved and a determination of which vehicle contributed most the cause of the crash.

From 1999 through 2003, the coding instructions were to code the value indicated on the PAR. In 2004, the coding instructions were modified to code the value indicated on the PAR which best represents the environment just prior to the vehicle's critical precrash event.

The information for this data element was collected at the vehicle level starting in 1999. The vehicle level data elements first appeared in the SAS data files in 2002.

Starting in 2002 this information is also available for each vehicle in a crash. The data element VALIGN is in the Vehicle data file.

Starting in 2010, this data element is discontinued in the Accident data file and is only available in the Vehicle data file.

See Appendix E: Rules for Derived Data Elements for an expanded explanation of this data element and how it is derived.

SAS Name: **ALIGN** ***1988-2008***
ALIGNMNT ***2009***

Attribute Codes

1988-2009

1 Straight
2 Curve
9 Unknown

Imputed Roadway Alignment (discontinued)

Definition: This imputed data element has the same definition and data element values as "Roadway Alignment," excluding value 9 for unknown roadway alignment.

Additional Information: See the NASS GES Imputation section of this manual.

SAS Name: **ALIGN_I**

Roadway Profile (discontinued)

Definition: Vertical alignment of roadway.

Additional Information: If the crash involves vehicles traveling on different trafficways (e.g., first harmful event occurred in an intersection), the trafficway coded is based on the roadway surface type and number of travel lanes of the trafficways involved and a determination of which vehicle contributed most the cause of the crash.

From 1999 through 2003, the coding instructions were to code the value indicated on the PAR. In 2004, the coding instructions were modified to code the value indicated on the PAR which best represents the environment just prior to the vehicle's critical precrash event.

The information for this data element was collected at the vehicle level starting in 1999. The vehicle level data elements first appeared in the SAS data files in 2002.

Starting in 2002 this information is also available for each vehicle in a crash. The data element VPROFILE is in the Vehicle data file.

Starting in 2010, this data element is discontinued in the Accident data file and is only available in the Vehicle data file.

See Appendix E: Rules for Derived Data Elements for an expanded explanation of this data element and how it is derived.

SAS Name: **PROFILE**

Attribute Codes

1988-2001	*2002-2009*	
1	1	Level
2	2	Grade *(Uphill, Downhill, Unknown Slope)*
3	3	Hillcrest
8	--	Other
--	8	Sag
9	9	Unknown

Imputed Roadway Profile (discontinued)

Definition: This imputed data element has the same as definition and data element values as "Roadway Profile," excluding value 9 for unknown roadway profile.

Additional Information: See the NASS GES Imputation section of this manual.

SAS Name: **PROFIL_I**

Roadway Surface Condition (discontinued)

Definition: Condition of road surface at the time of the crash.

Additional Information: If the crash involves vehicles traveling on different trafficways (e.g., first harmful event occurred in an intersection), the trafficway coded is based on the roadway surface type and number of travel lanes of the trafficways involved and a determination of which vehicle contributed most the cause of the crash.

From 1999 through 2003, the coding instructions were to code the value indicated on the PAR. In 2004, the coding instructions were modified to code the value indicated on the PAR which best represents the environment just prior to the vehicle's critical precrash event.

The information for this data element was collected at the vehicle level starting in 1999. The vehicle level data elements first appeared in the SAS data files in 2002.

Starting in 2002 this information is also available for each vehicle in a crash. The data element VSURCOND is in the Vehicle data file.

Starting in 2010, this data element is discontinued in the Accident data file and is only available in the Vehicle data file.

See Appendix E: Rules for Derived Data Elements for an expanded explanation of this data element and how it is derived.

SAS Name: **SUR_COND**

Attribute Codes

1988-2009

1 Dry
2 Wet
3 Snow or Slush
4 Ice
5 Sand, Dirt, Oil
8 Other
9 Unknown

Imputed Roadway Surface Condition (discontinued)

Definition: This imputed data element has the same definition and data element values as "Roadway Surface Condition," excluding value 9 for unknown roadway surface condition.

Additional Information: See the NASS GES Imputation section of this manual.

SAS Name: **SURCON_I**

Speed Limit (discontinued)

Definition: Posted speed limit in miles per hour.

Additional Information: If the crash involves vehicles traveling on different trafficways (e.g., first harmful event occurred in an intersection), the highest speed limit is coded.

From 1999 through 2003, the coding instructions were to code the value indicated on the PAR. In 2004, the coding instructions were modified to code the value indicated on the PAR which best represents the environment just prior to the vehicle's critical precrash event.

The information for this data element was collected at the vehicle level starting in 1999. The vehicle level data elements first appeared in the SAS data files in 2002.

Starting in 2002 this information is also available for each vehicle in a crash. The data element VSPD_LIM is in the Vehicle data file.

Starting in 2010, this data element is discontinued in the Accident data file and is only available in the Vehicle data file.

See Appendix E: Rules for Derived Data Elements for an expanded explanation of this data element and how it is derived.

SAS Name: **SPD_LIM** ***1988-2008***
SP_LIMIT ***2009***

Attribute Codes

1988-2009

0	No Statutory Limit *(Parking Lot, Alley, etc.)*
5-75	Actual Speed Limit
99	Unknown

Imputed Speed Limit (discontinued)

Definition: This imputed data element has the data element values as "Speed Limit," excluding value 99 for unknown speed limit.

Additional Information: See the NASS GES Imputation section of this manual.

SAS Name: **SPDLIM_H**

Traffic Control Device (discontinued)

Definition: Indicates whether or not a traffic control device was present for the crash and the type of traffic control device.

Additional Information: If the crash involves vehicles and cyclists subject to different traffic control devices, the device coded is based on the following priority:

- 51 - Officer, Crossing Guard, Flagman, etc
- The lowest numbered device shown below
- No traffic control device.

From 1999 through 2003, the coding instructions were to code the value indicated on the PAR. In 2004, the coding instructions were modified to code the value indicated on the PAR which best represents the environment just prior to the vehicle's critical precrash event.

The information for this data element was collected at the vehicle level starting in 1999. The vehicle level data elements first appeared in the SAS data files in 2002.

From 2002-2009, this information is also available on the Vehicle data file (Vehicle.VTRAFCON), the Biketraf data file (BTRAFCON) and the Trafcon data file (MTRAFCON).

Starting in 2010, this data element is discontinued in the Accident data file and is only available in the Vehicle data file.

See Appendix E: Rules for Derived Data Elements for an expanded explanation of this data element and how it is derived.

SAS Name: TRAF_CON

Attribute Codes

1988-1989	*1990-2009*	
0	0	No Controls
NOT AT RAILROAD GRADE CROSSINGTRAFFIC SIGNALS:		
TRAFFIC SIGNALS:		
--	1	Traffic Control Signal *(On Colors)*
1	--	Traffic Control Signal *(On Colors)* w/o Pedes. Signal
2	--	Traffic Control Signal *(On Colors)* w/ Pedes. Signal
3	--	Traffic Control Signal *(On Colors)* Pedes. Signal Not Known
4	4	Flashing Traffic Control Signal or Flashing Beacon
8	8	Other Traffic Signal
9	9	Unknown Traffic Signal
REGULATORY, SCHOOL ZONE OR WARNING SIGNS:		
11	21	Stop Sign
12	22	Yield Sign
13	23	School Zone Related Sign
14	--	Warning Sign

Traffic Control Device *(continued)*

Attribute Codes

1988-1989	*1990-2009*	
18	28	Other Sign
19	29	Unknown Sign
--	40	Advisory Speed Sign
--	41	Warning Sign For Road Conditions *(Hill, Steep Grade, Etc.)*
--	42	Warning Sign For Road Construction
--	43	Warning Sign For Environment/Traffic *(Fog Ahead, Wind, Crash Ahead, Etc.)*
--	49	Unknown Type Warning
MISCELLANEOUS NOT AT RAILROAD CROSSING:		
21	51	Officer, Crossing Guard, Flagman, etc
AT RAILROAD GRADE CROSSING:		
31	61	Active Devices *(e.g. Gates, Flashing Lights, Traffic Signal)*
32	62	Passive Devices *(Stop Sign, Cross Bucks)*
OTHER:		
97	97	Traffic Control Present-No Details
98	98	Other Traffic Control *(Whether Or Not At RR Grade Crossing)*
99	99	Unknown

Imputed Traffic Control Device (discontinued)

Definition: This imputed data element has the same definition and data element values as "Traffic Control Device," excluding value 99 for unknown traffic control device.

Additional Information: See the NASS GES Imputation section of this manual.

SAS Name: **TRFCON_I**

Traffic Control Device Functioning (discontinued)

Definition: This data element is a derived data element based on traffic control device from the crash data file. Traffic control device functioning attributes for vehicle(s)/"Bikes" with the same traffic control device as the crash data file are prioritized (1, 2, 3, 8, 9, 0) and the traffic control device functioning attribute with the highest priority selected.

Additional Information: From 1999 through 2003, the coding instructions were to code the value indicated on the PAR. In 2004, the coding instructions were modified to code the value indicated on the PAR which best represents the environment just prior to the vehicle's critical precrash event.

The information for this data element was collected at the vehicle level starting in 1999. The vehicle level data elements first appeared in the SAS data files in 2002.

Starting in 2010, this data element is discontinued in the Accident data file and is only available in the Vehicle data file.

See Appendix E: Rules for Derived Data Elements for an expanded explanation of this data element and how it is derived.

SAS Name: DEV_FUNC ***1988-1989***

Attribute Codes

1988-1989

0 No Controls
1 Device Not Functioning
2 Device Functioning
9 Unknown

Trafficway Flow (discontinued)

Definition: Indicates whether or not the roadway was divided.

Additional Information: If the crash involves vehicles traveling on different trafficways (e.g., first harmful event occurred in an intersection), the trafficway coded is based on the roadway surface type and number of travel lanes of the trafficways involved and a determination of which vehicle contributed most the cause of the crash.

From 1999 through 2003, the coding instructions were to code the value indicated on the PAR. In 2004, the coding instructions were modified to code the value indicated on the PAR which best represents the environment just prior to the vehicle's critical precrash event.

The information for this data element was collected at the vehicle level starting in 1999. The vehicle level data elements first appeared in the SAS data files in 2002.

Starting in 2002 this information is also available for each vehicle in a crash. The data element VTRAFWAY is in the Vehicle data file.

Starting in 2010, this data element is discontinued in the Accident data file and is only available in the Vehicle data file.

See Appendix E: Rules for Derived Data Elements for an expanded explanation of this data element and how it is derived.

SAS Name: **TRAF_WAY**

Attribute Codes

1988-2002	*2003-2009*	
0	--	Not Physically Divided *(Center 2-way Left Turn Lane)*
1	1	Not Physically Divided *(Two Way Trafficway)*
2	2	Divided Highway *(Median Strip, Barrier)*
3	3	One Way Trafficway
9	9	Unknown

The VEHICLE Data File

The Vehicle data file includes in-transport motor vehicle data as well as driver and precrash data. It contains the data elements CASENUM, PSU, PSUSTRAT, STRATUM, REGION, WEIGHT, PJ, and VEH_NO, which are described in the beginning of the Data Element Definitions and Codes section. The Vehicle data file also contains the data elements on the following pages.

CASENUM and VEH_NO are the unique identifiers for each record. CASENUM should be used to merge the Vehicle data file with the Accident data file. CASENUM and VEH_NO should be used to merge the Vehicle data file with other vehicle-level data files and the Person data file.

V4 Number of Occupants

Definition: This data element is a count of the number of occupants in this vehicle.

Additional Information: This data element also appears in the Parkwork data file as PNUMOCCS.

SAS Name: NUMOCCS

Attribute Codes

2000-2008	*2009-Later*	
0	0	None
1-998	1-95	Number of Occupants Involved
--	96	Ninety-six or More
--	97	Not Reported *(2010 Only)*
999	99	Unknown

V5 Unit Type

Definition: This data element identifies the type of unit that applies to this motor vehicle at the time it became an involved vehicle in the crash and was reported as a unit on the PAR.

Additional Information: This data element also appears in the Parkwork data file as PTYPE. The valid attributes for PTYPE are:

2 Motor Vehicle Not in Transport Within the Trafficway
3 Motor Vehicle Not in Transport Outside the Trafficway
4 Working Motor Vehicle *(Highway Construction, Maintenance, Utility Only)*

SAS Name: UNITTYPE

Attribute Codes

2011-Later

1 Motor Vehicle in Transport *(Inside or Outside the Trafficway)*

V6 Hit and Run

Definition: This data element identifies whether this vehicle was a contact vehicle in the crash that did not stop to render aid (this can include drivers who flee the scene on foot). Hit and run is coded when a motor vehicle in-transport, or its driver, departs from the scene; vehicles not in-transport are excluded. It does not matter whether the hit-and-run vehicle was striking or struck.

Additional Information: This data element also appears in the Parkwork data file as PHIT_RUN.

SAS Name: **HIT_RUN**

Attribute Codes

1988-2009	*2010*	*2011*	*2012-Later*	
0	0	0	0	No
1	1	1	1	Yes
--	7	8	--	Not Reported
9	9	9	9	Unknown

V6I Imputed Hit and Run

Definition: This imputed data element has the same definition and data element values as "Hit and Run," excluding value 9 for unknown hit and run and value 8 in 2011 (value 7 in 2010) for not reported hit and run.

Additional Information: See the NASS GES Imputation section of this manual.

SAS Name: **HITRUN_I** ***1988-2009***
HITRUN_IM ***2010-Later***

V9 Vehicle Make

Definition: This data element identifies the make (manufacturer) of this vehicle.

Additional Information: This data element also appears in the Person data file and in the Parkwork data file as PMAKE.

SAS Name: MAKE

Attribute Codes

1988-Later

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
19 Cadillac
20 Chevrolet
21 Oldsmobile
22 Pontiac
23 GMC
24 Saturn
25 Grumman
26 Coda *(Since 2013)*
29 Other Domestic Manufacturers
Avanti
Checker
DeSoto
Excalibur
Hudson
Packard
Panoz
Saleen
Studebaker
Stutz
Tesla (Since 2014)
30 Volkswagen
31 Alfa Romeo
32 Audi
33 Austin/Austin Healey
34 BMW
35 Datsun/Nissan
36 Fiat
37 Honda

V9 Vehicle Make *(continued)*

Attribute Codes

1988-Later

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 Diahatsu
61 Sterling
62 Land Rover
63 Kia
64 Daewoo
65 Mini *(2002-2007)*
65 Smart *(2008-Later)*
66 Mahindra *(2011-2013)*
67 Scion *(Since 2012)*
69 Other Import

Aston Martin
Bentley
Bertone
Bricklin
Bugatti
Caterham
Citroen
DeLorean
Desta
Ferrari
Fisker
Gazelle

V9 Vehicle Make *(continued)*

Attribute Codes

1988-Later

69 Other Import *(continued)*
- *Hillman*
- *Jensen*
- *Koenigsegg*
- *Lada*
- *Lamborghini*
- *Lotus*
- *Mahindra (Since 2013)*
- *Maserati*
- *Maybach*
- *McLaren*
- *Mini Cooper*
- *Morgan*
- *Morris*
- *Reliant (British)*
- *Rolls-Royce*
- *Simca*
- *Singer*
- *Spyker*
- *Sunbeam*
- *TVR*

70 BSA
71 Ducati
72 Harley-Davidson
73 Kawasaki
74 Moto-Guzzi
75 Norton
76 Yamaha
78 Other Make Moped
79 Other Make Motored Cycle
80 Brockway
81 Diamond Reo/Reo
82 Freightliner/White
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

V9 Vehicle Make *(continued)*

Attribute Codes

1988-Later

97 Not Reported
98 Other Make
Auto-Union-DKW
Carpenter
Collins Bus
DINA
Divco
Hino
Meyers Motors
Mid Bus
Neoplan
Orion
Oshkosh
Scania
Sterling
Think
UD
Van Hool
Western Star
99 Unknown Make

V10 Vehicle Model

Definition: This data element identifies the model of this vehicle within a given make.

Additional Information: This data element also appears in the Parkwork data file as PMODEL.

SAS Name: MODEL

Attribute Codes

1988-Later

See the current FARS/NASS GES Coding and Validation Manual for vehicle model codes. See the 2010 NASS GES Analytical User's Manual for make and model codes prior to the consolidation of FARS and NASS GES (and the standardization of these codes) in 2011.

V11 Body Type

Definition: This data element identifies a classification of this vehicle based on its general body configuration, size, shape, doors, etc.

Additional Information: Changes to this data element were made in:

- 1990: Attribute codes 11 and 12 were modified, attribute codes 13 Limousine and 22 Step Van or Walk-in Van were added, and attribute codes 33, 34, and 47 were deleted.
- 1992: Attribute codes 11, 12, 13, 14, 20, 21, 30, 31, 60, and 65 were modified.
- Attribute codes 15, 16, 17, 19, 23, 33, 45, and 64 were added. Some of the existing attribute coding changed.
- 1993: Attribute codes 24 and 25 were added. Prior to 1993 GVWR was measured in kilograms; in 1993 it changed to pounds.
- 1999: Attribute 17 was added.
- 2010: Attribute 98 (Not Reported) was added.
- 2011: Attribute 95 (Golf Cart) was added.

This data element also appears in the Person data file and in the Parkwork data file as PBODYTYP.

SAS Name: BODY_TYP

Attribute Codes

1988-1989

AUTOMOBILES

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 Other Automobile Type
9 Unknown Automobile Type

AUTOMOBILE DERIVATIVES

10 Auto Based Pickup *(Included El Camino, Caballero, Ranchero, And Brat)*
11 Auto Based Panel *(Cargo Station Wagon, Auto-Based Ambulance/Hearse)*
12 Large Limousine *(More Than Four Side Doors Or Stretched Chassis)*

UTILITY VEHICLES

14 Utility-*(Includes Jeep CJ-2-CJ7, Renegade, Landrover, Bronco, Landcruiser, Thing, Blazer, Bronco II, Jimmy, Ramcharger, Cherokee, Trailduster, Scout)*

VAN-BASED LIGHT TRUCKS (≤10,000 LBS GVWR)

20 Minivan *(Astro, Caravan, Plymouth Vista, Aerostar, Safari, Voyager, Dodge Vista, Toyota Cargo Van, Toyota Van, Vanagon, Vw Bus, Kombi)*
21 Standard Van *(Sportvan, Chevy Van, Club Wagon, Ford Econoline, Ram Van, Mini Ram Van, Chateau, Ram Wagon, Vandura, Rally Voyager, Beauville, Sportsman)*
28 Other Van Type
29 Unknown Van Type

V11 Body Type *(continued)*

Attribute Codes

1988-1989

LIGHT CONVENTIONAL TRUCKS (PICKUP STYLE CAB, ≤10,000 LBS GVWR)

30 Compact Pickup *(< 4,500 Lbs GVWR, S-10, LUV, Ram 50, Rampage, Courier, Ranger, S-5, Pup, Mazda Pickup, Mitsubishi Truck, Nissan Pickup, Arrow Pickup, Scamp, Toyota Pickup, VW Pickup)*
31 Standard Pickup *(4,500 to 10,000 Lbs GVWR, C10-C30, K10-K30, T10, D100-D300, W150, F100-F350, Comanche, J10, J20)*
32 Pickup With Slide-In Camper
33 Truck Based Station Wagon *(4-Door; Includes Suburban, Travelall, Wagoneer)*
34 Light Truck Based Suburban Limousine
39 Unknown *(Pickup Style)* Light Conventional Truck

OTHER LIGHT TRUCKS (<10,000 LBS GVWR)

40 Cab Chassis Based *(Included Rescue Vehicle, Light Stake, Dump, And Tow Truck)*
41 Truck Based Panel
42 Light Truck Based Motor Home *(Chassis Mounted)*
47 Other Light Conventional Truck Type *(Not A Pickup)*
48 Unknown Other Light Truck Type *(Utility, Van, Pickup, Or Other Light Truck)*
49 Unknown Light Vehicle Type *(Automobile, Van, Or Light Truck)*

BUSES (EXCLUDES VAN BASED)

50 School Bus Type *(Designed to Carry Students, Not Cross Country Or Transit)*
58 Other Bus *(e.g., Transit, Intercity, Bus Based Motor Home)*
59 Unknown Bus Type

MEDIUM/HEAVY TRUCKS (>10,000 LBS GVWR)

60 Single Unit Straight Truck
63 Medium/Heavy Truck Based Motor Home
65 Truck-Tractor *(Cab Only, Or With Any Number Of Trailing Units; Any WEIGHT)*
68 Unknown Medium/Heavy Truck Type
69 Unknown Truck Type *(Light/Medium/Heavy)*

MOTORED CYCLES (DOES NOT INCLUDE ALL TERRAIN VEHICLES/CYCLES)

70 Motorcycle
71 Moped *(Motorized Bicycle)*
72 Three Wheeled Motorcycle Or Moped
78 Other Motored Cycle Type *(Minibike, Motor Scooter)*
79 Unknown Motored Cycle Type

OTHER VEHICLES

80 ATV *(All-Terrain Vehicle Including Dune/Swamp Buggy)* And ATC *(All Terrain Cycle)*
81 Snowmobile
82 Farm Equipment Other Than Trucks
83 Construction Equipment Other Than Trucks *(Includes Graders)*
88 Other Type Vehicle *(Includes Go-Cart, Fork Lift, City Street Sweeper)*
89 Unknown Other Vehicle
99 Unknown Body Type

V11 Body Type *(continued)*

Attribute Codes

1990-1991

AUTOMOBILES

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 Other Automobile Type
9 Unknown Automobile Type

AUTOMOBILE DERIVATIVES

10 Auto Based Pickup *(Included El Camino, Caballero, Ranchero, And Brat)*
11 Ambulance
12 Hearse
13 Limousine

UTILITY VEHICLES

14 Utility-*(Includes Jeep CJ-2-CJ7, Renegade, Landrover, Bronco, Landcruiser, Thing, Blazer, Bronco II, Jimmy, Ramcharger, Cherokee, Trailduster, Scout)*

VAN-BASED LIGHT TRUCKS (≤ 10,000 LBS GVWR)

20 Minivan *(Astro, Caravan, Plymouth Vista, Aerostar, Safari, Voyager, Dodge Vista, Toyota Cargo Van, Toyota Van, Vanagon, Vw Bus, Kombi)*
21 Large Van *(Sportvan, Chevy Van, Club Wagon, Ford Econoline, Ram Van, Chateau, Ram Wagon, Vandura, Rally Voyager, Beauville, Sportsman)*
22 Step Van Or Walk-In Van *(< 10,000 Lbs GVWR)*
28 Other Van Type
29 Unknown Van Type

LIGHT CONVENTIONAL TRUCKS (PICKUP STYLE CAB, ≤ 10,000 LBS GVWR)

30 Compact Pickup *(S-10, LUV, Ram 50, Rampage, Courier, Ranger, S-5, Pup, Mazda Pickup, Mitsubishi Truck, Nissan Pickup, Arrow Pickup, Scamp, Toyota Pickup, VW Pickup)*
31 Standard Pickup *(C10-C30, K10-K30, T10, D100-D300, W150, F100-F350, Comanche, J10, J20)*
32 Pickup With Slide-In Camper
39 Unknown *(Pickup Style)* Light Conventional Truck

OTHER LIGHT TRUCKS (< 10,000 LBS GVWR)

40 Cab Chassis Based *(Included Rescue Vehicle, Light Stake, Dump, And Tow Truck)*
41 Truck Based Panel
42 Light Truck Based Motor Home *(Chassis Mounted)*
48 Unknown Other Light Truck Type *(Utility, Van, Pickup, Or Other Light Truck)*
49 Unknown Light Vehicle Type *(Automobile, Van, Or Light Truck)*

V11 Body Type *(continued)*

Attribute Codes

1990-1991

BUSES (EXCLUDES VAN BASED)

50 School Bus Type *(Designed to Carry Students, Not Cross Country Or Transit)*
58 Other Bus *(e.g., Transit, Intercity, Bus Based Motor Home)*
59 Unknown Bus Type

MEDIUM/HEAVY TRUCKS (>10,000 LBS GVWR)

60 Single Unit Straight Truck
63 Medium/Heavy Truck Based Motor Home
65 Truck-Tractor *(Cab Only, Or With Any Number Of Trailing Units; Any WEIGHT)*
68 Unknown Medium/Heavy Truck Type
69 Unknown Truck Type *(Light/Medium/Heavy)*

MOTORED CYCLES (DOES NOT INCLUDE ALL TERRAIN VEHICLES/CYCLES)

70 Motorcycle
71 Moped *(Motorized Bicycle)*
72 Three Wheeled Motorcycle Or Moped
78 Other Motored Cycle Type *(Minibike, Motor Scooter)*
79 Unknown Motored Cycle Type

OTHER VEHICLES

80 ATV *(All-Terrain Vehicle Including Dune/Swamp Buggy)* And ATC *(All Terrain Cycle)*
81 Snowmobile
82 Farm Equipment Other Than Trucks
83 Construction Equipment Other Than Trucks *(Includes Graders)*
88 Other Type Vehicle *(Includes Go-Cart, Fork Lift, City Street Sweeper)*
89 Unknown Other Vehicle
99 Unknown Body Type

1992-2009	***2010-Later***	
AUTOMOBILES		
1	1	Convertible *(Excludes Sun-Roof, T-Bar)*
2	2	2-Door Sedan, Hardtop, Coupe
3	3	3-Door/2-Door Hatchback
4	4	4-Door Sedan, Hardtop
5	5	5-Door/4-Door Hatchback
6	6	Station Wagon *(Excluding Van And Truck Based)*
7	7	Hatchback, Number Of Doors Unknown
17	17	3-Door Coupe *(SInce 1999)*
8	--	Other Automobile Type
--	8	Sedan/Hardtop, Number of Doors Unknown
9	--	Unknown Automobile Type
--	9	Other or Unknown Automobile Type

V11 Body Type *(continued)*

Attribute Codes

1992-2009	*2010-Later*	
		AUTOMOBILE DERIVATIVES
10	10	Auto Based Pickup *(Includes El Camino, Caballero, Ranchero, SSR, G8-ST, Baha, Brat, And Rabbit Pickup)*
11	11	Auto Based Panel *(Cargo Station Wagon, Auto-Based Ambulance/Hearse)*
12	12	Large Limousine *(More Than Four Side Doors Or Stretched Chassis)*
13	13	Three Wheel Automobile Or Automobile Derivative
		UTILITY VEHICLES
14	14	Compact Utility *(ANSI D-16 Utility Vehicle Categories "Small" and "Midsize")*
15	15	Large Utility *(ANSI D-16 Utility Vehicle Categories "Full Size" and "Large")*
16	16	Utility Station Wagon
19	19	Utility Vehicle, Unknown Body Type
		VAN-BASED LIGHT TRUCKS (< 4,536 KG GVWR)
20	20	Minivan
21	21	Large Van – Includes Van-Based Buses
22	22	Step Van Or Walk-In Van *(≤ 4,536 Kg GVWR)*
23	--	Van-Based Motor-Home
24	--	Van-Based School Bus *(Since 1993)*
25	--	Van-Based Transit Bus *(Since 1993)*
28	28	Other Van Type
29	29	Unknown Van Type
		LIGHT CONVENTIONAL TRUCKS (PICKUP STYLE CAB, ≤4,536 KG GVWR)
30	30	Compact Pickup *(S-10, LUV, Ram 50, Rampage, Courier, Ranger, S-5, Pup, Mazda Pickup, Mitsubishi Truck, Datsun/Nissan Pickup, Arrow Pickup, Scamp, Toyota Pickup, VW Pickup, D50, Colt P/U, T-10, S-15, T-15, Ram 100, Dakota, Sonoma)*
31	31	Standard Pickup *(C10-C35, Jeep P/U, Comanche, Ram P/U, K10-K35, D100-D350, W100-350, F100-F350, R100-500, R10-R35, V10-35, Silverado, Sierra, T100)*
32	32	Pickup With Slide-In Camper
33	33	Convertible Pickup
39	39	Unknown *(Pickup Style)* Light Conventional Truck
		OTHER LIGHT TRUCKS (≤4,536 KG GVWR)
40	40	Cab Chassis Based *(Included Rescue Vehicle, Light Stake, Dump, And Tow Truck)*
41	41	Truck Based Panel
45	45	Other Light Conventional Truck Type
48	--	Unknown Other Light Truck Type *(Utility, Van, Pickup, Or Other Light Truck)*
--	48	Unknown Light Truck Type *(Not A Pickup, 2010-2012)*
--	48	Unknown Light Truck Type *(Since 2013)*
49	49	Unknown Light Vehicle Type *(Automobile, Utility, Van, Or Light Truck)*

V11 Body Type *(continued)*

Attribute Codes

1992-2009	*2010-Later*	
BUSES (EXCLUDES VAN BASED BUSES WITH A GVWR < = 10,000 LBS.)		
50	50	School Bus *(Designed to Carry Students, Not Cross Country Or Transit)*
--	51	Cross Country/Intercity Bus *(i.e., Greyhound)*
--	52	Transit Bus *(City Bus)*
--	55	Van-Based Bus GVWR > 10,000 lbs. *(Since 2011)*
58	58	Other Bus Type *(e.g., Transit, Intercity, Bus Based Motor Home)*
59	59	Unknown Bus Type
MEDIUM/HEAVY TRUCKS (>4,536 KG GVWR)		
60	60	Step Van
--	61	Single-Unit Straight Truck *(10,000 lbs<GVWR< or =19,500 lbs) (2010 Only)*
--	61	Single-Unit Straight Truck or Cab-Chassis *(10,000 lbs<GVWR< or =19,500 lbs) (Since 2011)*
--	62	Single-Unit Straight Truck *(19,500 lbs<GVWR< or =26,000 lbs) (2010 Only)*
--	62	Single-Unit Straight Truck or Cab-Chassis *(19,500 lbs<GVWR< or =26,000 lbs) (Since 2011)*
--	63	Single-Unit Straight Truck *(GVWR>26,000 lbs) (2010 Only)*
--	63	Single-Unit Straight Truck or Cab-Chassis *(GVWR>26,000 lbs) (Since 2011)*
64	--	Single Unit Straight Truck
--	64	Single Unit Straight Truck or Cab-Chassis *(GVWR unknown) (Since 2011)*
66	66	Truck-Tractor *(Cab Only, Or With Any Number Of Trailing Units; Any Weight)*
--	67	Medium/Heavy Pickup *(GVWR > 10,000 lbs) (Since 2001)*
--	68	Single-Unit Straight Truck *(GVWR unknown) (2010 Only)*
--	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)*
78	78	Unknown Medium/Heavy Truck Type
79	79	Unknown Truck Type *(Light/Medium/Heavy)*
MOTOR HOMES		
42	42	Light Truck Based Motor Home *(Chassis Mounted)*
65	65	Medium/Heavy Truck-Based Motor Home
--	73	Camper or Motor Home, Unknown Truck Type
MOTORED CYCLES, MOPEDS, ALL-TERRAIN VEHICLES		
80	80	Motorcycle
81	81	Moped *(Motorized Bicycle)*
82	82	Three Wheeled Motorcycle Or Moped
--	83	Off-Road Motorcycle *(2-Wheel)*
88	88	Other Motored Cycle Type *(Minibike, Motor Scooter, Pocket Motorcycles, Pocket Bikes)*
89	89	Unknown Motored Cycle Type
90	90	ATV *(All-Terrain Vehicle; Includes 3 or 4 Wheels)*

V11 Body Type *(continued)*

Attribute Codes

1992-2009	*2010-Later*	
OTHER VEHICLES		
91	91	Snowmobile
92	92	Farm Equipment Other Than Trucks
93	93	Construction Equipment Other Than Trucks *(Includes Graders)*
--	94	Low Speed Vehicle *(LSV)*/Neighborhood Electric Vehicle *(NEV)* *(Since 2011)*
--	95	Golf Cart *(Since 2012)*
97	97	Other Vehicle Type *(Includes Go-Cart, Fork-Lift, City Street Sweeper, Dune/Swamp Buggy)*
--	98	Not Reported
99	99	Unknown Body Type

V11I Imputed Body Type

Definition: The attributes for this imputed data element have changed over the years to mirror the values for "Body Type," excluding values 49, 79, and 99 for unknown light vehicle type, unknown truck type (light/medium/heavy), and unknown body type, respectively, and value 98 for not reported body type.

Additional Information: See the NASS GES Imputation section of this manual.

SAS Name: **BDYTYP_H** ***1988-2009***
BDYTYP_IM ***2010-Later***

V12 Vehicle Model Year

Definition: This data element identifies the manufacturer's model year of this vehicle.

Additional Information: From 1988 to 1998, model years earlier than 1941 were coded "1940." Starting in 1999 the actual model year was coded for all vehicles.

This data element also appears in the Person data file and in the Parkwork data file as PMODYEAR (PMODELYR prior to 2011).

SAS Name: **MODEL_YR** ***1988-2010***
MOD_YEAR ***2011-Later***

Attribute Codes

1988-1998	*1999-2009*	*2010*	*2011-Later*	
1940	--	--	--	Model Year 1940 and Earlier
1941-xxxx	xxxx	xxxx	xxxx	Actual Model Year
--	--	7777	9998	Not Reported
9999	9999	9999	9999	Unknown

V12I Imputed Model Year

Definition: This imputed data element has the same definition and data element values as Model Year, excluding value 9999 for unknown model year and value 9998 (value 7777 in 2010) for not reported.

Additional Information: See the NASS GES Imputation section of this manual.

SAS Name: **MDLYR_I** ***1988-2009***
MDLYR_IM ***2010-Later***

V13 Vehicle Identification Number (VIN)

Definition: This data element records the vehicle identification number (VIN) of this vehicle assigned by the vehicle manufacturer. The VIN contains information on the vehicle such as: manufacturer, model year, model, body type, restraint type, etc.

Additional Information: From 1988 to 2008 the first 11 characters of the VIN are recorded; from 2009 onward the first 12 are used. The vehicle manufacturers use the VIN to describe certain characteristics of a vehicle and to assign a serial number to the vehicle.

If a character of the VIN is missing or undecipherable, that character is blank.

This data element also appears in the Parkwork data file as PVIN.

SAS Name: VIN

Attribute Codes

1988-2008 *(character data type, length 11)*
2009-Later *(character data type, length 12)*

1988-2008	***2009***	***2010-Later***	
00000000000	000000000000	000000000000	No VIN Required
xxxxxxxxxxx	xxxxxxxxxxxx	xxxxxxxxxxxx	First 12 Characters of the VIN
--	--	888888888888	Not Reported
99999999999	999999999999	999999999999	Unknown

V14 Vehicle Trailing

Definition: This data element identifies whether this vehicle had any attached trailing units or was towing another motor vehicle. A trailing unit can be a horse trailer, fifth wheel trailer, camper, boat, truck trailer, towed vehicle or any other trailer.

Additional Information: Prior to 2009 if each linkage was non-fixed then Vehicle Trailer=no.

This data element also appears in the Person data file and in the Parkwork data file as PTRAILER.

SAS Name: **TRAILER** ***1988-2008***
TOW_VEH ***2009-Later***

Attribute Codes

1988-1998	*1999-2008*	*2009-Later*	
0	1	0	No Trailing Units
1	2	1	Yes, One Trailing Unit
2	3	2	Yes, Two Trailing Units
3	4	3	Yes, Three or More Trailing Units
4	5	4	Yes, Number of Trailing Units Unknown
--	--	5	Vehicle Towing Another Motor Vehicle – Fixed Linkage
--	--	6	Vehicle Towing Another Motor Vehicle – Non-fixed Linkage
9	6	9	Unknown

V15 Jackknife

Definition: This data element identifies whether this vehicle experienced a jackknife anytime during the unstabilized situation.

Additional Information: Jackknife applies to a condition which occurs to a "semi" truck (i.e., cab and one or more trailers) while in motion. The condition reflects a loss of control of the truck by the driver in which the trailer yaws more than 15 degrees from its normal straight line path behind the cab. If the final resting configuration of the vehicle is in the jackknife position, it does not necessarily mean that the vehicle has jackknifed (such as, a crash occurring while the vehicle is backing up or parking).

SAS Name: **JACKNIFE** ***1988-2010***
J_KNIFE ***2011-Later***

Attribute Codes

1988-2010	*2011-Later*	
0	--	No Jackknife Noted on PAR
--	0	Not an Articulated Vehicle
1	--	Jackknife Occurred
--	1	No
--	2	Yes, First Event
--	3	Yes, Subsequent Event

V16 Motor Carrier Identification Number (MCID)

Definition: This data element records the issuing authority and motor carrier identification number (if applicable) to this vehicle.

Additional Information: This 11-character data element is the combination of two data elements, the 2-digit "Motor Carrier Issuing Authority" code (MCARR_I1) followed by the 9-character "Identification Number" (MCARR_I2).

The Carrier Identification Number is found only on vehicles of interstate for-hire or private carriers in the transportation business. It is the unique number assigned to the Carrier by the United States Department of Commerce Commission, or the State. The number can be either a US DOT number (on interstate private carriers) or an ICC MC number (interstate for-hire carriers). Collected only for buses and trucks over 4,500 kg GVWR (Bodytype (V5)= 60, 64, 66-79), this data element is applicable to the following vehicles:

- Medium/Heavy Trucks: vehicles with two axles/six tires and/or gross weight greater than 10,000 pounds.
- Buses with 16 or more seats (including the driver)
- Trucks and Vans of any size carrying hazardous cargo.
- Light commercial trucks pulling a trailer with gross combination weight rating (GCWR) greater than 10,000 pounds.

In 2002 the data element changed from numeric to character to preserve leading zeros. In 2003 the length was changed from 8 characters to 9 characters. In 2011 the length was changed from 9 characters to 11 characters with the first two characters representing the issuing authority followed by the nine character carrier identification number.

This data element also appears in the Parkwork data file as PMCARR_ID (PCARIDNO prior to 2011).

SAS Name: **C_ID_NO** ***1992-2001***
CARIDNUM ***2002-2009***
MCARR_ID ***2010-Later***

Attribute Codes

1992-2001

0	Not Applicable
xxxxxx	U.S. DOT or ICC MC Number
999999	Unknown

2002	***2003-2009***	***2010***	
00000000	000000000	000000000	Not Applicable
xxxxxxx	xxxxxxxx	1-999999996	U.S. DOT or ICC MC Number
--	--	999999997	Not Reported
99999999	999999999	999999999	Unknown

V16 Motor Carrier Identification Number (MCID) (*continued*)

Attribute Codes

2011-Later

xxxxxxxxxxx	11-Character Combination of MCARR_I1 followed by MCARR_I2
00000000000	Not Applicable
77777777777	Not Reported
88888888888	None
99999999999	Unknown

V16A MCID Issuing Authority

Definition: This data element records the issuing authority if applicable to this vehicle.

Additional Information: This data element is only applicable for the following vehicles:

- Medium/Heavy Trucks: vehicles with two axles/six tires and/or gross weight greater than 10,000 pounds.
- Buses with 16 or more seats (including the driver)
- Trucks and Vans of any size carrying hazardous cargo.
- Light commercial trucks pulling a trailer with gross combination weight rating (GCWR) greater than 10,000 pounds.

This data element also appears in the Parkwork data file as PMCARR_I1.

SAS Name: MCARR_I1

Attribute Codes

2011-Later

00	Not Applicable
01-56	State Code
57	US DOT
58	MC/MX *(ICC)*
77	Not Reported
88	None
95	Canada
96	Mexico
99	Unknown

V16B MCID Identification Number

Definition: This data element records the motor carrier identification number if applicable to this vehicle.

Additional Information: The Carrier Identification Number is found only on vehicles of interstate for-hire or private carriers in the transportation business. It is the unique number assigned to the Carrier by the United States Department of Commerce Commission, or the State. The number can be either a US DOT number (on interstate private carriers) or an ICC MC number (interstate for-hire carriers). Collected only for buses and trucks over 4,500 kg GVWR (Bodytype (V5)= 60, 64, 66-79), this data element is applicable to the following vehicles:

- Medium/Heavy Trucks: vehicles with two axles/six tires and/or gross weight greater than 10,000 pounds.
- Buses with 16 or more seats (including the driver)
- Trucks and Vans of any size carrying hazardous cargo.
- Light commercial trucks pulling a trailer with gross combination weight rating (GCWR) greater than 10,000 pounds.

This data element also appears in the Parkwork data file as PMCARR_I2.

SAS Name: MCARR_I2

Attribute Codes

2011-Later

xxxxxxxxx	Actual 9-Digit Number
000000000	Not Applicable
777777777	Not Reported
888888888	None
999999999	Unknown

V17 Gross Vehicle Weight Rating

Definition: This data element identifies the gross vehicle weight rating of this vehicle if applicable.

Additional Information: The Gross Vehicle Weight Rating (GVWR) or Gross Combination Weight Rating (GCWR) is a value specified by the manufacturer for a single-unit truck, truck tractor, or trailer. In the absence of a gross vehicle weight rating, an estimate of the gross weight of a fully loaded unit can be substituted.

This data element is the gross vehicle weight of the Power Unit only. The weight of trailers is not added.

This data element also appears in the Parkwork data file as PGVWR.

SAS Name: GVWR

Attribute Codes

2011-Later

0 Not Applicable
1 10,000 lbs or Less
2 10,001 lbs - 26,000 lbs
3 26,001 lbs or More
8 Not Reported
9 Unknown

V18 Vehicle Configuration

Definition: This data element describes the general configuration of this vehicle if applicable.

Additional Information: Not Applicable is used for automobiles, motorcycles, passenger vans (with less than 9 seats, including driver) and single-unit light trucks or cargo vans (10,000 lbs. or less GVWR), not carrying hazardous cargo.

This data element also appears in the Parkwork data file as PV_CONFIG.

SAS Name: V_CONFIG

Attribute Codes

2010	*2011-2012*	*2013-Later*	
0	0	0	Not Applicable
1	1	1	Single-Unit Truck *(2 axles and GVWR more than 10,000 lbs.)*
2	2	2	Single-Unit Truck *(3 or More axles)*
4	4	4	Truck Pulling Trailer(s)
5	5	5	Truck Tractor *(Bobtail, i.e., Tractor Only, No Trailer)*
6	6	6	Truck Tractor/Semi-Trailer
7	7	7	Truck Tractor/Double
8	8	8	Truck Tractor/Triple
10	10	10	Vehicle 10,000 lbs or Less Placarded for Hazardous Materials
19	19	19	Truck More than 10,000 lbs, Cannot Classify
20	20	20	Bus/Large Van *(Seats for 9-15 Occupants, Including Driver*)
21	21	21	Bus *(Seats for More Than 15 Occupants, Including Driver)*
97	98	--	Not Reported
99	99	99	Unknown

V19 Cargo Body Type

Definition: This data element describes the primary cargo carrying capability of this vehicle if applicable.

Additional Information: From 1992 to 2008 specific cargo body type was coded only for buses and trucks over 4,500 kg GVWR (Bodytype (V5)= 60, 64, 66-79). All other vehicles were coded "Not applicable." Starting in 2009 passenger vehicles and light trucks that display a hazardous cargo placard are coded "No Cargo Body Type," as are medium/heavy trucks with no cargo carrying capability. "Not Applicable" is coded only for passenger vehicles and light trucks and vans that do not display a hazardous cargo placard. Before 2009 "Unknown" was coded for both unknown cargo body type and unknown vehicle type. Starting in 2009 "Unknown" is coded only for unknown vehicle type.

This data element also appears in the Parkwork data file as PCARGTYP.

SAS Name: **CARG_TYP** ***1992-2008***
CARGO_BT ***2009-Later***

Attribute Codes

1992-2008	*2009-Later*	
0	0	Not Applicable
1	22	Bus
2	1	Van/Enclosed Box
3	2	Cargo Tank
4	3	Flatbed
5	4	Dump
6	5	Concrete Mixer
7	6	Auto Transporter
8	7	Garbage/Refuse
--	8	Grain/Chips/Gravel
--	9	Pole-Trailer
--	10	Log
--	11	Intermodal Container Chassis
--	12	Vehicle Towing Another Vehicle
--	28	Not Reported *(2010-2012)*
--	96	No Cargo Body
98	97	Other
--	98	Unknown Cargo Body Type
99	99	Unknown

V20A/HM1 Hazardous Materials Involvement

Definition: This data element identifies whether this vehicle was carrying hazardous materials.

Additional Information: This data element also appears in the Parkwork data file as PHAZ_INV.

SAS Name: **HAZ_INV**

Attribute Codes

2009-Later

1	No
2	Yes

V20B/HM2 Hazardous Materials Placard

Definition: This data element identifies the presence of hazardous materials for this vehicle and whether this vehicle displayed a hazardous materials placard.

Additional Information: Prior to 2009 Yes and No were coded only for buses and trucks over 4,500 kg GVWR (Bodytype (V5)= 60, 64, 66-79). Starting in 2009 body type was not a factor in coding this data element. From 2005-2008 the data element name was "Hazardous Materials Placarded."

This data element also appears in the Parkwork data file as PHAZPLAC (PHAZ_MAT prior to 2009).

SAS Name: **HAZ_MAT** ***2005-2008***
HAZ_PLAC ***2009-Later***

Attribute Codes

2005-2008	***2009-Later***	
0	0	Not Applicable
2	1	No
1	2	Yes
--	8	Not Reported
9	--	Unknown

V20C/HM3 Hazardous Material Identification Number

Definition: This data element identifies the 4-digit hazardous material identification number for this vehicle.

Additional Information: Prior to 2009 placard numbers were coded only for buses and trucks over 4,500 kg GVWR (Bodytype (V5)= 60, 64, 66-79). Other vehicles were coded "Not Applicable," or "Unknown" if body type was unknown. Starting in 2009 body type was not a factor in coding this data element. From 2005-2008 the data element name was "Hazardous Materials Placard Number."

This data element also appears in the Parkwork data file as PHAZ_ID (PHAZM_NO prior to 2009).

SAS Name: **HAZM_NO** ***1992-2008***
HAZ_ID ***2009-Later***

Attribute Codes

1992-2008	*2009-Later*	
0	0	Not Applicable
xxxx	xxxx	Actual 4-Digit Number
--	8888	Not Reported
9999	--	Unknown

V20D/HM4 Hazardous Material Class Number

Definition: This data element identifies the single-digit hazardous material class number for this vehicle.

Additional Information: This data element was added in 2009 and is coded for all vehicles.

This data element also appears in the Parkwork data file as PHAZ_CNO.

SAS Name: **HAZ_CNO**

Attribute Codes

2009-Later

0	Not Applicable
1	Explosives
2	Gases
3	Flammable / Combustible Liquid
4	Flammable Solid, Spontaneously Combustible, and Dangerous When Wet
5	Oxidizer and Organic Peroxide
6	Poison and Poison Inhalation Hazard
7	Radioactive
8	Corrosive
9	Miscellaneous
88	Not Reported

V20E/HM5 Release of Hazardous Material from the Cargo Compartment

Definition: This data element identifies whether any hazardous cargo was released from the cargo tank or compartment of this vehicle.

Additional Information: Prior to 2009 Yes and No were coded only for buses and trucks over 4,500 kg GVWR (Bodytype (V5)= 60, 64, 66-79). Other vehicles were coded Not Applicable, or Unknown if body type was unknown. Starting in 2009 body type is not a factor in coding this data element. Prior to 2009 the data element name was "Hazardous Materials Release."

This data element also appears in the Parkwork data file as PHAZ_REL (PHAZMA_R prior to 2009).

SAS Name: **HAZ_MA_R** ***2005-2008***
HAZ_REL ***2009-Later***

2005-2008	*2009-Later*	
0	0	Not Applicable
2	1	No
1	2	Yes
--	8	Not Reported
9	--	Unknown

V21 Bus Use

Definition: This data element describes the common type of bus service this vehicle was being used as at the time of the crash or the primary use for the bus if not in service at the time of the crash.

Additional Information: This data element also appears in the Parkwork data file as PBUS_USE.

SAS Name: BUS_USE

Attribute Codes

2010	*2011-Later*	
0	0	Not a Bus
1	1	School
4	6	Transit/Commuter
5	4	Intercity
6	5	Charter/Tour
7	7	Shuttle
8	8	Modified for Personal/Private Use
97	98	Not Reported
99	99	Unknown

V22 Special Use

Definition: This data element identifies any special use associated with this vehicle at the time of the crash.

Additional Information: All military vehicles are classified as "4" even if they are police, ambulance, or fire trucks. The Remarks and Attribute descriptions changed considerably in the 2009 Coding and Validation Manual. The analyst should compare the 2008 and 2009 NASS GES Coding and Validation Manuals for more detailed information.

This data element also appears in the Person data file and in the Parkwork data file as PSP_USE.

SAS Name: SPEC_USE

Attribute Codes

1988-1991	*1992-2008*	*2009*	*2010*	*2011*	*2012*	*2013-Later*	
0	0	0	0	0	0	0	No Special Use
1	1	1	1	1	1	1	Taxi
2	2	2	2	2	--	--	Vehicle Used as School Bus
--	--	--	--	--	2	2	Vehicle Used for School Transport
3	3	3	3	3	3	3	Vehicle Used as Other Bus
4	4	4	4	4	4	4	Military
5	5	5	5	5	5	5	Police
6	6	6	6	6	6	6	Ambulance
7	--	7	7	7	7	7	Fire Truck
--	7	--	--	--	--	--	Fire Truck and Car
8	--	--	--	--	--	--	Other
--	--	8	8	8	8	--	Emergency Services Vehicle
--	--	--	--	--	--	8	Non-Transport Emergency Services Vehicle
--	10	--	--	--	--	--	Hearse
--	11	--	--	--	--	--	Farm Equipment
--	12	--	--	--	--	--	Construction Equipment
--	--	--	--	--	--	13	Incident Response
--	--	--	77	98	98	98	Not Reported
9	99	9	99	99	99	99	Unknown

V23 Emergency Motor Vehicle Use

Definition: This data element identifies whether this vehicle was engaged in emergency use. Emergency Use indicates operation of any motor vehicle that is legally authorized by a government authority to respond to emergencies with or without the use of emergency warning equipment, such as a police vehicle, fire truck or ambulance while actually engaged in such response.

Additional Information: From 1988-2008 this includes military, police, ambulance, and fire vehicles. In 2009 it also includes emergency services vehicles. Value "0" is coded if an applicable vehicle was not on an emergency run or it was not one of the applicable vehicles.

Prior to 2013 this data element was called "Emergency Use".

This data element also appears in the Person data file and in the Parkwork data file as PEM_USE.

SAS Name: **EMCY_USE** ***1988-2008***
EMER_USE ***2009-Later***

Attribute Codes

1988-2009	*2010*	*2011-2012*	*2013*	*2014-Later*	
0	--	--	--	--	No Emergency Use or Not an Applicable Vehicle
--	0	0	--	--	No
--	--	--	0	0	Not Applicable
1	1	1	--	--	Yes
--	--	--	2	2	Non-Emergency, Non-Transport
--	--	--	3	3	Non-Emergency Transport
--	--	--	4	4	Emergency Operation, Emergency Warning Equipment Not In Use
--	--	--	5	5	Emergency Operation, Emergency Warning Equipment In Use
--	--	--	--	6	Emergency Operation, Emergency Warning Equipment in Use Unknown
--	7	8	8	8	Not Reported
9	9	9	9	9	Unknown

V24 Travel Speed

Definition: This data element records the speed the vehicle was traveling prior to the occurrence of the crash as reported by the investigating officer.

Additional Information:

SAS Name: **SPEED** ***1988-2008***
TRAV_SP ***2009-Later***

Attribute Codes

1988-1999

0	Stopped Vehicle
1-96	Travel Speed *(mph)*
97	97 mph or Greater
99	Unknown

2000-2008

0	Stopped Vehicle
1-998	Travel Speed *(mph)*
999	Unknown

2009-Later

0	Stopped Motor Vehicle in Transport
1-151	Reported Speed Up to 151 mph
997	Speed Greater than 151 mph
998	Not Reported
999	Unknown

V26 Rollover

Definition: This data element identifies this vehicle's involvement in a rollover or overturn during the crash. Rollover is defined as any vehicle rotation of 90 degrees or more about any true longitudinal or lateral axis. Rollover can occur at any time during the crash.

Additional Information: In 1992, Rollover was changed to include more specific rollover information. Prior to 2009 the data element name was 'Rollover Type'.

This data element also appears in the Person data file.

SAS Name: ROLLOVER

Attribute Codes

1992-2008	*2009-Later*	
0	0	No Rollover
--	1	Rollover, Tripped by Object/Vehicle
20	--	Tripped Rollover-by Curb
21	--	Tripped Rollover-by Guardrail
22	--	Tripped Rollover-by Ditch
23	--	Tripped Rollover-by Soft Soil
28	--	Tripped Rollover-Other
29	--	Tripped Rollover-Unknown Mechanism
10	2	Rollover, Untripped
99	9	Rollover, Unknown Type

V27 Location of Rollover

Definition: This data element identifies the location of the trip point or start of this vehicle's roll.

Additional Information:

SAS Name: ROLINLOC

Attribute Codes

2009-2010	*2011-Later*	
0	0	No Rollover
1	1	On Roadway
2	2	On Shoulder
3	3	On Median/Separator
4	4	In Gore
5	5	On Roadside
6	6	Outside of Trafficway
--	7	In Parking Lane/Zone
9	9	Unknown

V28A Initial Contact Point

Definition: This data element identifies the area on this vehicle that produced the first instance of injury to non-motorists or occupants of this vehicle, or that resulted in the first instance of damage to other property or to this vehicle.

Additional Information: This data element was added to the Vehicle data file in 1990. Prior to 2010 this data element was called "Initial Point of Impact". In the 2010 and 2011 Coding Manuals, it was called "Initial Damaged Area". Since 2012 it is called "Initial Contact Point". Starting in 2010, this data element is derived from the crash events for the vehicle. It is the first recorded "Area of Impact (This Vehicle)" value for this vehicle.

This data element also appears in the Person data file and in the Parkwork data file as PIMPACT1 (PIMPACT prior to 2010).

SAS Name: **IMPACT** ***1990-2009***
IMPACT1 ***2010-Later***

Attribute Codes

1990-1991	*1992-2006*	*2007-2009*	
0	--	--	No Damage/Non-Collision
--	0	0	Non-Collision
1	1	1	Front
2	2	2	Right Side
3	3	3	Left Side
4	4	4	Back
5	5	5	Top
6	6	6	Undercarriage
7	--	--	Corner
--	11	11	Front Right Corner
--	12	12	Front Left Corner
--	13	13	Back Right Corner
--	14	14	Back Left Corner
--	--	15	Object Set in Motion
99	99	99	Point of Impact Unknown

V28A Initial Contact Point *(continued)*

Attribute Codes

2010	*2011*	*2012*	*2013-Later*	
0	0	0	0	Non-Collision
21-32	1-12	1-12	1-12	Clock points
33	13	13	13	Top
34	14	14	14	Undercarriage
38	18	--	--	Set-in-Motion *(Not a Clock Point)*
--	--	18	--	Set-in-Motion *(Not a Clock Value)*
--	--	--	18	Cargo/Vehicle Parts Set-In-Motion
--	--	--	19	Other Objects Set-In-Motion
61	61	61	61	Left
62	62	--	--	Left-Front Half
--	--	62	62	Left-Front Side
63	63	--	--	Left-Back Half
--	--	63	63	Left-Back Side
81	81	81	81	Right
82	82	--	--	Right-Front Half
--	--	82	82	Right-Front Side
83	83	--	--	Right-Back Half
--	--	83	83	Right-Back Side
97	98	98	98	Not Reported
99	99	99	99	Unknown

V28AI Imputed Initial Contact Point

Definition: This imputed data element has the same definition and data element values as Initial Contact Point, excluding value 99 for unknown initial contact point and value 98 (value 97 in 2010) for not reported initial contact point.

Additional Information: See the NASS GES Imputation section of this manual.

SAS Name: **IMPACT_H** ***1988-2009***
IMPACT1_IM ***2010-Later***

V29 Extent of Damage

Definition: This data element records the amount of damage sustained by this vehicle as indicated on the PAR based on an operational damage scale.

Additional Information: Prior to 2009 this data element was called "Damage Severity."

This data element also appears in the Parkwork data file as PVEH_SEV.

SAS Name: **VEH_SEV** ***1988-2008***
DEFORMED ***2009-Later***

Attribute Codes

1988-2008	*2009*	*2010*	*2011-Later*	
0	0	0	0	No Damage
1	2	2	2	Minor Damage
2	--	--	--	Functional *(Moderate)*
--	4	4	4	Functional Damage
3	--	--	--	Disabling *(Severe)*
--	6	6	6	Disabling Damage
--	--	7	8	Not Reported
9	9	9	9	Unknown

V30 Vehicle Removal

Definition: This data element describes the mode by which this vehicle left the scene of the crash.

Additional Information: Prior to 2009 only the power unit of an articulated combination was considered, i.e. if only the trailing unit was towed then TOWED=Driven. Starting in 2009 the disposal status of the trailing unit is also considered. Prior to 2009 the data element name was "Manner of Leaving Scene."

This data element also appears in the Parkwork data file as PTOWED.

SAS Name: TOWED

Attribute Codes

1988-1989	*1999-2008*	*2009*	*2010*	*2011-2012*	*2013-Later*	
1	1	1	1	1	--	Driven Away
2	--	--	--	--	--	Towed Away
--	2	--	--	--	--	Towed Due to Damage
--	--	2	2	2	2	Towed Due to Disabling Damage
--	3	--	--	--	--	Towed Not Due to Damage
--	--	3	3	3	3	Towed Not Due to Disabling Damage
3	4	--	--	--	--	Abandoned
--	--	4	4	4	--	Abandoned/Left at Scene
--	--	--	--	--	5	Not Towed
--	--	--	7	8	8	Not Reported
4	9	9	9	9	9	Unknown

V32 Most Harmful Event

Definition: This data element describes the event that resulted in the most severe injury or, if no injury, the greatest property damage involving this vehicle.

Additional Information: "First Harmful Event," "Most Harmful Event," and the "Sequence of Events" data elements have the same harmful event attributes. The harmful event attributes were modified to be consistent. "Sequence of Events" also has non-harmful event attributes.

This data element also appears in the Parkwork data file as PM_HARM.

SAS Name: **V_EVENT** ***1988-2010***
M_HARM ***2011-Later***

Attribute Codes

1988-1991	*1992-1998*	*1999-2008*	*2009*	*2010*	*2011-Later*	
NONCOLLISION						
1	1	1	1	1	1	Rollover/Overturn
2	2	2	2	2	2	Fire/Explosion
3	3	3	3	3	3	Immersion *(or Partial Immersion, Since 2012)*
4	--	4	4	4	4	Gas Inhalation
5	5	5	5	--	--	Jackknife
--	--	--	--	5	51	Jackknife *(Harmful to This Vehicle)*
6	6	6	6	--	--	Noncollision Injury *(Injured In Vehicle Or Fell From Vehicle)*
--	50	7	7	7	44	Pavement Surface Irregularity *(Ruts, Potholes, Grates, etc.)*
8	8	8	8	8	7	Other Noncollision
9	9	9	9	--	--	Noncollision-No Details
10	10	10	10	10	16	Thrown or Falling Object
--	--	--	--	11	6	Injured in Vehicle *(Non-Collision)*
--	--	--	--	12	72	Cargo/Equipment Loss or Shift *(Harmful to This Vehicle)*
--	--	--	--	--	73	Object Fell From Motor Vehicle In-Transport *(Since 2013)*
--	--	--	--	13	5	Fell/Jumped from Vehicle
COLLISION WITH OBJECT NOT FIXED						
21	21	21	21	21	8	Pedestrian
22	22	22	22	--	--	Cycle or Cyclist *(Pedalcyclist or Pedalcycle)*
--	--	--	--	22	9	Pedalcyclist
23	23	23	23	--	--	Railway Train
--	--	--	--	23	10	Railway Vehicle
24	24	24	24	--	--	Animal
--	--	--	--	24	11	Live Animal
--	--	--	--	49	49	Ridden Animal or Animal Drawn Conveyance
25	25	25	25	--	--	Motor Vehicle in Transport

V32 Most Harmful Event *(continued)*

Attribute Codes

1988-1991	*1992-1998*	*1999-2008*	*2009*	*2010*	*2011-Later*	
26	26	26	26	--	--	Parked Motor Vehicle *(or Other M.V. Not in Transport)*
27	27	27	27	--	--	Other Type Non-Motorist
--	--	--	--	27	15	Non-Motorist on Personal Conveyance
--	--	--	47	--	--	Vehicle Occupant
28	28	28	28	28	18	Other Object Not Fixed
29	29	29	29	--	--	Object Not Fixed-No Details
--	--	--	--	29	14	Parked Motor Vehicle
--	--	--	--	30	45	Working Motor Vehicle
COLLISION WITH FIXED OBJECT						
31	31	31	31	31	58	Ground
32	32	32	32	32	19	Building
33	33	33	33	33	20	Impact Attenuator/Crash Cushion
34	34	34	34	--	--	Bridge Structure *(Bridge Pier/Abutment/Parapet End/Rail)*
35	35	35	35	--	--	Guardrail
36	36	36	36	--	--	Concrete Traffic Barrier or Other Longitudinal Barrier Type
--	--	--	--	36	25	Concrete Traffic Barrier
37	37	37	37	--	--	Post, Pole or Support *(Sign Post, Utility Post)*
38	38	38	38	--	--	Culvert or Ditch
39	39	39	39	39	33	Curb
40	40	40	40	40	35	Embankment
41	41	41	41	41	38	Fence
42	42	42	42	42	39	Wall
43	43	43	43	43	40	Fire Hydrant
44	44	44	44	44	41	Shrubbery
45	45	45	45	--	--	Tree
--	--	--	--	45	42	Tree *(Standing Only)*
46	46	46	46	46	17	Boulder
48	59	58	58	58	43	Other Fixed Object
49	59	59	59	--	--	Fixed Object, No Details
--	--	--	--	71	50	Bridge Overhead Structure
--	--	--	--	72	21	Bridge Pier or Support
--	--	--	--	73	23	Bridge Rail *(Includes Parapet)*
--	--	--	--	74	24	Guardrail Face
--	--	--	--	75	52	Guardrail End
--	--	--	--	76	57	Cable Barrier
--	--	--	--	77	26	Other Traffic Barrier
--	--	--	--	78	59	Traffic Sign Support
--	--	--	--	79	46	Traffic Signal Support
--	--	--	--	80	30	Utility Pole/Light Support
--	--	--	--	81	31	Other Post, Other Pole or Other Supports

V32 Most Harmful Event *(continued)*

Attribute Codes

1988-1991	*1992-1998*	*1999-2008*	*2009*	*2010*	*2011-Later*	
--	--	--	--	82	32	Culvert
--	--	--	--	83	34	Ditch
--	--	--	--	84	48	Snow Bank
--	--	--	--	85	53	Mail Box
COLLISION WITH MOTOR VEHICLE IN TRANSPORT						
--	--	--	--	90	12	Motor Vehicle In-Transport
--	--	--	--	91	54	Motor Vehicle In-Transport Strikes or is Struck by Cargo, Persons or Objects Set-in-Motion from/by Another Motor Vehicle In-Transport
--	--	--	--	92	55	Motor Vehicle in Motion Outside the Trafficway
NOT REPORTED AND UNKNOWN						
97	--	--	--	--	--	Other – No Details *(1988-1989)*
--	--	--	--	97	--	Not Reported
99	99	99	99	99	99	Unknown

V32I Imputed Most Harmful Event

Definition: This imputed data element has the same data element values as Most Harmful Event, excluding value 99 for unknown most harmful event and value 97 for not reported most harmful event.

Additional Information: See the NASS GES Imputation section of this manual.

SAS Name: **V_EVNT_H** ***1988-2009***
VEVENT_IM ***2010-Later***

V33 Related Factors - Vehicle Level

Definition: This data element records factors related to this vehicle expressed by the investigating officer.

Additional Information: There are also crash-level-related factors in the Accident data file, CF1, CF2, and CF3; driver-related factors in the Vehicle data file, namely DR_SF1, DR_SF2, DR_SF3 and DR_SF4; and person-related factors P_SF1, P_SF2, and P_SF3 in the Person data file.

The NASS GES analyst may have used either of the two data elements to code a related factor. One must test both data elements to insure that the selected related factor is included.

These data elements also appear in the Parkwork data file as PVEH_SC1 and PVEH_SC2.

SAS Name: VEH_SC1, VEH_SC2

Attribute Codes

2012-Later

2012-2013	***2014-Later***	
0	0	None
30	--	3-Wheeled Motorcycle Conversion
--	30	Multi-Wheeled Motorcycle Conversion
33	33	Vehicle Being Pushed by Non-Motorist
35	35	Reconstructed/Altered Vehicle
36	--	Electric/Alternative Fuel Vehicle
39	39	Highway Construction, Maintenance or Utility Vehicle, In Transport *(Inside or Outside Work Zone)*
40	40	Highway Incident Response Vehicle
41	41	Police Fire or EMS Vehicle Working at the Scene of an Emergency or Performing Other Traffic Control Activities
42	42	Other Working Vehicle *(Not Construction, Maintenance, Utility, Police, Fire, or EMS Vehicle)*
44	44	Adaptive Equipment
99	99	Unknown

V34 Fire Occurrence

Definition: This data element identifies whether a fire in any way related to the crash occurred in this vehicle.

Additional Information: This data element also appears in the Person data file and in the Parkwork data file as PFIRE.

SAS Name: **FIRE** ***1988-2008***
FIRE_EXP ***2009-Later***

Attribute Codes

1988-2008

0 No Fire Noted on PAR
1 Fire Occurred in Vehicle

2009-Later

0 No or Not Reported
1 Yes

V90 Maximum Injury Severity in Vehicle

Definition: This data element records the single most severe injury level reported for any occupant in this vehicle. This data element is derived by comparing "Injury Severity" from the Person data file for each occupant record in this vehicle. The following order of severity codes has been used since 2001.

- 4-Fatal
- 3- Incapacitating
- 2-Non- incapacitating
- 1-Possible Injury
- 5-Injured, Unknown Severity
- 0-No Injury
- 6-Died Prior
- 9-Unknown if Injured
- 8-No Person in the Vehicle

Additional Information: From 1999 to 2000 the priority was different: Unknown if Injured had priority over No Injury.

See Appendix E: Rules for Derived Data Elements for an expanded explanation of this data element and how it is derived.

SAS Name: MAX_VSEV

Attribute Codes

1988-2009	*2010-2012*	*2013-Later*	
0	0	--	No Injury
--	--	0	No Apparent Injury
1	1	1	Possible Injury
2	2	--	Non-incapacitating Injury
--	--	2	Suspected Minor Injury
3	3	--	Incapacitating Injury
--	--	3	Suspected Serious Injury
4	4	4	Fatal
5	5	5	Injured, Severity Unknown
6	6	6	Died Prior to Crash
8	8	8	No Person in Vehicle
9	--	--	Unknown
--	9	9	Unknown if Injured/Not Reported

V90I Imputed Maximum Injury Severity in Vehicle

Definition: This imputed data element has the same definition and data element values as Maximum Injury Severity in Vehicle, excluding value 9 for unknown maximum injury severity.

Additional Information: See the NASS GES Imputation section of this manual.

The data element is derived from "Imputed Injury Severity" in the Person data file.

SAS Name: **MXVSEV_I** ***1988-2009***
MXVSEV_IM ***2010-Later***

V91 Number Injured in Vehicle

Definition: This data element records the number of persons injured in the vehicle and is derived by counting all the persons with "Injury Severity" of (1, 2, 3, 4, or 5) in a vehicle. This count includes fatally injured occupants.

Additional Information: See Appendix E: Rules for Derived Data Elements for an expanded explanation of this data element and how it is derived.

SAS Name: NUM_INJV

Attribute Codes

1988-Later

0	No Person Injured in Vehicle
1-97	Actual Number
98	No Person in the Vehicle
99	All Persons in the Vehicle are Unknown if Injured

V91I Imputed Number Injured in Vehicle

Definition: This imputed data element has the same definition and data element values as "Number Injured in Vehicle," excluding value 99 for unknown number injured, which is imputed, and the attribute code 98, which is converted to code 0.

Additional Information: See the NASS GES Imputation section of this manual.

This data element is derived from "Imputed Injury Severity" in the Person data file.

SAS Name: **NUMINJ_I** ***1988-2009***
NUMINJ_IM ***2010-Later***

V92 Driver Drinking in Vehicle

Definition: This data element records alcohol use by the driver of the vehicle. The data element is derived from "Police-Reported Alcohol Involvement" in the Person data file.

Additional Information: In 1988, this data element reported alcohol use by any occupant in the vehicle, including the driver. In 1989, this data element was changed from "Alcohol Involved in Vehicle" to "Driver Drinking in Vehicle" to report alcohol use by the driver.

See Appendix E: Rules for Derived Data Elements for an expanded explanation of this data element and how it is derived.

SAS Name: VEH_ALCH

Attribute Codes

1988-Later

1 Alcohol Involved
2 No Alcohol Involved
8 No Driver Present/Unknown if Driver Present
9 Unknown

V92I Imputed Driver Drinking in Vehicle

Definition: This data element has the same definition and data element values as Driver "Drinking in Vehicle," excluding value 9 for unknown alcohol involvement, which is imputed, and value 8, which is converted to attribute code 2.

Additional Information: See the NASS GES Imputation section of this manual.

This imputed data element is derived from "Imputed Police-Reported Alcohol Involvement" in the Person data file.

SAS Name: **V_ALCH_I** ***1988-2009***
V_ALCH_IM ***2010-Later***

V100 Make Model Combined

Definition: This derived data element represents the 5-digit combination of two data elements, the 2-digit "Vehicle Make" code (MAKE) followed by the 3-digit "Vehicle Model" code (MODEL).

Additional Information: This data element also appears in the Person data file and in the Parkwork data file as PMAK_MOD.

SAS Name: MAK_MOD

Attribute Codes

2014-Later

See the current FARS/NASS GES Coding and Validation Manual for vehicle make and model codes.

D4 Driver Presence

Definition: This data element identifies whether a driver was present in this vehicle at the onset of the unstabilized situation.

Additional Information:

SAS Name: DR_PRES

Attribute Codes

1988-2008

0 Unattended Vehicle *(Driverless, Or No Driver Involved)*
1 Driver Operated Vehicle
2 Hit And Run
9 Unknown Driver Presence

2009-Later

0 No Driver Present / Not Applicable
1 Yes
9 Unknown

D6 Driver's ZIP Code

Definition: This data element records the zip code of the driver's address as listed on the PAR.

Additional Information: This data element was added to the Vehicle data file in 1992. It is formatted as a charchter from 2002 to 2010, all other years are numeric.

SAS Name: **DR_ZIP_C** ***1992-2001***
DZIPCODE ***2002-2010***
DR_ZIP ***2011-Later***

Attribute Codes

1992-1999	*2000-2010*	*2011-Later*	
0	--	--	Not Resident of U.S. or Territories or Driver Not Present
--	00000	00000	Not Resident of U.S. or Territories
xxxxx	xxxxx	xxxxx	Actual ZIP Code
--	--	99997	No Driver Present/Unknown if Driver Present
--	99998	--	No Driver Present
99999	99999	99999	Unknown

D22 Speeding Related

Definition: This data element records whether the driver's speed was related to the crash as indicated by law enforcement.

Additional Information: This data element was added to the Vehicle data file in 1997. Prior to 2013, this data element was called "Speed Related."

SAS Name: SPEEDREL

Attribute Codes

1997-1999	*2000-2009*	*2010-2012*	*2013-Later*	
0	0	0	0	No
1	1	1	--	Yes
--	--	--	2	Yes, Racing
--	--	--	3	Yes, Exceeded Speed Limit
--	--	--	4	Yes, Too Fast for Conditions
--	--	--	5	Yes, Specifics Unknown
--	8	--	--	No Driver Present
--	--	8	8	No Driver Present/Unknown if Driver Present
9	9	9	9	Unknown

D24 Related Factors - Driver Level

Definition: This data element records factors related to this driver expressed by the investigating officer.

Additional Information: There are also crash-level-related factors in the Accident data file, CF1, CF2, and CF3; vehicle-related factors, namely VEH_SC1 and VEH_SC2 in the Vehicle data file; and person-related factors P_SF1, P_SF2, and P_SF3 in the person data file.

The NASS GES analyst may have used any of the four data elements to code a related factor. One must test all four data elements to insure that the selected related factor is included.

The person-related factors P_SF1, P_SF2, and P_SF3 are all set to 0 for drivers.

SAS Name: **DR_SF1, DR_SF2, DR_SF3, DR_SF4**

Attribute Codes

2012-2014	*2015-Later*	
0	0	None
PHYSICAL / MENTAL CONDITION		
6	6	Careless Driving
8	8	Road Rage/Aggressive Driving
MISCELLANEOUS FACTORS		
16	16	Police or Law Enforcement Officer
18	18	Traveling on Prohibited Trafficways
20	20	Leaving Vehicle Unattended with Engine Running; Leaving Vehicle Unattended in Roadway
21	21	Overloading or Improper Loading of Vehicle with Passenger or Cargo
22	22	Towing or Pushing Vehicle Improperly
23	23	Failing to Dim Lights or to Have Lights on When Required
24	24	Operating Without Required Equipment
32	32	Opening Vehicle Closure into Moving Traffic or Vehicle is in Motion
36	--	Operating the Vehicle in an Erratic, Reckless, Careless or Negligent Manner or Operating at Erratic or Suddenly Changing Speeds
--	36	Operating the Vehicle in an Erratic, Reckless, Careless or Negligent Manner
37	37	Police Pursuing this Driver or Police Officer in Pursuit
50	50	Driving Wrong Way on One-Way Trafficway
51	--	Driving on Wrong Side of Road *(Intentionally or Unintentionally)*
51	51	Driving on Wrong Side of Two-Way Trafficway *(Intentionally or Unintentionally) (Since 2014)*
54	54	Stopping in Roadway *(Vehicle Not Abandoned)*
58	58	Over Correcting
59	--	Getting Off/Out of or On/In to a Vehicle
--	59	Getting Off/Out of a Vehicle
SPECIAL CIRCUMSTANCES		
91	91	Non-Traffic Violation Charged (Manslaughter, Homicide or Other Assault Offense Committed Without Malice)
99	99	Unknown

PC5 Trafficway Description

Definition: This data element identifies the attribute that best describes the trafficway flow just prior to this vehicle's critical precrash event.

Additional Information: This data element has been coded at the Accident level and included in Accident data file (SAS data element TRAF_WAY) since 1988. Starting in 2002 the trafficway flow for each vehicle in a crash is available in the Vehicle data file.

The information for this data element was collected at the vehicle level starting in 1999. The vehicle level data elements first appeared in the SAS data files in 2002.

From 1999 through 2003, the coding instructions were to code the value indicated on the PAR. In 2004, the coding instructions were modified to code the value indicated on the PAR which best represents the environment just prior to the vehicle's critical precrash event.

Prior to 2010, this data element was called Trafficway Flow.

SAS Name: VTRAFWAY

Attribute Codes

2002	*2003-2009*	
--	0	Not Physically Divided- Center 2-way Left Turn Lane
1	1	Not Physically Divided- Two Way Trafficway
2	2	Divided Highway *(Median Strip, Barrier)*
3	3	One Way Trafficway
9	9	Unknown

2010-2012	*2013-Later*	
0	--	Non-Trafficway Area
--	0	Non-Trafficway or Driveway Access
1	1	Two-Way, Not Divided
2	2	Two-Way, Divided, Unprotected *(Painted > 4 Feet)* Median
3	3	Two-Way, Divided, Positive Median Barrier
4	4	One-Way Trafficway
5	5	Two-Way, Not Divided With a Continuous Left-Turn Lane
6	6	Entrance/Exit Ramp
8	8	Not Reported
9	9	Unknown

PC6 Total Lanes in Roadway

Definition: This data element identifies the attribute that best describes the number of travel lanes just prior to this vehicle's critical precrash event.

Additional Information: The number of lanes refers to the number of lanes of a continuous cross-section of roadway. For example, a local roadway with one lane going north and one lane going south would be coded as two lanes. However, if a trafficway is a divided highway with two lanes going north, a median, and two lanes going south, then the number of lanes is coded as two. If a trafficway has two lanes going north immediately adjacent to two lanes going south, one continuous cross-section of roadway, then the number of lanes is coded as four. This data element can be used with the Trafficway Description data element VTRAFWAY to determine the trafficway geometry. For example: If (VNUM_LAN= 2) AND (VTRAFWAY=1), then one has a two-lane roadway that is not physically divided, which is what most people think of as a two-lane road (i.e., one lane going in each direction).

If the roadway is a divided trafficway, the number of travel lanes counts only lanes in the direction of travel of the first harmful event. If the roadway is an undivided trafficway, the number of travel lanes are all the lanes regardless of their direction of travel.

This data element has been coded at the Accident level and been on the Accident data file (SAS data element DNUM_LAN) since 1988. Starting in 2002 the number of lanes for each vehicle in a crash is available in the Vehicle data file.

The information for this data element was collected at the vehicle level starting in 1999. The vehicle level data elements first appeared in the SAS data files in 2002.

From 1999 through 2003, the coding instructions were to code the value indicated on the PAR. In 2004, the coding instructions were modified to code the value indicated on the PAR which best represents the environment just prior to the vehicle's critical precrash event.

SAS Name: VNUM_LAN

Attribute Codes

2002-2009	*2010-2012*	*2013-Later*	
--	0	--	Non-Trafficway Area
--	--	0	Non-Trafficway or Driveway Access
1	1	1	One Lane
2	2	2	Two Lanes
3	3	3	Three Lanes
4	4	4	Four Lanes
5	5	5	Five Lanes
6	6	6	Six Lanes
7	7	7	Seven or More Lanes
--	8	8	Not Reported
9	9	9	Unknown

PC7 Speed Limit

Definition: This data element records the posted speed limit in miles per hour.

Additional Information: This data element has been coded at the Accident level and included in Accident data file (SAS data element DSPD_LIM) since 1988. Starting in 2002 the speed limit for each vehicle in a crash is available in the Vehicle data file.

The information for this data element was collected at the vehicle level starting in 1999. The vehicle level data elements first appeared in the SAS data files in 2002.

From 1999 through 2003, the coding instructions were to code the value indicated on the PAR. In 2004, the coding instructions were modified to code the value indicated on the PAR which best represents the environment just prior to the vehicle's critical precrash event.

SAS Name: VSPD_LIM

Attribute Codes

2002-2009	*2010*	*2011-2012*	*2013-Later*	
0	--	--	--	No Statutory Limit *(Parking Lot, Alley, etc.)*
--	0	0	--	No Statutory Limit/Non-Trafficway Area
--	--	--	0	No Statutory Limit/Non-Trafficway or Driveway Access
5-75	5-75	--	--	Speed Limit *(In mph)*
--	--	5-80	5-80	Speed Limit *(In 5 mph Increments)*
--	97	98	98	Not Reported
99	99	99	99	Unknown

PC8 Roadway Alignment

Definition: This data element identifies the attribute that best represents the roadway alignment prior to this vehicle's critical precrash event.

Additional Information: This data element has been coded at the Accident level and included in Accident data file (SAS data element ALIGN) since 1988. Starting in 2002 the roadway alignment for each vehicle in a crash is available in the Vehicle data file.

The information for this data element was collected at the vehicle level starting in 1999. The vehicle level data elements first appeared in the SAS data files in 2002.

From 1999 through 2003, the coding instructions were to code the value indicated on the PAR. In 2004, the coding instructions were modified to code the value indicated on the PAR which best represents the environment just prior to the vehicle's critical precrash event.

SAS Name: VALIGN

Attribute Codes

2002-2009	*2010-2012*	*2013-Later*	
--	0	--	Non-Trafficway Area
--	--	0	Non-Trafficway or Driveway Access
1	1	1	Straight
2	--	--	Curve
--	2	2	Curve Right
--	3	3	Curve Left
--	4	4	Curve – Unknown Direction
--	8	8	Not Reported
9	9	9	Unknown

PC9 Roadway Grade

Definition: This data element identifies the attribute that best represents the roadway grade prior to this vehicle's critical precrash event.

Additional Information: This data element has been coded at the Accident level and included in Accident data file (SAS data element PROFILE) since 1988. Starting in 2002 the roadway profile for each vehicle in a crash is available in the Vehicle data file.

The information for this data element was collected at the vehicle level starting in 1999. The vehicle level data elements first appeared in the SAS data files in 2002.

From 1999 through 2003, the coding instructions were to code the value indicated on the PAR. In 2004, the coding instructions were modified to code the value indicated on the PAR which best represents the environment just prior to the vehicle's critical precrash event.

Prior to 2010, this data element was called Roadway Profile.

SAS Name: VPROFILE

Attribute Codes

2002-2009	*2010-2012*	*2013-Later*	
--	0	--	Non-Trafficway Area
--	--	0	Non-Trafficway or Driveway Access
1	1	1	Level
2	--	--	Grade
--	2	2	Grade, Unknown Slope
3	3	3	Hillcrest
--	4	4	Sag *(Bottom)*
--	5	5	Uphill
--	6	6	Downhill
8	--	--	Sag
--	8	8	Not Reported
9	9	9	Unknown

PC11 Roadway Surface Condition

Definition: This data element identifies the attribute that best represents the roadway surface condition prior to this vehicle's critical precrash event.

Additional Information: This data element has been coded at the Accident level and included in Accident data file (SAS data element SUR_COND) since 1988. Starting in 2002 the roadway surface condition for each vehicle in a crash is available in the Vehicle data file.

The information for this data element was collected at the vehicle level starting in 1999. The vehicle level data elements first appeared in the SAS data files in 2002.

From 1999 through 2003, the coding instructions were to code the value indicated on the PAR. In 2004, the coding instructions were modified to code the value indicated on the PAR which best represents the environment just prior to the vehicle's critical precrash event.

SAS Name: VSURCOND

Attribute Codes

2002-2009	*2010-2012*	*2013-Later*	
--	0	--	Non-Trafficway Area
--	--	0	Non-Trafficway or Driveway Access
1	1	1	Dry
2	2	2	Wet
3	--	--	Snow or Slush
--	3	3	Snow
4	--	--	Ice
--	4	4	Ice/Frost
5	--	--	Sand, Dirt, Oil
--	5	5	Sand
--	6	6	Water *(Standing or Moving)*
--	7	7	Oil
8	8	8	Other
--	10	10	Slush
--	11	11	Mud, Dirt, Gravel
--	98	98	Not Reported
9	99	99	Unknown

PC12 Traffic Control Device

Definition: This data element identifies the attribute that best describes the traffic controls in the vehicle's environment just prior to this vehicle's critical precrash event.

Additional Information: If a vehicle is controlled by more than one device, the device coded is based on the following priority:

- 51 - Officer, Crossing Guard, Flagman, etc
- The lowest numbered device shown below
- 0 - No traffic control device.

This data element has been coded at the Accident level and has been included in the Accident data file (SAS data element TRAF_CON) since 1988.

The information for this data element was collected at the vehicle level starting in 1999. The vehicle level data elements first appeared in the SAS data files in 2002.

From 2002-2009, this information is also available on the Vehicle data file (Vehicle.VTRAFCON) to store a selected vehicle control device for each vehicle, the Biketraf data file (Biketraf.BTRAFCON) to store all traffic control devices for cyclists, and the Trafcon data file (Trafcon.MTRAFCON) to store all traffic control devices for a vehicle.

From 1999 through 2003, the coding instructions were to code the value indicated on the PAR. In 2004, the coding instructions were modified to code the value indicated on the PAR which best represents the environment just prior to the vehicle's critical precrash event.

Starting in 2010 this is a single-response question, so the Trafcon data file is discontinued, however, the Biketraf data file will still be available in 2010. From 2010 onward, this data element will be available only in the vehicle data file (Vehicle.VTRAFCON) and Accident data file (Accident.DTRAFCON).

See Appendix E: Rules for Derived Data Elements for an expanded explanation of this data element and how it is derived.

SAS Name: VTRAFCON

Attribute Codes

2002-2009	*2010*	*2011-Later*	
0	0	0	No Controls
TRAFFIC SIGNALS			
1	--	--	Traffic Control Signal *(On Colors)*
--	1	1	Traffic Control Signal *(On Colors)* Without Pedestrian Signal
--	2	2	Traffic Control Signal *(On Colors)* With Pedestrian Signal
--	3	3	Traffic Control Signal *(On Colors)* Not Known if Pedestrian Signal
4	--	--	Flashing Traffic Control Signal or Flashing Beacon
--	4	4	Flashing Traffic Control Signal

PC12 Traffic Control Device *(continued)*

2002-2009	*2010*	*2011-Later*	
8	8	8	Other Highway Traffic Signal
9	9	9	Unknown Highway Traffic Signal
REGULATORY SIGNS			
21	21	20	Stop Sign
22	22	21	Yield Sign
23	23	23	School Zone Sign/Device
28	28	28	Other Regulatory Sign
29	29	29	Unknown Regulatory Sign
--	5	7	Lane Use Control Signal
WARNING SIGNS			
40	--	--	Advisory Speed Sign
41	--	--	Warning Sign For Road Conditions *(Hill, Steep Grade, etc.)*
42	--	--	Warning Sign For Road Construction
43	--	--	Warning Sign For Environment/Traffic *(Fog Ahead, Wind, Crash Ahead, etc.)*
--	44	40	Warning Sign
49	--	--	Unknown Type Warning
51	--	--	Officer, Crossing Guard, Flagman, etc
MISCELLANEOUS			
--	51	50	Person
61	--	--	Active Devices *(e.g., Gates, Flashing Lights, Traffic Signal)*
62	--	--	Passive Devices *(e.g., Stop Sign, Cross Bucks)*
--	63	65	Railway Crossing Device
OTHER			
97	--	--	Traffic Control Present-No Details
--	97	97	Not Reported
98	--	--	Other Traffic Control *(Whether or Not At RR Grade Crossing)*
--	98	98	Other
99	99	99	Unknown

PC13 Traffic Control Device Functioning

Definition: This data element identifies the functionality of the traffic control device recorded for this vehicle in the data element "Traffic Control Device."

Additional Information: This data element was added to the data file in 2010 to indicate whether or not the traffic control device was functioning.

SAS Name: **VTCONT_F**

Attribute Codes

2010-Later

0 No Controls
1 Device Not Functioning
2 Device Functioning – Functioning Improperly
3 Device Functioning Properly
8 Not Reported
9 Unknown

PC17 Pre-Event Movement (Prior to Recognition of Critical Event)

Definition: This data element identifies the attribute that best describes this 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.

Additional Information: In 1992, data elements PC17, PC19–PC22 were added to the Vehicle data file. These data elements were designed to identify: (1) what the vehicle was doing just prior to the critical precrash event, (2) what made the vehicle's situation critical, (3) what was the corrective action made, if any, to this critical situation, and what was the (4) location and (5) stability of the vehicle just prior to impact.

Prior to 2011 this data element was called "Movement Prior to Critical Event."

SAS Name: P_CRASH1

Attribute Codes

1992-1994	*1995-1998*	*1999-2010*	*2011-2012*	*2013-Later*	
--	0	0	0	--	No Driver Present
--	--	--	--	0	No Driver Present/Unknown if Driver Present
1	1	1	1	1	Going Straight
2	2	2	--	--	Decelerating in Traffic Lane
--	--	--	2	2	Decelerating in Road
--	3	3	--	--	Accelerating in Traffic Lane
--	--	--	3	3	Accelerating in Road
3	4	4	--	--	Starting in Traffic Lane
--	--	--	4	4	Starting in Road
4	5	5	--	--	Stopped in Traffic Lane
--	--	--	5	5	Stopped in Roadway
5	6	6	6	6	Passing or Overtaking Another Vehicle
6	7	7	7	7	Disabled or Parked in Travel Lane
7	8	8	8	8	Leaving a Parking Position
8	9	9	9	9	Entering a Parking Position
10	10	10	10	10	Turning Right
11	11	11	11	11	Turning Left
12	12	12	12	12	Making a U-turn
13	13	13	13	13	Backing Up *(Other Than For Parking Position)*
15	14	14	14	14	Negotiating a Curve
16	15	15	15	15	Changing Lanes
17	16	16	16	16	Merging
18	17	17	17	17	Successful Corrective Action to a Previous Critical Event
94	--	--	--	--	More than Two Vehicles Involved
98	97	97	98	98	Other
99	99	99	99	99	Unknown

PC17I Imputed Pre-Event Movement (Prior to Recognition of Critical Event)

Definition: This imputed data element has the same definition and data element values as Movement Prior to Critical Event, excluding value 99 for unknown movement prior to critical event.

Additional Information: See the NASS GES Imputation section of this manual.

SAS Name: **MANEUV_I** ***1988-2009***
PCRASH1_IM ***2010-Later***

PC19 Critical Event- Precrash

Definition: This data element identifies the attribute that best describes the critical event which made this crash imminent (i.e., something occurred which made the collision possible).

Additional Information: A critical event is coded for each vehicle and identifies the circumstances leading to the vehicle's first impact in the crash. From 1992 to 1993 coding distinguishes between events initiated by "this" vehicle, events initiated by the "other" vehicle, and events initiated by non-motorists. In 1994 coding changed to eliminate the concept of initiation, and to add factors. In 1999 there were extensive additions, deletions, and renumbering.

In 1992, data elements PC17, PC19–PC22 were added to the Vehicle data file. These data elements were designed to identify: (1) what the vehicle was doing just prior to the critical precrash event, (2) what made the vehicle's situation critical, (3) what was the corrective action made, if any, to this critical situation, and what was the (4) location and (5) stability of the vehicle just prior to impact.

SAS Name: P_CRASH2

Attribute Codes

1992-1993

0 Not Applicable/No Collision

I. CRITICAL EVENT INITIATED BY THIS VEHICLE

LOSS OF CONTROL DUE TO:

1 Blow Out or Flat Tire
2 Stalled Engine
3 Disabling Vehicle Failure *(e.g., Wheel Fell Off)*
4 Minor Vehicle Failure
5 Poor Road Conditions *(Puddle, Pothole, Ice, etc.)*
6 Excessive Speed
9 Other or Unknown Reason

TRAVELING OVER EDGE OF ROADWAY:

10 Over Left Edge of Roadway
11 Over Right Edge of Roadway
12 End Departure
19 Unknown Which Edge

IN ANOTHER VEHICLE'S LANE:

20 Stopped
21 Traveling In Same Direction With Lower Speed
22 Traveling In Same Direction With Higher Speed
23 Traveling In Opposite Direction

ENCROACHING INTO ANOTHER VEHICLE'S LANE: AT NON-JUNCTION

26 From Adjacent Lane *(Opposite Direction)*
30 From Adjacent Lane *(Same Direction)*-Over Left Lane Line
31 From Adjacent Lane *(Same Direction)*-Over Right Lane Line

PC19 Critical Event- Precrash *(continued)*

Attribute Codes

1992-1993

ENCROACHING INTO ANOTHER VEHICLE'S LANE: AT JUNCTION

33 Entering Intersection-Turning Into Same Direction
34 Entering Intersection-Straight Across Path
35 Entering Intersection-Turning Into Opposite Direction
36 Entering Intersection-Intended Path Unknown
37 Entering Driveway, Alley Access, Etc.
38 From Driveway, Alley Access, Etc.-Turning Into Same Direction
39 From Driveway, Alley Access, Etc.-Straight Across Path
40 From Driveway, Alley Access, Etc.-Turning Into Opposite Direction
41 From Driveway, Alley Access, Etc.-Intended Path Unknown
42 Entering From "Yield" Entrance *(Ramp/Channel)*
48 Encroaching-Details Unknown
49 This Vehicle Initiated Critical Event-Details Unknown

II. CRITICAL EVENT INITIATED BY THE OTHER VEHICLE

MOTOR VEHICLE ALREADY IN THIS VEHICLE'S LANE:

50 Stopped
51 Traveling In Same Direction With Lower Speed
52 Traveling In Same Direction With Higher Speed
53 Traveling In Opposite Direction

ANOTHER VEHICLE ENCROACHING INTO THIS VEHICLE'S LANE: AT NON-JUNCTION

56 From Adjacent Lane *(Opposite Direction)*
60 From Adjacent Lane *(Same Direction)*-Over Left Lane Line
61 From Adjacent Lane *(Same Direction)*-Over Right Lane Line
64 From Parallel/Diagonal Parking Lane

ANOTHER VEHICLE ENCROACHING INTO THIS VEHICLE'S LANE: AT JUNCTION

65 Entering Intersection-Turning Into Same Direction
66 Entering Intersection-Straight Across Path
67 Entering Intersection-Turning Into Opposite Direction
68 Entering Intersection-Intended Path Unknown
69 Entering Driveway, Alley Access, Etc.
70 From Driveway, Alley Access, Etc.-Turning Into Same Direction
71 From Driveway, Alley Access, Etc.-Straight Across Path
72 From Driveway, Alley Access, Etc.-Turning Into Opposite Direction
73 From Driveway, Alley Access, Etc.-Intended Path Unknown
74 Entering From "Yield" Entrance *(Ramp/Channel)*
78 Encroaching-Details Unknown
79 Other Vehicle Initiated Critical Event-Details Unknown

PC19 Critical Event- Precrash *(continued)*

Attribute Codes

1992-1993

III. CRITICAL EVENT INITIATED BY PEDESTRIAN, PEDALCYCLIST, OTHER NON-MOTORIST, ANIMAL OR OBJECT

80 Pedestrian In Roadway
81 Pedestrian Approaching Roadway
83 Pedalcyclist/Other Non-Motorist In Roadway
84 Pedalcyclist/Other Non-Motorist Approaching Roadway
86 Pedestrian/Pedalcyclist/Other Non-Motorist-Unknown Location
87 Animal In Roadway
88 Animal Approaching Roadway
90 Object In Roadway
93 Animal Or Object-Unknown Location

IV. MISCELLANEOUS

94 More Than Two Vehicles Involved
98 Other Event
99 Unknown

1994-1998	*1999-2010*	*2011-Later*	
0	--	--	Not Applicable/No Collision
THIS VEHICLE LOSS OF CONTROL DUE TO:			
10	1	1	Blow Out/Flat Tire
20	2	2	Stalled Engine
30	3	3	Disabling Vehicle Failure *(e.g., Wheel Fell Off)*
40	4	4	Non-Disabling Vehicle Problem *(e.g., Hood Flew Up)*
50	5	5	Poor Road Conditions *(Puddle, Pothole, Ice, etc.)*
60	6	6	Traveling Too Fast For Conditions
99	--	--	Other or Unknown Reason
--	8	8	Other Cause of Control Loss
--	9	9	Unknown Cause of Control Loss
THIS VEHICLE TRAVELING:			
--	10	10	Over The Lane Line on Left Side of Travel Lane
--	11	11	Over The Lane Line on Right Side of Travel Lane
100	12	12	Off The Edge of The Road on The Left Side
101	13	13	Off The Edge of The Road on The Right Side
199	--	--	Unknown Which Edge
102	14	14	End Departure
--	15	--	Turning Left At Intersection
--	--	15	Turning Left At Junction

PC19 Critical Event- Precrash *(continued)*

Attribute Codes

1994-1998	*1999-2010*	*2011-Later*	
--	16	--	Turning Right At Intersection
--	--	16	Turning Right At Junction
--	17	17	Crossing Over *(Passing Through)* Intersection
--	18	18	This Vehicle Decelerating
--	19	19	Unknown Travel Direction
IN ANOTHER VEHICLE'S LANE:			
200	--	--	Stopped
210	--	--	Traveling In Same Direction With Lower/Steady Speed
215	--	--	Traveling In Same Direction While Decelerating *(Added In 1995)*
220	--	--	Traveling In Same Direction With Higher Speed
230	--	--	Traveling In Opposite Direction
ENCROACHING INTO ANOTHER VEHICLE'S LANE: AT NON-JUNCTION			
300	--	--	From Adjacent Lane *(Opposite Direction)*
310	--	--	From Adjacent Lane *(Same Direction)*-Over Left Lane Line
320	--	--	From Adjacent Lane *(Same Direction)*-Over Right Lane Line
330	--	--	From Parallel/Diagonal Parking Lane
ENCROACHING INTO ANOTHER VEHICLE'S LANE: AT JUNCTION			
410	--	--	Entering Intersection-Turning Into Same Direction
411	--	--	Entering Intersection-Straight Across Path
412	--	--	Entering Intersection-Turning Across Path
413	--	--	Entering Intersection-Turning Into Opposite Direction
429	--	--	Entering Intersection-Intended Path Unknown
430	--	--	Entering Driveway, Alley Access, Etc.
440	--	--	From Driveway, Alley Access, Etc.-Turning Into Same Direction
441	--	--	From Driveway, Alley Access, Etc.-Straight Across Path
442	--	--	From Driveway, Alley Access, Etc.-Turning Into Opposite Direction
459	--	--	From Driveway, Alley Access, Etc.-Intended Path Unknown
460	--	--	Entering From "Yield" Entrance *(Ramp/Channel)*
497	--	--	Encroaching-Other
498	--	--	Encroaching-Details Unknown
499	--	--	This Vehicle Initiated Critical Event-Details Unknown
OTHER MOTOR VEHICLE IN LANE			
500	50	50	Other Vehicle Stopped
510	51	51	Traveling in Same Direction with Lower Steady Speed
515	52	52	Traveling in Same Direction while Decelerating *(Added In 1995)*
520	53	53	Traveling in Same Direction with Higher Speed
530	54	54	Traveling in Opposite Direction
--	55	55	In Crossover
--	56	56	Backing
--	59	59	Unknown Travel Direction Of The Other Motor Vehicle in Lane

PC19 Critical Event- Precrash *(continued)*

Attribute Codes

1994-1998	*1999-2010*	*2011-Later*	
	OTHER MOTOR VEHICLE ENCROACHING INTO LANE		
600	--	--	From Adjacent Lane *(Opposite Direction)*
610	60	60	From Adjacent Lane *(Same Direction)*-Over Left Lane Line
620	61	61	From Adjacent Lane *(Same Direction)*-Over Right Lane Line
--	62	62	From Opposite Direction Over Left Lane Line
--	63	63	From Opposite Direction Over Right Lane Line
630	--	--	From Parallel/Diagonal Parking Lane
--	64	64	From Parking Lane, Median, Shoulder, Roadside
710	--	--	Entering Intersection-Turning Into Same Direction
--	65	65	From Crossing Street, Turning Into Same Direction
711	--	--	Entering Intersection-Straight Across Path
--	66	66	From Crossing Street, Across Path
712	--	--	Entering Intersection-Turning Across Path
713	--	--	Entering Intersection-Turning Into Opposite Direction
--	67	67	From Crossing Street, Turning Into Opposite Direction
729	--	--	Entering Intersection-Intended Path Unknown
--	68	68	From Crossing Street, Intended Path Unknown
730	--	--	Entering Driveway, Alley Access, Etc.
740	70	70	From Driveway, Turning Into Same Direction
741	71	71	From Driveway, Across Path
742	72	72	From Driveway, Turning Into Opposite Direction
759	73	73	From Driveway, Intended Path Unknown
--	74	74	From Entrance to Limited Access Highway
760	--	--	Entering From "Yield" Entrance *(Ramp/Channel)*
797	--	--	Encroaching-Other
798	78	78	Encroaching by Other Vehicle – Details Unknown
799	--	--	Other Vehicle Initiated Critical Event-Details Unknown
	PEDESTRIAN, PEDACYLIST OR OTHER NON-MOTORIST		
800	80	--	Pedestrian in Roadway
--	--	80	Pedestrian in Road
801	81	--	Pedestrian Approaching Roadway
--	--	81	Pedestrian Approaching Road
--	82	82	Pedestrian Unknown Location
810	83	--	Pedalcyclist/Other Non-Motorist in Roadway
810	--	83	Pedalcyclist/Other Non-Motorist in Road
811	84	--	Pedalcyclist/Other Non-Motorist Approaching Roadway
811	--	84	Pedalcyclist/Other Non-Motorist Approaching Road
--	85	85	Pedalcyclist Or Other Non-Motorist Unknown Location
829	--	--	Pedestrian/Pedalcyclist/Other Non-Motorist Unknown Location

PC19 Critical Event- Precrash *(continued)*

Attribute Codes

1994-1998	*1999-2010*	*2011-Later*	
OBJECT OR ANIMAL			
830	87	--	Animal in Roadway
--	--	87	Animal in Road
831	88	--	Animal Approaching Roadway
--	--	88	Animal Approaching Road
--	89	89	Animal – Unknown Location
840	90	--	Object in Roadway
--	--	90	Object in Road
841	91	--	Object Approaching Roadway
--	--	91	Object Approaching Road
--	92	92	Object Unknown Location
859	--	--	Animal Or Object-Unknown Location
OTHER			
994	--	--	More Than Two Vehicles Involved
998	98	98	Other Critical Precrash Event
UNKNOWN			
999	99	99	Unknown

PC20 Attempted Avoidance Maneuver

Definition: This data element identifies the attribute that best describes the movements/actions taken by this driver, within a critical crash envelope, in response to the "Critical Precrash Event."

Additional Information: This data element identifies the actions taken by the driver in response to the impending danger. Because this data element focuses upon the driver's action just prior to the first harmful event it is coded independently of any maneuvers associated with this vehicle's "Crash Type."

In 1992, data elements PC17, PC19–PC22 were added to the Vehicle data file. These data elements were designed to identify: (1) what the vehicle was doing just prior to the critical precrash event, (2) what made the vehicle's situation critical, (3) what was the corrective action made, if any, to this critical situation, and what was the (4) location and (5) stability of the vehicle just prior to impact.

Prior to 2011 this data element was called "Corrective Action Attempted."

SAS Name: P_CRASH3

Attribute Codes

1992-1998	*1999-2012*	*2013-Later*	
0	--	--	Not Applicable/ No Corrective Action Attempted
--	0	--	No Driver Present
--	--	0	No Driver Present/Unknown if Driver Present
1	--	--	Braked/Slowed
--	1	1	No Avoidance Maneuver
--	2	2	Braking *(No Lockup)*
--	3	3	Braking *(Lockup)*
--	4	4	Braking *(Lockup Unknown)*
--	5	5	Releasing Brakes
2	6	6	Steering Left
3	7	7	Steering Right
4	10	10	Accelerated
5	--	--	Backed
11	8	8	Braking And Steering Left
12	9	9	Braking And Steering Right
13	11	11	Accelerating And Steering Left
14	12	12	Accelerating And Steering Right
15	--	--	Steered in Both Directions
94	--	--	More than Two Vehicles Involved
97	--	--	Corrective Action Attempted-No Details
98	--	--	Other Single or Multiple Corrective Action
--	98	98	Other Actions
99	99	99	Unknown

PC21 Pre-Impact Stability

Definition: This data element identifies the attribute that best describes the stability of this vehicle after the "Critical Precrash Event," but before the impact.

Additional Information: In 1992, data elements PC17, PC19–PC22 were added to the Vehicle data file. These data elements were designed to identify: (1) what the vehicle was doing just prior to the critical precrash event, (2) what made the vehicle's situation critical, (3) what was the corrective action made, if any, to this critical situation, and what was the (4) location and (5) stability of the vehicle just prior to impact.

Prior to 2011 this data element was called "Precrash Vehicle Control."

SAS Name: PCRASH4

Attribute Codes

1995-1998	*1999-2012*	*2013-Later*	
0	0	--	No Driver Present
--	--	0	No Driver Present/Unknown if Driver Present
1	--	--	Vehicle Control Maintained
2	--	--	Vehicle Rotated *(Yawed)* Clockwise
3	--	--	Vehicle Rotated *(Yawed)* Counter-Clockwise
4	--	--	Vehicle Slid/Skid Longitudinally-No Rotation
9	--	--	Vehicle Rotated *(Yawed)* Unknown Direction
20	--	--	Combination of 02-09
94	--	--	More Than Two Vehicles Involved
98	--	--	Other or Unknown Type of Vehicle Control Was Lost
--	1	1	Tracking
--	2	2	Skidding Longitudinally – Rotation Less Than 30 Degrees
--	3	3	Skidding Laterally – Clockwise Rotation
--	4	4	Skidding Laterally – Counterclockwise Rotation
--	--	5	Skidding Laterally – Rotation Direction Unknown
--	7	7	Other Vehicle Loss-of-Control
--	9	9	Precrash Stability Unknown

PC22 Pre-Impact Location

Definition: This data element identifies the attribute that best describes the location of this vehicle after the "Critical Precrash Event," but before the impact.

Additional Information: In 1992, data elements PC17, PC19–PC22 were added to the Vehicle data file. These data elements were designed to identify: (1) what the vehicle was doing just prior to the critical precrash event, (2) what made the vehicle's situation critical, (3) what was the corrective action made, if any, to this critical situation, and what was the (4) location and (5) stability of the vehicle just prior to impact.

Prior to 2011 this data element was called "Precrash Location."

SAS Name: PCRASH5

Attribute Codes

1995-1998	*1999-2010*	*2011-2012*	*2013-Later*	
0	0	0	--	No Driver Present
--	--	--	0	No Driver Present/Unknown if Driver Present
1	1	1	1	Stayed In Original Travel Lane
2	2	2	2	Stayed On Roadway But Left Original Travel Lane
3	3	3	3	Stayed On Roadway, Not Known If Left Original Travel Lane
4	4	4	4	Departed Roadway
6	5	5	5	Remained Off Roadway
7	6	6	6	Returned to Roadway
--	7	7	7	Entered Roadway
94	--	--	--	More Than Two Vehicles Involved
99	99	9	9	Unknown

PC23 Crash Type

Definition: This data element identifies the attribute that best describes the type of crash this vehicle was involved in based on the "First Harmful Event" and the precrash circumstances. For graphic descriptions of possible values see Appendix A: PC23 Crash Type Diagram.

Additional Information: Prior to 2011 this data element was called "Accident Type." In 2011 the term "crash" also replaced "accident" in the attributes below.

SAS Name: ACC_TYPE

Attribute Codes

1988-Later

0 No Impact

CATEGORY I: SINGLE DRIVER

CONFIGURATION A: RIGHT ROADSIDE DEPARTURE

1 Drive Off Road
2 Control/Traction Loss
3 Avoid Collision with Vehicle, Pedestrian, Animal
4 Specifics Other
5 Specifics Unknown

CONFIGURATION B: LEFT ROADSIDE DEPARTURE

6 Drive Off Road
7 Control/Traction Loss
8 Avoid Collision With Vehicle, Pedestrian, Animal
9 Specifics Other
10 Specifics Unknown

CONFIGURATION C: FORWARD IMPACT

11 Parked Vehicle
12 Stationary Object
13 Pedestrian/Animal
14 End Departure
15 Specifics Other
16 Specifics Unknown

CATEGORY II: SAME TRAFFICWAY, SAME DIRECTION

CONFIGURATION D: REAR END

20 Stopped
21 Stopped, Straight
22 Stopped, Left
23 Stopped, Right
24 Slower
25 Slower, Going Straight
26 Slower, Going Left
27 Slower, Going Right
28 Decelerating *(Slowing)*
29 Decelerating *(Slowing)*, Going Straight

PC23 Crash Type *(continued)*

Attribute Codes

1988-Later

30 Decelerating *(Slowing)*, Going Left
31 Decelerating *(Slowing)*, Going Right
32 Specifics Other
33 Specifics Unknown

CONFIGURATION E: FORWARD IMPACT

34 This Vehicles Frontal Area Impacts Another Vehicle.
35 This Vehicle Is Impacted by Frontal Area of Another Vehicle
36 This Vehicles Frontal Area Impacts Another Vehicle.
37 This Vehicle Is Impacted by Frontal Area of Another Vehicle
38 This Vehicles Frontal Area Impacts Another Vehicle.
39 This Vehicle Is Impacted by Frontal Area of Another Vehicle
40 This Vehicles Frontal Area Impacts Another Vehicle.
41 This Vehicle Is Impacted by Frontal Area of Another Vehicle
42 Specifics Other
43 Specifics Unknown

CONFIGURATION F: SIDESWIPE/ANGLE

44 Straight Ahead on Left.
45 Straight Ahead on Left/Right.
46 Changing Lanes to the Right
47 Changing Lanes to the Left
48 Specifics Other
49 Specifics Unknown

CATEGORY III: SAME TRAFFICWAY, OPPOSITE DIRECTION

CONFIGURATION G: HEAD-ON

50 Lateral Move *(Left/Right)*
51 Lateral Move *(Going Straight)*
52 Specifics Other
53 Specifics Unknown

CONFIGURATION H: FORWARD IMPACT

54 This Vehicles Frontal Area Impacts Another Vehicle.
55 This Vehicle Is Impacted by Frontal Area of Another Vehicle
56 This Vehicles Frontal Area Impacts Another Vehicle.
57 This Vehicle Is Impacted by Frontal Area of Another Vehicle
58 This Vehicles Frontal Area Impacts Another Vehicle.
59 This Vehicle Is Impacted by Frontal Area of Another Vehicle
60 This Vehicles Frontal Area Impacts Another Vehicle.
61 This Vehicle Is Impacted by Frontal Area of Another Vehicle
62 Specifics Other
63 Specifics Unknown

PC23 Crash Type *(continued)*

Attribute Codes

1988-Later

CONFIGURATION I: SIDESWIPE/ANGLE

64 Lateral Move *(Left/Right)*
65 Lateral Move *(Going Straight)*
66 Specifics Other
67 Specifics Unknown

CATEGORY IV: CHANGING TRAFFICWAY, VEHICLE TURNING

CONFIGURATION J: TURN ACROSS PATH

68 Initial Opposite Directions *(Left/Right)*
69 Initial Opposite Directions *(Going Straight)*
70 Initial Same Directions *(Turning Right)*
71 Initial Same Directions *(Going Straight)*
72 Initial Same Directions *(Turning Left)*
73 Initial Same Directions *(Going Straight)*
74 Specifics Other
75 Specifics Unknown

CONFIGURATION K: TURN INTO PATH

76 Turn Into Same Direction *(Turning Left)*
77 Turn Into Same Direction *(Going Straight)*
78 Turn Into Same Direction *(Turning Right)*
79 Turn Into Same Direction *(Going Straight)*
80 Turn Into Opposite Directions *(Turning Right)*
81 Turn Into Opposite Directions *(Going Straight)*
82 Turn Into Opposite Directions *(Turning Left)*
83 Turn Into Opposite Directions *(Going Straight)*
84 Specifics Other
85 Specifics Unknown

CATEGORY V: INTERSECTING PATHS (VEHICLE DAMAGE)

CONFIGURATION L: STRAIGHT PATHS

86 Striking from the Right
87 Struck on the Right
88 Striking from the Left
89 Struck on the Left
90 Specifics Other
91 Specifics Unknown

CATEGORY VI: MISCELLANEOUS

CONFIGURATION M: BACKING, ETC.

92 Backing Vehicle
93 Other Vehicle or Object *(1988-2012)*
93 Other Vehicle *(2013-Later)*
97 Untripped Rollover *(1992-1998)*
98 Other Crash Type
99 Unknown Crash Type

Discontinued VEHICLE Data Elements

Contributing Circumstances, Motor Vehicle (discontinued)

Definition: This data element describes the possible pre-existing motor vehicle defects or maintenance conditions that may have contributed to the crash.

Additional Information: From 1988 to 1994 the data element was called Vehicle Defects and the SAS name was DEFECT; in 1995 the name was changed to Vehicle Contributing Factors to include all factors that may have contributed to this vehicle's involvement in the crash. The SAS name changed to FACTOR.

Starting in 2002 multiple contributing factors for a vehicle are available in the Factor data file (SAS data element MFACTOR).

From 2002 to 2009, Vehicle.FACTOR is rolled up from the Factor data file. If there are no records, then the value 0 is assigned. If there is a single record, then the SAS code for that record is assigned. If there are multiple records, then the minimum SAS code of all the records is assigned.

Starting in 2010, Vehicle.FACTOR is discontinued and is only available in the Factor data file. The data element name changed to be Contributing Circumstances, Motor Vehicle.

See Appendix E: Rules for Derived Data Elements for an expanded explanation of this data element and how it is derived in 2009 and before.

SAS Name: **DEFECT** ***1988-1994***
FACTOR ***1995-2009***

Attribute Codes

1988-1994	*1995-2009*	
0	0	None
1	1	Tires
2	2	Brake System
3	3	Steering System-Tie Rod, Kingpin, Ball Joint, etc.
4	4	Suspension-Springs, Shock Absorbers, McPherson Struts, Control Arms, etc.
5	5	Power Train-Universal Joint, Drive Shaft, Transmission, etc.
6	6	Exhaust System
7	7	Headlights
8	8	Signal Lights
9	9	Other Lights
10	10	Wipers
11	11	Wheels
12	12	Mirrors
13	13	Driver Seating and Control
14	14	Body, Doors
15	15	Trailer Hitch
50	50	Hit-and-Run Vehicle

Contributing Circumstances, Motor Vehicle *(continued)*

Attribute Codes

1988-1994	*1995-2009*	
97	--	Vehicle Defects-No Details
--	97	Vehicle Contributing Factors -No Details
98	--	Other Vehicle Defects
--	98	Other Vehicle Contributing Factors
99	--	Unknown if Vehicle Has Defects
--	99	Unknown if Vehicle Has Contributing Factors

Damage Areas (discontinued)

Definition: This vehicle's specific areas damaged due to impact. The totality of the damage is used when determining the specific areas. Five digits are used to indicate up to five specific areas of damage on the vehicle.

Additional Information: This data element replaced Maximum Damage Area (V17) in 1990.

Five digits are used to indicate up to five specific areas of damage on the vehicle. If there are no records coded for the vehicle, then 99999 is assigned. If any of the records have SAS code 0 (no damage) coded, then 00000 is assigned. If there is a record with SAS code 7, and there is also a record with SAS code 9, then 99999 is assigned. Please note that "Unknowns" has priority over ALL, otherwise the value is set to 70000. If there is a record for all values 1 through 6, then the value is set to 70000 ("ALL" should have been coded instead). If none of the above conditions apply, then an ordered string of the SAS code values between 1 and 6, and the string is padded at the start with 9's if there is a record with SAS code 9, and padded with 0's if not. For example, if the records have SAS codes 3, 1,5, and 9, then the result would be 99135.

Examples of complete codes are:
0 = No damage
12000 = Front and right damage only
12999 = Front and right damage and unknown if damaged in other areas

This data element was discontinued in 2010.

SAS Name: DAM_AREA

Attribute Codes

1990-2009

0 No damage
1 Front
2 Right side
3 Left side
4 Back
5 Top
6 Undercarriage
7 All areas damaged
9 Unknown damage areas

Driver Distracted by (discontinued)

Definition: Identifies a distraction which may have influenced driver performance and contributed to the cause of the crash. The distraction can be either inside the vehicle (internal) or outside the vehicle (external). If a driver had more than one distraction, the lowest of the attribute codes is chosen.

Additional Information: Starting in 2002 multiple distractions for a driver are available in the Distract data file (SAS data element MDRDSTRD). The Vehicle.DR_DSTRD is rolled up from the Distract data file. If there are no records, then the value 00 is assigned. If there is a single record, then the SAS code for that record is assigned. If there are multiple records, then the minimum SAS code of all the records is assigned with the exceptions that SAS code 98 has priority over SAS code 92, and all other values have priority over SAS code 0.

Starting in 2010, this data element is only available in the Distract data file.

See Appendix E: Rules for Derived Data Elements for an expanded explanation of this data element and how it is derived in 2009 and before.

SAS Name: DR_DSTRD

Attribute Codes

1990-1998

0	Not Distracted
1	Passengers, Occupants
2	Vehicle Instrument Display *(Radio, CB, Heating)*
3	Phone
4	Other Internal Distractions
5	Other Crash *("Rubbernecking")*
6	Other External Distractions
50	Hit & Run *(And No Information)*
97	Distractions -No Details
99	Unknown if Distracted

1999	*2000-2001*	*2002-2003*	*2004-2006*	*2007-2009*	
0	0	0	0	0	Not Distracted
1	1	1	1	1	Looked But Did Not See
3	3	3	3	3	By Other Occupants
4	4	4	4	4	By Moving Object In Vehicle
5	5	5	5	5	While Talking Or Listening to Cellular Phone
6	6	6	6	6	While Dialing Cellular Phone
7	7	7	7	7	While Adjusting Climate Control
8	8	8	8	8	While Adjusting Radio, Cassette Or CD
9	9	9	9	9	While Using Other Devices Integral to Vehicle
10	10	10	10	10	While Using Or Reaching For Other Devices
11	11	11	11	11	Sleepy Or Fell Asleep
12	12	12	12	12	Distracted by Outside Person Or Object
13	13	13	13	13	Eating Or Drinking
14	14	14	14	14	Smoking Related

Driver Distracted By *(continued)*

Attribute Codes

1999	*2000-2001*	*2002-2003*	*2004-2006*	*2007-2009*	
--	--	--	--	15	Other Cellular Phone Related
--	--	--	--	50	Hit & Run *(And No Information)*
--	--	--	92	92	Distraction or Inattention, Details Unknown
--	--	93	93	93	Not on PAR
--	--	94	94	94	Not Coded
--	95	95	95	95	No Driver Present
96	96	--	--	--	Not Reported
97	97	97	97	97	Inattentive or Lost in Thought
98	98	98	--	--	Other Distraction or Inattention
--	--	--	98	98	Other Distraction
99	99	99	99	99	Unknown if Distracted

Driver Maneuvered to Avoid (discontinued)

Definition: Identifies an action taken by the driver to avoid something or someone in the road. The maneuver may have subsequently contributed to the cause of the crash. If a driver made more than one avoidance maneuver, the lowest of the attribute codes shown below is chosen.

Additional Information: Starting in 2002 multiple maneuvers for a driver are available in the Maneuver data file (SAS data element MDRMANAV). The Vehicle.DRMAN_AV is rolled up from the Maneuver data file. If there are no records, then the value 00 is assigned. If there is a single record, then the SAS code for that record is assigned. If there are multiple records, then the minimum SAS code of all the records is assigned.

Starting in 2010, this data element is only available in the Maneuver data file.

See Appendix E: Rules for Derived Data Elements for an expanded explanation of this data element and how it is derived in 2009 and before.

SAS Name: DRMAN_AV

Attribute Codes

1990-1998	*1999*	*2000-2001*	*2002-2003*	*2004-2009*	
0	0	0	0	0	Driver Did Not Maneuver To Avoid
1	1	1	1	1	Object In Road
2	2	2	2	2	Poor Road Conditions *(Puddle, Ice, Pot Hole, etc.)*
3	3	3	3	3	Animal In Road
4	4	4	4	4	Vehicle In Road
5	5	5	5	5	Pedestrian, Pedalcyclist, or Other Non-Motorist in the Road
50	50	50	50	50	Hit & Run *(And No Information)*
--	--	--	--	92	Phantom /Non-Contact Motor Vehicle
--	--	--	93	93	Not on PAR
--	--	--	94	94	Not Coded
--	--	95	95	95	No Driver Present
--	96	96	--	--	Not Reported
97	97	97	97	97	Avoidance Maneuver-No details
99	99	99	99	99	Unknown If Driver Maneuvered To Avoid

Driver Physical/Mental Impairment (discontinued)

Definition: Identifies driver's physical or mental impairment that may have contributed to the cause of the accident. If two or more impairments apply, the lowest of the attribute codes is chosen.

Additional Information: In 1988 and 1989 a distinction was made between impairment for drivers and for non-motorists; the data element for driver impairment was in the Vehicle data file and the data element for non-motorist impairment was in the Person data file. In 1990 these data elements were replaced by a single data element in the Person data file: "Person's Physical Impairment" was used for both driver and non-motorist impairment.

SAS Name: DR_IMPMT

Attribute Codes

1988-1989

0	No Impairments
1	Drowsy, Sleepy, Asleep, Fatigued
2	Ill, Blackout
3	Emotional *(e.g., Depression, Angry, Disturbed)*
4	Drugs -Medication
5	Other Drugs *(Marijuana, Cocaine, etc.)*
6	Restricted to Wheelchair
7	Impaired Due to Previous Injury
8	Deaf
50	Hit-and Run Vehicle
97	Physical/Mental Impairment-No Details
98	Other Physical/Mental Impairment
99	Unknown Physical/Mental Condition

Driver's Action (discontinued)

Definition: Indicates if the driver was avoiding, swerving, or sliding due to one of the following. If two or more actions were noted on the PAR, the lowest of the attribute codes was chosen.

Additional Information: In 1990 this data element was replaced with "Driver Maneuvered to Avoid."

SAS Name : DR_ACT

Attribute Codes

1988-1989

0	Not Avoiding, Swerving, or Sliding
1	Severe Crosswind
2	Wind from Passing Truck
3	slippery or Loose Surface
4	Tire Blow-out or Flat
5	Debris or Objects in Road
6	Ruts, Holes, Bumps in Road
7	Animals in Road
8	Vehicle in Road
9	Phantom Vehicle
10	Pedestrian, Pedalcyclist, or Other Non-motorist in Road
11	Water, Snow, Oil slick in Road
50	Hit-and Run Vehicle
97	Avoiding, Swerving, or Sliding-No Details
98	Other Cause
99	Unknown Action

Driver's Vision Obscured By (discontinued)

Definition: Identifies visual circumstances that may have contributed to the cause of the crash.

Additional Information: In 2004 the codes 93-Not on PAR and 94-Not Coded replaced 96-Not Reported. Not on PAR is coded if no block exists on the PAR for reporting obscured driver vision and no other information is available. Not Coded is used if there is a specific location on the police report for obscured driver vision but the investigating officer fails to make an assessment, and there is no other information available. Starting in 2009 this type of unknown (Not on PAR, Not Coded) is coded 99.

Starting in 2002 multiple obstructions for a driver are available in the Vision data file (SAS data element MVISOBSC). The Vehicle.VIS_OBSC is rolled up from the Vision data file. If there are no records, then the value 0 is assigned. If there is a single record, then the SAS code for that record is assigned. If there are multiple records, then the minimum SAS code of all the records is assigned.

Starting in 2010, this data element is only available in the Vision data file.

See Appendix E: Rules for Derived Data Elements for an expanded explanation of this data element and how it is derived in 2009 and before.

SAS Name: VIS OBSC

Attribute Codes

1988 1991	*1992-1998*	*1999*	*2000-2003*	*2004-2008*	*2009*	
0	0	0	0	0	0	No Obstruction noted
1	--	--	--	--	1	Rain, Snow, Fog, Smoke, Sand, Dust
	1	1	1	1	--	Rain, Snow, Smoke, Sand, Dust
2	2	2	2	2	2	Reflected Glare, Bright Sunlight, Headlights
3	3	3	3	3	--	Curve or Hill
--	--	--	--	--	3	Curve, Hill, or Other Roadway Design Feature
4	4	4	4	4	--	Building, Billboard, or Other Design Features *(includes signs, Embankment)*
--	--	--	--	--	4	Building, Billboard, or Other Structure
5	5	5	5	5	5	Trees, Crops, Vegetation
6	6	6	6	6	6	Moving In-Transport Motor Vehicle *(Including Load)*
7	7	7	7	7	--	Parked Vehicle
--	--	--	--	--	7	Not-in-Transport Motor Vehicle *(Parked, Working)*
8	8	8	8	8	8	Splash or Spray of Passing Vehicle
9	9	9	9	9	9	Inadequate Defrost or Defog System
10	10	10	10	10	10	Inadequate Vehicle Lighting System
11	11	11	11	11	11	Obstruction Interior to Vehicle
12	12	12	12	12	12	External Mirrors
13	13	13	13	13	--	Head Restraints
14	14	14	14	14	13	Broken or Improperly Cleaned Windshield
--	--	--	--	--	14	Obstructing Angles on Vehicle

Driver's Vision Obscured By *(continued)*

Attribute Codes

1988-1991	*1992-1998*	*1999*	*2000-2003*	*2004-2008*	*2009*	
15	15	15	15	15	--	Fog
50	50	50	50	50	--	Hit & Run Vehicle *(And No Information)*
--	--	--	--	93	--	Not on PAR
--	--	--	--	94	--	Not Coded
--	--	--	95	95	--	No Driver Present
--	--	--	--	--	95	No Driver Present / Unknown if Driver Present
--	--	96	96	--	--	Not Reported
97	97	97	97	97	97	Vision Obscured-No Details
98	98	98	98	98	98	Other Visual Obstruction
99	99	99	99	99	99	Unknown Whether Vision was Obstructed

Maximum Damage Area (discontinued)

Definition: This data element reports the most severe area of damage on the vehicle.

Additional Information: In 1990, this data element was replaced with "Initial Point of Impact" and "Damage Areas."

SAS Name: DAM_AREA

Attribute Codes

1988-1989

0 No Damage
1 Front
2 Right Side
3 Left Side
4 Back
5 Top
6 Undercarriage
8 Multiple Damage Areas
9 Damage Area Not Determinable or Unknown

Hot-Deck Imputed Damage Area (discontinued)

Definition: This imputed data element has the same definition and data element values as "Maximum Damage Area," excluding value 9 for damage area not determinable or unknown.

Additional Information: See the NASS GES Imputation section of this manual.

In 1990, this data element was dropped from the Vehicle data file.

SAS Name: DAM_AR_H

Most Damaged Area (discontinued)

Definition: This data element identifies the area on this vehicle that was most damaged during an event in the crash.

Additional Information: This data element was replaced with "Damaged Areas" (MDAREAS) in 2012 which records all damaged areas to this vehicle in the Damage data file.

This data element also appeared in the Person data file, and in the Parkwork data file as PIMPACT2.

SAS Name: IMPACT2

Attribute Codes

2010	*2011*	
0	0	Non-Collision
21-32	1-12	Clock points
33	13	Top
34	14	Undercarriage
38	18	Set-in-Motion *(Not a Clock Point)*
61	61	Left
62	62	Left-Front Half
63	63	Left-Back Half
81	81	Right
82	82	Right-Front Half
83	83	Right-Back Half
97	98	Not Reported
99	99	Unknown

Most Harmful Event Number (discontinued)

Definition: Indicates the number of the event that caused the most severe property damage or injury for the vehicle.

Additional Information: This data element may be used to identify the specific event in the Event data file.

This data element was added to the Event data file in 1999.

SAS Name: MHENUM

Attribute Codes

2000-2010

1-xx Event Number

Number of Axles on Vehicle, Including Trailers (discontinued)

Definition: Coded only for buses and trucks over 4,500 kg GVWR (Bodytype (V5)= 60, 64, 66-79) The data element was discontinued in 2009.

Additional Information: This data element also appears in the Parkwork data file as PAXLES (prior to 2010).

SAS Name: AXLES

Attribute Codes

1992-2008

0	Not Applicable
2-20	Number Of Axles
99	Unknown

Number of Occupants Coded (discontinued)

Definition: The number of occupants coded for this vehicle.

Additional Information: This data element has been in the Vehicle data file for all NASS GES years. The SAS name has stayed the same but the definition has changed. From 1988 to 1989 V10 (OCC_INVL) represented the number of occupants in the vehicle and V10A (OCC_COD) represented the number of occupants in the vehicle that were coded. The number coded and the number involved are not always the same because, for example, some PARs have information only for injured occupants. In 1990 V10A (OCC_COD) was dropped and V10 (OCC_INVL) changed to represent the number of occupants coded. The definition of V10 has stayed the same since 1990. In 2000 V10B (NUMOCCS), representing the total number of occupants, was added to the Vehicle data file.

This data element also appeared in the Parkwork data file as POCCINVL.

SAS Name: **OCC_INVL**

Attribute Codes

1988-1989	*1990-1999*	*2000-2010*	
0	0	0	None
1-95	1-29	1-95	Number of Occupants Involved
--	30	--	30 or More
96	--	--	96 or More
97	--	--	Unknown-Only Injured Reported
--	--	--	Not Reported
99	--	--	Unknown

Number of Occupants Coded (discontinued)

Definition: Derived by counting the number of occupants including drivers that were coded for this vehicle.

Additional Information: This data element was dropped from the Vehicle data file in 1990.

SAS Name: **OCC_COD**

Attribute Codes

1988-1989

0-30	Number of Occupants Coded
99	Unknown

Rollover (discontinued)

Definition: Indicates if a rollover occurred (tripped or untripped). Rollover is defined as any vehicle rotation of 90 degrees or more about any true longitudinal or lateral axis.

Additional Information: The coding of this data element changed after 1991. See "Rollover" ("Rollover Type" from 1992-2009).

SAS Name: ROLLOVER

Attribute Codes

1988-1991

0 No Rollover Noted on PAR
1 Rollover Occurred

Vehicle Control After Corrective Action (discontinued)

Definition: Assesses the stability of the vehicle during the period immediately after the attempted corrective action up to the initial impact in the crash sequence. The stability of the vehicle prior to a corrective action is not considered.

Additional Information: In 1992, data elements V21, V26-V29 were added to the Vehicle data file. These data elements were designed to identify: (1) what the vehicle was doing just prior to the critical precrash event, (2) what made the vehicle's situation critical, (3) what was the corrective action made, if any, to this critical situation, and what was the (4) location and (5) stability of the vehicle just prior to impact.

In 1995, the name and definition of this data element changed to reflect the control of the vehicle at the time of the critical event and the first harmful event, not the control as a result of any corrective action.

SAS Name: P_CRASH4

Attribute Codes

1992-1994

0	No Driver Present
1	Vehicle Control Maintained After Corrective Action
2	Vehicle Rotated *(Yawed)* Clockwise
3	Vehicle Rotated *(Yawed)* Counter-Clockwise
4	Vehicle Slid/Skid Longitudinally-No Rotation
5	Vehicle Slid/Skid Laterally-No Rotation
9	Vehicle Rotated *(Yawed)* Unknown Direction
20	Combination of 02-09
94	More than Two Vehicles Involved
98	Other or Unknown Type of Vehicle Control Was Lost After Corrective Action
99	Unknown if Vehicle Control Was Lost After Corrective Action

Vehicle Maneuver (discontinued)

Definition: Reports the last action this vehicle's driver engaged in either just prior to the impact or just before the driver's realized the impending danger.

Additional Information: This data element changed in 1992, when NASS GES began to collect precrash information. Vehicle Maneuver was changed to Movement Prior to Critical Event. In addition to changing the definition, data element values were added, modified, or deleted and the SAS name changed.

SAS Name: MANEUVER

Attribute Codes

1988-1991

1 Going Straight
2 Slowing or Stopping in Traffic Lane
3 Starting in Traffic Lane
4 Stopped in Traffic Lane
5 Passing or Overtaking Another Vehicle
6 Leaving a Parked Position
7 Parked
8 Entering a Parked Position
9 Maneuvering to Avoid an Animal, Pedestrian, Object or Vehicle
10 Turning Right
11 Turning Left
12 Making U-turn
13 Backing Up *(Other Than For Parking Purposes)*
14 Changing Lanes or Merging
15 Negotiating a Curve
98 Other
99 Unknown

Imputed Vehicle Maneuver (discontinued)

Definition: This imputed data element, used in 1988-1991, has the same as definition and data element values as Vehicle Maneuver, excluding value 99 for unknown vehicle maneuver.

Additional Information: See the NASS GES Imputation section of this manual.

SAS Name: MANEUV_I

Vehicle Path After Corrective Action (discontinued)

Definition: Identifies the consequences of the corrective action identified in data element V27 and further reports the results of the vehicle's precrash stability coded in data element V28. The response for this data element must relate directly to the response coded for data element V27.

Additional Information: In 1995 the name and definition of this data element changed to reflect the control of the vehicle at the time of the critical event and the first harmful event, not the control as a result of any corrective action.

SAS Name: P_CRASH5

Attribute Codes

1992-1994

0 No Corrective Action
1 Vehicle Stayed in Travel Lane Where Corrective Action was Initiated
2 Vehicle Stayed on Roadway But Left Travel Lane Where Corrective Action was Initiated
3 Vehicle Stayed on Roadway, Not Known if Left Travel Lane Where Corrective Action was Initiated
4 Vehicle Departed Roadway
5 Corrective Action Initiated Off Roadway
94 More Than Two Vehicles Involved
99 Vehicle Path Unknown

Vehicle Role (discontinued)

Definition: Indicates vehicle role in single or multi-vehicle crashes.

Additional Information: This data element was discontinued in 2010.

SAS Name: VEH_ROLE

Attribute Codes

1988-2009

0 Non-Collision
1 Striking
2 Struck
3 Both
9 Unknown

Imputed Vehicle Role (discontinued)

Definition: This imputed data element has the same definition and data element values as "Vehicle Role," excluding value 9 for unknown vehicle role.

Additional Information: See the NASS GES Imputation section of this manual.

This data element was discontinued in 2010.

SAS Name: VROLE_I

Violations Charged (discontinued)

Definition: Indicates which violations are charged to drivers.

Additional Information: Starting in 2002 multiple violations for a driver are available in the Violatn data file (SAS data element MVIOLATN).

From 1988 to 2009, if a driver has more than one violation the lowest of the attribute codes shown below is chosen. But the renumbering in 2009 causes the violation rolled up to the driver to be different than in 2008 in some cases when there are multiple charges selected.

Note that the priority used in the 2008 and prior, in SAS, is

- 1-- Alcohol or Drugs,
- 2-- Speeding,
- 3-- Alcohol or Drugs and Speeding,
- 4-- Reckless Driving,
- 5-- Driving With a Suspended or Revoked License,
- 6-- Failure to Yield Right-of-Way,
- 7-- Running a Traffic Signal or Stop Sign,
- 97-- Violation charged, no details (1990-2008),
- 98-- Other Violation (1990-2008),
- 50-- Hit & Run (and No Information) (1990-2008),
- 96-- Not Reported (1999-2008),
- 99-- Unknown if charged(1988-2008),
- 0-- None.
- 95-- no driver present (2000-2008),

And the order of 50, 96, 99, 0 and 95 makes no difference because no other violations are allowed when any of these was selected.

In 2009, the hierarchy is as follows, similar to what FARS chooses, but not the same.

In FARS, up to three violations are coded based on the following hierarchy: codes "01-09" (Serious Violations) are coded first, followed by "11-19," (Impairment Offenses), Racing, Pass Stopped School Bus, and Driving While License Withdrawn. Beyond this hierarchy, choose violations which are not reflected in other data elements, such as Related Factors.

But in NASS GES, the attribute with the lowest SAS codes is chosen. If the codes 0-None or 95-no driver present are selected, then no other violation can be selected.

See Appendix E: Rules for Derived Data Elements for an expanded explanation of this data element and how it is derived in 2009 and before.

Starting in 2010, this data element is only available in the Violatn data file.

SAS Name: VIOLATN

Violations Charged *(continued)*

Attribute Codes

1988-1989	*1990-1998*	*1999*	*2000-2008*	
0	0	0	0	None
1	1	1	1	Alcohol or Drugs
2	2	2	2	Speeding
3	3	3	3	Alcohol or Drugs and Speeding
4	4	4	4	Reckless Driving
5	5	5	5	Driving With a Suspended or Revoked License
6	6	6	6	Failure to Yield Right-of-Way
7	7	7	7	Running a Traffic Signal or Stop Sign
--	50	50	50	Hit & Run *(and No Information)*
--	--	--	95	No Driver Present
--	--	96	96	Not Reported
--	97	97	97	Violation Charged-No Details
8	98	98	98	Other Violation
9	99	99	99	Unknown if Charged

2009

0 None

RECKLESS/CARELESS/HIT-AND-RUN TYPE OFFENSES

1 Manslaughter or Homicide
2 Willful Reckless Driving; Driving to Endanger; Negligent Driving
3 Unsafe Reckless *(Not Willful, Wanton Reckless)* Driving
4 Inattentive, Careless, Improper Driving
5 Fleeing or Eluding Police
6 Fail to Obey Police, Fireman, Authorized Person Directing Traffic
7 Hit-And-Run, Fail to Stop After Crash
8 Fail to Give Aid, Information, Wait For Police After Crash
9 Serious Violation Resulting in Death

IMPAIRMENT OFFENSES

11 Driving While Intoxicated *(Alcohol Or Drugs)* or BAC Above Limit
12 Driving While Impaired
13 Driving Under Influence of Substance Not Intended to Intoxicate
14 Drinking While Operating
15 Illegal Possession of Alcohol or Drugs
16 Driving With Detectable Alcohol
18 Refusal to Submit to Chemical Test
19 Alcohol, Drug or Impairment Violations Generally

Violations Charged *(continued)*

SPEED-RELATED OFFENSES

21 Racing
22 Speeding *(Above The Speed Limit)*
23 Speed Greater Than Reasonable & Prudent *(Not Necessarily Over The Limit)*
24 Exceeding Special Limit
25 Energy Speed *(Exceeding 55 mph, Non-Pointable)*
26 Driving Too Slowly
29 Speed Related Violations, Generally

RULES OF THE ROAD – TRAFFIC SIGN & SIGNALS

31 Fail to Stop For Red Signal
32 Fail to Stop For Flashing Red
33 Violation of Turn On Red *(Fail to Stop & Yield, Yield to Pedestrians Before Turning)*
34 Fail to Obey Flashing Signal *(Yellow or Red)*
35 Fail to Obey Signal, Generally
36 Violate RR Grade Crossing Device/Regulations
37 Fail to Obey Stop Sign
38 Fail to Obey Yield Sign
39 Fail to Obey Traffic Control Device

RULES OF THE ROAD – TURNING, YIELDING, SIGNALING

41 Turn in Violation of Traffic Control
42 Improper Method & Position of Turn *(Too Wide, Wrong Lane)*
43 Fail to Signal For Turn or Stop
45 Fail to Yield To Emergency Vehicle
46 Fail to Yield, Generally
48 Enter Intersection When Space Insufficient
49 Turn, Yield, Signaling Violations, Generally

RULES OF THE ROAD – WRONG SIDE, PASSING & FOLLOWING

51 Driving Wrong Way On One-Way Road
52 Driving On Left, Wrong Side Of Road, Generally
53 Improper, Unsafe Passing
54 Pass On Right *(Drive Off Pavement To Pass)*
55 Pass Stopped School Bus
56 Fail to Give Way When Overtaken
58 Following Too Closely
59 Wrong Side, Passing, Following Violations, Generally

RULES OF THE ROAD – LANE USAGE

61 Unsafe or Prohibited Lane Change
62 Improper Use of Lane *(Enter of 3-Lane Road, HOV Designated Lane)*
63 Certain Traffic to Use Right Lane *(Trucks, Slow-Moving, etc.)*
66 Motorcycle Lane Violations *(More than Two per Lane, Riding Between Lanes, etc.)*
67 Motorcyclist Attached to Another Vehicle
69 Lane Violations, Generally

Violations Charged *(continued)*

NON-MOVING – LICENSE AND REGISTRATION VIOLATIONS

71 Driving While License Withdrawn *(Including Violation of Provisions of Work Permit)*
72 Other Driver License Violations
73 Commercial Driver Violations *(Log Book, Hours, Permits Carried)*
74 Vehicle Registration Violations
75 Fail to Carry Insurance Card
76 Driving Uninsured Vehicle
79 Non-Moving Violations, Generally

EQUIPMENT

81 Lamp Violations
82 Brake Violations
83 Failure to Require Restraint Use *(By Self Or Passengers)*
84 Motorcycle Equipment Violations *(Helmet, Special Equipment)*
85 Violation Of Hazardous Cargo Regulations
86 Size, Weight, Load Violations
89 Equipment Violations, Generally

LICENSE, REGISTRATION & OTHER VIOLATIONS

91 Parking
92 Theft, Unauthorized Use Of Motor Vehicle
93 Driving Where Prohibited *(Sidewalk, Limited Access, Off Truck Route)*
95 No Driver Present / Unknown if Driver Present
97 Not Reported *(Added in 2010)*
98 Other Moving Violation *(Coasting, Backing, Opening Door)*
99 Unknown Violation

Imputed Violations Charged (discontinued)

Definition: From 1988 to 2008 this data element had the same definition and data element values as Violations Charged, excluding value 99 for unknown if charged and value 97 (value 96 from 2004 to 2008) for not reported violations.

Additional Information: See the NASS GES Imputation section of this manual.

SAS Name: VLTN_I *1988-2009*

This data element was discontinued in 2010.

The PERSON Data File

The Person data file includes motorist and non-motorist data. It contains the data elements CASENUM, PSU, PSUSTRAT, STRATUM, REGION, WEIGHT, PJ, VEH_NO, and PER_NO, which are described in the beginning of the Data Element Definitions and Codes section. The Person data file also contains the data elements on the following pages.

CASENUM, VEH_NO, and PER_NO are the unique identifiers for each record. CASENUM should be used to merge the Person data file with the Accident data file for a set of all motorists and non-motorists. CASENUM and VEH_NO should be used to merge the Person data file with the Vehicle and Parkwork data files for a set of all motor vehicle occupants. CASENUM and PER_NO should be used to merge the Person data file with non-motorist person-level data files.

In the Person data file, motor vehicle occupants are PER_TYPE = 1, 2, 3, 9. Motor vehicle occupants have assigned vehicle numbers starting with 1. When PER_TYPE = 3, the occupied vehicle will be found in the PARKWORK data file. Non-motor vehicle occupants are PER_TYPE = 4, 5, 6, 7, 8, 10 or 19. VEH_NO = 0 for non-motor vehicle occupants.

P5/NM5 Age

Definition: This data element identifies this person's age at the time of the crash, in years, with respect to their last birthday.

Additional Information:

SAS Name: **AGE**

Attribute Codes

1988-2000	*2001-2008*	*2009*	*2010*	*2011-Later*	
0	0	0	0	0	Less than One Year
1-96	1-998	1-120	1-110	1-120	Years of Age
97	--	--	--		97 Years or Older
--	--	--	997	998	Not Reported
99	999	999	999	999	Unknown

P5/NM5I Imputed Age

Definition: This imputed data element has the same definition and data element values as Age, excluding the value 999 (value 99 prior to 2001) for unknown age and value 998 (value 997 in 2010) for not reported age.

Additional Information: See the NASS GES Imputation section of this manual.

SAS Name: **AGE_H** ***1988-2009***
AGE_IM ***2010-Later***

P6/NM6 Sex

Definition: This data element identifies the sex of this person involved in the crash.

Additional Information:

SAS Name: **SEX**

Attribute Codes

1988-2009	*2010*	*2011-Later*	
1	1	1	Male
2	2	2	Female
--	7	8	Not Reported
9	9	9	Unknown

P6/NM6I Imputed Sex

Definition: This imputed data element has the same definition and data element values as Sex, excluding value 9 for unknown sex and value 8 (value 7 in 2010) for not reported sex.

Additional Information: See the NASS GES Imputation section of this manual.

SAS Name: **SEX_H** ***1988-2009***
SEX_IM ***2010-Later***

P7/NM7 Person Type

Definition: This data element describes the role of this person involved in the crash.

Additional Information: From 1988 to 2004 a person in or on a working vehicle was coded Person Type=8 (Other or Unknown Non-Occupant). From 2005 to 2008 such a person was coded 7 (Person in or on a Working Vehicle). Starting in 2009 such a person is coded 3 (Occupant of a Motor Vehicle Not in Transport).

SAS Name: **PER_TYPE** ***1988-2008***
PER_TYP ***2009-Later***

Attribute Codes

1988-2004	*2005-2008*	*2009*	*2010*	*2011-Later*	
MOTORISTS					
1	1	1	1	1	Driver of a Motor Vehicle in Transport
2	2	2	2	2	Passenger of a Motor Vehicle in Transport
9	9	9	9	9	Unknown Occupant Type in a Motor Vehicle in Transport
--	--	--	77	--	Not Reported Occupant Type in a Motor Vehicle in Transport
NON-MOTORISTS-OCCUPANT					
3	3	3	3	3	Occupant of a Motor Vehicle Not in Transport
4	4	4	4	4	Occupant of a Non-Motor Vehicle Transport Device
NON-MOTORISTS-NON-OCCUPANT					
5	5	5	5	5	Pedestrian
6	6	--	--	--	Cyclist *(Pedalcyclist)*
--	--	6	6	6	Bicyclist
--	--	7	7	7	Other Cyclist
--	--	8	8	8	Persons on Personal Conveyances
--	--	10	10	10	Persons in or on Buildings
--	7	--	--	--	Person in or on a Working Vehicle
8	8	--	--	--	Other or Unknown Non-Occupant
--	--	19	19	19	Unknown Type of Non-Motorist
--	--	--	78	--	Not Reported Type of Non-Motorist

P8/NM8 Injury Severity

Definition: This data element describes the severity of the injury to this person in the crash using the KABCO scale.

Additional Information: See the Accident data file for C90 Maximum Injury Severity in Crash and the Vehicle data file for V90 Maximum Injury Severity in Vehicle, both of which are derived from this data element.

The definitions for attributes 0, 1, 2 and 3 were revised in 2013 in keeping with the Model Minimum Uniform Crash Criteria, 4th edition.

SAS Name: INJ_SEV

Attribute Codes

1988-2012	*2013-Later*	
0	--	No Injury *(O)*
--	0	No Apparent Injury *(O)*
1	1	Possible Injury *(C)*
2	--	Non-incapacitating Evident Injury *(B)*
--	2	Suspected Minor Injury *(B)*
3	--	Incapacitating Injury *(A)*
--	3	Suspected Serious Injury *(A)*
4	4	Fatal Injury *(K)*
5	5	Injured, Severity Unknown *(U)*
6	6	Died Prior to Crash
7	--	Not Reported *(2010 Only)*
9	9	Unknown

P8/NM8I Imputed Injury Severity

Definition: This imputed data element has the same definition and data element values as Injury Severity, excluding value 9 for unknown if injured and value 7 for not reported if injured.

Additional Information: See the NASS GES Imputation section of this manual.

SAS Name: **INJSEV_H** ***1988-2009***
INJSEV_IM ***2010-Later***

P9 Seating Position

Definition: This data element identifies the location of this person in or on the vehicle.

Additional Information: More than one person can be assigned the same seat position, however this is coded only when a person is sitting on someone's lap.

SAS Name: SEAT_POS

Attribute Codes

1988-1991-	*1992-2002*	*2003-2008*	*2009*	*2010*	*2011-Later*	
0	0	0	0	0	--	Non-Motorist
--	--	--	--	--	0	Not a Motor Vehicle Occupant
11	11	11	11	11	11	Front Seat – Left Side *(Driver's Side)*
12	12	12	12	12	12	Front Seat – Middle
13	13	13	13	13	13	Front Seat – Right Side
18	18	18	18	18	18	Front Seat – Other
19	19	19	19	19	19	Front Seat – Unknown
21	21	21	21	21	21	Second Seat – Left Side
22	22	22	22	22	22	Second Seat – Middle
23	23	23	23	23	23	Second Seat – Right Side
28	28	28	28	28	28	Second Seat – Other
29	29	29	29	29	29	Second Seat – Unknown
--	31	31	31	31	31	Third Seat – Left Side
--	32	32	32	32	32	Third Seat – Middle
--	33	33	33	33	33	Third Seat – Right Side
--	38	38	38	38	38	Third Seat – Other
--	39	39	39	39	39	Third Seat – Unknown
--	--	41	41	41	41	Fourth Seat – Left Side
--	--	42	42	42	42	Fourth Seat – Middle
--	--	43	43	43	43	Fourth Seat – Right Side
--	--	48	48	48	48	Fourth Seat – Other
--	--	49	49	49	49	Fourth Seat – Unknown
30	50	50	50	50	50	Sleeper Section of Cab *(Truck)*
40	51	51	--	--	--	Other Passenger in Passenger or Cargo Area
--	--	--	51	51	51	Other Passenger in Enclosed Passenger or Cargo Area
--	--	--	52	52	52	Other Passenger in Unenclosed Passenger or Cargo Area
--	--	--	53	53	53	Other Passenger in Passenger or Cargo Area, Unknown Whether or Not Enclosed
50	52	52	54	54	54	Trailing Unit
60	53	53	55	55	55	Riding on Vehicle Exterior
--	--	--	--	97	98	Not Reported
99	99	99	99	99	99	Unknown

P9I Imputed Seating Position

Definition: This imputed data element has the same definition and data element values as Seating Position, excluding values 18, 19, 28, 29, 38, 39, 48, 49 and 99 for unknown or other seating position in 2009 and prior. Starting 2010, this imputed data element has the same definition and element values as Seating Position, excluding values 19, 29, 39, 49 and 99 for unknown seating position and values 97, 98 for not reported seating position..

Additional Information: See the NASS GES Imputation section of this manual.

SAS Name: **SEAT_H** ***1988-2009***
SEAT_IM ***2010-Later***

P10 Restraint System/Helmet Use

Definition: This data element records the restraint equipment in use by the occupant, or the helmet in use by a motorcyclist, at the time of the crash, as reported on the PAR.

Additional Information: For a distinction between manual or automatic restraint see "Restraint Type" from 1990 to 1998.

This data element replaced "Safety Equipment Use" in 1990. Starting in 1992 information on air bags is contained in the data element "Air Bag Availability/Function".

SAS Name: **REST_SYS** ***1990-2010***
REST_USE ***2011-Present***

Attribute Codes

1990-1991	*1992-1994*	*1995-2009*	*2010*	*2011-2012*	*2013-Later*	
0	0	0	--	--	--	None Used or Not Applicable
1	1	1	--	--	--	Lap/Shoulder Belt
2	2	2	--	--	--	Lap Belt
3	3	3	--	--	--	Shoulder Belt
4	--	--	--	--	--	Air Bag Deployed
5	--	--	--	--	--	Air Bag Deployed and Lap/Shoulder Belt
6	6	6	--	--	--	Child Safety Seat
7	7	5	--	--	--	Motorcycle Helmet
--	--	7	--	--	--	None Available
8	8	8	--	--	--	Restraint Used-Specifics Unknown or Other
9	9	9	--	--	--	Unknown if Used
--	--	--	21	3	3	Lap and Shoulder Belt Used
--	--	--	22	2	2	Lap Belt Only Used
--	--	--	23	1	1	Shoulder Belt Only Used
--	--	--	28	8	8	Restraint Used – Type Unknown
--	--	--	30	0	0	Not Applicable
--	--	--	31	7	--	None Used – Motor Vehicle Occupant
--	--	--	--	--	7	None Used
--	--	--	37	10	10	Child Restraint System – Forward Facing
--	--	--	38	11	11	Child Restraint System – Rear Facing
--	--	--	39	12	12	Booster Seat
--	--	--	40	4	4	Child Restraint Type Unknown
--	--	--	41	17	17	No Helmet
--	--	--	42	5	5	DOT-Compliant Motorcycle Helmet
--	--	--	43	16	--	Other Helmet
--	--	--	--	--	16	Helmet, Other than DOT-Compliant Motorcycle Helmet
--	--	--	--	--	19	Helmet, Unknown if DOT-Compliant
--	--	--	--	--	29	Unknown if Helmet Worn
--	--	--	96	96	96	Not a Motor Vehicle Occupant
--	--	--	97	98	98	Not Reported
--	--	--	98	97	97	Other
--	--	--	99	99	99	Unknown

P11 Indication of Misuse of Restraint System/Helmet

Definition: This data element identifies any mis-use of the restraint system or helmet used by this person.

Additional Information:

SAS Name: REST_MIS

Attribute Codes

2010	*2011-Later*	
1	0	No
2	1	Yes
96	8	Not a Motor Vehicle Occupant

P12 Air Bag Deployed

Definition: This data element records air bag availability and deployment for this person as reported in the PAR.

Additional Information: This data element is designed to collect both air bag availability and deployment for each occupied seat position. Variation in the presentation of the source data on the State crash report forms and the selections coded on the PAR may produce unlikely combinations or missing data. For example:

1. If the seat position does not have an air bag at the time of manufacture, but the information on the PAR indicates an air bag was available or deployed, the information on the PAR takes precedence.
2. If the seat position has an air bag installed at the time of manufacture and the PAR indicates there is no air bag available, then the PAR information takes precedence.

This data element was added to the Person data file in 1992.

SAS Name: **AIRBAG** ***1992-2008***
AIR_BAG ***2009-Later***

Attribute Codes

1992-1999	*2000-2008*	*2009*	*2010*	*2011-Later*	
0	0	--	--	--	No Air Bag Available *(Includes Airbags That Are Switched Off)*
--	--	0	--	--	Not Applicable *(Non-Motorist or Vehicle/Seat Not Equipped)*
--	--	--	0	0	Not Applicable
1	1	--	--	--	Deployed
--	--	1	1	1	Deployed – Front
--	--	2	2	2	Deployed – Side *(Door, Seat Back)*
--	--	3	3	3	Deployed – Curtain *(Roof)*
--	--	7	7	7	Deployed – Other *(Knee, Air Belt, etc.)*
--	--	8	8	8	Deployed – Combination
--	--	9	9	9	Deployment – Unknown Location
2	2	20	20	20	Not Deployed
--	--	28	28	28	Switched Off
--	8	--	--	--	Not Applicable *(Non-Motorist)*
--	--	--	96	97	Not a Motor Vehicle Occupant
--	--	--	97	98	Not Reported
9	9	99	--	--	Unknown if Available or Deployed
--	--	--	99	99	Deployment Unknown

P13 Ejection

Definition: This data element describes the ejection status and the degree of ejection for this person, excluding motorcycle occupants.

Additional Information: Starting in 2011, "Not Applicable" includes people not in motor vehicles (i.e., pedestrians, bicyclists, etc.)

SAS Name: **EJECT** ***1988-2008***
EJECTION ***2009-Later***

Attribute Codes

1988-1989	*1990-1994*	*1995-1998*	*1999-2000*	*2001-2003*	*2004-2008*	*2009*	*2010-Later*	
0	0	0	0	0	0	0	0	Not Ejected
1	--	1	1	1	1	1	1	Totally Ejected
--	1	--	--	--	--	--	--	Ejected *(Partial or Total)*
2	--	2	2	2	2	2	2	Partially Ejected
--	--	--	--	--	5	--	--	Not on PAR
--	--	--	--	--	6	--	--	Not Coded
7	--	7	--	7	7	3	3	Ejected – Unknown Degree
--	--	--	--	--	--	--	4	Not a Motor Vehicle Occupant *(2010 Only)*
--	--	--	--	--	--	--	7	Not Reported
--	--	--	--	8	8	8	8	Not Applicable
9	9	9	9	9	9	9	9	Unknown

P13I Imputed Ejection

Definition: From 2004 to 2008 this imputed data element had the same definition and data element values as Ejection, excluding 9 (Unknown), 5 (Not on PAR), and 6 (Not Coded). That is, it had the values (0,1,2,7, and 8). Prior to 2004, and in 2009, the only difference in the imputed data element is that 9 (Unknown) was excluded. From 2010 onward, the excluded attributes are 9 (Unknown) and 7 (Not Reported).

Additional Information: See the NASS GES Imputation section of this manual.

SAS Name: **EJECT_I** ***1988-2009***
EJECT_IM ***2010-Later***

P16/NM15 Police-Reported Alcohol Involvement

Definition: This data element records whether alcohol was involved for this person and reflects the judgment of law enforcement.

Additional Information: This data element does not indicate that alcohol was a cause of the crash. If a PAR indicates that opened or unopened alcohol bottles were found in the vehicle, then this information does not by itself constitute involvement.

From 1988 to 2008 alcohol involvement was reported only for drivers of in-transport motor vehicles and non-motorists. Other person types were coded 0 (Not Applicable or, for 1988-1989, Alcohol Not Involved). Starting in 2009 alcohol involvement is reported for all person types.

SAS Name: **PER_ALCH** ***1988-2010***
DRINKING ***2011-Later***

Attribute Codes

1988-1989	*1990-1998*	*1999-2001*	*2002-2008*	*2009-Later*	
0	--	1	1	0	No *(Alcohol Not Involved)*
--	0	--	--	--	Alcohol Not Involved or N/A
--	--	0	0	--	Not Applicable
1	1	2	2	1	Yes *(Alcohol Involved)*
--	--	--	6	--	Not on PAR
--	--	--	7	--	Not Coded
--	7	--	--	--	Alcohol and/or Drugs Involved
8	8	8	--	8	Not Reported
9	9	9	9	9	Unknown *(Police Reported)*

P16/NM15I Imputed Police-Reported Alcohol Involvement

Definition: The definition and data element values are the same as Police-Reported Alcohol Involvement with the following exceptions: From 1988 to 1993 the imputed data element excludes the attribute code 9 (Unknown – Police Reported) and any person who was coded 8 (Not Reported) for PER_ALCH was coded No Alcohol Involved for ALCH_H. Beginning in 1994 the methodology changed for the attribute 8 – rather than converting it to No Alcohol Involved it was imputed. The SAS name for the imputed data element changed from ALCH_H to PERALC_H in 1994 to reflect this change. In 2002 the PER_ALCH code 8 was replaced by 6 and 7, so from 2002 to 2008 codes 6 and 7, as well as 9, are imputed. Starting in 2009 codes 8 and 9 are imputed for not reported and unknown alcohol involvement, respectively.

Additional Information: See the NASS GES Imputation section of this manual.

SAS Name: **ALCH_H** ***1988-1993***
PERALC_H ***1994-2009***
PERALCH_IM ***2010-Later***

P18/NM17 Alcohol Test

P18A/NM17A Alcohol Test Status

Definition: This data element identifies whether an alcohol test was given to this person.

Additional Information: From 2005 to 2008 this was reported only for drivers of in-transport motor vehicles and non-motorists. Other person types were coded 8 (Not Applicable). Starting in 2009 it is reported for all person types.

SAS Name: **ALCHTEST** ***2005-2010***
ALC_STATUS ***2011-Present***

Attribute Codes

2005-2008

0	No
1	Yes
6	Not on Par
7	Not Coded
8	Not Applicable
9	Unknown

2009	***2010***	***2011-Later***	
0	0	0	Test Not Given
1	1	1	Test Refused
2	2	2	Test Given
--	7	8	Not Reported
9	--	--	Unknown if Tested/Not Reported
--	9	9	Unknown if Tested

P18B/NM17B Alcohol Test Type

Definition: This data element identifies the type of alcohol test that was given to this person.

Additional Information: If a valid blood test is administered along with another type of test then blood test is coded. This information is reported for all person types.

SAS Name: **ALTSTYPE** ***2009-2010***
ATST_TYP ***2011-Present***

Attribute Codes

2009	*2010*	*2011-2014*	*2015-Later*	
0	0	0	0	Test Not Given
1	1	1	1	Blood
2	2	2	--	Breath *(Breathalyzer "BAC")*
--	--	--	2	Breath Test *(AC)*
3	3	3	3	Urine
8	8	8	8	Other Test Type
10	10	10	10	Preliminary Breath Test *(PBT)*
--	97	95	95	Not Reported
98	98	98	98	Unknown Test Type
99	--	--	--	Unknown if Tested/Not Reported
--	99	99	99	Unknown if Tested

P18C/NM17C Alcohol Test Result

Definition: This data element identifies the alcohol test result for this person.

Additional Information: In 2015, this data element changed from a 2-digit field to a 3-digit field. Prior to 2015, the 3rd digit was truncated – not rounded. A BAC of .10 is coded as 10 prior to 2015 and as 100 in 2015 and later. The decimal is implied. The BAC is expressed in grams per deciliter (g/dL) or a clinical evaluation of the same.

SAS Name: **ALTRSULT** ***2009-2010***
ALC_RES ***2011-Later***

Attribute Codes

2009	*2010-2014*	*2015-Later*	
0-93	0-93	0-939	Actual Value
94	94	940	0.94 or Greater
--	95	995	Not Reported
96	96	996	Test Not Given
97	97	997	Test Performed, Results Unknown
98	98	998	Positive Reading With No Actual Value
99	--	--	Unknown if Tested/Not Reported
--	99	999	Unknown if Tested

More Information on Alcohol Test Result

P19/NM18 Police Reported Drug Involvement

Definition: This data element records whether drugs were involved for this person and reflects the judgment of law enforcement.

Additional Information: From 1990 to 2008 drug involvement was reported only for drivers of in-transport motor vehicles and non- motorists. Other person types were coded Not Applicable. Starting in 2009 drug involvement is reported for all person types.

Involvement is not an indication that drugs were in any way cause of the crash, even though it may have been. If the PAR indicates that drugs were found in the vehicle, then this information does not by itself constitute involvement.

This data element was added to the Person data file in 1990.

SAS Name: **PER_DRUG** ***1990-2010***
DRUGS ***2011-Later***

Attribute Codes

1990-1998	*1999*	*2000-2001*	*2002-2008*	*2009-Later*	
0	--	--	--	--	Drugs Not Involved or Not Applicable
--	1	0	0	--	Not Applicable
--	0	1	1	0	No *(Drugs Not Involved)*
1	2	2	2	1	Yes *(Drugs Involved)*
--	--	--	6	--	Not on PAR
--	--	--	7	--	Not Coded
7	--	--	--	--	Drugs and/or Alcohol Involved
8	8	8	--	8	Not Reported
9	9	9	9	9	Unknown *(Police Reported)*

P21/NM20 Drug Test

P21A/NM20A Drug Test Status

Definition: This data element identifies whether a drug test was given to this person.

Additional Information: From 2005 to 2008 this was reported only for drivers of in-transport motor vehicles and non-motorists. Other person types were coded 8 (Not Applicable). Starting in 2009 it is reported for all person types.

SAS Name: **DRUGTEST** ***2005-2010***
DSTATUS ***2011-Present***

Attribute Codes

2005-2008

0	No
1	Yes
6	Not on Par
7	Not Coded
8	Not Applicable
9	Unknown

2009	*2010*	*2011-Later*	
0	0	0	Test Not Given
1	1	1	Test Refused
2	2	2	Test Given
--	7	8	Not Reported
9	--	--	Unknown if Tested/Not Reported
--	9	9	Unknown if Tested

P21B/NM20B Drug Test Type

Definition: This data element identifies the type of drug test that was given to this person.

Additional Information: This information is reported for all person types.

SAS Name: **DRTSTYPE** ***2009-2010***
DRUGTST1, **DRUGTST2**, **DRUGTST3** ***2011-Later***

Attribute Codes

2009	*2010*	*2011-Later*	
0	0	0	Test Not Given
1	1	1	Blood Test
2	2	2	Urine Test
3	3	3	Both Blood and Urine Tests
8	8	8	Other Test Type
--	97	6	Not Reported
98	98	7	Unknown Test Type
99	--	--	Unknown if Tested/Not Reported
--	99	9	Unknown if Tested

P21C/NM20C Drug Test Result

Definition: This data element identifies the drug test result for this person.

SAS Name: **DRTRSULT** ***2009-2010***
DRUGRES1, **DRUGRES2**, **DRUGRES3** ***2011-Later***

Attribute Codes

2009	*2010*	*2011-Later*	
0	0	000	Test Not Given
1	--	--	Negative
--	1	--	Negative/No Drugs Reported
--	--	001	Negative/No Drugs Found
2	--	--	Positive
--	2	998	Positive/Tested for Drugs, Drugs Found, Type Unknown
--	5	095	Not Reported
7	7	997	Tested for Drugs, Result Unknown
9	--	--	Unknown if Tested/Not Reported
--	9	999	Unknown if Tested

P22/NM21 Transported to First Treatment Facility

Definition: This data element identifies the mode of transportation to a hospital or medical facility provided for this person.

Additional Information: Prior to 2010 this data element was called "Taken to Hospital or Treatment Facility." From 2011 to 2012 this data element was called " Transported to Medical Facility By."

SAS Name: HOSPITAL

Attribute Codes

1988-2009	*2010*	*2011-Later*	
0	--	--	No
1	--	--	Yes
9	--	--	Unknown
--	4	0	Not Transported
--	5	5	EMS Ground
--	6	1	EMS Air
--	7	3	EMS Unknown Mode
--	8	2	Law Enforcement
--	9	4	Transported Unknown Source
--	97	8	Not Reported
--	98	6	Other
--	99	9	Unknown

P26/NM25 Related Factors - Person Level

Definition: This data element records factors related to motor vehicle occupants other than drivers and persons not in motor vehicles as expressed by the investigating officer.

Additional Information: There are also vehicle-level-related factors in the Vehicle data file, VEH_SC1 and VEH_SC2 (VEH_CF1 and VEH_CF2 prior to 2010) and driver-related factors, also in the Vehicle data file, namely DR_SF1, DR_SF2, DR_SF3 and DR_SF4 (DR_CF1–DR_CF4 prior to 2010). There are also crash-related factors CF1, CF2, and CF3 in the Accident data file.

Any of the three data elements may have been used to code a related factor. One must test all three data elements to insure that the selected related factor is included.

Person-related factors for all drivers are coded 00. Person-related factors for non-drivers can have non-zero values as listed below.

SAS Name: P_SF1, P_SF2, P_SF3

Attribute Codes

2012-Later

00 None/Not Applicable-Driver
05 Interfering With Driver*
09 Construction/Maintenance/Utility Worker/Highway Department, Contractor, Utility Company Personnel, etc.
13 Motorized Wheelchair Rider**
21 Overloading or Improper Loading of Vehicle with Passengers or Cargo
32 Opening Vehicle Closure into Moving Traffic or While Vehicle is in Motion*
56 Non-Driver Flees Scene
86 Emergency Services Personnel
87 Police or Law Enforcement Officer
89 Parked Motor Vehicle With Equipment Extending into the Travel Lane *(Since 2013)**
90 Non-Motorist Pushing a Vehicle**
91 Portable Electronic Devices
92 Person in Ambulance Treatment Compartment *(Since 2013)**
99 Unknown

***** Attribute is only applicable to occupants (other than drivers) of motor vehicles.

** Attribute is only applicable to persons not in motor vehicles.

NM4 Number of Motor Vehicle Striking Non-Motorist

Definition: This data element identifies the "Vehicle Number" (VEH_NO) of the in-transport vehicle that made contact with this non-motorist.

Additional Information: This data element applies only to non-motorists/non-occupants and reflects the vehicle that made contact with the non-motorist/non-occupant being coded.

Prior to 2011 this data element was called "Non-Motorist Striking Vehicle Number."

The number must match the vehicle number of the striking vehicle. This number is similar to VEH_NO, except that the non-motorist/non-occupant was struck by the vehicle, rather than being within the vehicle.

SAS Name: STR_VEH

Attribute Codes

1994-2010	*2011-Later*	
0	0	Occupant of Motor Vehicle
1-30	1-998	Vehicle Number of Striking Vehicle
--	999	Unknown

NM10 Non-Motorist Location at Time of Crash

Definition: This data element identifies the attribute which best describes the location of this non-motorist with respect to the roadway at the time of the crash.

Additional Information: Non-motorists who are occupants of motor vehicles not in-transport are coded with respect to the location of the vehicle.

SAS Name: **LOCATN** ***1988-2010***
LOCATION ***2011-Present***

Attribute Codes

1988-2009	*2010*	*2011-2013*	*2014-Later*	
0	--	--	--	Not Applicable-Driver or Occupant of M.V. in Transport
--	0	0	0	Not Applicable-Motor Vehicle Occupant
1	--	--	--	Intersection-In Crosswalk
2	--	--	--	Intersection-On Roadway
8	--	--	--	Intersection-Other
9	--	--	--	Intersection-Unknown Location
11	--	--	--	Non-Intersection-In Crosswalk
12	--	--	--	Non-Intersection-On Roadway
18	--	--	--	Non-Intersection-Other
19	--	--	--	Non-Intersection-Unknown Location
20	--	--	--	In Crosswalk-Unknown if Intersection
--	21	1	--	Intersection-In Marked Crosswalk
--	--	--	1	At Intersection-In Marked Crosswalk
--	22	2	--	Intersection-Unmarked Crosswalk
--	--	--	2	At Intersection-Unmarked/Unknown If Marked Crosswalk
--	23	3	--	Intersection-Not in Crosswalk
--	--	--	3	At Intersection-Not in Crosswalk
--	24	9	--	Intersection-Unknown Location
--	--	--	9	At Intersection-Unknown Location
--	25	10	--	Non-Intersection-In Marked Crosswalk
--	--	--	10	Not At Intersection-In Marked Crosswalk
--	26	11	--	Non-Intersection-On Roadway, Not in Marked Crosswalk
--	--	--	11	Not At Intersection-On Roadway, Not in Marked Crosswalk
--	27	13	--	Non-Intersection-On Roadway, Crosswalk Availability Unknown
--	--	--	13	Not At Intersection-On Roadway, Crosswalk Availability Unknown
--	28	16	16	Bicycle Lane
--	29	20	20	Shoulder/Roadside
--	30	21	21	Sidewalk
--	31	22	22	Median/Crossing Island
--	32	23	23	Driveway Access
--	33	24	--	Shared-Use Path/Trail
--	--	--	24	Shared-Use Path
--	34	25	25	Non-Trafficway Area

NM10 Non-Motorist Location at Time of Crash *(continued)*

Attribute Codes

1988-2009	*2010*	*2011-2013*	*2014-Later*	
--	35	14	14	Parking Lane/Zone
--	37	98	98	Not Reported
98	38	28	28	Other
99	39	99	99	Unknown Location

Discontinued PERSON Data Elements

Condition at Time of Crash (discontinued)

Definition: Identifies physical impairments for all drivers and non-motorists which may have contributed to the cause of the crash.

Additional Information: In 1990 this data element replaced "Non-Motorist's Physical / Mental Condition" in the Person data file and "Driver Physical/Mental Impairment" in the Vehicle data file.

If more than one impairment is noted on the PAR the lowest numbered code is selected. From 2002 on all impairments for a driver or non-motorist are available in the Impair data file (SAS data element MIMPAIR).

The Person.IMPAIRMT is rolled up from the Impair data file. If there are no records, then the value 0 is assigned. If there is a single record, then the SAS code for that record is assigned. If there are multiple records, then the minimum SAS code of all the records is assigned.

Starting in 2010, this data element will be available only in the Impair data file.

See Appendix E: Rules for Derived Data Elements for an expanded explanation of this data element and how it is derived in 2009 and before.

SAS Name: IMPAIRMT

Attribute Codes

1990-2006	*2007-2009*	
0	0	None
1	1	Ill, Blackout
2	2	Drowsy, Sleepy, Fell Asleep, Fatigued
3	3	Walking with a Cane or Crutches
4	4	Paraplegic or Restricted to Wheelchair
5	5	Impaired Due to Previous Injury
6	6	Deaf
7	7	Blind
--	50	Hit & Run *(And No Information)*
--	93	Not on PAR
--	94	Not Coded
97	97	Physical Impairment-No Details
98	98	Other Physical Impairment
99	99	Unknown if Physically Impaired

Non-Motorist Action (discontinued)

Definition: Identifies circumstances (actions) that may have contributed to the cause of the crash. The actions coded pertain to non-motorists only.

Additional Information: For 1990-2008 that is Person Type (P03) =4 (Occupant of a Non-Motor Vehicle Transport Device), 5 (Pedestrian), 6 (Pedalcyclist), 7 (Other Cyclist), or 8 (Other or Unknown). From 2009 on it is Person Type (P03)= 4 (Occupant of a Non-Motor Vehicle Transport Device), 5 (Pedestrian), 6 (Bicyclist), 7 (Other Cyclist), 8 (Persons on Personal Conveyances), or 19 (Unknown Type of Non-Motorist).

If more than one action is noted on the PAR the lowest numbered code shown below is selected.

From 2002 to 2009 all actions for a non-motorist are available in the Nmaction data file (SAS data element MACTION). Person.ACTION is rolled up from the Nmaction data file. If there are no records, then the value 00 is assigned. If there is a single record, then the SAS code for that record is assigned. If there are multiple records, then the minimum SAS code of all the records, with the exception that if the SAS code 0 is one of the values, is assigned. The SAS code 0 is excluded from the calculation, all other values take precedence over 0 (zero).

This data element was discontinued in 2010 and replaced with two data elements: "Non-Motorist Action/Circumstances Prior to Crash" and "Non-Motorist Action/Circumstances at Time of Crash." These data elements are in the Nmprior and Nmcrash data files, respectively.

See Appendix E: Rules for Derived Data Elements for an expanded explanation of this data element and how it is derived in 2009 and before.

SAS Name: ACTION

Attribute Codes

1990-1991	*1992-2009*	
0	0	No Action
NON-MOTORIST VEHICLE OPERATOR:		
1	1	Failing to Have Lights on When Required
2	2	Operating without Required Equipment
3	3	Improper or Erratic Lane Changing
4	4	Failure to Keep in Proper Lane or Running Off Road
5	5	Making Improper Entry to or Exit from Trafficway
6	6	Operating the Vehicle in Erratic, Reckless, Negligent Manner
7	7	Failure to Yield Right of Way
8	8	Failure to Obey Traffic Signs/Control Devices/Officers, Failure to Observe Safety Zone
9	9	Making Other Improper Turn
10	10	Driving on Wrong Side of Road

Non-Motorist Action *(continued)*

Attribute Codes

1990-1991	*1992-2009*	
	OTHER NON-MOTORIST:	
21	21	Darting or Running into Road
22	22	Improper Crossing of Roadway or Intersection *(Jaywalking)*
23	--	Walking/Riding with or Against Traffic, Playing, Working, Sitting, Lying, Standing in Roadway
24	24	Inattentive *(Talking, Eating, etc.)*
25	25	Jogging
26	26	Non-Motorist Pushing Vehicle
--	27	Walking with Traffic
--	28	Walking Against Traffic
--	29	Playing, Working, Sitting, Lying, Standing, Etc. In Roadway
98	98	Other Action
99	99	Unknown Action

Non-Motorist Safety Equipment Use (discontinued)

Definition: Identifies safety equipment worn or carried by the non-motorist.

Additional Information: For 1990-2008 that is Person Type =4 (Occupant of a Non-Motor Vehicle Transport Device), 5 (Pedestrian), 6 (Pedalcyclist), 7 (Other Cyclist), or 8 (Other or Unknown). From 2009 on it is Person Type = 4 (Occupant of a Non-Motor Vehicle Transport Device), 5 (Pedestrian), 6 (Bicyclist), 7 (Other Cyclist), 8 (Persons on Personal Conveyances), or 19 (Unknown Type of Non-Motorist).

If more than one item is noted on the PAR the lowest numbered code shown below is selected. From 2002 on all items for a non-motorist are available in the Safetyeq data file (SAS data element MSAFEQMT).

The Person.SAF_EQMT is rolled up from the Safetyeq data file. In 2009 and before, if the person type is not 4, 5, 6, 7, 8, or 10 (SAS codes), then the value 0 is assigned. Also, If there are no records, then the value 0 is assigned. If there is a single record, then the SAS code for that record is assigned. If there are multiple records, and there are both records with SAS codes 2 and 3, then the value is set to 4. If not, the records are prioritized by the following SAS code order, where the earliest value on the list is used: 2, 3, 8, 9, 0, and 1.

Starting in 2010, this data element will be available only in the Safetyeq data file.

See Appendix E: Rules for Derived Data Elements for an expanded explanation of this data element and how it is derived in 2009 and before.

SAS Name: SAF_EQMT

Attribute Codes

1990-1998	*1999-2009*	
0	--	None Used or Not Applicable
--	0	Not Applicable
--	1	None Used
1	2	Bicycle Helmet
2	3	Reflective Equipment
3	4	Bicycle Helmet and Reflective Equipment
8	8	Other Safety Equipment
9	9	Unknown if Used

Non-Motorist's Physical/Mental Condition (discontinued)

Definition: Indicates the physical/mental condition for non-motorists.

Additional Information: If the person is a driver or occupant of a motor vehicle in-transport, they are coded as 0. When two or more circumstances apply, the attribute with the lowest numerical value is coded.

In 1990, this data element was dropped and replaced with "Person's Physical Impairment."

SAS Name: PHY_COND

Attribute Codes

1988-1989

0	No Physical/Mental Conditions, Non-motorist; or Not Applicable, Driver or Occupant of Motor Vehicle in Transport
1	Ill, Blackout
2	Emotional *(e.g. Depression, Angry, Disturbed)*
3	Drugs -Medication
4	Other Drugs *(e.g. Cocaine, Marijuana, etc.)*
5	Walking with Cane or Crutches
6	Paraplegic or Restricted to Wheelchair
7	Impaired Due to Previous Injury
8	Deaf
9	Blind
97	Physical/Mental Impairment-No Details
98	Other Physical/Mental Impairment
99	Unknown Physical/Mental Condition

Person's Action (discontinued)

Definition: Person's actions are indicated for everyone involved in the crash except the driver of a motor vehicle in-transport.

Additional Information: This data element was dropped from the Person data file in 1990 and was replaced with the data element "Non-Motorist's Action."

SAS Name: ACTION

Attribute Codes

1988-1989

0 Not Applicable-Driver or, if non-driver, No Action

NON-MOTORIST VEHICLE OPERATOR:

1 Failing to have Lights on When Required
2 Operating without Required Equipment
3 Improper or Erratic Lane Changing
4 Failure to Keep in Proper Lane or Running Off Road
5 Making Improper Entry to or Exit from Trafficway
6 Operating the Vehicle in Erratic, Reckless, Negligent Manner
7 Failure of Yield Right of Way
8 Failure to Obey Traffic Signs/Control Devices/Officers, Failure to Observe Safety Zone
9 Making Other Improper Turns
10 Driving on Wrong Side of Road

MOTOR VEHICLE OCCUPANT:

20 Interfering with Driver

OTHER NON-MOTORISTS:

21 Darting or Running into Road
22 Improper Crossing of Roadway or Intersection *(Jaywalking)*
23 Walking/Riding with or Against Traffic, Playing, Working, Sitting, Lying, Standing in Roadway
24 Inattentive *(Talking, Eating, etc..)*
25 Jogger
26 Non-motorist Pushing Vehicle
98 Other Action
99 Unknown Action

Restraint Type (discontinued)

Definition: Provides additional information about the restraint system coded in the data element "Restraint System Use", distinguishing between automatic and manual type devices used.

Additional Information: This data element was added to the Person Data set in 1990 and deleted in 1999.

SAS Name: REST_TYP

Attribute Codes

1990-1998

0 None Available or Not Applicable
1 Automatic *(Passive)*
2 Manual *(Active)*
9 Unknown Type

Safety Equipment Use (discontinued)

Definition: Indicates the occupant's use of available vehicle restraints. The presence of an air bag system does not mean that there are no active belts present.

Additional Information: This data element was dropped from the Person data file in 1990 and was replaced with "Restraint System Use."

SAS Name: SAF_EQMT

Attribute Codes

1988-1989

0	Non-Motorist
1	Child Restraint Used
2	Manual Lap Belt Used
3	Manual Shoulder Belt Only Used
4	Manual Shoulder and Lap Belt Used
5	Automatic Belt Used
6	Deployed Air Bag
7	Motorcycle Helmet Used
8	Other Restraint / Safety Equipment Used
9	Restraint Used-Type Unknown
10	None Used
11	None Available
99	Unknown Use or Availability

The PARKWORK Data File

The Parkwork data file includes Vehicle data elements applicable to Parked and Working Vehicles. It contains the data elements CASENUM, PSU, PSUSTRAT, STRATUM, REGION, WEIGHT, and PJ, which are described in the beginning of the Data Element Definitions and Codes section. The Parkwork data file also contains the data elements on the following pages.

CASENUM and VEH_NO are the unique identifiers for each record. CASENUM should be used to merge the Parkwork data file with the Accident data file. CASENUM and VEH_NO should be used to merge the Parkwork data file with the Vindecode and Person data files.

The Parkwork data file replaced the Parked data file in 2011. The Parked data file ran from 2005 to 2010 and its element and attribute history is also provided below.

C4A Number of Motor Vehicles in Transport (MVIT) Involved

Definition: This data element is a count of the number of vehicles in-transport involved in the crash. Legally parked vehicles are not included.

Additional Information: See this data element in the Accident data file section for more information.

SAS Name: **PVE_FORMS**

Attribute Codes

2011-Later

1-100 Number of Vehicles

C8 Crash Date

C8A Month of Crash

Definition: This data element records the month in which the crash occurred.

Additional Information: See this data element in the Accident data file section for more information.

SAS Name: PMONTH

Attribute Codes

2011-Later

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

C9 Crash Time

C9A Hour of Crash

Definition: This data element records the hour at which the crash occurred.

Additional Information: See this data element in the Accident data file section for more information.

SAS Name: PHOUR

Attribute Codes

2011-Later

0-23	Hour
99	Unknown

C9B Minute of Crash

Definition: This data element records the minutes after the hour at which the crash occurred.

Additional Information: See this data element in the Accident data file section for more information.

SAS Name: PMINUTE

Attribute Codes

2011-Later

0-59	Minute
99	Unknown

C19 First Harmful Event

Definition: This data element describes the first injury or damage producing event of the crash.

Additional Information: See this data element in the Accident data file section for more information.

SAS Name: PHARM_EV

Attribute Codes

2011-Later

1 Rollover/Overturn
2 Fire/Explosion
3 Immersion
4 Gas Inhalation
5 Fell/Jumped from Vehicle
6 Injured in Vehicle *(Non-Collision)*
7 Other Non-Collision
8 Pedestrian
9 Pedalcyclist
10 Railway Vehicle
11 Live Animal
12 Motor Vehicle in Transport
14 Parked Motor Vehicle
15 Non-Motorist on Personal Conveyance
16 Thrown or Falling Object
17 Boulder
18 Other Object *(Not Fixed)*
19 Building
20 Impact Attenuator/Crash Cushion
21 Bridge Pier or Support
23 Bridge Rail *(Includes Parapet)*
24 Guardrail Face
25 Concrete Traffic Barrier
26 Other Traffic Barrier
30 Utility Pole/Light Support
31 Other Post, Other Pole, or Other Support
32 Culvert
33 Curb
34 Ditch
35 Embankment
38 Fence
39 Wall
40 Fire Hydrant
41 Shrubbery
42 Tree *(Standing Only)*
43 Other Fixed Object
44 Pavement Surface Irregularity *(Ruts, Potholes, Grates, etc.)*

C19 First Harmful Event *(continued)*

Attribute Codes

2011-Later

45 Working Motor Vehicle
46 Traffic Signal Support
48 Snow Bank
49 Ridden Animal or Animal-Drawn Conveyance *(Since 1998)*
50 Bridge Overhead Structure
51 Jackknife *(Harmful to This Vehicle)*
52 Guardrail End
53 Mail Box
54 Motor Vehicle In-Transport Strikes or is Struck by Cargo, Persons or Objects Set-in-Motion from/by Another Motor Vehicle In-Transport
55 Motor Vehicle in Motion Outside the Trafficway *(Since 2008)*
57 Cable Barrier *(Since 2008)*
58 Ground
59 Traffic Sign Support
60 Cargo/Equipment Loss or Shift *(Non-Harmful)*
61 Equipment Failure *(Blown Tire, Brake Failure, etc.)*
62 Separation of Units
63 Ran Off Road – Right
64 Ran Off Road – Left
65 Cross Median
66 Downhill Runaway
67 Vehicle Went Airborne
68 Cross Centerline
69 Re-Entering Highway
70 Jackknife *(Non-Harmful)*
72 Cargo/Equipment Loss or Shift *(Harmful To This Vehicle)*
98 Not Reported
99 Unknown

C20 Manner of Collision

Definition: This data element describes the orientation of two motor vehicles in-transport when they are involved in the "First Harmful Event" of a collision crash. If the "First Harmful Event" is not a collision between two motor vehicles in-transport it is classified as such.

Additional Information: See this data element in the Accident data file section for more information.

SAS Name: **PMAN_COLL**

Attribute Codes

2011-Later

0	Not Collision with Motor Vehicle in Transport
1	Front-to-Rear
2	Front-to-Front
6	Angle
7	Sideswipe, Same Direction
8	Sideswipe, Opposite Direction
9	Rear-to-Side
10	Rear-to-Rear
11	Other
98	Not Reported
99	Unknown

V4 Number of Occupants

Definition: This data element is a count of the number of occupants in this vehicle.

Additional Information: See this data element in the Vehicle data file section for more information.

SAS Name: PNUMOCCS

Attribute Codes

2005-2008	*2009-Later*	
0	0	None
1-998	1-95	Number of Occupants Involved
--	96	Ninety-six or More
--	97	Not Reported *(2010 Only)*
999	99	Unknown

V5 Unit Type

Definition: This data element identifies the type of unit that applies to this motor vehicle at the time it became an involved vehicle in the crash and was reported as a unit on the PAR.

Additional Information: This data element also appears in the Vehicle data file as UNITTYPE. The only valid attribute for UNITTYPE is 1 (Motor Vehicle in Transport *(Inside or Outside the Trafficway)*).

SAS Name: PTYPE

Attribute Codes

2005-2010

1 Parked Vehicle
2 Working Vehicle

2011-Later

2 Motor Vehicle Not in Transport Within the Trafficway
3 Motor Vehicle Not in Transport Outside the Trafficway
4 Working Motor Vehicle *(Highway Construction, Maintenance, Utility Only)*

V6 Hit and Run

Definition: This data element identifies whether this vehicle was a contact vehicle in the crash that did not stop to render aid (this can include drivers who flee the scene on foot). Hit and run is coded when a motor vehicle in-transport, or its driver, departs from the scene; vehicles not in-transport are excluded. It does not matter whether the hit-and-run vehicle was striking or struck.

Additional Information: See this data element in the Vehicle data file section for more information.

SAS Name: PHIT_RUN

Attribute Codes

2011	*2012-Later*	
0	0	No
1	1	Yes
8	--	Not Reported
9	9	Unknown

V9 Vehicle Make

Definition: This data element identifies the make (manufacturer) of this vehicle.

Additional Information: See this data element in the Vehicle data file section for more information.

SAS Name: PMAKE

Attribute Codes

2005-Later

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
19 Cadillac
20 Chevrolet
21 Oldsmobile
22 Pontiac
23 GMC
24 Saturn
25 Grumman
26 Coda *(Since 2013)*
29 Other Domestic Manufacturers
Avanti
Checker
DeSoto
Excalibur
Hudson
Packard
Panoz
Saleen
Studebaker
Stutz
Tesla (Since 2014)
30 Volkswagen
31 Alfa Romeo
32 Audi
33 Austin/Austin Healey
34 BMW
35 Datsun/Nissan
36 Fiat

V9 Vehicle Make *(continued)*

Attribute Codes

2005-Later

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 Diahatsu
61 Sterling
62 Land Rover
63 Kia
64 Daewoo
65 Mini *(2002-2007)*
65 Smart *(2008-Later)*
66 Mahindra *(2011-2013)*
67 Scion *(Since 2012)*
69 Other Import

Aston Martin
Bentley
Bertone
Bricklin
Bugatti
Caterham
Citroen
DeLorean
Desta
Ferrari
Fisker

V9 Vehicle Make *(continued)*

Attribute Codes

2005-Later

69 Other Import *(continued)*
- *Gazelle*
- *Hillman*
- *Jensen*
- *Koenigsegg*
- *Lada*
- *Lamborghini*
- *Lotus*
- *Mahindra (Since 2013)*
- *Maserati*
- *Maybach*
- *McLaren*
- *Mini Cooper*
- *Morgan*
- *Morris*
- *Reliant (British)*
- *Rolls-Royce*
- *Simca*
- *Singer*
- *Spyker*
- *Sunbeam*
- *TVR*

70 BSA
71 Ducati
72 Harley-Davidson
73 Kawasaki
74 Moto-Guzzi
75 Norton
76 Yamaha
78 Other Make Moped
79 Other Make Motored Cycle
80 Brockway
81 Diamond Reo/Reo
82 Freightliner/White
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

V9 Vehicle Make *(continued)*

Attribute Codes

1988-Later

93 MCI
94 Thomas Built
97 Not Reported
98 Other Make
Auto-Union-DKW
Carpenter
Collins Bus
DINA
Divco
Hino
Meyers Motors
Mid Bus
Neoplan
Orion
Oshkosh
Scania
Sterling
Think
UD
Van Hool
Western Star
99 Unknown Make

V10 Vehicle Model

Definition: This data element identifies the model of this vehicle within a given make.

Additional Information: See this data element in the Vehicle data file section for more information.

SAS Name: PMODEL

Attribute Codes

2005-Later

See the current FARS/NASS GES Coding and Validation Manual for vehicle model codes. See the 2010 NASS GES Analytical User's Manual for make and model codes prior to the consolidation of FARS and NASS GES (and the standardization of these codes) in 2011.

V11 Body Type

Definition: This data element identifies a classification of this vehicle based on its general body configuration, size, shape, doors, etc.

Additional Information: See this data element in the Vehicle data file section for more information.

SAS Name: PBODYTYP

Attribute Codes

2005-2009	*2010-Later*	
AUTOMOBILES		
1	1	Convertible *(Excludes Sun-Roof, T-Bar)*
2	2	2-Door Sedan, Hardtop, Coupe
3	3	3-Door/2-Door Hatchback
4	4	4-Door Sedan, Hardtop
5	5	5-Door/4-Door Hatchback
6	6	Station Wagon *(Excluding Van And Truck Based)*
7	7	Hatchback, Number Of Doors Unknown
17	17	3-Door Coupe
8	--	Other Automobile Type
--	8	Sedan/Hardtop, Number of Doors Unknown
9	--	Unknown Automobile Type
--	9	Other or Unknown Automobile Type
AUTOMOBILE DERIVATIVES		
10	10	Auto Based Pickup *(Includes El Camino, Caballero, Ranchero, SSR, G8-ST, Baha, Brat, And Rabbit Pickup)*
11	11	Auto Based Panel *(Cargo Station Wagon, Auto-Based Ambulance/Hearse)*
12	12	Large Limousine *(More Than Four Side Doors Or Stretched Chassis)*
13	13	Three Wheel Automobile Or Automobile Derivative
UTILITY VEHICLES		
14	14	Compact Utility *(ANSI D-16 Utility Vehicle Categories "Small" and "Midsize")*
15	15	Large Utility *(ANSI D-16 Utility Vehicle Categories "Full Size" and "Large")*
16	16	Utility Station Wagon
19	19	Utility Vehicle, Unknown Body Type
VAN-BASED LIGHT TRUCKS (< 4,536 KG GVWR)		
20	20	Minivan
21	21	Large Van – Includes Van-Based Buses
22	22	Step Van Or Walk-In Van *(≤ 4,536 Kg GVWR)*
23	--	Van-Based Motor-Home
24	--	Van-Based School Bus
25	--	Van-Based Transit Bus
28	28	Other Van Type
29	29	Unknown Van Type

V11 Body Type *(continued)*

Attribute Codes

2005-2009	*2010-Later*	
		LIGHT CONVENTIONAL TRUCKS (PICKUP STYLE CAB, ≤4,536 KG GVWR)
30	30	Compact Pickup *(S-10, LUV, Ram 50, Rampage, Courier, Ranger, S-5, Pup, Mazda Pickup, Mitsubishi Truck, Datsun/Nissan Pickup, Arrow Pickup, Scamp, Toyota Pickup, VW Pickup, D50, Colt P/U, T-10, S-15, T-15, Ram 100, Dakota, Sonoma)*
31	31	Standard Pickup *(C10-C35, Jeep P/U, Comanche, Ram P/U, K10-K35, D100-D350, W100-350, F100-F350, R100-500, R10-R35, V10-35, Silverado, Sierra, T100)*
32	32	Pickup With Slide-In Camper
33	33	Convertible Pickup
39	39	Unknown *(Pickup Style)* Light Conventional Truck
		OTHER LIGHT TRUCKS (≤4,536 KG GVWR)
40	40	Cab Chassis Based *(Included Rescue Vehicle, Light Stake, Dump, And Tow Truck)*
41	41	Truck Based Panel
45	45	Other Light Conventional Truck Type
48	--	Unknown Other Light Truck Type *(Utility, Van, Pickup, Or Other Light Truck)*
--	48	Unknown Light Truck Type *(Not A Pickup, 2010-2012)*
--	48	Unknown Light Truck Type *(Since 2013)*
49	49	Unknown Light Vehicle Type *(Automobile, Utility, Van, Or Light Truck)*
		BUSES (EXCLUDES VAN BASED)
50	50	School Bus *(Designed To Carry Students, Not Cross Country Or Transit)*
--	51	Cross Country/Intercity Bus *(i.e., Greyhound)*
--	52	Transit Bus *(City Bus)*
--	55	Van-Based Bus GVWR > 10,000 lbs. *(Since 2011)*
58	58	Other Bus Type *(e.g., Transit, Intercity, Bus Based Motor Home)*
59	59	Unknown Bus Type
		MEDIUM/HEAVY TRUCKS (>4,536 KG GVWR)
60	60	Step Van
--	61	Single-Unit Straight Truck *(10,000 lbs<GVWR< or =19,500 lbs) (2010 Only)*
--	61	Single-Unit Straight Truck or Cab-Chassis *(10,000 lbs<GVWR< or =19,500 lbs) (Since 2011)*
--	62	Single-Unit Straight Truck *(19,500 lbs<GVWR< or =26,000 lbs) (2010 Only)*
--	62	Single-Unit Straight Truck or Cab-Chassis *(19,500 lbs<GVWR< or =26,000 lbs) (Since 2011)*
--	63	Single-Unit Straight Truck *(GVWR>26,000 lbs) (2010 Only)*
--	63	Single-Unit Straight Truck or Cab-Chassis *(GVWR>26,000 lbs) (Since 2011)*
64	--	Single Unit Straight Truck
--	64	Single Unit Straight Truck or Cab-Chassis *(GVWR unknown) (Since 2011)*
66	66	Truck-Tractor *(Cab Only, Or With Any Number Of Trailing Units; Any Weight)*
--	67	Medium/Heavy Pickup *(GVWR > 10,000 lbs) (Since 2001)*
--	68	Single-Unit Straight Truck *(GVWR unknown) (2010 Only)*

V11 Body Type *(continued)*

Attribute Codes

2005-2009	*2010-Later*	
--	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)*
78	78	Unknown Medium/Heavy Truck Type
79	79	Unknown Truck Type *(Light/Medium/Heavy)*
MOTOR HOMES		
42	42	Light Truck Based Motor Home *(Chassis Mounted)*
65	65	Medium/Heavy Truck-Based Motor Home
--	73	Camper or Motor Home, Unknown Truck Type
MOTORED CYCLES, MOPEDS, ALL-TERRAIN VEHICLES		
80	80	Motorcycle
81	81	Moped *(Motorized Bicycle)*
82	82	Three Wheeled Motorcycle Or Moped
--	83	Off-Road Motorcycle *(2-Wheel)*
88	88	Other Motored Cycle Type *(Minibike, Motor Scooter, Pocket Motorcycles, Pocket Bikes)*
89	89	Unknown Motored Cycle Type
90	90	ATV *(All-Terrain Vehicle; Includes 3 or 4 Wheels)*
OTHER VEHICLES		
91	91	Snowmobile
92	92	Farm Equipment Other Than Trucks
93	93	Construction Equipment Other Than Trucks *(Includes Graders)*
--	94	Low Speed Vehicle *(LSV)*/Neighborhood Electric Vehicle *(NEV) (Since 2011)*
--	95	Golf Cart *(Since 2012)*
97	97	Other Vehicle Type *(Includes Go-Cart, Fork-Lift, City Street Sweeper, Dune/Swamp Buggy, Golf Cart)*
--	98	Not Reported
99	99	Unknown Body Type

V12 Vehicle Model Year

Definition: This data element identifies the manufacturer's model year of this vehicle.

Additional Information: See this data element in the Vehicle data file section for more information.

SAS Name: **PMODELYR** ***2010***
PMODYEAR ***2011-Later***

Attribute Codes

2005-2009	***2010***	***2011-Later***	
xxxx	xxxx	xxxx	Actual Model Year
--	7777	9998	Not Reported
9999	9999	9999	Unknown

V13 Vehicle Identification Number (VIN)

Definition: This data element records the vehicle identification number (VIN) of this vehicle assigned by the vehicle manufacturer. The VIN contains information on the vehicle such as: manufacturer, model year, model, body type, restraint type, etc.

Additional Information: See this data element in the Vehicle data file section for more information.

SAS Name: PVIN

Attribute Codes

2005-2008 *(character data type, length 11)*
2009-Later *(character data type, length 12)*

2005-2008	***2009***	***2010-Later***	
00000000000	000000000000	000000000000	No VIN
xxxxxxxxxxx	xxxxxxxxxxxxx	xxxxxxxxxxxxx	Actual VIN
--	--	888888888888	Not Reported
99999999999	999999999999	999999999999	Unknown VIN

V14 Vehicle Trailing

Definition: This data element identifies whether this vehicle had any attached trailing units or was towing another motor vehicle. A trailing unit can be a horse trailer, fifth wheel trailer, camper, boat, truck trailer, towed vehicle or any other trailer.

Additional Information: See this data element in the Vehicle data file section for more information.

SAS Name: PTRAILER

Attribute Codes

2005-2008	*2009-Later*	
1	0	No Trailing Units
2	1	Yes, One Trailing Unit
3	2	Yes, Two Trailing Units
4	3	Yes, Three or More Trailing Units
5	4	Yes, Number of Trailing Units Unknown
--	5	Vehicle Towing Another Motor Vehicle – Fixed Linkage
--	6	Vehicle Towing Another Motor Vehicle – Non-fixed Linkage
6	9	Unknown

V16 Motor Carrier Identification Number (MCID)

Definition: This data element records the issuing authority and motor carrier identification number if applicable to this vehicle.

Additional Information: This 11-character data element is the combination of two data elements, the 2-digit Motor Carrier Issuing Authority code (MCARR_I1) followed by the 9-character Identification Number (MCARR_I2).

See this data element in the Vehicle data file section for more information.

SAS Name: **PCARIDNO** ***2005-2010***
PMCARR_ID ***2011-Later***

Attribute Codes

2005-2009	***2010***	
000000000	000000000	Not Applicable
xxxxxxxx	1-999999996	U.S. DOT Number
--	999999997	Not Reported
999999999	999999999	Unknown

2011-Later

xxxxxxxxxxx	11-Character Combination of MCARR_I1 followed by MCARR_I2

V16A MCID Issuing Authority

Definition: This data element records the issuing authority if applicable to this vehicle.

Additional Information: See this data element in the Vehicle data file section for more information.

SAS Name: PMCARR_I1

Attribute Codes

2011-Later

00	Not Applicable
01-56	GES State Code
57	US DOT
58	MC/MX *(ICC)*
77	Not Reported
88	None
95	Canada
96	Mexico
99	Unknown

V16B MCID Identification Number

Definition: This data element records the motor carrier identification number if applicable to this vehicle.

Additional Information: See this data element in the Vehicle data file section for more information.

SAS Name: PMCARR_I2

Attribute Codes

2011-Later

xxxxxxxxx	Actual 9-Digit Number
000000000	Not Applicable
777777777	Not Reported
888888888	None
999999999	Unknown

V17 Gross Vehicle Weight Rating

Definition: This data element identifies the gross vehicle weight rating of this vehicle if applicable.

Additional Information: See this data element in the Vehicle data file section for more information.

SAS Name: PGVWR

Attribute Codes

2011-Later

0 Not Applicable
1 10,000 lbs or Less
2 10,001 lbs - 26,000 lbs
3 26,001 lbs or More
8 Not Reported
9 Unknown

V18 Vehicle Configuration

Definition: This data element describes the general configuration of this vehicle if applicable.

Additional Information: See this data element in the Vehicle data file section for more information.

SAS Name: PV_CONFIG

Attribute Codes

2010	*2011-2012*	*2013-Later*	
0	0	0	Not Applicable
1	1	1	Single-Unit Truck *(2 axles and GVWR more than 10,000 lbs.)*
2	2	2	Single-Unit Truck *(3 or More axles)*
4	4	4	Truck Pulling Trailer(s)
5	5	5	Truck Tractor *(Bobtail, i.e., Tractor Only, No Trailer)*
6	6	6	Truck Tractor/Semi-Trailer
7	7	7	Truck Tractor/Double
8	8	8	Truck Tractor/Triple
10	10	10	Vehicle 10,000 lbs or Less Placarded for Hazardous Materials
19	19	19	Truck More than 10,000 lbs, Cannot Classify
20	20	20	Bus/Large Van *(Seats for 9-15 Occupants, Including Driver*)
21	21	21	Bus *(Seats for More Than 15 Occupants, Including Driver)*
97	98	--	Not Reported
99	99	99	Unknown

V19 Cargo Body Type

Definition: This data element identifies the primary cargo carrying capability of this vehicle if applicable.

Additional Information: See this data element in the Vehicle data file section for more information.

SAS Name: PCARGTYP

Attribute Codes

2005-2008	*2009-Later*	
0	0	Not Applicable
1	22	Bus
2	1	Van/Enclosed Box
3	2	Cargo Tank
4	3	Flatbed
5	4	Dump
6	5	Concrete Mixer
7	6	Auto Transporter
8	7	Garbage/Refuse
--	8	Grain/Chips/Gravel
--	9	Pole-Trailer
--	10	Log
--	11	Intermodal Container Chassis
--	12	Vehicle Towing Another Vehicle
--	28	Not Reported *(2010-2012)*
--	96	No Cargo Body
98	97	Other
--	98	Unknown Cargo Body Type
99	99	Unknown

V20A/HM1 Hazardous Materials Involvement

Definition: This data element identifies whether this vehicle was carrying hazardous materials.

Additional Information: See this data element in the Vehicle data file section for more information.

SAS Name: **PHAZ_INV**

Attribute Codes

2009-Later

1	No
2	Yes

V20B/HM2 Hazardous Materials Placard

Definition: This data element identifies the presence of hazardous materials for this vehicle and whether this vehicle displayed a hazardous materials placard.

Additional Information: See this data element in the Vehicle data file section for more information.

SAS Name: **PHAZ_MAT** ***2005-2008***
PHAZPLAC ***2009-Later***

Attribute Codes

2005-2008	***2009-Later***	
0	0	Not Applicable
2	1	No
1	2	Yes
--	8	Not Reported
9	--	Unknown

V20C/HM3 Hazardous Material Identification Number

Definition: This data element identifies the 4-digit hazardous material identification number for this vehicle.

Additional Information: See this data element in the Vehicle data file section for more information.

SAS Name: **PHAZM_NO** ***2005-2008***
PHAZ_ID ***2009-Later***

Attribute Codes

2005-2008	***2009-Later***	
0	0	Not Applicable
xxxx	xxxx	Actual 4-Digit Number
--	8888	Not Reported
9999	--	Unknown

V20D/HM4 Hazardous Material Class Number

Definition: This data element identifies the single-digit hazardous material class number for this vehicle.

Additional Information: See this data element in the Vehicle data file section for more information.

SAS Name: **PHAZ_CNO**

Attribute Codes

2009-Later

0	Not Applicable
1	Explosives
2	Gases
3	Flammable / Combustible Liquid
4	Flammable Solid, Spontaneously Combustible, and Dangerous When Wet
5	Oxidizer and Organic Peroxide
6	Poison and Poison Inhalation Hazard
7	Radioactive
8	Corrosive
9	Miscellaneous
88	Not Reported

V20E/HM5 Release of Hazardous Material from the Cargo Compartment

Definition: This data element identifies whether any hazardous cargo was released from the cargo tank or compartment of this vehicle.

Additional Information: See this data element in the Vehicle data file section for more information.

SAS Name: **PHAZMA_R** ***2005-2008***
PHAZ_REL ***2009-Later***

Attribute Codes

2005-2008	*2009-Later*	
0	0	Not Applicable
2	1	No
1	2	Yes
--	8	Not Reported
9	--	Unknown

V21 Bus Use

Definition: This data element describes the common type of bus service this vehicle was being used as at the time of the crash or the primary use for the bus if not in service at the time of the crash.

Additional Information: See this data element in the Vehicle data file section for more information.

SAS Name: PBUS_USE

Attribute Codes

2011-Later

0	Not a Bus
1	School
4	Intercity
5	Charter/Tour
6	Transit/Commuter
7	Shuttle
8	Modified for Personal/Private Use
98	Not Reported
99	Unknown

V22 Special Use

Definition: This data element identifies any special use associated with this vehicle at the time of the crash.

Additional Information: See this data element in the Vehicle data file section for more information.

SAS Name: PSP_USE

Attribute Codes

2005-2008	*2009*	*2010*	*2011*	*2012*	*2013-Later*	
0	0	0	0	0	0	No Special Use
1	1	1	1	1	1	Taxi
2	2	2	2	--	--	Vehicle Used as School Bus
--	--	--	--	2	2	Vehicle Used for School Transport
3	3	3	3	3	3	Vehicle Used as Other Bus
4	4	4	4	4	4	Military
5	5	5	5	5	5	Police
6	6	6	6	6	6	Ambulance
7	--	7	7	7	7	Fire truck
--	7	--	--	--	--	Fire Truck and Car
8	--	--	--	--	--	Other *(Farm or Construction Equip., etc.)*
--	--	8	8	8	8	Emergency Services Vehicle
--	10	--	--	--	--	Hearse
--	11	--	--	--	--	Farm Equipment
--	12	--	--	--	--	Construction Equipment
--	--	--	--	--	13	Incident Response
--	--	77	98	98	98	Not Reported
9	99	99	99	99	99	Unknown

V23 Emergency Motor Vehicle Use

Definition: This data element identifies whether this vehicle was engaged in emergency use. Emergency Use indicates operation of any motor vehicle that is legally authorized by a government authority to respond to emergencies with or without the use of emergency warning equipment, such as a police vehicle, fire truck or ambulance while actually engaged in such response.

Additional Information: Prior to 2013 this data element was called "Emergency Use."

See this data element in the Vehicle data file section for more information.

SAS Name: PEM_USE

Attribute Codes

2005-2009	*2010*	*2011-2012*	*2013*	*2014-Later*	
0	--	--	--	--	No Emergency Use or Not an Applicable Vehicle
--	0	0	--	--	No
--	--	--	0	0	Not Applicable
1	1	1	--	--	Yes
--	--	--	2	2	Non-Emergency, Non-Transport
--	--	--	3	3	Non-Emergency Transport
--	--	--	4	4	Emergency Operation, Emergency Warning Equipment Not In Use
--	--	--	5	5	Emergency Operation, Emergency Warning Equipment In Use
--	--	--	--	6	Emergency Operation, Emergency Warning Equipment in Use Unknown
--	7	8	8	8	Not Reported
9	9	9	9	9	Unknown

V28A Initial Contact Point

Definition: This data element identifies the area on this vehicle that produced the first instance of injury to non-motorists or occupants of this vehicle, or that resulted in the first instance of damage to other property or to this vehicle.

Additional Information: See this data element in the Vehicle data file section for more information.

SAS Name: **PIMPACT** ***2005-2009***
PIMPACT1 ***2010-Later***

Attribute Codes

2005-2009

1	Front
2	Right Side
3	Left Side
4	Back
5	Top
6	Undercarriage
11	Front Right Corner
12	Front Left Corner
13	Back Right Corner
14	Back Left Corner
99	Initial Point of Impact Unknown

2010	***2011***	***2012***	***2013-Later***	
0	0	0	0	Non-Collision
21-32	1-12	1-12	1-12	Clock points
33	13	13	13	Top
34	14	14	14	Undercarriage
38	18	--	--	Set-in-Motion *(Not a Clock Point)*
--	--	18	--	Set-in-Motion *(Not a Clock Value)*
--	--	--	18	Cargo/Vehicle Parts Set-In-Motion
--	--	--	19	Other Objects Set-In-Motion
61	61	61	61	Left
62	62	--	--	Left-Front Half
--	--	62	62	Left-Front Side
63	63	--	--	Left-Back Half
--	--	63	63	Left-Back Side
81	81	81	81	Right
82	82	--	--	Right-Front Half
--	--	82	82	Right-Front Side
83	83	--	--	Right-Back Half
--	--	83	83	Right-Back Side
97	98	98	98	Not Reported
99	99	99	99	Unknown

V29 Extent of Damage

Definition: This data element records the amount of damage sustained by this vehicle as indicated on the PAR based on an operational damage scale.

Additional Information: See this data element in the Vehicle data file section for more information.

SAS Name: PVEH_SEV

Attribute Codes

2005-2008	
0	None
1	Minor *(And Not Towed Due To Damage)*
2	Moderate
3	Severe
9	Unknown

2009	*2010*	*2011-Later*	
0	0	0	No Damage
2	2	2	Minor Damage
4	4	4	Functional Damage
6	6	6	Disabling Damage
--	7	8	Not Reported
9	9	9	Unknown

V30 Vehicle Removal

Definition: This data element describes the mode by which this vehicle left the scene of the crash.

Additional Information: See this data element in the Vehicle data file section for more information.

SAS Name: PTOWED

Attribute Codes

2005-2009	*2010*	*2011-2012*	*2013-Later*	
1	1	1	--	Driven Away
2	2	2	2	Towed Due to Disabling Damage
3	3	3	3	Towed Not Due to Disabling Damage
4	4	4	--	Abandoned/Left at Scene
--	--	--	5	Not Towed
--	7	8	8	Not Reported
9	9	9	9	Unknown

V32 Most Harmful Event

Definition: This data element describes the event that resulted in the most severe injury or, if no injury, the greatest property damage involving this vehicle.

Additional Information: See this data element in the Vehicle data file section for more information.

SAS Name: PM_HARM

Attribute Codes

2011-Later

NONCOLLISION

1 Rollover/Overturn
2 Fire/Explosion
3 Immersion *(or Partial Immersion, Since 2012)*
4 Gas Inhalation
5 Fell/Jumped from Vehicle
6 Injured in Vehicle *(Non-Collision)*
7 Other Noncollision
16 Thrown or Falling Object
44 Pavement Surface Irregularity *(Ruts, Potholes, Grates, etc.)*
51 Jackknife *(Harmful to This Vehicle)*
72 Cargo/Equipment Loss or Shift *(Harmful to This Vehicle)*
73 Object Fell From Motor Vehicle In-Transport *(Since 2013)*

COLLISION WITH OBJECT NOT FIXED

8 Pedestrian
9 Pedalcyclist
10 Railway Vehicle
11 Live Animal
14 Parked Motor Vehicle
15 Non-Motorist on Personal Conveyance
18 Other Object Not Fixed
45 Working Motor Vehicle
49 Ridden Animal or Animal Drawn Conveyance

COLLISION WITH FIXED OBJECT

17 Boulder
19 Building
20 Impact Attenuator/Crash Cushion
21 Bridge Pier or Support
23 Bridge Rail *(Includes Parapet)*
24 Guardrail Face
25 Concrete Traffic Barrier
26 Other Traffic Barrier
30 Utility Pole/Light Support
31 Other Post, Other Pole or Other Supports
32 Culvert
33 Curb
34 Ditch

V32 Most Harmful Event *(continued)*

Attribute Codes

2011-Later

35 Embankment
38 Fence
39 Wall
40 Fire Hydrant
41 Shrubbery
42 Tree *(Standing Only)*
43 Other Fixed Object
46 Traffic Signal Support
48 Snow Bank
50 Bridge Overhead Structure
52 Guardrail End
53 Mail Box
57 Cable Barrier
58 Ground
59 Traffic Sign Support

COLLISION WITH MOTOR VEHICLE IN TRANSPORT

12 Motor Vehicle In-Transport
54 Motor Vehicle In-Transport Strikes or is Struck by Cargo, Persons or Objects Set-in-Motion from/by Another Motor Vehicle In-Transport
55 Motor Vehicle in Motion Outside the Trafficway

NOT REPORTED AND UNKNOWN

99 Unknown

V33 Related Factors - Vehicle Level

Definition: This data element records factors related to this vehicle expressed by the investigating officer.

Additional Information: See this data element in the Vehicle data file section for more information.

SAS Name: PVEH_SC1, PVEH_SC2

Attribute Codes

2012-2013	*2014-Later*	
0	0	None
30	--	3-Wheeled Motorcycle Conversion
--	30	Multi-Wheeled Motorcycle Conversion
33	33	Vehicle Being Pushed by Non-Motorist
35	35	Reconstructed/Altered Vehicle
36	--	Electric/Alternative Fuel Vehicle
39	39	Highway Construction, Maintenance or Utility Vehicle, In Transport *(Inside or Outside Work Zone)*
40	40	Highway Incident Response Vehicle
41	41	Police Fire or EMS Vehicle Working at the Scene of an Emergency or Performing Other Traffic Control Activities
42	42	Other Working Vehicle *(Not Construction, Maintenance, Utility, Police, Fire, or EMS Vehicle)*
44	44	Adaptive Equipment
99	99	Unknown

V34 Fire Occurrence

Definition: This data element identifies whether a fire in any way related to the crash occurred in this vehicle.

Additional Information: See this data element in the Vehicle data file section for more information.

SAS Name: PFIRE

Attribute Codes

2005-2008

0 No Fire Noted on PAR
1 Fire Occurred in Parked/Working Vehicle

2009-Later

0 No or Not Reported
1 Yes

V100 Make Model Combined

Definition: This derived data element represents the 5-digit combination of two data elements, the 2-digit "Vehicle Make" code (MAKE) followed by the 3-digit "Vehicle Model" code (MODEL).

Additional Information: See this data element in the Vehicle data file section for more information.

SAS Name: **PMAK_MOD**

Attribute Codes

2014-Later

See the current FARS/NASS GES Coding and Validation Manual for vehicle make and model codes.

Discontinued PARKWORK Data Elements

Location of Rollover (discontinued)

Definition: Identifies the location of the start, or trip point, of the vehicle's roll.

Additional Information:

SAS Name: PROLINLOC

Attribute Codes

2009-2010

0 No Rollover
1 On Roadway
2 On Shoulder
3 On Median/Separator
4 In Gore
5 On Roadside
6 Outside of Trafficway
9 Unknown

Most Damaged Area (discontinued)

Definition: This data element identifies the area on the parked/working vehicle that was most damaged during an event in the crash.

Additional Information:

SAS Name: PIMPACT2

Attribute Codes

2010	*2011*	
0	0	Non-Collision
21-32	1-12	Clock points
33	13	Top
34	14	Undercarriage
38	18	Set-in-Motion *(Not a Clock Value)*
61	61	Left
62	62	Left-Front Side
63	63	Left-Back Side
81	81	Right
82	82	Right-Front Side
83	83	Right-Back Side
97	98	Not Reported
99	99	Unknown

Number of Axles, Including Trailers (discontinued)

Definition: Coded for parked/working buses and trucks over 4,500 kg GVWR Collected for PBODYTYP (V5) 50-64, 66-79 only.)

Additional Information: This data element was deleted in 2009.

SAS Name: PAXLES

Attribute Codes

2005-2008

0	Not Applicable
2-20	Number of Axles
99	Unknown

Number of Occupants Coded (discontinued)

Definition: The number of occupants coded for this parked/working vehicle.

Additional Information: The number of persons coded and the number persons involved are not always the same because, for example, some PARs have information only for injured occupants.

SAS Name: **POCCINVL**

Attribute Codes

2005-2010

x Number of Occupants Coded

Rollover (discontinued)

Definition: Indicates if a rollover occurred (tripped or untripped) for the parked/working vehicle. Rollover is defined as any vehicle rotation of 90 degrees or more about any true longitudinal or lateral axis. Rollover can occur at any time during the crash.

Additional Information:

SAS Name: PROLLOVR

Attribute Codes

2005-2008	*2009-2010*	
0	0	No Rollover
--	1	Rollover, Tripped By Object/Vehicle
20	--	Tripped Rollover-By Curb
21	--	Tripped Rollover-By Guardrail
22	--	Tripped Rollover-By Ditch
23	--	Tripped Rollover-By Soft Soil
28	--	Tripped Rollover-Other
29	--	Tripped Rollover-Unknown Mechanism
10	2	Rollover, Untripped
99	9	Rollover, Unknown Type

Vehicle Location (discontinued)

Definition: This data element identifies the attribute which best describes the location of the parked/working vehicle.

Additional Information: This data element was discontinued in 2011. However, the location of a parked/working vehicle involved in the first harmful event can still be found in Accident.REL_ROAD.

SAS Name: PREL_RWY

Attribute Codes

2005-2009	*2010*	
1	1	On Roadway
2	2	On Shoulder
3	3	On Median
4	4	On Roadside
5	5	Outside Trafficway
6	6	Off Roadway, Location Unknown
7	7	In Parking Lane
8	8	Gore
9	9	Continuous Left Turn Lane
10	10	Separator
--	97	Not Reported
99	99	Unknown

The PBTYPE Data File

The Pbtype data file includes data on pedestrians, bicyclists, and people on personal conveyances. It contains the data elements CASENUM, PSU, STRATUM, REGION, WEIGHT, PJ, VEH_NO and PER_NO, which are described in the beginning of the Data Element Definitions and Codes section. The Pbtype data file also contains the data elements on the following pages.

CASENUM, VEH_NO and PER_NO are the unique identifiers. CASENUM should be used to merge the Pbtype data file with the Accident data file.

P5/NM5 Age

Definition: This data element identifies the person's age, in years, with respect to the person's last birthday.

Additional Information:

SAS Name: PBAGE

Attribute Codes

2014-Later

000	Less than One Year
001-120	Age of the Individual in Years
998	Not Reported
999	Unknown

P6/NM6 Sex

Definition: This data element identifies the sex of the person involved in the crash

Additional Information:

SAS Name: PBSEX

Attribute Codes

2014-Later

1 Male
2 Female
8 Not Reported
9 Unknown

P7/NM7 Person Type

Definition: This data element describes the role of this person involved in the crash.

Additional Information:

SAS Name: PBPTYPE

Attribute Codes

2014-Later

5 Pedestrian
6 Bicyclist
7 Other Cyclist
8 Person on Personal Conveyances

NM9-PB27 Marked Crosswalk Present

Definition: This data element indicates if a marked crosswalk was present at the crash site.

Additional Information: This data element is applicable to both pedestrians and bicyclists.

SAS Name: PBCWALK

Attribute Codes

2014-Later

0 None Noted
1 Yes
9 Unknown

NM9-PB28 Sidewalk Present

Definition: This data element indicates if a sidewalk was present at the crash site.

Additional Information: This data element is applicable to both pedestrians and bicyclists.

SAS Name: PBSWALK

Attribute Codes

2014-Later

0 None Noted
1 Yes
9 Unknown

NM9-PB29 School Zone

Definition: This data element indicates if the crash occurred in a school zone.

Additional Information: This data element is applicable to both pedestrians and bicyclists.

SAS Name: PBSZONE

Attribute Codes

2014-Later

0 None Noted
1 Yes
9 Unknown

NM9-PB30 Crash Type – Pedestrian

Definition: This data element summarizes the circumstances of the crash for this pedestrian.

Additional Information: This data element is applicable to pedestrians only.

SAS Name: PEDCTYPE

Attribute Codes

2014-Later

0	Not a Pedestrian
120	Dispute-Related
130	Pedestrian on Vehicle
140	Vehicle-Vehicle/Object
150	Motor Vehicle Loss of Control
160	Pedestrian Loss of Control
190	Other Unusual Circumstances
211	Backing Vehicle – Non-Trafficway – Driveway
212	Backing Vehicle – Driveway Access
213	Backing Vehicle – Trafficway
214	Backing Vehicle – Non-Trafficway – Parking Lot
219	Backing Vehicle – Other/Unknown
220	Driverless Vehicle
230	Disabled Vehicle-Related
240	Emergency Vehicle-Related
250	Play Vehicle-Related
311	Working in Roadway
312	Playing in Roadway
313	Lying in Roadway
320	Entering/Exiting Parked or Stopped Vehicle
330	Mailbox-Related
341	Transit Bus-Related
342	School Bus Stop-Related
360	Ice Cream/Vendor Truck-Related
410	Walking/Running Along Roadway With Traffic – From Behind
420	Walking/Running Along Roadway With Traffic – From Front
430	Walking/Running Along Roadway Against Traffic – From Behind
440	Walking/Running Along Roadway Against Traffic – From Front
459	Walking/Running Along Roadway – Direction/Position Unknown
461	Motorist Entering Driveway
465	Motorist Exiting Driveway
469	Driveway Access – Other/Unknown
510	Waiting to Cross – Vehicle Turning
520	Waiting to Cross – Vehicle Not Turning
590	Waiting to Cross – Vehicle Action Unknown
610	Standing in Roadway
620	Walking in Roadway
680	Not At Intersection – Other/Unknown
690	At Intersection – Other/Unknown

NM9-PB30 Crash Type – Pedestrian *(continued)*

Attribute Codes

2014-Later

710 Multiple Threat
730 Trapped
741 Dash
742 Dart-Out
760 Pedestrian Failed to Yield
770 Motorist Failed to Yield
781 Motorist Left Turn – Parallel Paths
782 Motorist Left Turn – Perpendicular Paths
791 Motorist Right Turn – Parallel Paths
792 Motorist Right Turn on Red – Parallel Paths
794 Motorist Right Turn on Red – Perpendicular Paths
795 Motorist Right Turn – Perpendicular Paths
799 Motorist Turn/Merge – Other/Unknown
830 Non-Trafficway – Parking Lot
890 Non-Trafficway – Other/Unknown
900 Other – Unknown Location
910 Crossing an Expressway

NM9-PB30B Crash Type – Bicycle

Definition: This data element summarizes the circumstances of the crash for this bicyclist.

Additional Information: This data element is applicable to bicyclists only.

SAS Name: BIKECTYPE

Attribute Codes

2014-Later

0	Not a Cyclist
111	Motorist Turning Error – Left Turn
112	Motorist Turning Error – Right Turn
113	Motorist Turning Error – Other
114	Bicyclist Turning Error – Left Turn
115	Bicyclist Turning Error – Right Turn
116	Bicyclist Turning Error – Other
121	Bicyclist Lost Control – Mechanical Problems
122	Bicyclist Lost Control – Oversteering, Improper Braking, Speed
123	Bicyclist Lost Control – Alcohol/Drug Impairment
124	Bicyclist Lost Control – Surface Conditions
129	Bicyclist Lost Control – Other/Unknown
131	Motorist Lost Control – Mechanical Problems
132	Motorist Lost Control – Oversteering, Improper Braking, Speed
133	Motorist Lost Control – Alcohol/Drug Impairment
134	Motorist Lost Control – Surface Conditions
139	Motorist Lost Control – Other/Unknown
141	Motorist Drive-Out – Sign-Controlled Intersection
142	Bicyclist Ride-Out – Sign-Controlled Intersection
143	Motorist Drive-Through – Sign-Controlled Intersection
144	Bicyclist Ride-Through – Sign-Controlled Intersection
147	Multiple Threat – Sign-Controlled Intersection
148	Sign-Controlled Intersection – Other/Unknown
151	Motorist Drive-Out – Right Turn on Red
152	Motorist Drive-Out – Signalized Intersection
153	Bicyclist – Ride-Out – Signalized Intersection
154	Motorist Drive-Through – Signalized Intersection
155	Bicyclist Ride-Through – Signalized Intersection
156	Bicyclist Failed to Clear – Trapped
157	Bicyclist Failed to Clear – Multiple Threat
158	Signalized Intersection – Other/Unknown
159	Bicyclist Failed to Clear – Unknown
160	Crossing Paths – Uncontrolled Intersection
180	Crossing Paths – Intersection – Other/Unknown
211	Motorist Left Turn – Same Direction
212	Motorist Left Turn – Opposite Direction
213	Motorist Right Turn – Same Direction
214	Motorist Right Turn – Opposite Direction
215	Motorist Drive-In/Out – Parking

NM9-PB30B Crash Type – Bicycle *(continued)*

Attribute Codes

2014-Later

216 Bus/Delivery Vehicle Pullover
217 Motorist Right Turn on Red – Same Direction
218 Motorist Right Turn on Red – Opposite Direction
219 Motorist Turn/Merge – Other/Unknown
221 Bicyclist Left Turn – Same Direction
222 Bicyclist Left Turn – Opposite Direction
223 Bicyclist Right Turn – Same Direction
224 Bicyclist Right Turn – Opposite Direction
225 Bicyclist Ride-out – Parallel Path
231 Motorist Overtaking – Undetected Bicyclist
232 Motorist Overtaking – Misjudged Space
235 Motorist Overtaking – Bicyclist Swerved
239 Motorist Overtaking – Other/Unknown
241 Bicyclist Overtaking – Passing on Right
242 Bicyclist Overtaking – Passing on Left
243 Bicyclist Overtaking – Parked Vehicle
244 Bicyclist Overtaking – Extended Door
249 Bicyclist Overtaking – Other/Unknown
250 Wrong-Way/Wrong-Side – Bicyclist
255 Wrong-Way/Wrong-Side – Motorist
259 Wrong-Way/Wrong-Side – Unknown
280 Parallel Paths – Other/Unknown
311 Bicyclist Ride-Out – Residential Driveway
312 Bicyclist Ride-Out – Commercial Driveway
313 Bicyclist Ride-Out – Driveway, Unknown Type
318 Bicyclist Ride-Out – Other Midblock
319 Bicyclist Ride-Out – Unknown
321 Motorist Drive-Out – Residential Driveway
322 Motorist Drive-Out – Commercial Driveway
323 Motorist Drive-Out – Driveway, Unknown Type
328 Motorist Drive-Out – Other Midblock
329 Motorist Drive-Out – Midblock – Unknown
357 Multiple Threat – Midblock
380 Crossing Paths – Midblock – Other/Unknown
610 Backing Vehicle
700 Play Vehicle-Related
800 Unusual Circumstances
910 Non-Trafficway
970 Unknown Approach Paths
980 Unknown Location

NM9-PB31 Crash Location – Pedestrian

Definition: This data element identifies where the pedestrian crash occurred with respect to an intersection.

Additional Information: This data element is applicable to pedestrians only.

SAS Name: PEDLOC

Attribute Codes

2014-Later

1 At Intersection
2 Intersection-Related
3 Not At Intersection
4 Non-Trafficway Location
7 Not a Pedestrian
9 Unknown/Insufficient Information

NM9-PB31B Crash Location – Bicycle

Definition: This data element identifies where the bicyclist crash occurred with respect to an intersection.

Additional Information: This data element is applicable to bicyclists only.

SAS Name: BIKELOC

Attribute Codes

2014-Later

1 At Intersection
2 Intersection-Related
3 Not At Intersection
4 Non-Trafficway Location
7 Not a Cyclist
9 Unknown/Insufficient Information

NM9-PB32 Pedestrian Position

Definition: This data element identifies the position/location of the pedestrian with respect to the trafficway when contacted.

Additional Information: This data element is applicable to pedestrians only.

SAS Name: PEDPOS

Attribute Codes

2014-Later

1 Intersection Area
2 Crosswalk Area
3 Travel Lane
4 Paved Shoulder/Bicycle Lane/Parking Lane
5 Sidewalk/Shared-Use Path/Driveway Access
6 Unpaved Right-of-Way
7 Non-Trafficway – Driveway
8 Non-Trafficway – Parking Lot/Other
9 Other/Unknown
77 Not a Pedestrian

NM9-PB32B Bicyclist Position

Definition: This data element identifies the position/location of the bicyclist with respect to the trafficway when contacted.

Additional Information: This data element is applicable to bicyclists only.

SAS Name: BIKEPOS

Attribute Codes

2014-Later

1 Travel Lane
2 Bicycle Lane/Paved Shoulder/Parking Lane
3 Sidewalk/Crosswalk/Driveway Access
4 Shared-Use Path
5 Non-Trafficway – Driveway
6 Non-Trafficway – Parking Lot/Other
7 Not a Cyclist
8 Other
9 Unknown

NM9-PB33 Pedestrian Initial Direction of Travel

Definition: This data element identifies the initial direction of travel of the pedestrian prior to being contacted in the crash.

Additional Information: This data element is applicable to pedestrians only.

SAS Name: PEDDIR

Attribute Codes

2014-Later

1 Northbound
2 Eastbound
3 Southbound
4 Westbound
7 Not a Pedestrian
8 Not Applicable
9 Unknown Initial Direction of Travel

NM9-PB33B Bicyclist Initial Direction of Travel

Definition: This data element identifies the initial travel direction of the bicyclist with respect to the flow of traffic prior to being contacted in the crash.

Additional Information: This data element is applicable to bicyclists only.

SAS Name: BIKEDIR

Attribute Codes

2014-Later

1 With Traffic
2 Facing Traffic
3 Not Applicable
7 Not a Cyclist
9 Unknown

NM9-PB34 Motorist Initial Direction of Travel

Definition: This data element identifies the initial direction of travel of the motorist prior to being involved in a pedestrian crash.

Additional Information: This data element is applicable to pedestrians only.

SAS Name: MOTDIR

Attribute Codes

2014-Later

1 Northbound
2 Eastbound
3 Southbound
4 Westbound
7 Not a Pedestrian
8 Not Applicable
9 Unknown Initial Direction of Travel

NM9-PB35 Motorist Maneuver

Definition: This data element identifies if the motorist was engaged in a turning maneuver at an intersection prior to being involved in a pedestrian crash. The data element indicates the maneuver being made by the motorist at the time of a pedestrian collision.

Additional Information: This data element is applicable to pedestrians only.

SAS Name: MOTMAN

Attribute Codes

2014-Later

1 Left Turn
2 Right Turn
3 Straight Through
7 Not a Pedestrian
8 Not Applicable
9 Unknown Motorist Maneuver

NM9-PB36 Intersection Leg

Definition: The data element identifies the leg of the intersection where the pedestrian crash occurred.

Additional Information: This data element is applicable to pedestrians only.

SAS Name: PEDLEG

Attribute Codes

2014-Later

1 Nearside
2 Farside
7 Not a Pedestrian
8 Not Applicable
9 Unknown

NM9-PB37 Pedestrian Scenario

Definition: This data element identifies the location and travel directions of the motorist and pedestrian for those crashes that occur at intersections. This data element summarizes the movements of the pedestrian and motorist in an intersection area.

Additional Information: This data element is applicable to pedestrians only.

SAS Name: PEDSNR

Attribute Codes

2014-Later

MOTORIST TRAVELING STRAIGHT THROUGH – CRASH OCCURRED ON NEAR (APPROACH) SIDE OF INTERSECTION

1a Pedestrian Within Crosswalk Area, Traveled From Motorist's Left.
1b Pedestrian Within Crosswalk Area, Traveled From Motorist's Right.
1c Pedestrian Within Crosswalk Area, Approach Direction Unknown.
2a Pedestrian Outside Crosswalk Area, Traveled From Motorist's Left.
2b Pedestrian Outside Crosswalk Area, Traveled From Motorist's Right.
2c Pedestrian Outside Crosswalk Area, Approach Direction Unknown.

MOTORIST TRAVELING STRAIGHT THROUGH – CRASH OCCURRED ON FAR SIDE OF INTERSECTION

3a Pedestrian Within Crosswalk Area, Traveled From Motorist's Left.
3b Pedestrian Within Crosswalk Area, Traveled From Motorist's Right.
3c Pedestrian Within Crosswalk Area, Approach Direction Unknown.
4a Pedestrian Outside Crosswalk Area, Traveled From Motorist's Left.
4b Pedestrian Outside Crosswalk Area, Traveled From Motorist's Right.
4c Pedestrian Outside Crosswalk Area, Approach Direction Unknown.

MOTORIST TURNING RIGHT – CRASH OCCURRED ON NEAR (APPROACH) SIDE OF INTERSECTION

5a Pedestrian Within Crosswalk Area, Traveled From Motorist's Left.
5b Pedestrian Within Crosswalk Area, Traveled From Motorist's Right.
5c Pedestrian Within Crosswalk Area, Approach Direction Unknown.
6a Pedestrian Outside Crosswalk Area, Traveled From Motorist's Left.
6b Pedestrian Outside Crosswalk Area, Traveled From Motorist's Right.
6c Pedestrian Outside Crosswalk Area, Approach Direction Unknown.

MOTORIST TURNING RIGHT – CRASH OCCURRED ON FAR SIDE OF INTERSECTION

7a Pedestrian Within Crosswalk Area, Approach Direction Same as Motorist's.
7b Pedestrian Within Crosswalk Area, Approach Direction Opposite Motorist's.
7c Pedestrian Within Crosswalk Area, Approach Direction Unknown.
8a Pedestrian Outside Crosswalk Area, Approach Direction Same as Motorist's.
8b Pedestrian Outside Crosswalk Area, Approach Direction Opposite Motorist's.
8c Pedestrian Outside Crosswalk Area, Approach Direction Unknown.

NM9-PB37 Pedestrian Scenario *(continued)*

Attribute Codes

2014-Later

MOTORIST TURNING LEFT – CRASH OCCURRED ON NEAR (APPROACH) SIDE OF INTERSECTION

9a	Pedestrian Within Crosswalk Area, Traveled From Motorist's Left.
9b	Pedestrian Within Crosswalk Area, Traveled From Motorist's Right.
9c	Pedestrian Within Crosswalk Area, Approach Direction Unknown.
10a	Pedestrian Outside Crosswalk Area, Traveled From Motorist's Left.
10b	Pedestrian Outside Crosswalk Area, Traveled From Motorist's Right.
10c	Pedestrian Outside Crosswalk Area, Approach Direction Unknown.

MOTORIST TURNING LEFT – CRASH OCCURRED ON FAR SIDE OF INTERSECTION

11a	Pedestrian Within Crosswalk Area, Approach Direction Same as Motorist's.
11b	Pedestrian Within Crosswalk Area, Approach Direction Opposite Motorist's.
11c	Pedestrian Within Crosswalk Area, Approach Direction Unknown.
12a	Pedestrian Outside Crosswalk Area, Approach Direction Same as Motorist's.
12b	Pedestrian Outside Crosswalk Area, Approach Direction Opposite Motorist's.
12c	Pedestrian Outside Crosswalk Area, Approach Direction Unknown.
7	Not a Pedestrian
8	Not Applicable

NM9-PB38 Crash Group – Pedestrian

Definition: This data element provides general groupings of the more specific individual Pedestrian Crash Types.

Additional Information: This data element is applicable to pedestrians only.

More about the PBCAT can be found at **http://www.pedbikeinfo.org/pbcat_us/**

SAS Name: PEDCGP

Attribute Codes

2014-Later

0	Not a Pedestrian
100	Unusual Circumstances
200	Backing Vehicle
310	Working or Playing in Roadway
340	Bus-Related
350	Unique Midblock
400	Walking/Running Along Roadway
460	Driveway Access/ Driveway Access Related
500	Waiting to Cross
600	Pedestrian in Roadway – Circumstances Unknown
720	Multiple Threat/Trapped
740	Dash/Dart-Out
750	Crossing Roadway – Vehicle Not Turning
790	Crossing Roadway – Vehicle Turning
800	Non-Trafficway
910	Crossing Expressway
990	Other/Unknown – Insufficient Details

NM9-PB38B Crash Group – Bicycle

Definition: This data element provides general groupings of the more specific individual Bicyclist Crash Types.

Additional Information: This data element is applicable to bicyclists only.

The Bicycle Crash Types are divided into 21 homogeneous crash groups [pages 96-98 of the PBCAT manual]. Suggested countermeasures are available for 13 of these groups [www.bicyclinginfo.org/bikesafe, pages 75-76 of the PBCAT manual].

SAS Name: BIKECGP

Attribute Codes

2014-Later

0	Not a Cyclist
110	Loss of Control/Turning Error
140	Motorist Failed to Yield – Sign-Controlled Intersection
145	Bicyclist Failed to Yield – Sign-Controlled Intersection
150	Motorist Failed to Yield – Signalized Intersection
158	Bicyclist Failed to Yield – Signalized Intersection
190	Crossing Paths – Other Circumstances
210	Motorist Left Turn/Merge
215	Motorist Right Turn/Merge
219	Parking/Bus-Related
220	Bicyclist Left Turn/Merge
225	Bicyclist Right Turn/Merge
230	Motorist Overtaking Bicyclist
240	Bicyclist Overtaking Motorist
258	Wrong-Way/Wrong-Side
290	Parallel Paths – Other Circumstances
310	Bicyclist Failed to Yield – Midblock
320	Motorist Failed to Yield – Midblock
600	Backing Vehicle
850	Other/Unusual Circumstances
910	Non-Trafficway
990	Other/Unknown – Insufficient Details

The CEVENT Data File

The Cevent data file includes harmful and non-harmful events in the crash. It contains the data elements CASENUM, PSU, PSUSTRAT, STRATUM, REGION, WEIGHT, PJ, and EVENTNUM, which are described in the beginning of the Data Element Definitions and Codes section. The Cevent data file also contains the data elements on the following pages.

CASENUM and EVENTNUM are the unique identifiers for each record. CASENUM should be used to merge the Cevent data file with the Accident data file.

The Cevent data file replaced the Event data file in 2011. The Event data file ran from 2000 to 2010 and its element and attribute history is also provided below.

C18 Vehicle Number (This Vehicle)

Definition: This data element identifies the "Vehicle Number" (VEH_NO) of this in-transport motor vehicle described in this event.

Additional Information: This is the vehicle described in "Sequence of Events" for this event.

Prior to 2015, this data element's Locator Code or Data Element Number was C17.

SAS Name: **VEHNUM** ***2000-2010***
VNUMBER1 ***2011-Later***

Attribute Codes

2000-2010	***2011-Later***	
1-100	1-999	Vehicle Number

C18 Area of Impact (This Vehicle)

Definition: This data element identifies the impact point, if any, on this in-transport motor vehicle that produced property damage or personal injury in this event.

Additional Information: This is the impact area of the vehicle recorded in "Vehicle Number (This Vehicle)" and described in "Sequence of Events."

Prior to 2015, this data element's Locator Code or Data Element Number was C17.

SAS Name: **GAD** ***2000-2010***
AOI1 ***2011-Later***

Attribute Codes

2000-2006	*2007-2009*	
0	0	Non-Collision
1	1	Front
2	2	Right Side
3	3	Left Side
4	4	Back
5	5	Top
6	6	Undercarriage
11	11	Front Right Corner
12	12	Front Left Corner
13	13	Back Right Corner
14	14	Back Left Corner
--	15	Object Set in Motion
99	99	Point of Impact Unknown

C17 Area of Impact (This Vehicle) *(continued)*

Attribute Codes

2010	*2011*	*2012*	*2013-Later*	
0	0	0	0	Non-Collision
21-32	1-12	1-12	1-12	Clock points
33	13	13	13	Top
34	14	14	14	Undercarriage
38	18	--	--	Set-in-Motion *(Not a Clock Point)*
--	--	18	--	Set-in-Motion *(Not a Clock Value)*
--	--	--	18	Cargo/Vehicle Parts Set-In-Motion
--	--	--	19	Other Objects Set-In-Motion
55	55	55	55	Non-Harmful Event
61	61	61	61	Left
62	62	--	--	Left-Front Half
--	--	62	62	Left-Front Side
63	63	--	--	Left-Back Half
--	--	63	63	Left-Back Side
81	81	81	81	Right
82	82	--	--	Right-Front Half
--	--	82	82	Right-Front Side
83	83	--	--	Right-Back Half
--	--	83	83	Right-Back Side
97	98	98	98	Not Reported
99	99	99	99	Unknown

V31 Sequence of Events

Definition: This data element describes this event. A motor vehicle traffic crash is a series of events resulting from an unstabilized situation. This series of harmful and non-harmful events is recorded in chronological order based on the PAR narrative and diagram.

Additional Information: Prior to 2010, this data element is called "Non-Collision Category or Object Contacted." Codes 1-100 are reserved for the Vehicle Number of the contacted vehicle. The remainder of the codes identified the type of non-collision event or the fixed/non-fixed object contacted. In 2010, non-harmful events are added and the data element name is changed to "Non-Harmful Event, Non-Collision Category or Object Contacted." In 2011, the vehicle number codes 1-100 are retired. Codes 12, 54 and 55 are used to identify contact with another in-transport motor vehicle and the data element "Vehicle Number (Other Vehicle)" added to record the number of the contacted vehicle. "First Harmful Event, Most Harmful Event," and the "Sequence of Events" data elements have the same harmful event attributes. The harmful event attributes were modified to be consistent. "Sequence of Events" also has non-harmful event attributes.

SAS Name: **OBJCONT** ***2000-2010***
SOE ***2011-Later***

Attribute Codes

2000-2009	***2010***	***2011***	***2012-2013***	***2014-Later***	
1-100	1-100	--	--	--	Vehicle Number of Other Vehicle
101	101	1	1	1	Rollover/Overturn
102	102	2	2	2	Fire/Explosion
103	103	3	--	--	Immersion
--	--	--	3	3	Immersion or Partial Immersion
104	104	4	4	4	Gas Inhalation
105	--	--	--	--	Jackknife
--	105	51	51	51	Jackknife *(Harmful to This Vehicle)*
106	--	--	--	--	Noncollision Injury *(Injured in Vehicle, or Fell From Veh.)*
107	107	44	44	44	Pavement Surface Irregularity *(Ruts, Potholes, Grates, etc.)*
108	108	7	7	7	Other Noncollision
109	--	--	--	--	Noncollision-No Details
110	110	16	16	16	Thrown or Falling Object
--	111	6	6	6	Injured in Vehicle *(Non-Collision)*
--	--	--	71	71	End Departure
--	112	72	72	72	Cargo/Equipment Loss or Shift *(Harmful to This Vehicle)*
--	--	--	73	73	Object Fell From Motor Vehicle In-Transport *(Since 2013)*
--	113	5	5	5	Fell/Jumped from Vehicle
121	121	8	8	8	Pedestrian
122	--	--	--	--	Cycle or Cyclist *(Pedalcyclist or Pedalcycle)*

V31 Sequence of Events *(continued)*

Attribute Codes

2000-2009	*2010*	*2011*	*2012-2013*	*2014-Later*	
--	122	9	9	9	Pedalcyclist
123	--	--	--	--	Railway Train
--	123	10	10	10	Railway Vehicle
124	--	--	--	--	Animal
--	124	11	11	11	Live Animal
126	--	--	--	--	Parked Motor Vehicle *(or Other M.V. Not in Transport)*
127	--	--	--	--	Other Type Non-Motorist
--	127	15	15	15	Non-Motorist on Personal Conveyance
128	128	18	18	18	Other Object *(Not Fixed)*
129	--	--	--	--	Object Not Fixed-No Details
--	129	14	14	14	Parked Motor Vehicle
--	130	45	45	45	Working Motor Vehicle
131	131	58	58	58	Ground
132	132	19	19	19	Building
133	133	20	20	20	Impact Attenuator/Crash Cushion
134	--	--	--	--	Bridge Structure *(Bridge Pier/Abutment/Parapet End/Rail)*
135	--	--	--	--	Guardrail
136	--	--	--	--	Concrete Traffic Barrier or Other Longitudinal Barrier Type
--	136	25	25	25	Concrete Traffic Barrier
137	--	--	--	--	Post, Pole or Support *(Sign Post, Utility Post)*
138	--	--	--	--	Culvert or Ditch
139	139	33	33	33	Curb
140	140	35	35	35	Embankment
141	141	38	38	38	Fence
142	142	39	39	39	Wall
143	143	40	40	40	Fire Hydrant
144	144	41	41	41	Shrubbery
145	--	--	--	--	Tree
--	145	42	42	42	Tree *(Standing Only)*
146	146	17	17	17	Boulder
147	--	--	--	--	Vehicle Occupant *(2009 Only)*
--	149	49	49	49	Ridden Animal or Animal-Drawn Conveyance
--	151	70	70	--	Jackknife *(Non-Harmful)*
--	--	--	--	70	Non-harmful, Swaying Trailer/Jackknife
158	158	43	43	43	Other Fixed Object
159	--	--	--	--	Fixed Object-No Details
--	160	60	60	60	Cargo/Equipment Loss or Shift *(Non-Harmfu)*

V31 Sequence of Events *(continued)*

Attribute Codes

2000-2009	*2010*	*2011*	*2012-2013*	*2014-Later*	
--	161	61	61	61	Equipment Failure *(Blown Tire, Brake Failure, etc.)*
--	162	62	62	62	Separation of Units
--	163	63	63	63	Ran Off Roadway – Right
--	164	64	64	64	Ran Off Roadway – Left
--	--	--	--	79	Ran Off Roadway – Direction Unknown
--	165	65	65	65	Cross Median
--	166	68	68	68	Cross Centerline
--	167	66	66	66	Downhill Runaway
--	168	67	67	67	Vehicle Went Airborne
--	169	69	69	69	Re-Entering Roadway
--	171	50	50	50	Bridge Overhead Structure
--	172	21	21	21	Bridge Pier or Support
--	173	23	23	23	Bridge Rail *(Includes Parapet)*
--	174	24	24	24	Guardrail Face
--	175	52	52	52	Guardrail End
--	176	57	57	57	Cable Barrier
--	177	26	26	26	Other Traffic Barrier
--	178	59	59	59	Traffic Sign Support
--	179	46	46	46	Traffic Signal Support
--	180	30	30	30	Utility Pole/Light Support
--	181	31	31	31	Other Post, Other Pole or Other Supports
--	182	32	32	32	Culvert
--	183	34	34	34	Ditch
--	184	48	48	48	Snow Bank
--	185	53	53	53	Mail Box
--	190	12	12	12	Motor Vehicle In-Transport
--	191	54	54	54	Motor Vehicle In-Transport Strikes or is Struck by Cargo, Persons or Objects Set-in-Motion from/by Another Motor
--	192	55	55	55	Vehicle In-Transport Motor Vehicle in Motion Outside the Trafficway
--	197	--	--	--	Not Reported
999	999	99	99	99	Unknown

C18 Vehicle Number (Other Vehicle)

Definition: This data element identifies the "Vehicle Number" (VEH_NO) of the other motor vehicle, if any, in this event.

Additional Information: This is the vehicle contacted by the motor vehicle in-transport recorded in "Vehicle Number (This Vehicle)." Another vehicle must have been involved in this event for this data element to be a valid vehicle number (i.e., "Sequence of Events" for this event must be 12, 14, 45, 54, or 55).

Prior to 2015, this data element's Locator Code or Data Element Number was C17.

SAS Name: **VNUMBER2**

Attribute Codes

2011-Later

1-999	Vehicle Number
5555	Non-Harmful Event
9999	Not a Motor Vehicle

C18 Area of Impact (Other Vehicle)

Definition: This data element identifies the impact point on the other motor vehicle, if any, in this event.

Additional Information: This is the impact area of the vehicle recorded in "Vehicle Number (Other Vehicle)." Another vehicle must have been involved in this event for this data element to be a valid impact location (i.e., "Sequence of Events" for this event must be 12, 14, 45, 54, or 55).

Prior to 2015, this data element's Locator Code or Data Element Number was C17.

SAS Name: **OBJGAD** ***2000-2010***
AOI2 ***2011-Later***

Attribute Codes

2000	*2001-2009*	
1	1	Front
2	2	Right Side
3	3	Left Side
4	4	Back
5	5	Top
6	6	Undercarriage
11	11	Front Right Corner
12	12	Front Left Corner
13	13	Back Right Corner
14	14	Back Left Corner
--	98	Not a Motor Vehicle in Transport
99	99	Point of Impact Unknown

C17 Area of Impact (Other Vehicle) *(continued)*

Attribute Codes

2010	*2011*	*2012*	*2013-Later*	
0	0	0	0	Non-Collision
21-32	1-12	1-12	1-12	Clock points
33	13	13	13	Top
34	14	14	14	Undercarriage
38	18	--	--	Set-in-Motion *(Not a Clock Point)*
--	--	18	--	Set-in-Motion *(Not a Clock Value)*
--	--	--	18	Cargo/Vehicle Parts Set-In-Motion
--	--	--	19	Other Objects Set-In-Motion
55	55	55	55	Non-Harmful Event
61	61	61	61	Left
62	62	--	--	Left-Front Half
--	--	62	62	Left-Front Side
63	63	--	--	Left-Back Half
--	--	63	63	Left-Back Side
--	77	77	77	Not a Motor Vehicle
81	81	81	81	Right
82	82	--	--	Right-Front Half
--	--	82	82	Right-Front Side
83	83	--	--	Right-Back Half
--	--	83	83	Right-Back Side
97	98	98	98	Not Reported
99	99	99	99	Unknown

Discontinued CEVENT Data Elements

Vehicle's Action (discontinued)

Definition: Describes the action for the event for the vehicle identified by VEHNUM.

Additional Information:

SAS Name: **E_ACTION**

Attribute Codes

2002-2009	*2010*	
1	1	Non-Collision
2	2	Collision With Object Not Fixed
3	3	Collision With Fixed Object
4	--	Strike Another In-Transport Motor Vehicle
5	--	Struck By An In-Transport Motor Vehicle
--	6	Non-Harmful Event
--	7	Motor Vehicle In-Transport
--	8	Motor Vehicle In-Transport Strikes or is Struck by Cargo, Persons or Objects Set-in-Motion from/by Another Motor Vehicle In-Transport
--	9	Motor Vehicle In Motion Outside the Trafficway
--	97	Not Reported

The VEVENT Data File

The Vevent data file includes harmful and non-harmful events for each in-transport motor vehicle. It contains the data elements CASENUM, PSU, PSUSTRAT, STRATUM, REGION, WEIGHT, PJ, VEH_NO, EVENTNUM, and VEVENTNUM, which are described in the beginning of the Data Element Definitions and Codes section. The Vevent data file also contains the data elements on the following pages.

CASENUM, VEH_NO, and VEVENTNUM are the unique identifiers for each record. CASENUM and VEH_NO should be used to merge the Vevent data file with the Vehicle data file.

C18 Vehicle Number (This Vehicle)

Definition: This data element identifies the "Vehicle Number" (VEH_NO) of the in-transport motor vehicle described in this event.

Additional Information: This is the vehicle described in "Sequence of Events" for this event.

If Vehicle #1 (V1) impacts Vehicle #2 (V2), then we have at least 2 Vevent records.

Example:

VEH_NO	EVENTNUM	VNUMBER1	SOE	VNUMBER2
1	1	1	12	2
2	1	1	12	2

The explanation of these 2 records is as follows:

V1 was involved in event 1 where V1 impacts V2

V2 was involved in event 1 where V1 impacts V2

Prior to 2015, this data element's Locator Code or Data Element Number was C17.

SAS Name: **VEHNUM** ***2010***
VNUMBER1 ***2011-Later***

Attribute Codes

2010	***2011-Later***	
1-100	1-999	Vehicle Number

C18 Area of Impact (This Vehicle)

Definition: This data element identifies the impact point, if any, on this in-transport motor vehicle that produced property damage or personal injury in this event.

Additional Information: Prior to 2015, this data element's Locator Code or Data Element Number was C17.

SAS Name: **GAD** ***2010***
AOI1 ***2011-Later***

Attribute Codes

2010	*2011*	*2012*	*2013-Later*	
0	0	0	0	Non-Collision
21-32	1-12	1-12	1-12	Clock points
33	13	13	13	Top
34	14	14	14	Undercarriage
38	18	--	--	Set-in-Motion *(Not a Clock Point)*
--	--	18	--	Set-in-Motion *(Not a Clock Value)*
--	--	--	18	Cargo/Vehicle Parts Set-In-Motion
--	--	--	19	Other Objects Set-In-Motion
55	55	55	55	Non-Harmful Event
61	61	61	61	Left
62	62	--	--	Left-Front Half
--	--	62	62	Left-Front Side
63	63	--	--	Left-Back Half
--	--	63	63	Left-Back Side
81	81	81	81	Right
82	82	--	--	Right-Front Half
--	--	82	82	Right-Front Side
83	83	--	--	Right-Back Half
--	--	83	83	Right-Back Side
97	98	98	98	Not Reported
99	99	99	99	Unknown

V31 Sequence of Events

Definition: This data element describes this event. A motor vehicle traffic crash is a series of events resulting from an unstabilized situation. This series of harmful and non-harmful events is recorded in chronological order based on the PAR narrative and diagram.

Additional Information: Prior to 2010, this data element is called "Non-Collision Category or Object Contacted." Codes 1-100 are reserved for the Vehicle Number of the contacted vehicle. The remainder of the codes identified the type of non-collision event or the fixed/non-fixed object contacted. In 2010, non-harmful events are added and the data element name is changed to "Non-Harmful Event, Non-Collision Category or Object Contacted." In 2011, the vehicle number codes 1-100 are retired. Codes 12, 54 and 55 are used to identify contact with another in-transport motor vehicle and the data element "Vehicle Number (Other Vehicle)" added to record the number of the contacted vehicle. "First Harmful Event, Most Harmful Event," and the "Sequence of Events" data elements have the same harmful event attributes. The harmful event attributes were modified to be consistent. "Sequence of Events" also has non-harmful event attributes.

SAS Name: **OBJCONT** ***2010***
SOE ***2011-Later***

Attribute Codes

2010	*2011*	*2012*	*2013*	*2014-Later*	
1-100	--	--	--	--	Vehicle Number of Other Vehicle
101	1	1	1	1	Rollover/Overturn
102	2	2	2	2	Fire/Explosion
103	3	--	--	--	Immersion
--	--	3	3	3	Immersion or Partial Immersion
104	4	4	4	4	Gas Inhalation
105	51	51	51	51	Jackknife *(Harmful to This Vehicle)*
107	44	44	44	44	Pavement Surface Irregularity *(Ruts, Potholes, Grates, etc.)*
108	7	7	7	7	Other Noncollision
110	16	16	16	16	Thrown or Falling Object
111	6	6	6	6	Injured in Vehicle *(Non-Collision)*
--	--	71	71	71	End Departure
112	72	72	72	72	Cargo/Equipment Loss or Shift *(Harmful to This Vehicle)*
--	--	--	73	73	Object Fell From Motor Vehicle In-Transport
113	5	5	5	5	Fell/Jumped from Vehicle
121	8	8	8	8	Pedestrian
122	9	9	9	9	Pedalcyclist
123	10	10	10	10	Railway Vehicle
124	11	11	11	11	Live Animal
127	15	15	15	15	Non-Motorist on Personal Conveyance
128	18	18	18	18	Other Object *(Not Fixed)*
129	14	14	14	14	Parked Motor Vehicle
130	45	45	45	45	Working Motor Vehicle

V31 Sequence of Events *(continued)*

Attribute Codes

2010	*2011*	*2012*	*2013*	*2014-Later*	
131	58	58	58	58	Ground
132	19	19	19	19	Building
133	20	20	20	20	Impact Attenuator/Crash Cushion
136	25	25	25	25	Concrete Traffic Barrier
139	33	33	33	33	Curb
140	35	35	35	35	Embankment
141	38	38	38	38	Fence
142	39	39	39	39	Wall
143	40	40	40	40	Fire Hydrant
144	41	41	41	41	Shrubbery
145	42	42	42	42	Tree *(Standing Only)*
146	17	17	17	17	Boulder
149	49	49	49	49	Ridden Animal or Animal-Drawn Conveyance
151	70	70	70	--	Jackknife *(Non-Harmful)*
--	--	--	--	70	Non-harmful, Swaying Trailer/Jackknife
158	43	43	43	43	Other Fixed Object
160	60	60	60	60	Cargo/Equipment Loss or Shift *(Non-Harmfu)*
161	61	61	61	61	Equipment Failure *(Blown Tire, Brake Failure, etc.)*
162	62	62	62	62	Separation of Units
163	63	63	63	63	Ran Off Roadway – Right
164	64	64	64	64	Ran Off Roadway – Left
--	--	--	--	79	Ran Off Roadway – Direction Unknown
165	65	65	65	65	Cross Median
166	68	68	68	68	Cross Centerline
167	66	66	66	66	Downhill Runaway
168	67	67	67	67	Vehicle Went Airborne
169	69	69	69	69	Re-Entering Roadway
171	50	50	50	50	Bridge Overhead Structure
172	21	21	21	21	Bridge Pier or Support
173	23	23	23	23	Bridge Rail *(Includes Parapet)*
174	24	24	24	24	Guardrail Face
175	52	52	52	52	Guardrail End
176	57	57	57	57	Cable Barrier
177	26	26	26	26	Other Traffic Barrier
178	59	59	59	59	Traffic Sign Support
179	46	46	46	46	Traffic Signal Support
180	30	30	30	30	Utility Pole/Light Support
181	31	31	31	31	Other Post, Other Pole or Other Supports
182	32	32	32	32	Culvert

V31 Sequence of Events *(continued)*

Attribute Codes

2010	*2011*	*2012*	*2013*	*2014-Later*	
183	34	34	34	34	Ditch
184	48	48	48	48	Snow Bank
185	53	53	53	53	Mail Box
190	12	12	12	12	Motor Vehicle In-Transport
191	54	54	54	54	Motor Vehicle In-Transport Strikes or is Struck by Cargo, Persons or Objects Set-in-Motion from/by Another Motor Vehicle In-Transport
192	55	55	55	55	Motor Vehicle in Motion Outside the Trafficway
197	--	--	--	--	Not Reported
999	99	99	99	99	Unknown

C18 Vehicle Number (Other Vehicle)

Definition: This data element identifies the "Vehicle Number" (VEH_NO) of the other motor vehicle, if any, in this event.

Additional Information: This is the vehicle contacted by the motor vehicle in-transport recorded in "Vehicle Number (This Vehicle)." Another vehicle must have been involved in this event for this data element to be a valid vehicle number (i.e., "Sequence of Events" for this event must be 12, 14, 45, 54, or 55).

Prior to 2015, this data element's Locator Code or Data Element Number was C17.

SAS Name: **VNUMBER2**

Attribute Codes

2011-Later

1-999	Vehicle Number
5555	Non-Harmful Event
9999	Not a Motor Vehicle

C18 Area of Impact (Other Vehicle)

Definition: This data element identifies the impact point on the other motor vehicle, if any, in this event.

Additional Information: This is the impact area of the vehicle recorded in "Vehicle Number (Other Vehicle)." Another vehicle must have been involved in this event for this data element to be a valid impact location (i.e., "Sequence of Events" for this event must be 12, 14, 45, 54, or 55).

Prior to 2015, this data element's Locator Code or Data Element Number was C17.

SAS Name: **OBJGAD** ***2010***
AOI2 ***2011-Later***

Attribute Codes

2010	*2011*	*2012*	*2013-Later*	
0	0	0	0	Non-Collision
21-32	1-12	1-12	1-12	Clock points
33	13	13	13	Top
34	14	14	14	Undercarriage
38	18	--	--	Set-in-Motion *(Not a Clock Point)*
--	--	18	--	Set-in-Motion *(Not a Clock Value)*
--	--	--	18	Cargo/Vehicle Parts Set-In-Motion
--	--	--	19	Other Objects Set-In-Motion
55	55	55	55	Non-Harmful Event
61	61	61	61	Left
62	62	--	--	Left-Front Half
--	--	62	62	Left-Front Side
63	63	--	--	Left-Back Half
--	--	63	63	Left-Back Side
--	77	77	77	Not a Motor Vehicle
81	81	81	81	Right
82	82	--	--	Right-Front Half
--	--	82	82	Right-Front Side
83	83	--	--	Right-Back Half
--	--	83	83	Right-Back Side
97	98	98	98	Not Reported
99	99	99	99	Unknown

Discontinued VEVENT Data Elements

Area of Impact (Parked/Working Vehicle) (discontinued)

Definition: This data element indicates the impact point for the parked or working vehicle involved in the harmful event.

Additional Information:

SAS Name: **PGAD**

Attribute Codes

2010

20	Non-Collision
21-32	Clock Points
33	Top
34	Undercarriage
61	Left
62	Left-Front Half
63	Left-Back Half
81	Right
82	Right-Front Half
83	Right-Back Half
96	Not a Parked/Working Vehicle
97	Not Reported
99	Unknown

Vehicle Number (Parked/Working Vehicle) (discontinued)

Definition: The number of the parked or working vehicle.

Additional Information:

SAS Name: **PVEHNUM**

Attribute Codes

2010

1-30	Parked/Working Vehicle Number
96	Not a Parked/Working Vehicle

Vehicle's Action (discontinued)

Definition: Describes the action for the event for the vehicle identified by VEHNUM.

Additional Information:

SAS Name: E_ACTION

Attribute Codes

2010

1	Non-Collision
2	Collision With Object Not Fixed
3	Collision With Fixed Object
6	Non-Harmful Event
7	Motor Vehicle In-Transport
8	Motor Vehicle In-Transport Strikes or is Struck by Cargo, Persons or Objects Set-in-Motion from/by Another Motor Vehicle In-Transport
9	Motor Vehicle In Motion Outside the Trafficway
97	Not Reported

The VSOE Data File

The Vsoe data file includes harmful and non-harmful events for each in-transport motor vehicle. It contains the data elements CASENUM, PSU, PSUSTRAT, STRATUM, REGION, WEIGHT, PJ, VEH_NO, and VEVENTNUM, which are described in the beginning of the Data Element Definitions and Codes section. The Vsoe data file also contains the data elements on the following pages.

CASENUM, VEH_NO, and VEVENTNUM are the unique identifiers for each record. CASENUM and VEH_NO should be used to merge the Vsoe data file with the Vehicle data file.

C18 Area of Impact Associated with the Event

Definition: This data element identifies the impact point, if any, on this in-transport motor vehicle that produced property damage or personal injury in this event.

Additional Information: This is the impact area of the vehicle recorded in "Vehicle Number (This Vehicle)" and described in "Sequence of Events."

Prior to 2015, this data element's Locator Code or Data Element Number was C17.

SAS Name: **AOI**

Attribute Codes

2011	*2012*	*2013-Later*	
00	00	00	Non-Collision
01-12	01-12	01-12	Clock Points
13	13	13	Top
14	14	14	Undercarriage
18	--	--	Set-In-Motion *(Not a Clock Point)*
--	18	--	Set-In-Motion *(Not a Clock Value)*
--	--	18	Cargo/Vehicle Parts Set-In-Motion
--	--	19	Other Objects Set-In-Motion
55	55	55	Non-Harmful Event
61	61	61	Left
62	--	--	Left-Front Half
--	62	62	Left-Front Side
63	--	--	Left-Back Half
--	63	63	Left-Back Side
81	81	81	Right
82	--	--	Right-Front Half
--	82	82	Right-Front Side
83	--	--	Right-Back Half
--	83	83	Right-Back Side
98	98	98	Not Reported
99	99	99	Unknown

V31 Sequence of Events

Definition: The events in sequence related to this motor vehicle, regardless of injury and/or property damage. Events for the vehicle are recorded in the order in which they occur, time-wise, from the PAR narrative and diagram.

Additional Information: "First Harmful Event," "Most Harmful Event," and the "Sequence of Events" data elements have the same harmful event attributes. The harmful event attributes were modified to be consistent. "Sequence of Events" also has non-harmful event attributes.

SAS Name: SOE

Attribute Codes

2011	*2012*	*2013*	*2014-Later*	
1	1	1	1	Rollover/Overturn
2	2	2	2	Fire/Explosion
3	--	--	--	Immersion
--	3	3	3	Immersion or Partial Immersion
4	4	4	4	Gas Inhalation
5	5	5	5	Fell/Jumped from Vehicle
6	6	6	6	Injured in Vehicle *(Non-Collision)*
7	7	7	7	Other Non-Collision
8	8	8	8	Pedestrian
9	9	9	9	Pedalcyclist
10	10	10	10	Railway Vehicle
11	11	11	11	Live Animal
12	12	12	12	Motor Vehicle in Transport
14	14	14	14	Parked Motor Vehicle
15	15	15	15	Non-Motorist on Personal Conveyance
16	16	16	16	Thrown or Falling Object
17	17	17	17	Boulder
18	18	18	18	Other Object *(Not Fixed)*
19	19	19	19	Building
20	20	20	20	Impact Attenuator/Crash Cushion
21	21	21	21	Bridge Pier or Support
23	23	23	23	Bridge Rail *(Includes Parapet)*
24	24	24	24	Guardrail Face
25	25	25	25	Concrete Traffic Barrier
26	26	26	26	Other Traffic Barrier
30	30	30	30	Utility Pole/Light Support
31	31	31	31	Other Post, Other Pole, or Other Support
32	32	32	32	Culvert
33	33	33	33	Curb
34	34	34	34	Ditch
35	35	35	34	Embankment
38	38	38	38	Fence
39	39	39	39	Wall
40	40	40	40	Fire Hydrant

V31 Sequence of Events *(continued)*

Attribute Codes

2011	*2012*	*2013*	*2014-Later*	
41	41	41	41	Shrubbery
42	42	42	42	Tree *(Standing Only)*
43	43	43	43	Other Fixed Object
44	44	44	44	Pavement Surface Irregularity *(Ruts, Potholes, Grates, etc.)*
45	45	45	45	Working Motor Vehicle
46	46	46	46	Traffic Signal Support
48	48	48	48	Snow Bank
49	49	49	49	Ridden Animal or Animal-Drawn Conveyance
50	50	50	50	Bridge Overhead Structure
51	51	51	51	Jackknife *(Harmful to This Vehicle)*
52	52	52	52	Guardrail End
53	53	53	53	Mail Box
54	54	54	54	Motor Vehicle In-Transport Strikes or is Struck by Cargo, Persons or Objects Set-in-Motion from/by Another Motor Vehicle In-Transport
55	55	55	55	Motor Vehicle in Motion Outside the Trafficway
57	57	57	57	Cable Barrier
58	58	58	58	Ground
59	59	59	59	Traffic Sign Support
60	60	60	60	Cargo/Equipment Loss or Shift *(Non-Harmful)*
61	61	61	61	Equipment Failure *(Blown Tire, Brake Failure, etc.)*
62	62	62	62	Separation of Units
63	63	63	63	Ran Off Road – Right
64	64	64	64	Ran Off Road – Left
65	65	65	65	Cross Median
66	66	66	66	Downhill Runaway
67	67	67	67	Vehicle Went Airborne
68	68	68	68	Cross Centerline
69	69	69	69	Re-Entering Highway
70	70	70	--	Jackknife *(Non-Harmful)*
--	--	--	70	
--	71	71	71	End Departure
72	72	72	72	Cargo/Equipment Loss or Shift *(Harmful To This Vehicle)*
--	--	73	73	Object Fell From Motor Vehicle In-Transport
--	--	--	79	Ran Off Roadway – Direction Unknown
99	99	99	99	Unknown

The DAMAGE Data File

The Damage data file identifies each area of damage (as a separate record). It contains the data elements CASENUM, PSU, PSUSTRAT, STRATUM, REGION, WEIGHT, PJ, and VEH_NO, which are described in the beginning of the Data Element Definitions and Codes section. The Damage data file also contains the data elements on the following pages.

CASENUM and VEH_NO are the unique identifiers for each record. CASENUM and VEH_NO should be used to merge the Damage data file with vehicles from the Vehicle data file.

V28B Damaged Areas

Definition: This data element identifies all the areas on this vehicle that were damaged in the crash as reflected in the case materials.

Additional Information:

SAS Name: MDAREAS

Attribute Codes

2012-Later

1-12	Clock points
13	Top
14	Undercarriage
15	No Damage
99	Unknown

The DISTRACT Data File

The Distract data file identifies each driver distraction (as a separate record). It contains the data elements CASENUM, PSU, PSUSTRAT, STRATUM, REGION, WEIGHT, PJ, and VEH_NO, which are described in the beginning of the Data Element Definitions and Codes section. The data file also contains MDRDSTRD which is described below.

CASENUM, VEH_NO, and MDRDSTRD are the unique identifiers for each record. CASENUM and VEH_NO should be used to merge the Distract data file with drivers from the Vehicle data file.

PC16 Driver Distracted By

Definition: This data element identifies the attribute(s) which best describe this driver's attention to driving prior to the driver's realization of an impending critical event or just prior to impact if realization of an impending critical event does not occur.

Additional Information: This data element has been coded at the Driver level and included in Vehicle/Driver data file (SAS data element DR_DSTRD) since 1990. Starting in 2002 multiple distractions for each driver are available in the Distract data file.

Distraction from the primary task of driving occurs when drivers divert their attention from the driving task to some other activity. Also, driving while daydreaming or lost in thought is identified as distracted driving by NHTSA. Physical conditions/impairments (fatigue, alcohol, medical condition, etc.) or psychological states (anger, emotional, depressed, etc.) are not identified as distractions by NHTSA.

SAS Name: MDRDSTRD

Attribute Codes

2002-2003	*2004-2006*	*2007-2009*	*2010*	*2011*	*2012-Later*	
0	0	0	0	0	0	Not Distracted
1	1	1	1	1	1	Looked But Did Not See
3	3	3	3	3	3	By Other Occupants
4	4	4	4	4	4	By a Moving Object In Vehicle
5	5	5	5	5	5	While Talking Or Listening To Cellular Phone
6	6	6	6	6	6	While Manipulating Cellular Phone
7	7	7	--	--	--	While Adjusting Climate Control
--	--	--	7	7	7	While Adjusting Audio Or Climate Controls
8	8	8	--	--	--	While Adjusting Radio, Cassette Or CD
9	9	9	9	9	9	While Using Other Component/Controls Integral To Vehicle
10	10	10	--	--	--	While Using Or Reaching For Other Devices
--	--	--	10	10	10	While Using Or Reaching For Device/Object Brought into Vehicle
11	11	11	--	--	--	Sleepy Or Fell Asleep
12	12	12	--	--	--	Distracted By Outside Person Or Object
--	--	--	12	12	12	Distracted By Outside Person, Object Or Event
13	13	13	13	13	13	Eating Or Drinking
14	14	14	14	14	14	Smoking Related
--	--	15	15	15	15	Other Cellular Phone Related
--	--	--	--	16	16	No Driver Present/Unknown if Driver Present
--	--	--	--	--	17	Distraction/Inattention
--	--	--	--	--	18	Distraction/Careless
--	--	--	--	--	19	Careless/Inattentive
--	--	50	--	--	--	Hit & Run *(And No Information)*

D16 Driver Distracted By *(continued)*

Attribute Codes

2002-2003	*2004-2006*	*2007-2009*	*2010*	*2011*	*2012-Later*	
--	92	92	92	92	--	Distraction/Inattention, Details Unknown
--	--	--	--	--	92	Distraction *(Distracted)*, Details Unknown
93	93	93	--	--	--	Not On PAR
--	--	--	--	--	93	Inattention *(Inattentive)*, Details Unknown
94	94	94	--	--	--	Not Coded
95	95	95	95	--	--	No Driver Present
--	--	--	96	96	96	Not Reported
97	97	97	97	97	--	Inattentive Or Lost In Thought
--	--	--	--	--	97	Lost In Thought/Day Dreaming
98	--	--	--	--	--	Other Distraction Or Inattention
--	98	98	98	98	98	Other Distraction
99	99	99	99	99	99	Unknown If Distracted

The DRIMPAIR Data File

The Drimpair data file identifies each driver impairment (as a separate record). It contains the data elements CASENUM, PSU, PSUSTRAT, STRATUM, REGION, WEIGHT, PJ, and VEH_NO, which are described in the beginning of the Data Element Definitions and Codes section. The data file also contains DRIMPAIR which is described below.

CASENUM, VEH_NO, and DRIMPAIR are the unique identifiers for each record. CASENUM and VEH_NO should be used to merge the Drimpair data file with drivers from the Vehicle data file.

The Drimpair and Nmimpair data files replaced the Impair data file in 2011. The Impair data file ran from 2002 to 2010 and its element and attribute history is also provided below.

D23 Condition (Impairment) at Time of Crash- Driver

Definition: This data element identifies physical impairments to this driver that may have contributed to the crash as identified by law enforcement.

Additional Information: This data element has been coded at the person level and included in the Person data file (SAS data element IMPAIRMT) since 1990. From 2002-2010 all impairments of a driver or non-motorist are available in the Impair data file. Starting in 2011 all impairments of a driver are in the Drimpair data file and all impairments of a non-motorist are in the Nmimpair data set.

SAS Name: **MIMPAIR** ***2002-2010***
DRIMPAIR ***2011-Present***

Attribute Codes

2002-2006	*2007-2009*	*2010-2013*	*2014-Later*	
0	0	--	--	None
--	--	0	0	None/Apparently Normal
1	1	1	1	Ill, Blackout
2	2	--	--	Drowsy, Sleepy, Fell Asleep, Fatigued
--	--	2	2	Asleep or Fatigued
3	3	3	--	Walking with a Cane or Crutches
--	--	--	3	Walking with a Cane or Crutches, etc.
4	4	4	4	Paraplegic or Restricted to Wheelchair
5	5	5	5	Impaired Due to Previous Injury
6	6	6	6	Deaf
7	7	7	7	Blind
--	--	8	8	Emotional *(Depressed, Angry, Disturbed, etc.)*
--	--	9	9	Under the Influence of Alcohol, Drugs or Medication
--	--	10	10	Physical Impairment – No Details
--	50	--	--	Hit & Run *(And No Information)*
--	93	--	--	Not on PAR
--	94	--	--	Not Coded
--	--	95	95	No Driver Present/Unknown if Driver Present *(Since 2011)*
97	97	--	--	Physical Impairment-No Details
98	98	96	96	Other Physical Impairment
--	--	98	98	Not Reported
99	99	99	99	Unknown if Impaired

The FACTOR Data File

The Factor data file identifies each vehicle factor (as a separate record). It contains the data elements CASENUM, PSU, PSUSTRAT, STRATUM, REGION, WEIGHT, PJ, and VEH_NO, which are described in the beginning of the Data Element Definitions and Codes section. The data file also contains MFACTOR which is described below.

CASENUM, VEH_NO, and MFACTOR are the unique identifiers for each record. CASENUM and VEH_NO should be used to merge the Factor data file with the Vehicle data file.

PC4 Contributing Circumstances, Motor Vehicle

Definition: This data element describes this vehicle's possible pre-existing defects or maintenance conditions that may have contributed to the crash.

Additional Information: This data element has been coded at the Vehicle level, and included in Vehicle/Driver data file (SAS data element FACTOR), since 1995. Starting in 2002 multiple factors for each vehicle are available in the Factor data file. It is important to determine the significance of pre-existing problems, including equipment and operation, in motor vehicles involved in a crash.

Prior to 2011 this data element was called "Vehicle Contributing Factors."

SAS Name: MFACTOR

Attribute Codes

2002-2009	*2010-Later*	
0	0	None
1	1	Tires
2	2	Brake System
3	3	Steering System-Tie Rod, Kingpin, Ball Joint, etc.
4	4	Suspension-Springs, Shock Absorbers, McPherson Struts, Control Arms, etc.
5	5	Power Train-Universal Joint, Drive Shaft, Transmission, etc.
6	6	Exhaust System
7	7	Headlights
8	8	Signal Lights
9	9	Other Lights
10	10	Wipers
11	11	Wheels
12	12	Mirrors
13	--	Driver Seating and Control
--	13	Windows/Windshield
14	14	Body, Doors
15	--	Trailer Hitch
--	15	Truck Coupling/Trailer Hitch/Safety Chains
--	16	Safety Systems
50	--	Hit-and-Run Vehicle
97	17	Vehicle Contributing Factors -No Details
--	97	Other
98	--	Other Vehicle Contributing Factors
--	98	Not Reported
99	--	Unknown if Vehicle Has Contributing Factors
--	99	Unknown

The MANEUVER Data File

The Maneuver data file identifies each avoidance attempt (as a separate record). It contains the data elements CASENUM, PSU, PSUSTRAT, STRATUM, REGION, WEIGHT, PJ, and VEH_NO, which are described in the beginning of the Data Element Definitions and Codes section. The data file also contains MDRMANAV which is described below.

CASENUM, VEH_NO, and MDRMANAV are the unique identifiers for each record. CASENUM and VEH_NO should be used to merge the Maneuver data file with the Vehicle data file.

PC15 Driver Maneuvered to Avoid

Definition: This data element identifies the thing(s) this driver attempted to avoid while the vehicle was on the road portion of the trafficway, just prior to the first harmful event for this vehicle.

Additional Information: This data element has been coded at the Driver level and included in Vehicle/Driver data file (SAS data element DRMAN_AV) since 1990. Starting in 2002 multiple maneuvers made by each driver are available in the Maneuver data file.

SAS Name: MDRMANAV

Attribute Codes

2002-2003	*2004-2009*	*2010*	*2011-Later*	
0	0	0	0	Driver Did Not Maneuver To Avoid
1	1	1	1	Object In Road
2	2	2	2	Poor Road Conditions *(Puddle, Ice, Pot Hole, etc.)*
3	3	--	--	Animal In Road
--	--	3	3	Live Animal
4	4	--	--	Vehicle In Road
--	--	4	4	Motor Vehicle
5	5	5	5	Pedestrian, Pedalcyclist, or Other Non-Motorist in the Road
50	50	--	--	Hit & Run *(And No Information)*
--	92	92	92	Phantom /Non-Contact Motor Vehicle
93	93	--	--	Not on PAR
94	94	--	--	Not Coded
95	95	95	--	No Driver Present
--	--	--	95	No Driver Present/Unknown if Driver Present
97	97	--	--	Avoidance Maneuver-No Details
--	--	98	98	Not Reported
99	99	99	99	Unknown If Driver Maneuvered To Avoid

The VIOLATN Data File

The Violatn data file identifies each violation (as a separate record). It contains the data elements CASENUM, PSU, PSUSTRAT, STRATUM, REGION, WEIGHT, PJ, and VEH_NO, which are described in the beginning of the Data Element Definitions and Codes section. The data file also contains MVIOLATN which is described below.

CASENUM, VEH_NO, and MVIOLATN are the unique identifiers for each record. CASENUM and VEH_NO should be used to merge the Violatn data file with the Vehicle data file.

D21 Violations Charged

Definition: This data element identifies all violations charged to this driver.

Additional Information: This data element has been coded at the Driver level and included in Vehicle/Driver data file (SAS data element VIOLATN) since 1988. Starting in 2002 all violations charged to a driver are available in the Violatn data file.

SAS Name: MVIOLATN

Attribute Codes

2002-2008

0 None
1 Alcohol
2 Drugs
3 Speeding
4 Reckless Driving
5 Driving With a Suspended or Revoked License
6 Failure to Yield Right-of-Way
7 Running a Traffic Signal or Stop Sign
50 Hit & Run *(And No Information)*
95 No Driver Present
96 Not Reported
97 Violation Charged-No Details
98 Other Violation
99 Unknown if Charged

2009-Later

0 None

RECKLESS/CARELESS/HIT-AND-RUN TYPE OFFENSES

1 Manslaughter or Homicide
2 Willful Reckless Driving; Driving to Endanger; Negligent Driving
3 Unsafe Reckless *(Not Willful, Wanton Reckless)* Driving
4 Inattentive, Careless, Improper Driving
5 Fleeing or Eluding Police
6 Fail to Obey Police, Fireman, Authorized Person Directing Traffic
7 Hit-And-Run, Fail to Stop After Crash
8 Fail to Give Aid, Information, Wait For Police After Crash
9 Serious Violation Resulting In Death
10 Use of Telecommunications Device *(Since 2015)*

IMPAIRMENT OFFENSES

11 Driving While Intoxicated *(Alcohol Or Drugs)* Or BAC Above Limit *(Any Detectable BAC for CDLs)*
12 Driving While Impaired
13 Driving Under Influence of Substance Not Intended To Intoxicate
14 Drinking While Operating
15 Illegal Possession of Alcohol or Drugs
16 Driving With Detectable Alcohol
18 Refusal to Submit to Chemical Test
19 Alcohol, Drug or Impairment Violations Generally

D21 Violations Charged *(continued)*

SPEED-RELATED OFFENSES

21 Racing
22 Speeding *(Above The Speed Limit)*
23 Speed Greater than Reasonable & Prudent *(Not Necessarily Over The Limit)*
24 Exceeding Special Limit
25 Energy Speed *(Exceeding 55 mph, Non-Pointable)*
26 Driving Too Slowly
29 Speed Related Violations, Generally

RULES OF THE ROAD – TRAFFIC SIGN & SIGNALS

31 Fail to Stop For Red Signal
32 Fail to Stop For Flashing Red
33 Violation of Turn On Red *(Fail to Stop & Yield, Yield to Pedestrians Before Turning)*
34 Fail to Obey Flashing Signal *(Yellow Or Red)*
35 Fail to Obey Signal, Generally
36 Violate RR Grade Crossing Device/Regulations
37 Fail to Obey Stop Sign
38 Fail to Obey Yield Sign
39 Fail to Obey Traffic Control Device

RULES OF THE ROAD – TURNING, YIELDING, SIGNALING

41 Turn in Violation of Traffic Control *(Disobey Signs, Turn Arrow Or Pavement Markings; This Is Not A Right-On-Red Violation)*
42 Improper Method & Position of Turn *(Too Wide, Wrong Lane)*
43 Fail to Signal For Turn or Stop
45 Fail to Yield to Emergency Vehicle
46 Fail to Yield, Generally
48 Enter Intersection when Space Insufficient
49 Turn, Yield, Signaling Violations, Generally

RULES OF THE ROAD – WRONG SIDE, PASSING & FOLLOWING

51 Driving Wrong Way on One-Way Road
52 Driving On Left, Wrong Side of Road, Generally
53 Improper, Unsafe Passing
54 Pass on Right *(Drive Off Pavement To Pass)*
55 Pass Stopped School Bus
56 Fail to Give Way When Overtaken
58 Following Too Closely
59 Wrong Side, Passing, Following Violations, Generally

RULES OF THE ROAD – LANE USAGE

61 Unsafe or Prohibited Lane Change
62 Improper Use of Lane *(Enter of 3-Lane Road, HOV Designated Lane)*
63 Certain Traffic to Use Right Lane *(Trucks, Slow-Moving, etc.)*
66 Motorcycle Lane Violations *(More than Two per Lane, Riding Between Lanes, etc.)*
67 Motorcyclist Attached to Another Vehicle
69 Lane Violations, Generally

D21 Violations Charged *(continued)*

NON-MOVING – LICENSE AND REGISTRATION VIOLATIONS

71 Driving While License Withdrawn *(Including Violation of Provisions of Work Permit) (2009-2013)*
71 Driving While License Withdrawn *(Since 2014)*
72 Other Driver License Violations
73 Commercial Driver Violations *(Log Book, Hours, Permits Carried)*
74 Vehicle Registration Violations
75 Fail to Carry Insurance Card
76 Driving Uninsured Vehicle
79 Non-Moving Violations, Generally

EQUIPMENT

81 Lamp Violations
82 Brake Violations
83 Failure to Require Restraint Use *(By Self or Passengers)*
84 Motorcycle Equipment Violations *(Helmet, Special Equipment)*
85 Violation of Hazardous Cargo Regulations
86 Size, Weight, Load Violations
89 Equipment Violations, Generally

LICENSE, REGISTRATION & OTHER VIOLATIONS

91 Parking
92 Theft, Unauthorized Use of Motor Vehicle
93 Driving Where Prohibited *(Sidewalk, Limited Access, Off Truck Route)*
95 No Driver Present / Unknown if Driver Present
97 Not Reported *(Added in 2010)*
98 Other Moving Violation *(Coasting, Backing, Opening Door)*
99 Unknown Violation(s)

The VISION Data File

The Vision data file identifies each visual obstruction (as a separate record). It contains the data elements CASENUM, PSU, PSUSTRAT, STRATUM, REGION, WEIGHT, PJ, and VEH_NO, which are described in the beginning of the Data Element Definitions and Codes section. The data file also contains MVISOBSC which is described below.

CASENUM, VEH_NO, and MVISOBSC are the unique identifiers for each record. CASENUM and VEH_NO should be used to merge the Vision data file with the Vehicle data file.

PC14 Driver's Vision Obscured By

Definition: This data element records impediments to this driver's visual field that were noted in the PAR.

Additional Information: In 2004 the codes 93-Not on PAR and 94-Not Coded replaced 96-Not Reported. Not on PAR is coded if no block exists on the PAR for reporting obscured driver vision and no other information is available. Not Coded is used if there is a specific location on the police report for obscured driver vision but the investigating officer fails to make an assessment, and there is no other information available.

This data element has been coded at the Driver level and included in Vehicle/Driver data file (SAS data element VIS_OBSC) since 1988. Starting in 2002 all visual obstructions for a driver are available in the Vision data file.

SAS Name: MVISOBSC

Attribute Codes

2002-2003	*2004-2008*	*2009-Later*	
0	0	0	No Obstruction
--	--	1	Rain, Snow, Fog, Smoke, Sand, Dust
1	1	--	Rain, Snow, Smoke, Sand, Dust
2	2	2	Reflected Glare, Bright Sunlight, Headlights
3	3	--	Curve or Hill
--	--	3	Curve, Hill, or Other Roadway Design Feature
4	4	--	Building, Billboard, or Other Design Features *(Includes Signs, Embankment)*
--	--	4	Building, Billboard, or Other Structure
5	5	5	Trees, Crops, Vegetation
6	6	6	In-Transport Motor Vehicle *(Including Load)*
7	7	--	Parked Vehicle
--	--	7	Not-in-Transport Motor Vehicle *(Parked, Working)*
8	8	8	Splash or Spray of Passing Vehicle
9	9	9	Inadequate Defrost or Defog System
10	10	10	Inadequate Vehicle Lighting System
11	11	11	Obstruction Interior to Vehicle
12	12	12	External Mirrors
13	13	--	Head Restraints
14	14	13	Broken or Improperly Cleaned Windshield
--	--	14	Obstructing Angles on Vehicle
15	15	--	Fog
50	50	--	Hit & Run Vehicle *(And No Information)*
--	93	--	Not on PAR
--	94	--	Not Coded
95	95	--	No Driver Present
--	--	95	No Driver Present/Unknown if Driver Present
96	--	--	Not Reported
97	97	97	Vision Obscured – No Details
98	98	98	Other Visual Obstruction
99	99	99	Unknown Whether Vision was Obstructed

The NMCRASH Data File

The Nmcrash data file identifies each non-motorist action or circumstance that may have contributed to the crash (as a separate record). It contains the data elements CASENUM, PSU, PSUSTRAT, STRATUM, REGION, WEIGHT, PJ, VEH_NO, and PER_NO, which are described in the beginning of the Data Element Definitions and Codes section. The data file also contains MTM_CRSH which is described below.

CASENUM, PER_NO, and MTM_CRSH are the unique identifiers for each record. CASENUM, VEH_NO, and PER_NO should be used to merge the Nmcrash data file with non-motorists from the Person data file.

NM12 Non-Motorist Contributing Circumstances

Definition: This data element describes the action(s) and/or circumstances of this non-motorist that law enforcement indicated may have contributed to the crash.

Additional Information: It selects all that apply. This data element is based on the judgment of the law enforcement officer investigating the crash. Prior to 2014 this data element was called "Non-Motorist Action/Circumstances at Time of Crash".

SAS Name: MTM_CRSH

Attribute Codes

2010-2013	*2014-Later*	
0	--	No Improper Action
--	0	None Noted
1	--	Dart/Dash
--	1	Dart-Out
2	2	Failure to Yield Right-Of-Way
3	3	Failure to Obey Traffic Signs, Signals or Officer
4	4	In Roadway Improperly *(Standing, Lying, Working, Playing)*
5	--	Entering/Exiting Vehicle
--	5	Entering/Exiting Parked or Stopped Vehicle
6	6	Inattentive *(Talking, Eating, etc.)*
7	7	Improper Turn/Merge
8	8	Improper Passing
9	9	Wrong-Way Riding or Walking
10	--	Driving on Wrong Side of Road
--	10	Riding on Wrong Side of Road
--	11	Dash
12	12	Improper Crossing of Roadway or Intersection *(Jaywalking)*
13	13	Failing to Have Lights on When Required
14	14	Operating Without Required Equipment
15	15	Improper or Erratic Lane Changing
16	16	Failure to Keep in Proper Lane or Running Off Road
17	17	Making Improper Entry to or Exit from Trafficway
18	--	Operating the Vehicle in Other Erratic, Reckless, Careless or Negligent Manner
--	18	Operating in Other Erratic, Reckless, Careless or Negligent Manner
19	19	Not Visible *(Dark Clothing, No Lighting, etc.)*
20	20	Passing with Insufficient Distance or Inadequate Visibility or Failing to Yield to Overtaking Vehicle
21	21	Other
98	--	Not Reported
99	99	Unknown

The NMIMPAIR Data File

The Nmimpair data file identifies each non-motorist impairment (as a separate record). It contains the data elements CASENUM, PSU, PSUSTRAT, STRATUM, REGION, WEIGHT, PJ, VEH_NO, and PER_NO, which are described in the beginning of the Data Element Definitions and Codes section. The data file also contains NMIMPAIR which is described below.

CASENUM, PER_NO, and NMIMPAIR are the unique identifiers for each record. CASENUM, VEH_NO, and PER_NO should be used to merge the Nmimpair data file with non-motorists from the Person data file.

The Drimpair and Nmimpair data files replaced the Impair data file in 2011. The Impair data file ran from 2002 to 2010 and its element and attribute history is also provided here.

NM14 Condition (Impairment) at Time of Crash- Non-Motorist

Definition: This data element identifies physical impairments to this non-motorist that may have contributed to the crash as identified by law enforcement.

Additional Information: This data element has been coded at the person level and included in the Person data file (SAS data element IMPAIRMT) since 1990. From 2002-2010 all impairments of a driver or non-motorist are available in the Impair data file. Starting in 2011 all impairments of a driver are in the Drimpair data file and all impairments of a non-motorist are in the Nmimpair data set.

SAS Name: **MIMPAIR** ***2002-2010***
NMIMPAIR ***2011-Present***

Attribute Codes

2002-2006	*2007-2009*	*2010-2013*	*2014-Later*	
0	0	--	--	None
--	--	0	0	None/Apparently Normal
1	1	1	1	Ill, Blackout
2	2	--	--	Drowsy, Sleepy, Fell Asleep, Fatigued
--	--	2	2	Asleep or Fatigued
3	3	3	--	Walking with a Cane or Crutches
--	--	--	3	Walking with a Cane or Crutches, etc.
4	4	4	4	Paraplegic or Restricted to Wheelchair
5	5	5	5	Impaired Due to Previous Injury
6	6	6	6	Deaf
7	7	7	7	Blind
--	--	8	8	Emotional *(Depressed, Angry, Disturbed, etc.)*
--	--	9	9	Under the Influence of Alcohol, Drugs or Medication
--	--	10	10	Physical Impairment – No Details
--	50	--	--	Hit & Run *(And No Information)*
--	93	--	--	Not on PAR
--	94	--	--	Not Coded
97	97	--	--	Physical Impairment-No Details
98	98	96	96	Other Physical Impairment
--	--	98	98	Not Reported
99	99	99	99	Unknown if Impaired

The NMPRIOR Data File

The Nmprior data file identifies each non-motorist action at the time of their involvement in the crash (as a separate record). It contains the data elements CASENUM, PSU, PSUSTRAT, STRATUM, REGION, WEIGHT, PJ, VEH_NO, and PER_NO, which are described in the beginning of the Data Element Definitions and Codes section. The data file also contains MPR_ACT which is described below.

CASENUM, PER_NO, and MPR_ACT are the unique identifiers for each record. CASENUM, VEH_NO, and PER_NO should be used to merge the Nmprior data file with non-motorists from the Person data file.

NM11 Non-Motorist Action/Circumstances

Definition: This data element describes the action(s) of the non-motorist immediately prior to their involvement in the crash.

Additional Information: It selects all that apply. It is also an indication of whether the non-motorist was walking/cycling to/from school in addition to the action of the non-motorist immediately prior to their involvement in the crash. Prior to 2014 this data element was called "Non-Motorist Action/Circumstances Prior to Crash".

SAS Name: MPR_ACT

Attribute Codes

2010	*2011-2013*	*2014-Later*	
1	1	1	Going to or from School *(K-12)*
2	2	2	Waiting to Cross Roadway
3	3	3	Crossing Roadway
4	4	4	Jogging/Running
5	5	5	Movement Along Roadway with Traffic *(In or Adjacent to Travel Lane)*
6	6	6	Movement Along Roadway Against Traffic *(In or Adjacent to Travel Lane)*
7	7	--	Movement on Sidewalk
8	8	8	In Roadway-Other *(Working, Playing, etc.)*
9	9	9	Adjacent to Roadway *(e.g., Shoulder, Median)*
10	10	10	Working in Trafficway *(Incident Response)*
11	11	--	Entering/Exiting a Vehicle
--	--	11	Entering/Exiting a Parked or Stopped Vehicle
12	12	12	Disabled Vehicle Related *(Working on, Pushing, Leaving/Approaching)*
--	14	14	Other
15	15	--	None
--	16	16	Movement Along Roadway – Direction Unknown *(Since 2012)*
98	98	98	Not Reported
99	99	99	Unknown

The SAFETYEQ Data File

The Safetyeq data file identifies each item of safety equipment (as a separate record). It contains the data elements CASENUM, PSU, PSUSTRAT, STRATUM, REGION, WEIGHT, PJ, VEH_NO, and PER_NO, which are described in the beginning of the Data Element Definitions and Codes section. The data file also contains MSAFEQMT which is described below.

CASENUM, PER_NO, and MSAFEQMT are the unique identifiers for each record. CASENUM, VEH_NO, and PER_NO should be used to merge the Safetyeq data file with non-motorists from the Person data file.

NM13 Non-Motorist Safety Equipment Use

Definition: This data element indicates the safety equipment that was used by this non-motorist involved in the crash.

Additional Information: For 2002-2008 it is coded for "Person Type" in 4 (Occupant of a Non-Motor Vehicle Transport Device), 5 (Pedestrian), 6 (Pedalcyclist), 7 (Other Cyclist), or 8 (Other or Unknown). From 2009 on it is coded for "Person Type" in 4 (Occupant of a Non-Motor Vehicle Transport Device), 5 (Pedestrian), 6 (Bicyclist), 7 (Other Cyclist), 8 (Persons on Personal Conveyances), or 19 (Unknown Type of Non-Motorist).

This data element has been coded at the person level and included in the Person data file (SAS data element SAF_EQMT) since 1990. Starting in 2002 all items for a non-motorist are available in the Safetyeq data file. There can be one or more safety equipment responses for each non-motorist.

SAS Name: MSAFEQMT

Attribute Codes

2002-2009	*2010-2014*	*2015-Later*	
0	--	--	Not Applicable
1	1	1	None Used
2	--	--	Bicycle Helmet
--	2	2	Helmet
3	--	--	Reflective Equipment
--	3	--	Reflective Equipment/Clothing *(Jacket, Backpack, etc.)*
--	--	3	Reflective Clothing *(Jacket, Backpack, etc.)*
4	--	--	Bicycle Helmet and Reflective Equipment
--	4	4	Protective Pads *(Elbows, Knees, Shins, etc.)*
--	5	5	Lighting
8	7	7	Other Safety Equipment
--	8	8	Not Reported
9	9	9	Unknown if Used

The VINDECODE Data File

The Vindecode data file provides vehicle specification data for all vehicle types, mainly passenger vehicles, trucks and motorcycles. It contains the data elements CASENUM, PSU, PSUSTRAT, STRATUM, REGION, WEIGHT, PJ, and VEH_NO, which are described in the beginning of the Data Element Definitions and Codes section. CASENUM and VEH_NO are the unique identifiers for each record. CASENUM and VEH_NO should be used to merge the Vindecode data file with the Vehicle or Parkwork data file.

The Vindecode data file contains over 100 data elements derived from the VIN using the R L Polk VIN verification and decoding program, VINtelligence. Descriptions of the data elements and their contents can be found in the Polk VINtelligence Deluxe Package and Field Descriptions documentation in Appendix H: VIN Decoded Data Elements.

The data file also includes the data element FLAG. This element identifies if the VIN used to decode the data is from the NASS GES original source data or obtained from Polk by linking NASS GES license plate data.

Discontinued Data Files

The following data files have been discontinued. In some instances, discontinued data files are replaced with new data files. Most replaced data files are not included here. Instead their element and attribute histories can be found under the new data file that replaced them. For example, the Event data file elements can be found under its successor, the Cevent data file. The exception is the Nmaction file which was replaced by the Nmprior and Nmcrash data files but is contained here because its structure is too different from the new data files.

The NMACTION Data File

The Nmaction data file contains the data elements CASENUM, PSU, STRATUM, REGION, WEIGHT, PJ, PER_NO, and MACTION. CASENUM, PER_NO and MACTION are the unique identifiers. CASENUM and PER_NO should be used to merge the Impair data file with non-motorists from the Person data file.

This data file was discontinued in 2010 and replaced with two files: Nmprior and Nmcrash.

Non-Motorist Action (discontinued)

Definition: Identifies non-motorist actions that may have contributed to the cause of the crash.

Additional Information: For 2002-2008 it is coded for Person Type (P03) =4 (Occupant of a Non-Motor Vehicle Transport Device), 5 (Pedestrian), 6 (Pedalcyclist), 7 (Other Cyclist), or 8 (Other or Unknown). From 2009 on it is coded for Person Type (P03)= 4 (Occupant of a Non-Motor Vehicle Transport Device), 5 (Pedestrian), 6 (Bicyclist), 7 (Other Cyclist), 8 (Persons on Personal Conveyances), or 19 (Unknown Type of Non-Motorist).

This data element has been coded at the person level and included in Person data file (SAS data element ACTION) since 1990. Starting in 2002 all actions for a non-motorist are available in the Nmaction data file.

This data element was replaced in 2010 with "Non-Motorist Action/Circumstances Prior to Crash" and "Non-Motorist Action/Circumstances at Time of Crash."

SAS Name: MACTION

Attribute Codes

2002-2009

0 No Action

NON-MOTORIST VEHICLE OPERATOR:

1 Failing to Have Lights on When Required
2 Operating without Required Equipment
3 Improper or Erratic Lane Changing
4 Failure to Keep in Proper Lane or Running Off Road
5 Making Improper Entry to or Exit from Trafficway
6 Operating the Vehicle in Erratic, Reckless, Negligent Manner
7 Failure to Yield Right of Way
8 Failure to Obey Traffic Signs/Control Devices/Officers, Failure to Observe Safety Zone
9 Making Other Improper Turn
10 Driving on Wrong Side of Road

OTHER NON-MOTORIST:

21 Darting or Running into Road
22 Improper Crossing of Roadway or Intersection *(Jaywalking)*
24 Inattentive *(Talking, Eating, etc.)*
25 Jogging
26 Non-Motorist Pushing Vehicle
27 Walking with Traffic
28 Walking Against Traffic
29 Playing, Working, Sitting, Lying, Standing, Etc. In Roadway
98 Other Action
99 Unknown Action

The TRAFCON Data File

The Trafcon data file includes the data elements CASENUM, PSU, STRATUM, REGION, WEIGHT, PJ, VEH_NO, and MTRAFCON. CASENUM, VEH_NO and MTRAFCON are the unique identifiers. CASENUM and VEH_NO should be used to merge the Trafcon data file with the Vehicle data file. MTRAFCON identifies each traffic control device for motor vehicles (as a separate record).

This data file was discontinued in 2010.

Traffic Control Device – Vehicles (discontinued)

Definition: Indicates whether or not traffic control devices were present for a motor vehicle and the type of traffic control device.

Additional Information: This data element has been coded at the Accident level and included in Accident data file (SAS data element TRAF_CON) since 1988. Starting in 2002 each traffic control device for a vehicle is in the Trafcon data file and each traffic control device for a cyclist is in the Biketraf data file. Also starting in 2002 a single, selected, traffic control device for a vehicle is available on the Vehicle data file (SAS data element VTRAFCON).

This data file was discontinued in 2010. The data element is still coded on the Vehicle level, and the information is available in the Accident and Vehicle SAS data files.

SAS Name: MTRAFCON

Attribute Codes

2002-2009

0 No Controls

NOT AT RAILROAD GRADE CROSSING

TRAFFICWAY TRAFFIC SIGNALS:

1 Traffic Control Signal *(On Colors)*
4 Flashing Traffic Control Signal or Flashing Beacon
8 Other Traffic Signal
9 Unknown Traffic Signal

REGULATORY, SCHOOL ZONE SIGNS:

21 Stop Sign
22 Yield Sign
23 School Zone Related Sign
28 Other Sign
29 Unknown Sign

WARNING SIGNS:

40 Advisory Speed Sign
41 Warning Sign For Road Conditions *(Hill, Steep Grade, etc.)*
42 Warning Sign For Road Construction
43 Warning Sign For Environment/Traffic *(Fog Ahead, Wind, Crash Ahead, etc.)*
49 Unknown Type Warning

MISCELLANEOUS, NOT AT RAILROAD CROSSING:

51 Officer, Crossing Guard, Flagman, etc

AT RAILROAD GRADE CROSSING:

61 Active Devices *(e.g., Gates, Flashing Lights, Traffic Signal)*
62 Passive Devices *(e.g., Stop Sign, Cross Bucks)*

OTHER:

97 Traffic Control Present-No Details
98 Other Traffic Control *(Whether Or Not At RR Grade Crossing)*
99 Unknown

The BIKETRAF Data File

The Biketraf data file contains the data elements CASENUM, PSU, STRATUM, REGION, WEIGHT, PJ, PER_NO, and BTRAFCON. CASENUM, PER_NO and BTRAFCON are the unique identifiers. CASENUM and PER_NO should be used to merge the Biketraf data file with cyclists in the Person data file (PER_TYPE=6). BTRAFCON identifies each traffic control device for cyclists (as a separate record) and is described below:

This data file was discontinued in 2011.

Traffic Control Device – Cyclist (discontinued)

Definition: Indicates whether or not traffic control devices were present for a cyclist and the types of traffic control device.

Additional Information: This data element has been coded at the Accident level and included in the Accident data file (SAS data element TRAF_CON) since 1988. Starting in 2002 each traffic control device for a vehicle is in the Trafcon data file and each traffic control device for a cyclist is in the Biketraf data file. Also starting in 2002 a single, selected, traffic control device for a vehicle is available on the Vehicle data file (SAS data element VTRAFCON).

SAS Name: BTRAFCON

Attribute Codes

2002-2009	*2010-Later*	
0	0	No Controls
NOT AT RAILROAD GRADE CROSSING		
TRAFFICWAY TRAFFIC SIGNALS:		
1	--	Traffic Control Signal *(On Colors)*
--	1	Traffic Control Signal *(On Colors)* Without Pedestrian Signal
--	2	Traffic Control *(On Colors)* With Pedestrian Signal
--	3	Traffic Control Signal *(On Colors)* Not Known if Pedestrian Signal
4	--	Flashing Traffic Control Signal or Flashing Beacon
--	4	Flashing Traffic Control Signal
8	8	Other Highway Traffic Signal
9	9	Unknown Highway Traffic Signal
REGULATORY, SCHOOL ZONE SIGNS:		
21	21	Stop Sign
22	22	Yield Sign
23	23	School Zone Sign/Device
28	28	Other Regulatory Sign
29	29	Unknown Regulatory Sign
--	5	Land Use Control Signal
WARNING SIGNS:		
40	--	Advisory Speed Sign
41	--	Warning Sign For Road Conditions *(Hill, Steep Grade, etc.)*
42	--	Warning Sign For Road Construction
43	--	Warning Sign For Environment/Traffic *(Fog Ahead, Wind, Crash Ahead, etc.)*
--	44	Warning Sign
49	--	Unknown Type Warning
MISCELLANEOUS, NOT AT RAILROAD CROSSING:		
51	--	Officer, Crossing Guard, Flagman, etc
--	51	Person

Traffic Control Device – Cyclist *(continued)*

AT RAILROAD GRADE CROSSING:

61	--	Active Devices *(e.g., Gates, Flashing Lights, Traffic Signal)*
62	--	Passive Devices *(e.g., Stop Sign, Cross Bucks)*
--	63	Railway Crossing Device

OTHER:

97	--	Traffic Control Present-No Details
--	97	Not Reported
98	--	Other Traffic Control *(Whether or Not At RR Grade Crossing)*
--	98	Other
99	99	Unknown

The PARKEVNT Data File

The Parkevnt data file contains the data elements CASENUM, PSU, STRATUM, REGION, WEIGHT, and PJ, which are described in the beginning of the Data Element Definitions and Codes section. The Parkevnt data file also contains the data elements on the following pages. CASENUM is used to merge with crashes in the Accident data file. To merge with the Event data file, use CASENUM and EVENTNUM. To merge with the Person data file, use CASENUM and PVEHNO.

This data file was discontinued in 2011.

Parked/Working Vehicle Number (discontinued)

Definition: The identification number assigned to the parked/working vehicle.

Additional Information:

SAS Name: PVEHNO

Attribute Codes

2005-Later

1-30 Parked/Working Vehicle Number

Parked/Working Vehicle Event Number (discontinued)

Definition: The number of the event that the parked/working vehicle was involved in.

Additional Information: The Event and Parkevnt data files can be merged by CASENUM and EVENTNUM to get a listing of all events in which parked/working vehicles were involved. This listing can identify the specific vehicles involved (in-transport and parked/working) along with the general area of damage for both types of vehicle.

SAS Name: EVENTNUM

Attribute Codes

2005-Later

x Event Number that the parked/working vehicle was involved in

Parked/Working Vehicle Point of Impact (discontinued)

Definition: Indicates the impact point that produced property damage or personal injury for the parked/working vehicle involved in the event.

Additional Information:

SAS Name: PGAD

Attribute Codes

2005-2009

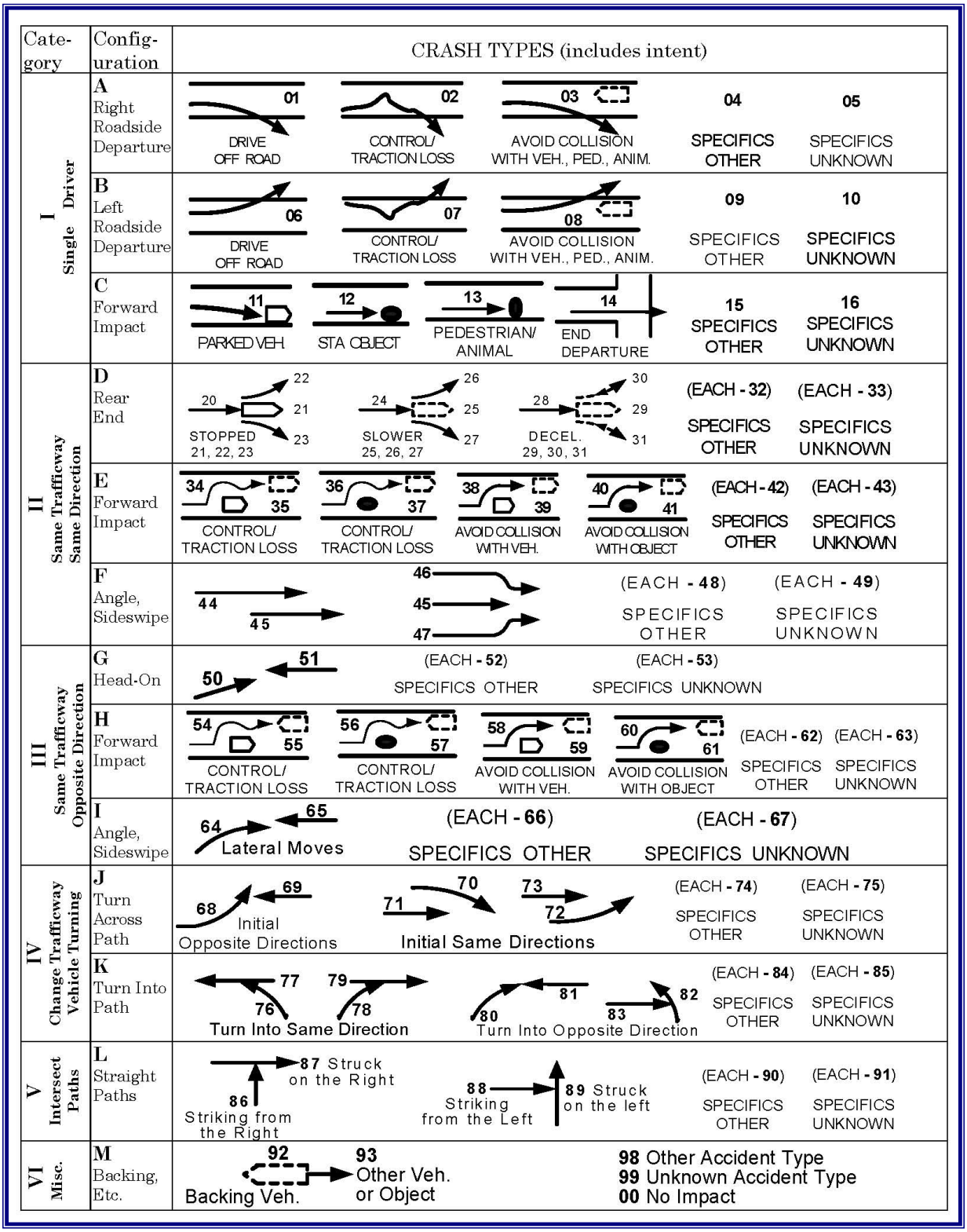
1	Front
2	Right Side
3	Left Side
4	Back
5	Top
6	Undercarriage
11	Front Right Corner
12	Front Left Corner
13	Back Right Corner
14	Back Left Corner
99	Point of Impact Unknown

2010-Later

21-32	Clock Points
33	Top
34	Undercarriage
61	Left
62	Left-Front Half
63	Left-Back Half
81	Right
82	Right-Front Half
83	Right-Back Half
97	Not Reported
99	Unknown

Appendices

Appendix A:
PC23 Crash Type Diagram



Appendix B:
Summary Statistics

The following two tables provide a summary of descriptive statistics from the NASS GES data files. Table 1 represents the actual number of records or unweighted sample and Table 2 represents the national estimates or weighted sample for each year since 1988. These statistics provide the analyst a benchmark to compare against numbers obtained from the analytical data files.

Table 1: Unweighted Sample

Year	Crashes	Vehicles	People	Drivers	Occupants	Pedestrians	Pedalcyclists
1988	48,831	83,633	122,738	82,708	119,914	1,554	1,021
1989	44,105	74,778	110,896	74,354	107,447	1,880	1,315
1990	46,290	80,154	117,141	79,716	113,439	1,995	1,468
1991	42,600	73,833	108,955	73,481	105,580	1,723	1,348
1992	46,197	80,566	118,933	80,152	115,346	1,891	1,415
1993	55,644	96,544	143,525	96,209	138,759	2,589	1,845
1994	55,759	97,441	143,743	97,109	139,221	2,442	1,715
1995	53,749	95,803	140,512	95,477	136,890	1,909	1,336
1996	56,030	100,861	147,903	100,500	144,332	1,820	1,305
1997	55,562	100,032	145,890	99,688	142,366	1,838	1,266
1998	54,006	97,362	141,372	97,074	138,545	1,593	1,165
1999	52,913	94,846	137,048	94,549	134,095	1,736	1,108
2000	57,382	102,551	146,596	102,268	143,530	1,703	1,128
2001	55,964	100,161	143,281	99,893	140,147	1,732	1,005
2002	54,291	96,424	139,614	96,070	136,362	1,734	1,154
2003	59,156	105,295	151,167	104,951	147,730	1,895	1,122
2004	60,974	108,413	156,143	108,119	152,428	2,014	1,280
2005	54,597	96,340	137,884	96,059	134,523	1,778	1,207
2006	56,055	98,929	141,412	98,689	137,731	2,007	1,220
2007	61,282	107,202	152,727	106,935	148,370	2,356	1,446
2008	55,946	96,546	137,303	96,268	133,042	2,160	1,599
2009	44,645	77,594	110,990	77,389	107,469	1,778	1,305
2010	46,391	81,406	116,020	81,200	112,329	1,874	1,301
2011	55,166	96,608	136,652	96,349	132,098	2,421	1,593
2012	61,598	107,588	153,077	107,330	147,372	2,916	2,057
2013	34,793	59,838	86,519	59,714	83,189	1,685	1,289
2014	53,030	91,963	130,756	91,765	126,058	2,373	1,769
2015	57,078	99,874	140,569	99,662	135,760	2,502	1,726

Drivers: PERSON TYPE = 1
Occupants: PERSON TYPE IN (1,2,9)
Pedestrians: PERSON TYPE = 5
Pedalcyclists: PERSON TYPE = 6 (6 or 7 in 2009 and Later)

Table 2: Weighted Sample

Year	Crashes	Vehicles	People	Drivers	Occupants	Pedestrians	Pedalcyclists
1988	6,876,780	12,007,970	17,247,886	11,851,683	17,005,088	121,474	82,535
1989	6,644,549	11,556,267	16,612,033	11,485,928	16,361,647	121,403	85,193
1990	6,462,126	11,315,087	16,298,795	11,252,874	16,061,886	116,405	86,059
1991	6,109,931	10,711,298	15,593,416	10,658,830	15,368,100	98,849	77,045
1992	5,992,938	10,535,596	15,339,372	10,485,244	15,136,291	94,646	71,084
1993	6,094,772	10,725,032	15,767,005	10,688,211	15,546,338	102,261	78,438
1994	6,489,122	11,487,378	16,836,682	11,451,723	16,617,814	101,781	70,862
1995	6,690,061	11,979,882	17,517,709	11,937,794	17,309,929	92,350	74,751
1996	6,761,051	12,082,760	17,704,717	12,043,981	17,490,909	89,992	67,892
1997	6,611,906	11,834,167	17,280,356	11,798,756	17,083,876	83,174	64,599
1998	6,325,242	11,386,502	16,521,887	11,354,181	16,338,158	73,829	59,581
1999	6,271,524	11,220,598	16,068,665	11,182,321	15,910,909	90,768	56,668
2000	6,389,310	11,346,184	16,113,394	11,317,668	15,952,464	83,156	56,350
2001	6,314,117	11,187,914	15,914,491	11,159,551	15,732,540	83,129	50,730
2002	6,304,493	11,168,656	15,737,226	11,129,037	15,569,434	74,491	51,684
2003	6,317,752	11,175,816	15,756,262	11,142,663	15,588,774	74,335	51,028
2004	6,169,998	10,945,334	15,341,895	10,916,913	15,183,714	73,478	44,436
2005	6,146,907	10,838,878	15,160,503	10,813,148	15,003,907	68,193	50,232
2006	5,964,194	10,571,511	14,695,390	10,545,598	14,532,697	65,404	48,524
2007	6,015,938	10,539,204	14,595,063	10,511,751	14,407,390	77,149	51,008
2008	5,801,228	10,096,536	13,914,399	10,066,779	13,729,518	73,417	57,439
2009	5,497,506	9,630,224	13,384,796	9,604,259	13,215,739	62,094	54,448
2010	5,408,612	9,551,084	13,216,589	9,526,827	13,029,817	74,649	55,513
2011	5,326,445	9,395,385	12,880,206	9,373,775	12,704,500	75,000	52,152
2012	5,604,921	9,889,542	13,635,026	9,869,004	13,438,837	81,837	56,394
2013	5,677,886	10,052,026	13,775,450	10,030,468	13,592,164	72,478	54,642
2014	5,893,341	10,480,758	14,282,404	10,455,788	14,094,732	70,814	56,663
2015	6,284,851	11,256,675	15,272,872	11,233,379	15,086,222	73,599	51,214

Drivers: PERSON TYPE = 1
Occupants: PERSON TYPE IN (1,2,9)
Pedestrians: PERSON TYPE = 5
Pedalcyclists: PERSON TYPE = 6 (6 or 7 in 2009 and Later)

Appendix C:
Statistical Methods

National Estimates:

The national estimates produced from the NASS GES data may differ from the true population values because they are based on a probability sample of police-reported crashes that involve injury or major property damage, rather than a census of these types of crashes. The size of these differences may vary depending on the makeup of the sample which is selected. The standard error of an estimate is a measure of the precision or reliability with which an estimate from this particular NASS GES sample approximates the result of a census.

Generalized Estimated Sampling Errors

It is impractical to compute and provide a standard error for each national estimate. Instead, generalized standard errors for estimates of totals are presented in the following tables for 1988 to the current NASS GES year. The following steps produced the generalized standard errors:

3. The standard errors for selected estimates were calculated using Taylor series approximations. Generalized standard errors were calculated separately for crash, vehicle, and person characteristics.
4. Using regression techniques, three equations were found that best fit the separate standard errors for crash, vehicle, and person estimates.
5. The equations were used to generate approximate standard errors for the three types of estimates.

The NASS GES estimates and an estimate of one standard error are given in the following tables. By adding and subtracting the standard error to the associated estimate, a 95 percent confidence interval for an estimate can be created.

For example, if the estimated number of injured or killed pedestrians in 1995 was 90,000 (rounded to the nearest 1,000). To calculate one standard error for this person estimate, use the table for 1995 below. Look under the Person Estimate column for the value of 90,000. Look under the Person Standard Error column to the right for the corresponding person error value. For the person estimate of 90,000 the person standard error value is 7,100. The 95 percent confidence interval for this estimate would be approximately 90,000 + or - 1.96 * (7,100) or 76,000 to 104,000.

If the person estimate falls between the values shown on the table linear interpolation will be required. For example, had the person estimate been 92,000 instead of 90,000 the person standard error would need to be calculated. Use linear interpolation from the standard error values for 90,000 and 100,000. One approximate standard error would be 7,100 + 120 = 7,220. The 95 percent confidence interval for this estimate would be approximately 92,000 + or - 1.96 * (7,220) or 78,000 to 106,000.

More information on standard error estimates can be obtained from the National Center for Statistics and Analysis.

1988 NASS GES ESTIMATES AND STANDARD ERRORS

Crash Estimate (x)	Crash Standard Error (SE)*	Vehicle Estimate (x)	Vehicle Standard Error (SE)**	Person Estimate (x)	Person Standard Error (SE)***
1,000	600	1,000	500	1,000	500
5,000	1,400	5,000	1,200	5,000	1,200
10,000	2,100	10,000	1,800	10,000	1,800
20,000	3,200	20,000	2,900	20,000	2,9000
30,000	4,200	30,000	3,800	30,000	3,800
40,000	5,200	40,000	4,700	40,000	4,700
50,000	6,100	50,000	5,500	50,000	5,600
60,000	6,900	60,000	6,300	60,000	6,400
70,000	7,800	70,000	7,100	70,000	7,200
80,000	8,600	80,000	7,900	80,000	8,000
90,000	9,400	90,000	8,600	90,000	8,800
100,000	10,200	100,000	9,400	100,000	9,500
200,000	17,600	200,000	16,500	200,000	17,000
300,000	24,600	300,000	23,400	300,000	24,200
400,000	31,400	400,000	30,100	400,000	31,300
500,000	38,100	500,000	36,700	500,000	38,300
600,000	44,800	600,000	43,400	600,000	45,400
700,000	51,300	700,000	50,000	700,000	52,500
800,000	57,900	800,000	56,600	800,000	59,500
900,000	64,400	900,000	63,200	900,000	66,600
1,000,000	71,000	1,000,000	69,900	1,000,000	73,800
1,500,000	103,700	2,000,000	137,400	2,000,000	146,800
2,000,000	136,500	3,000,000	207,300	3,000,000	223,000
2,500,000	169,600	4,000,000	279,300	4,000,000	302,200
3,000,000	203,100	5,000,000	353,400	5,000,000	384,000
3,500,000	236,900	6,000,000	429,500	6,000,000	468,200
4,000,000	271,000	7,000,000	507,300	7,000,000	554,700
4,500,000	305,400	8,000,000	586,800	8,000,000	643,300
5,000,000	340,200	9,000,000	667,900	9,000,000	733,900
5,500,000	375,400	10,000,000	750,500	10,000,000	826,300
6,000,000	410,800	11,000,000	834,500	11,000,000	920,600
7,000,000	482,600	12,000,000	919,900	12,000,000	1,016,600

$*\ SE = e^{a/2+b/2(\ln X)**2}$, where $a = 9.63$ $b = .067$	$**SE = e^{a/2+b/2(\ln X)**2}$, where $a = 9.16$ $b = .069$	$***\ SE = e^{a/2+b/2(\ln X)**2}$, where $a = 9.04$ $b = .070$

1989 NASS GES ESTIMATES AND STANDARD ERRORS

Crash Estimate (x)	Crash Standard Error (SE)*	Vehicle Estimate (x)	Vehicle Standard Error (SE)**	Person Estimate (x)	Person Standard Error (SE)***
1,000	600	1,000	500	1,000	500
5,000	1,400	5,000	1,200	5,000	1,200
10,000	2,100	10,000	1,800	10,000	1,800
20,000	3,200	20,000	2,900	20,000	2,900
30,000	4,200	30,000	3,800	30,000	3,800
40,000	5,200	40,000	4,700	40,000	4,700
50,000	6,100	50,000	5,500	50,000	5,600
60,000	6,900	60,000	6,300	60,000	6,400
70,000	7,800	70,000	7,100	70,000	7,200
80,000	8,600	80,000	7,900	80,000	8,000
90,000	9,400	90,000	8,600	90,000	8,800
100,000	10,200	100,000	9,400	100,000	9,500
200,000	17,600	200,000	16,500	200,000	17,000
300,000	24,600	300,000	23,400	300,000	24,200
400,000	31,400	400,000	30,100	400,000	31,300
500,000	38,100	500,000	36,700	500,000	38,300
600,000	44,800	600,000	43,400	600,000	45,400
700,000	51,300	700,000	50,000	700,000	52,500
800,000	57,900	800,000	56,600	800,000	59,500
900,000	64,400	900,000	63,200	900,000	66,600
1,000,000	71,000	1,000,000	69,900	1,000,000	73,800
1,500,000	103,700	2,000,000	137,400	2,000,000	146,800
2,000,000	136,500	3,000,000	207,300	3,000,000	223,000
2,500,000	169,600	4,000,000	279,300	4,000,000	302,200
3,000,000	203,100	5,000,000	353,400	5,000,000	384,000
3,500,000	236,900	6,000,000	429,500	6,000,000	468,200
4,000,000	271,000	7,000,000	507,300	7,000,000	554,700
4,500,000	305,400	8,000,000	586,800	8,000,000	643,300
5,000,000	340,200	9,000,000	667,900	9,000,000	733,900
5,500,000	375,400	10,000,000	750,500	10,000,000	826,300
6,000,000	410,800	11,000,000	834,500	11,000,000	920,600
7,000,000	482,600	12,000,000	919,900	12,000,000	1,016,600

*	**	***
$SE = e^{a/2+b/2(\ln X)^{**}2}$, where	$SE = e^{a/2+b/2(\ln X)^{**}2}$, where	$SE = e^{a/2+b/2(\ln X)^{**}2}$, where
$a = 9.63$	$a = 9.16$	$a = 9.04$
$b = .067$	$b = .069$	$b = .070$

1990 NASS GES ESTIMATES AND STANDARD ERRORS

Crash Estimate (x)	Crash Standard Error (SE)*	Vehicle Estimate (x)	Vehicle Standard Error (SE)**	Person Estimate (x)	Person Standard Error (SE)***
1,000	700	1,000	400	1,000	400
5,000	1,400	5,000	1,000	5,000	1,000
10,000	2,100	10,000	1,600	10,000	1,500
20,000	3,300	20,000	2,500	20,000	2,400
30,000	4,200	30,000	3,400	30,000	3,100
40,000	5,100	40,000	4,200	40,000	3,900
50,000	5,900	50,000	4,900	50,000	4,500
60,000	6,800	60,000	5,700	60,000	5,200
70,000	7,500	70,000	6,400	70,000	5,800
80,000	8,300	80,000	7,100	80,000	6,500
90,000	9,000	90,000	7,800	90,000	7,100
100,000	9,700	100,000	8,500	100,000	7,700
200,000	16,400	200,000	15,000	200,000	13,400
300,000	22,600	300,000	21,300	300,000	18,900
400,000	28,600	400,000	27,500	400,000	24,300
500,000	34,400	500,000	33,700	500,000	29,600
600,000	40,000	600,000	39,900	600,000	34,800
700,000	45,700	700,000	46,100	700,000	40,100
800,000	51,200	800,000	52,200	800,000	45,300
900,000	56,700	900,000	58,400	900,000	50,600
1,000,000	62,200	1,000,000	64,700	1,000,000	55,800
1,500,000	116,200	2,000,000	128,300	2,000,000	108,800
2,000,000	169,800	3,000,000	194,500	3,000,000	163,200
2,500,000	223,700	4,000,000	263,100	4,000,000	219,100
3,000,000	278,000	5,000,000	334,000	5,000,000	276,400
3,500,000	332,800	6,000,000	406,900	6,000,000	335,200
4,000,000	388,100	7,000,000	481,600	7,000,000	394,900
4,500,000	444,000	8,000,000	558,200	8,000,000	455,900
5,000,000	500,400	9,000,000	636,400	9,000,000	518,100
5,500,000	557,300	10,000,000	716,100	10,000,000	581,300
6,000,000	614,700	11,000,000	797,400	11,000,000	645,500
7,000,000	672,500	12,000,000	808,100	12,000,000	710,600

$* SE = e^{(a/2)+(b/2)(\ln(x))^2}$, where $a = 9.93401$ $b = 0.06362$	$** SE = e^{(a/2)+(b/2)(\ln(x))^2}$, where $a = 8.83524$ $b = 0.06977$	$*** SE = e^{(a/2)+(b/2)(\ln(x))^2}$, where $a = 8.88000$ $b = 0.06800$

1991 NASS GES ESTIMATES AND STANDARD ERRORS

Crash Estimate (x)	Crash Standard Error (SE)*	Vehicle Estimate (x)	Vehicle Standard Error (SE)**	Person Estimate (x)	Person Standard Error (SE)***
1,000	600	1,000	500	1,000	400
5,000	1,400	5,000	1,100	5,000	1,000
10,000	2,100	10,000	1,600	10,000	1,500
20,000	3,200	20,000	2,600	20,000	2,400
30,000	4,200	30,000	3,500	30,000	3,200
40,000	5,000	40,000	4,300	40,000	4,000
50,000	5,900	50,000	5,000	50,000	4,700
60,000	6,700	60,000	5,800	60,000	5,400
70,000	7,500	70,000	6,500	70,000	6,100
80,000	8,200	80,000	7,200	80,000	6,800
90,000	9,000	90,000	7,900	90,000	7,500
100,000	9,700	100,000	8,600	100,000	8,200
200,000	16,500	200,000	15,200	200,000	14,600
300,000	22,800	300,000	21,600	300,000	20,900
400,000	29,000	400,000	27,800	400,000	27,200
500,000	34,900	500,000	34,000	500,000	33,400
600,000	40,800	600,000	40,200	600,000	39,700
700,000	46,600	700,000	46,400	700,000	46,000
800,000	52,400	800,000	52,600	800,000	52,300
900,000	58,100	900,000	58,900	900,000	58,600
1,000,000	63,800	1,000,000	65,100	1,000,000	65,000
2,000,000	120,300	2,000,000	128,600	2,000,000	130,600
3,000,000	176,900	3,000,000	194,600	3,000,000	199,700
4,000,000	234,000	4,000,000	262,900	4,000,000	271,800
5,000,000	291,700	5,000,000	333,200	5,000,000	346,600
6,000,000	350,200	6,000,000	405,500	6,000,000	423,900
7,000,000	409,400	7,000,000	479,600	7,000,000	503,500
8,000,000	469,300	8,000,000	555,400	8,000,000	585,200
9,000,000	529,900	9,000,000	632,700	9,000,000	668,900
10,000,000	591,100	10,000,000	711,600	10,000,000	754,500
11,000,000	652,900	11,000,000	791,900	11,000,000	842,000
12,000,000	715,400	12,000,000	873,600	12,000,000	931,100

$*\ SE = e^{a+b(\ln X)^2}$, where	$**SE = e^{a+b(\ln X)^2}$, where	$***\ SE = e^{a+b(\ln X)^2}$, where
$a = 4.900441$	$a = 4.460186$	$a = 4.291460$
$b = 0.032292$	$b = 0.034701$	$b = 0.035576$

1992 NASS GES ESTIMATES AND STANDARD ERRORS

Crash Estimate (x)	Crash Standard Error (SE)*	Vehicle Estimate (x)	Vehicle Standard Error (SE)**	Person Estimate (x)	Person Standard Error (SE)***
1,000	400	1,000	400	1,000	400
5,000	1,100	5,000	1,000	5,000	900
6,000	1,200	10,000	1,500	10,000	1,400
7,000	1,300	20,000	2,500	20,000	2,200
8,000	1,400	30,000	3,300	30,000	3,000
9,000	1,600	40,000	4,100	40,000	3,700
10,000	1,700	50,000	4,800	50,000	4,400
20,000	2,700	60,000	5,600	60,000	5,100
30,000	3,600	70,000	6,300	70,000	5,800
40,000	4,400	80,000	7,000	80,000	6,500
50,000	5,200	90,000	7,700	90,000	7,200
60,000	6,000	100,000	8,400	100,000	7,800
70,000	6,800	200,000	15,200	200,000	14,200
80,000	7,600	300,000	21,800	300,000	20,600
90,000	8,300	400,000	28,300	400,000	26,900
100,000	9,100	500,000	34,900	500,000	33,200
200,000	16,200	600,000	41,500	600,000	39,600
300,000	23,200	700,000	48,100	700,000	46,000
400,000	30,100	800,000	54,700	800,000	52,400
500,000	36,900	900,000	61,400	900,000	59,000
600,000	43,800	1,000,000	68,100	1,000,000	65,500
700,000	50,700	2,000,000	137,500	2,000,000	134,100
800,000	57,600	3,000,000	210,800	3,000,000	207,100
900,000	64,600	4,000,000	287,500	4,000,000	284,000
1,000,000	71,600	5,000,000	367,200	5,000,000	364,400
2,000,000	143,600	6,000,000	449,700	6,000,000	447,900
3,000,000	219,200	7,000,000	534,700	7,000,000	534,200
4,000,000	298,000	8,000,000	622,100	8,000,000	623,200
5,000,000	379,700	9,000,000	711,700	9,000,000	714,700
6,000,000	464,000	10,000,000	803,400	10,000,000	808,500
6,500,000	507,100	11,000,000	897,100	11,000,000	904,600

$*\ SE = e^{a+b(\ln X)^2}$, where	$**SE = e^{a+b(\ln X)^2}$, where	$***\ SE = e^{a+b(\ln X)^2}$, where
$a = 4.413218$	$a = 4.294210$	$a = 4.132995$
$b = 0.035447$	$b = 0.035807$	$b = 0.036452$

1993 NASS GES ESTIMATES AND STANDARD ERRORS

Crash Estimate (x)	Crash Standard Error (SE)*	Vehicle Estimate (x)	Vehicle Standard Error (SE)**	Person Estimate (x)	Person Standard Error (SE)***
1,000	400	1,000	400	1,000	400
5,000	1,000	5,000	1,000	5,000	900
6,000	1,200	10,000	1,500	10,000	1,400
7,000	1,300	20,000	2,400	20,000	2,200
8,000	1,400	30,000	3,200	30,000	3,000
9,000	1,500	40,000	4,000	40,000	3,700
10,000	1,600	50,000	4,700	50,000	4,400
20,000	2,600	60,000	5,400	60,000	5,100
30,000	3,500	70,000	6,100	70,000	5,700
40,000	4,300	80,000	6,800	80,000	6,400
50,000	5,100	90,000	7,500	90,000	7,000
60,000	5,800	100,000	8,100	100,000	7,600
70,000	6,600	200,000	14,600	200,000	13,700
80,000	7,300	300,000	20,900	300,000	19,600
90,000	8,000	400,000	27,100	400,000	25,400
100,000	8,700	500,000	33,300	500,000	31,300
200,000	15,600	600,000	39,500	600,000	37,100
300,000	22,300	700,000	45,800	700,000	43,000
400,000	29,000	800,000	52,100	800,000	48,900
500,000	35,600	900,000	58,400	900,000	54,800
600,000	42,200	1,000,000	64,700	1,000,000	60,800
700,000	48,800	2,000,000	130,200	2,000,000	122,200
800,000	55,400	3,000,000	199,100	3,000,000	186,900
900,000	62,100	4,000,000	271,000	4,000,000	254,400
1,000,000	68,800	5,000,000	345,600	5,000,000	324,400
2,000,000	137,800	6,000,000	422,700	6,000,000	396,800
3,000,000	210,100	7,000,000	502,000	7,000,000	471,300
4,000,000	285,500	8,000,000	583,500	8,000,000	547,800
5,000,000	363,600	9,000,000	667,000	9,000,000	626,200
6,000,000	444,100	10,000,000	752,400	10,000,000	706,300
6,500,000	485,200	11,000,000	839,600	11,000,000	788,200
7,000,000	526,900	12,000,000	928,600	12,000,000	871,700

$*\ SE = e^{a+b(\ln X)^2}$, where	$**SE = e^{a+b(\ln X)^2}$, where	$***\ SE = e^{a+b(\ln X)^2}$, where
$a = 4.388598$	$a = 4.285811$	$a = 4.222608$
$b = 0.035368$	$b = 0.035587$	$b = 0.035587$

1994 NASS GES ESTIMATES AND STANDARD ERRORS

Crash Estimate (x)	Crash Standard Error (SE)*	Vehicle Estimate (x)	Vehicle Standard Error (SE)**	Person Estimate (x)	Person Standard Error (SE)***
1,000	400	1,000	400	1,000	400
5,000	1,000	5,000	1,000	5,000	900
6,000	1,200	10,000	1,500	10,000	1,400
7,000	1,300	20,000	2,500	20,000	2,300
8,000	1,400	30,000	3,300	30,000	3,100
9,000	1,500	40,000	4,200	40,000	3,800
10,000	1,600	50,000	4,900	50,000	4,500
20,000	2,600	60,000	5,700	60,000	5,200
30,000	3,500	70,000	6,500	70,000	5,900
40,000	4,400	80,000	7,200	80,000	6,500
50,000	5,200	90,000	7,900	90,000	7,200
60,000	6,000	100,000	8,600	100,000	7,800
70,000	6,700	200,000	15,600	200,000	14,100
80,000	7,500	300,000	22,500	300,000	20,300
90,000	8,300	400,000	29,300	400,000	26,400
100,000	9,000	500,000	36,100	500,000	32,600
200,000	16,300	600,000	42,900	600,000	38,700
300,000	23,300	700,000	49,800	700,000	44,900
400,000	30,400	800,000	56,800	800,000	51,100
500,000	37,400	900,000	63,700	900,000	57,400
600,000	44,500	1,000,000	70,800	1,000,000	63,700
700,000	51,500	2,000,000	143,700	2,000,000	128,900
800,000	58,700	3,000,000	220,900	3,000,000	197,800
900,000	65,900	4,000,000	301,900	4,000,000	270,000
1,000,000	73,100	5,000,000	386,300	5,000,000	345,200
2,000,000	147,900	6,000,000	473,700	6,000,000	422,900
3,000,000	227,000	7,000,000	564,000	7,000,000	503,100
4,000,000	309,800	8,000,000	656,800	8,000,000	585,600
5,000,000	395,900	9,000,000	752,200	9,000,000	670,300
6,000,000	485,000	10,000,000	849,800	10,000,000	756,900
6,500,000	530,700	11,000,000	949,700	11,000,000	845,500
7,000,000	577,000	12,000,000	1,051,700	12,000,000	935,900

$*\ SE = e^{a+b(\ln X)^2}$, where	$**SE = e^{a+b(\ln X)^2}$, where	$***\ SE = e^{a+b(\ln X)^2}$, where
$a = 4.347699$	$a = 4.283883$	$a = 4.206542$
$b = 0.035898$	$b = 0.036063$	$b = 0.035915$

1995 NASS GES ESTIMATES AND STANDARD ERRORS

Crash Estimate (x)	Crash Standard Error (SE)*	Vehicle Estimate (x)	Vehicle Standard Error (SE)**	Person Estimate (x)	Person Standard Error (SE)***
1,000	400	1,000	400	1,000	400
5,000	1,000	5,000	1,000	5,000	900
6,000	1,200	10,000	1,600	10,000	1,400
7,000	1,300	20,000	2,500	20,000	2,300
8,000	1,400	30,000	3,300	30,000	3,100
9,000	1,500	40,000	4,200	40,000	3,800
10,000	1,600	50,000	4,900	50,000	4,500
20,000	2,600	60,000	5,700	60,000	5,100
30,000	3,500	70,000	6,400	70,000	5,800
40,000	4,300	80,000	7,100	80,000	6,400
50,000	5,100	90,000	7,800	90,000	7,100
60,000	5,900	100,000	8,500	100,000	7,700
70,000	6,600	200,000	15,300	200,000	13,700
80,000	7,400	300,000	22,000	300,000	19,600
90,000	8,100	400,000	28,500	400,000	25,300
100,000	8,800	500,000	35,100	500,000	31,000
200,000	15,800	600,000	41,700	600,000	36,800
300,000	22,700	700,000	48,200	700,000	42,500
400,000	29,400	800,000	54,900	800,000	48,300
500,000	36,200	900,000	61,500	900,000	54,000
600,000	43,000	1,000,000	68,200	1,000,000	59,800
700,000	49,800	2,000,000	137,300	2,000,000	119,300
800,000	56,600	3,000,000	210,100	3,000,000	181,500
900,000	63,500	4,000,000	286,100	4,000,000	246,100
1,000,000	70,400	5,000,000	365,000	5,000,000	313,000
2,000,000	141,700	6,000,000	446,500	6,000,000	381,900
3,000,000	216,800	7,000,000	530,400	7,000,000	452,600
4,000,000	295,200	8,000,000	616,700	8,000,000	525,100
5,000,000	376,500	9,000,000	705,000	9,000,000	599,300
6,000,000	460,600	10,000,000	795,400	10,000,000	675,100
6,500,000	503,600	11,000,000	887,700	11,000,000	752,300
7,000,000	547,200	12,000,000	981,900	12,000,000	831,000

$*\ SE = e^{a+b(\ln X)^2}$, where	$**SE = e^{a+b(\ln X)^2}$, where	$***\ SE = e^{a+b(\ln X)^2}$, where
$a = 4.362086$	$a = 4.329914$	$a = 4.289002$
$b = 0.035627$	$b = 0.035631$	$b = 0.035157$

1996 NASS GES ESTIMATES AND STANDARD ERRORS

Crash Estimate (x)	Crash Standard Error (SE)*	Vehicle Estimate (x)	Vehicle Standard Error (SE)**	Person Estimate (x)	Person Standard Error (SE)***
1,000	500	1,000	400	1,000	400
5,000	1,100	5,000	1,000	5,000	1,000
6,000	1,200	10,000	1,600	10,000	1,500
7,000	1,300	20,000	2,500	20,000	2,300
8,000	1,500	30,000	3,300	30,000	3,100
9,000	1,600	40,000	4,100	40,000	3,800
10,000	1,700	50,000	4,900	50,000	4,400
20,000	2,600	60,000	5,600	60,000	5,100
30,000	3,500	70,000	6,300	70,000	5,700
40,000	4,300	80,000	7,000	80,000	6,300
50,000	5,000	90,000	7,700	90,000	6,900
60,000	5,800	100,000	8,400	100,000	7,500
70,000	6,500	200,000	14,900	200,000	13,100
80,000	7,200	300,000	21,300	300,000	18,500
90,000	7,900	400,000	27,500	400,000	23,700
100,000	8,500	500,000	33,800	500,000	28,900
200,000	15,000	600,000	40,000	600,000	34,100
300,000	21,100	700,000	46,200	700,000	39,200
400,000	27,100	800,000	52,500	800,000	44,300
500,000	33,100	900,000	58,800	900,000	49,400
600,000	39,000	1,000,000	65,100	1,000,000	54,600
700,000	44,900	2,000,000	129,800	2,000,000	106,400
800,000	50,800	3,000,000	197,400	3,000,000	159,600
900,000	56,700	4,000,000	267,600	4,000,000	214,300
1,000,000	62,700	5,000,000	340,300	5,000,000	270,300
2,000,000	122,600	6,000,000	415,200	6,000,000	327,700
3,000,000	184,300	7,000,000	492,100	7,000,000	386,200
4,000,000	247,800	8,000,000	570,900	8,000,000	445,900
5,000,000	313,000	9,000,000	651,500	9,000,000	506,700
6,000,000	379,800	10,000,000	733,900	10,000,000	568,500
6,500,000	413,700	11,000,000	817,800	11,000,000	631,300
7,000,000	448,000	12,000,000	903,300	12,000,000	695,100

$*\ SE = e^{a+b(\ln X)^2}$, where	$**SE = e^{a+b(\ln X)^2}$, where	$***\ SE = e^{a+b(\ln X)^2}$, where
$a = 4.521508$	$a = 4.374631$	$a = 4.417590$
$b = 0.034180$	$b = 0.035149$	$b = 0.034001$

1997 NASS GES ESTIMATES AND STANDARD ERRORS

Crash Estimate (x)	Crash Standard Error (SE)	Vehicle Estimate (x)	Vehicle Standard Error (SE)**	Person Estimate (x)	Person Standard Error (SE)***
1,000	400	1,000	400	1,000	400
5,000	1,100	5,000	1,000	5,000	1,000
6,000	1,200	10,000	1,600	10,000	1,600
7,000	1,300	20,000	2,500	20,000	2,500
8,000	1,400	30,000	3,300	30,000	3,300
9,000	1,500	40,000	4,100	40,000	4,100
10,000	1,600	50,000	4,900	50,000	4,800
20,000	2,600	60,000	5,600	60,000	5,600
30,000	3,500	70,000	6,400	70,000	6,300
40,000	4,300	80,000	7,100	80,000	7,000
50,000	5,100	90,000	7,800	90,000	7,700
60,000	5,900	100,000	8,500	100,000	8,300
70,000	6,600	200,000	15,200	200,000	14,800
80,000	7,400	300,000	21,800	300,000	21,000
90,000	8,100	400,000	28,300	400,000	27,200
100,000	8,800	500,000	34,800	500,000	33,300
200,000	15,700	600,000	41,300	600,000	39,400
300,000	22,400	700,000	47,800	700,000	45,600
400,000	29,000	800,000	54,400	800,000	51,700
500,000	35,500	900,000	60,900	900,000	57,800
600,000	42,100	1,000,000	67,600	1,000,000	64,000
700,000	48,600	2,000,000	135,900	2,000,000	127,200
800,000	55,200	3,000,000	207,700	3,000,000	193,100
900,000	61,800	4,000,000	282,600	4,000,000	261,400
1,000,000	68,500	5,000,000	360,400	5,000,000	332,000
2,000,000	136,500	6,000,000	440,800	6,000,000	404,700
3,000,000	207,600	7,000,000	523,500	7,000,000	479,300
4,000,000	281,500	8,000,000	608,400	8,000,000	555,700
5,000,000	358,000	9,000,000	695,500	9,000,000	633,700
6,000,000	436,800	10,000,000	784,500	10,000,000	713,400
6,500,000	477,000	11,000,000	875,300	11,000,000	794,600
7,000,000	517,000	12,000,000	968,000	12,000,000	877,200

$*\ SE = e^{a+b(\ln X)^2}$, where	$**SE = e^{a+b(\ln X)^2}$, where	$***\ SE = e^{a+b(\ln X)^2}$, where
$a = 4.424135$	$a = 4.331394$	$a = 4.390740$
$b = 0.035154$	$b = 0.035572$	$b = 0.034978$

1998 NASS GES ESTIMATES AND STANDARD ERRORS

Crash Estimate (x)	Crash Standard Error (SE)	Vehicle Estimate (x)	Vehicle Standard Error (SE)**	Person Estimate (x)	Person Standard Error (SE)***
1,000	400	1,000	400	1,000	500
5,000	1,000	5,000	1,000	5,000	1,000
6,000	1,100	10,000	1,500	10,000	1,600
7,000	1,300	20,000	2,500	20,000	2,400
8,000	1,400	30,000	3,300	30,000	3,200
9,000	1,500	40,000	4,000	40,000	3,900
10,000	1,600	50,000	4,800	50,000	4,600
20,000	2,500	60,000	5,500	60,000	5,200
30,000	3,300	70,000	6,200	70,000	5,900
40,000	4,100	80,000	6,900	80,000	6,500
50,000	4,900	90,000	7,500	90,000	7,100
60,000	5,600	100,000	8,200	100,000	7,700
70,000	6,300	200,000	14,600	200,000	13,200
80,000	7,000	300,000	20,800	300,000	18,400
90,000	7,600	400,000	26,800	400,000	23,500
100,000	8,300	500,000	32,900	500,000	28,500
200,000	14,700	600,000	38,900	600,000	33,400
300,000	20,900	700,000	45,000	700,000	38,300
400,000	27,000	800,000	51,100	800,000	43,100
500,000	33,000	900,000	57,100	900,000	48,000
600,000	39,000	1,000,000	63,200	1,000,000	52,800
700,000	45,000	2,000,000	125,800	2,000,000	101,200
800,000	51,100	3,000,000	191,000	3,000,000	150,200
900,000	57,100	4,000,000	258,600	4,000,000	200,200
1,000,000	63,200	5,000,000	328,600	5,000,000	251,000
2,000,000	125,000	6,000,000	400,500	6,000,000	302,800
3,000,000	189,300	7,000,000	474,400	7,000,000	355,400
4,000,000	255,900	8,000,000	550,100	8,000,000	408,800
5,000,000	324,500	9,000,000	627,500	9,000,000	463,000
6,000,000	395,100	10,000,000	706,400	10,000,000	517,900
6,500,000	431,000	11,000,000	786,900	11,000,000	573,600
7,000,000	467,400	12,000,000	868,900	12,000,000	629,900

$*\ SE = e^{a+b(\ln X)^2}$, *where*	$**SE = e^{a+b(\ln X)^2}$, *where*	$***\ SE = e^{a+b(\ln X)^2}$, *where*
$a = 4.415376$	$a = 4.371851$	$a = 4.551937$
$b = 0.034778$	$b = 0.035013$	$b = 0.033125$

1999 NASS GES ESTIMATES AND STANDARD ERRORS

Crash Estimate (x)	Crash Standard Error (SE)	Vehicle Estimate (x)	Vehicle Standard Error (SE)**	Person Estimate (x)	Person Standard Error (SE)***
1,000	400	1,000	400	1,000	400
5,000	1,000	5,000	1,000	5,000	1,000
6,000	1,100	10,000	1,500	10,000	1,500
7,000	1,300	20,000	2,400	20,000	2,300
8,000	1,400	30,000	3,200	30,000	3,100
9,000	1,500	40,000	3,900	40,000	3,800
10,000	1,600	50,000	4,600	50,000	4,400
20,000	2,500	60,000	5,300	60,000	5,100
30,000	3,300	70,000	6,000	70,000	5,700
40,000	4,100	80,000	6,700	80,000	6,300
50,000	4,800	90,000	7,300	90,000	6,900
60,000	5,500	100,000	8,000	100,000	7,500
70,000	6,200	200,000	14,200	200,000	13,000
80,000	6,900	300,000	20,200	300,000	18,200
90,000	7,600	400,000	26,100	400,000	23,300
100,000	8,300	500,000	32,000	500,000	28,400
200,000	14,600	600,000	37,800	600,000	33,400
300,000	20,800	700,000	43,700	700,000	38,300
400,000	26,800	800,000	49,600	800,000	43,300
500,000	32,800	900,000	55,500	900,000	48,200
600,000	38,800	1,000,000	61,400	1,000,000	53,200
700,000	47,700	2,000,000	122,100	2,000,000	103,000
800,000	50,700	3,000,000	185,400	3,000,000	154,000
900,000	56,700	4,000,000	251,000	4,000,000	206,200
1,000,000	62,700	5,000,000	318,800	5,000,000	259,600
2,000,000	124,100	6,000,000	388,600	6,000,000	314,100
3,000,000	187,800	7,000,000	460,300	7,000,000	369,600
4,000,000	253,800	8,000,000	533,600	8,000,000	426,200
5,000,000	321,800	9,000,000	608,600	9,000,000	483,700
6,000,000	391,700	10,000,000	685,200	10,000,000	542,100
6,500,000	427,300	11,000,000	763,100	11,000,000	601,400
7,000,000	463,300	12,000,000	842,600	12,000,000	661,500

$*\ SE = e^{a+b(\ln X)^2}$, *where*	$**SE = e^{a+b(\ln X)^2}$, *where*	$***\ SE = e^{a+b(\ln X)^2}$, *where*
$a = 4.414534$	$a = 4.348017$	$a = 4.452860$
$b = 0.034746$	$b = 0.034987$	$b = 0.033682$

2000 NASS GES ESTIMATES AND STANDARD ERRORS

Crash Estimate (x)	Crash Standard Error (SE)	Vehicle Estimate (x)	Vehicle Standard Error (SE)**	Person Estimate (x)	Person Standard Error (SE)***
1,000	400	1,000	400	1,000	400
5,000	1,000	5,000	1,000	5,000	1,000
6,000	1,100	10,000	1,500	10,000	1,500
7,000	1,200	20,000	2,400	20,000	2,400
8,000	1,300	30,000	3,100	30,000	3,100
9,000	1,400	40,000	3,900	40,000	3,800
10,000	1,500	50,000	4,600	50,000	4,500
20,000	2,400	60,000	5,300	60,000	5,100
30,000	3,200	70,000	5,900	70,000	5,700
40,000	4,000	80,000	6,600	80,000	6,300
50,000	4,700	90,000	7,200	90,000	6,900
60,000	5,400	100,000	7,900	100,000	7,500
70,000	6,100	200,000	14,000	200,000	13,000
80,000	6,800	300,000	19,900	300,000	18,200
90,000	7,500	400,000	25,700	400,000	23,200
100,000	8,200	500,000	31,500	500,000	28,200
200,000	14,600	600,000	37,300	600,000	33,200
300,000	20,800	700,000	43,100	700,000	38,100
400,000	26,900	800,000	48,900	800,000	43,000
500,000	33,300	900,000	54,700	900,000	47,900
600,000	39,100	1,000,000	60,600	1,000,000	52,800
700,000	45,300	2,000,000	120,400	2,000,000	101,800
800,000	51,400	3,000,000	182,800	3,000,000	151,900
900,000	57,600	4,000,000	247,400	4,000,000	203,000
1,000,000	63,800	5,000,000	314,300	5,000,000	255,200
2,000,000	127,300	6,000,000	383,100	6,000,000	308,400
3,000,000	193,900	7,000,000	453,600	7,000,000	362,700
4,000,000	263,100	8,000,000	525,900	8,000,000	417,800
5,000,000	334,800	9,000,000	599,800	9,000,000	473,800
6,000,000	408,700	10,000,000	675,200	10,000,000	530,700
6,500,000	446,400	11,000,000	752,100	11,000,000	588,400
7,000,000	484,600	12,000,000	830,300	12,000,000	646,900

*	**	***
$SE = e^{a+b(\ln X)^2}$, where	$SE = e^{a+b(\ln X)^2}$, where	$SE = e^{a+b(\ln X)^2}$, where
$a = 4.336620$	$a = 4.335260$	$a = 4.481530$
$b = 0.035240$	$b = 0.034980$	$b = 0.033490$

2001 NASS GES ESTIMATES AND STANDARD ERRORS

Crash Estimate (x)	Crash Standard Error (SE)	Vehicle Estimate (x)	Vehicle Standard Error (SE)**	Person Estimate (x)	Person Standard Error (SE)***
1,000	400	1,000	400	1,000	400
5,000	1,000	5,000	1,000	5,000	1,000
6,000	1,100	10,000	1,500	10,000	1,400
7,000	1,200	20,000	2,300	20,000	2,200
8,000	1,300	30,000	3,100	30,000	2,900
9,000	1,400	40,000	3,800	40,000	3,600
10,000	1,500	50,000	4,500	50,000	4,200
20,000	2,400	60,000	5,200	60,000	4,800
30,000	3,200	70,000	5,900	70,000	5,400
40,000	4,000	80,000	6,500	80,000	6,000
50,000	4,700	90,000	7,100	90,000	6,500
60,000	5,400	100,000	7,800	100,000	7,100
70,000	6,100	200,000	13,800	200,000	12,200
80,000	6,800	300,000	19,600	300,000	17,100
90,000	7,400	400,000	25,300	400,000	21,900
100,000	8,100	500,000	30,900	500,000	26,500
200,000	14,400	600,000	36,600	600,000	31,100
300,000	20,500	700,000	42,200	700,000	35,700
400,000	26,500	800,000	47,900	800,000	40,300
500,000	32,500	900,000	56.600	900,000	44,900
600,000	38,500	1,000,000	59,300	1,000,000	49,400
700,000	44,500	2,000,000	117,500	2,000,000	95,200
800,000	50,500	3,000,000	178,000	3,000,000	141,700
900,000	56,500	4,000,000	240,800	4,000,000	189,100
1,000,000	62,600	5,000,000	305,500	5,000,000	237,500
2,000,000	124,600	6,000,000	372,100	6,000,000	286,800
3,000,000	189,400	7,000,000	440,400	7,000,000	337,000
4,000,000	256,600	8,000,000	410,300	8,000,000	388,100
5,000,000	326,100	9,000,000	581,700	9,000,000	439,900
6,000,000	397,700	10,000,000	654,600	10,000,000	492,400
6,500,000	432,200	11,000,000	728,800	11,000,000	545,700
7,000,000	471,200	12,000,000	804,300	12,000,000	599,700

$* SE = e^{a+b(\ln X)^2}, where$	$** SE = e^{a+b(\ln X)^2}, where$	$*** SE = e^{a+b(\ln X)^2}, where$
$a = 4.350780$	$a = 4.337980$	$a = 4.443040$
$b = 0.035070$	$b = 0.034850$	$b = 0.033350$

2002 NASS GES ESTIMATES AND STANDARD ERRORS

Crash Estimate (x)	Crash Standard Error (SE)	Vehicle Estimate (x)	Vehicle Standard Error (SE)**	Person Estimate (x)	Person Standard Error (SE)***
1,000	400	1,000	400	1,000	400
5,000	1,000	5,000	1,000	5,000	1,000
6,000	1,100	10,000	1,600	10,000	1,500
7,000	1,200	20,000	2,500	20,000	2,300
8,000	1,300	30,000	3,300	30,000	3,100
9,000	1,400	40,000	4,100	40,000	3,700
10,000	1,500	50,000	4,800	50,000	4,400
20,000	2,500	60,000	5,500	60,000	5,000
30,000	3,300	70,000	6,200	70,000	5,600
40,000	4,100	80,000	6,900	80,000	6,200
50,000	4,800	90,000	7,500	90,000	6,800
60,000	5,500	100,000	8,200	100,000	7,300
70,000	6,300	200,000	14,500	200,000	12,600
80,000	6,900	300,000	20,600	300,000	17,600
90,000	7,600	400,000	26,500	400,000	22,500
100,000	8,300	500,000	32,500	500,000	27,300
200,000	14,800	600,000	38,400	600,000	32,200
300,000	21,100	700,000	44,300	700,000	36,700
400,000	27,400	800,000	50,200	800,000	41,400
500,000	33,600	900,000	56,100	900,000	46,000
600,000	39,800	1,000,000	62,000	1,000,000	50,700
700,000	46,100	2,000,000	122,600	2,000,000	95,200
800,000	52,300	3,000,000	185,400	3,000,000	144,500
900,000	58,600	4,000,000	250,500	4,000,000	192,600
1,000,000	64,900	5,000,000	317,500	5,000,000	241,600
2,000,000	129,600	6,000,000	386,300	6,000,000	291,600
3,000,000	197,200	7,000,000	456,900	7,000,000	342,300
4,000,000	267,700	8,000,000	529,000	8,000,000	393,900
5,000,000	340,500	9,000,000	602,700	9,000,000	446,200
6,000,000	415,600	10,000,000	677,800	10,000,000	499,300
6,500,000	454,000	11,000,000	754,300	11,000,000	553,000
7,000,000	492,800	12,000,000	832,000	12,000,000	607,500

$* SE = e^{a+b(\ln X)^2}, where$	$** SE = e^{a+b(\ln X)^2}, where$	$*** SE = e^{a+b(\ln X)^2}, where$
$a = 4.355970$	$a = 4.414370$	$a = 4.498340$
$b = 0.035230$	$b = 0.034690$	$b = 0.033190$

2003 NASS GES ESTIMATES AND STANDARD ERRORS

Crash Estimate (x)	Crash Standard Error (SE)*	Vehicle Estimate (x)	Vehicle Standard Error (SE)**	Person Estimate (x)	Person Standard Error (SE)***
1,000	400	1,000	400	1,000	400
5,000	900	5,000	900	5,000	900
6,000	1,000	10,000	1,500	10,000	1,400
7,000	1,100	20,000	2,300	20,000	2,200
8,000	1,200	30,000	3,100	30,000	2,900
9,000	1,300	40,000	3,900	40,000	3,500
10,000	1,400	50,000	4,600	50,000	4,200
20,000	2,300	60,000	5,300	60,000	4,800
30,000	3,100	70,000	6,000	70,000	5,400
40,000	3,900	80,000	6,600	80,000	5,900
50,000	4,600	90,000	7,300	90,000	6,500
60,000	5,300	100,000	8,000	100,000	7,100
70,000	6,000	200,000	14,300	200,000	12,300
80,000	6,700	300,000	20,400	300,000	17,400
90,000	7,400	400,000	26,500	400,000	22,300
100,000	8,000	500,000	32,600	500,000	27,200
200,000	14,500	600,000	38,600	600,000	32,000
300,000	20,900	700,000	44,700	700,000	36,800
400,000	27,200	800,000	50,900	800,000	41,600
500,000	33,500	900,000	57,000	900,000	46,500
600,000	39,900	1,000,000	63,200	1,000,000	51,300
700,000	46,300	2,000,000	126,900	2,000,000	99,900
800,000	52,700	3,000,000	194,000	3,000,000	149,900
900,000	59,200	4,000,000	263,900	4,000,000	201,200
1,000,000	65,700	5,000,000	336,400	5,000,000	253,800
2,000,000	133,500	6,000,000	411,300	6,000,000	307,600
3,000,000	205,200	7,000,000	488,400	7,000,000	362,600
4,000,000	280,500	8,000,000	567,500	8,000,000	418,600
5,000,000	359,000	9,000,000	648,600	9,000,000	475,700
6,000,000	440,200	10,000,000	731,500	10,000,000	533,700
6,500,000	481,900	11,000,000	816,100	11,000,000	592,600
7,000,000	524,100	12,000,000	902,400	12,000,000	652,400

$* SE = e^{a+b(\ln X)^2}, where$	$** SE = e^{a+b(\ln X)^2}, where$	$*** SE = e^{a+b(\ln X)^2}, where$
$a = 4.208860$	$a = 4.272400$	$a = 4.357200$
$b = 0.036070$	$b = 0.035530$	$b = 0.033990$

2004 NASS GES ESTIMATES AND STANDARD ERRORS

Crash Estimate (x)	Crash Standard Error (SE)*	Vehicle Estimate (x)	Vehicle Standard Error (SE)**	Person Estimate (x)	Person Standard Error (SE)***
1,000	400	1,000	400	1,000	400
5,000	900	5,000	900	5,000	900
6,000	1,000	10,000	1,400	10,000	1,400
7,000	1,100	20,000	2,300	20,000	2,100
8,000	1,200	30,000	3,100	30,000	2,800
9,000	1,300	40,000	3,800	40,000	3,500
10,000	1,400	50,000	4,500	50,000	4,100
20,000	2,300	60,000	5,200	60,000	4,700
30,000	3,100	70,000	5,900	70,000	5,300
40,000	3,800	80,000	6,600	80,000	5,800
50,000	4,600	90,000	7,200	90,000	6,400
60,000	5,300	100,000	7,900	100,000	6,900
70,000	6,000	200,000	14,200	200,000	12,200
80,000	6,700	300,000	20,300	300,000	17,200
90,000	7,300	400,000	26,300	400,000	22,200
100,000	8,000	500,000	32,400	500,000	27,100
200,000	14,600	600,000	38,500	600,000	31,900
300,000	21,000	700,000	44,600	700,000	36,800
400,000	27,400	800,000	50,700	800,000	41,600
500,000	33,800	900,000	56,900	900,000	46,500
600,000	40,300	1,000,000	63,100	1,000,000	51,400
700,000	46,900	2,000,000	127,200	2,000,000	100,700
800,000	53,400	3,000,000	194,700	3,000,000	151,700
900,000	60,100	4,000,000	265,200	4,000,000	204,200
1,000,000	66,700	5,000,000	338,500	5,000,000	258,100
2,000,000	136,300	6,000,000	414,200	6,000,000	313,400
3,000,000	210,300	7,000,000	492,200	7,000,000	370,000
4,000,000	288,100	8,000,000	572,400	8,000,000	427,800
5,000,000	369,400	9,000,000	654,500	9,000,000	486,600
6,000,000	453,800	10,000,000	738,600	10,000,000	546,600
6,500,000	497,100	11,000,000	824,400	11,000,000	607,500
7,000,000	541,000	12,000,000	912,000	12,000,000	669,400

$*\ SE = e^{a+b(\ln X)^2}$, *where*	$**SE = e^{a+b(\ln X)^2}$, *where*	$***\ SE = e^{a+b(\ln X)^2}$, *where*
$a = 4.168580$	$a = 4.240450$	$a = 4.297920$
$b = 0.036360$	$b = 0.035690$	$b = 0.034310$

2005 NASS GES ESTIMATES AND STANDARD ERRORS

Crash Estimate (x)	Crash Standard Error (SE)*	Vehicle Estimate (x)	Vehicle Standard Error (SE)**	Person Estimate (x)	Person Standard Error (SE)***
1,000	400	1,000	400	1,000	400
5,000	1,000	5,000	1,000	5,000	900
6,000	1,100	10,000	1,500	10,000	1,400
7,000	1,200	20,000	2,400	20,000	2,300
8,000	1,300	30,000	3,200	30,000	3,000
9,000	1,400	40,000	4,000	40,000	3,700
10,000	1,500	50,000	4,700	50,000	4,300
20,000	2,400	60,000	5,400	60,000	5,000
30,000	3,200	70,000	6,100	70,000	5,600
40,000	4,000	80,000	6,800	80,000	6,200
50,000	4,700	90,000	7,500	90,000	6,800
60,000	5,400	100,000	8,200	100,000	7,400
70,000	6,200	200,000	14,700	200,000	12,900
80,000	6,900	300,000	21,000	300,000	18,200
90,000	7,500	400,000	27,300	400,000	23,400
100,000	8,200	500,000	33,600	500,000	28,500
200,000	14,900	600,000	39,800	600,000	33,600
300,000	21,300	700,000	46,200	700,000	38,700
400,000	27,800	800,000	52,500	800,000	43,800
500,000	34,200	900,000	58,900	900,000	48,900
600,000	40,700	1,000,000	65,300	1,000,000	54,000
700,000	47,200	2,000,000	131,600	2,000,000	105,700
800,000	53,700	3,000,000	201,300	3,000,000	158,800
900,000	60,300	4,000,000	274,200	4,000,000	213,600
1,000,000	66,900	5,000,000	350,000	5,000,000	269,800
2,000,000	135,400	6,000,000	428,200	6,000,000	327,300
3,000,000	207,800	7,000,000	508,800	7,000,000	386,200
4,000,000	283,700	8,000,000	591,600	8,000,000	446,200
5,000,000	362,600	9,000,000	676,500	9,000,000	507,400
6,000,000	444,400	10,000,000	763,300	10,000,000	596,600
6,500,000	486,200	11,000,000	852,000	11,000,000	362,900
7,000,000	528,700	12,000,000	942,500	12,000,000	697,100

$* SE = e^{a+b(\ln X)^2}, where$	$** SE = e^{a+b(\ln X)^2}, where$	$*** SE = e^{a+b(\ln X)^2}, where$
$a = 4.254750$	$a = 4.278620$	$a = 4.372960$
$b = 0.035920$	$b = 0.035670$	$b = 0.034180$

2006 NASS GES ESTIMATES AND STANDARD ERRORS

Crash Estimate (x)	Crash Standard Error (SE)*	Vehicle Estimate (x)	Vehicle Standard Error (SE)**	Person Estimate (x)	Person Standard Error (SE)***
1,000	400	1,000	400	1,000	400
5,000	1,000	5,000	900	5,000	900
6,000	1,100	10,000	1,500	10,000	1,400
7,000	1,200	20,000	2,400	20,000	2,200
8,000	1,300	30,000	3,200	30,000	3,000
9,000	1,400	40,000	4,000	40,000	3,600
10,000	1,500	50,000	4,800	50,000	4,300
20,000	2,400	60,000	5,500	60,000	4,900
30,000	3,200	70,000	6,200	70,000	5,500
40,000	4,000	80,000	6,900	80,000	6,200
50,000	4,800	90,000	7,600	90,000	6,700
60,000	5,500	100,000	8,300	100,000	7,300
70,000	6,300	200,000	15,200	200,000	13,000
80,000	7,000	300,000	21,800	300,000	18,300
90,000	7,700	400,000	28,500	400,000	23,700
100,000	8,400	500,000	35,200	500,000	28,900
200,000	15,300	600,000	41,900	600,000	34,200
300,000	22,000	700,000	48,700	700,000	39,400
400,000	28,700	800,000	55,500	800,000	44,600
500,000	35,400	900,000	62,400	900,000	49,900
600,000	42,200	1,000,000	69,300	1,000,000	55,200
700,000	49,100	2,000,000	141,400	2,000,000	108,800
800,000	55,900	3,000,000	218,000	3,000,000	164,300
900,000	62,900	4,000,000	298,500	4,000,000	221,800
1,000,000	69,800	5,000,000	382,600	5,000,000	280,900
2,000,000	142,400	6,000,000	469,800	6,000,000	341,600
3,000,000	219,700	7,000,000	559,900	7,000,000	403,800
4,000,000	300,900	8,000,000	652,800	8,000,000	467,400
5,000,000	385,600	9,000,000	748,200	9,000,000	532,300
6,000,000	473,600	10,000,000	846,100	10,000,000	598,400
6,500,000	518,700	11,000,000	946,200	11,000,000	665,700
7,000,000	564,500	12,000,000	1,048,500	12,000,000	734,100

$*\ SE = e^{a+b(\ln X)^2}, where$	$**SE = e^{a+b(\ln X)^2}, where$	$***\ SE = e^{a+b(\ln X)^2}, where$
$a = 4.223400$	$a = 4.217860$	$a = 4.315770$
$b = 0.036310$	$b = 0.036300$	$b = 0.034590$

2007 NASS GES ESTIMATES AND STANDARD ERRORS

Crash Estimate (x)	Crash Standard Error (SE)*	Vehicle Estimate (x)	Vehicle Standard Error (SE)**	Person Estimate (x)	Person Standard Error (SE)***
1,000	400	1,000	400	1,000	400
5,000	900	5,000	900	5,000	900
6,000	1000	10,000	1,400	10,000	1,400
7,000	1,100	20,000	2,300	20,000	2,200
8,000	1,200	30,000	3,200	30,000	3,000
9,000	1,400	40,000	3,900	40,000	3,700
10,000	1,500	50,000	4,700	50,000	4,400
20,000	2,400	60,000	5,500	60,000	5,000
30,000	3,200	70,000	6,200	70,000	5,700
40,000	4,000	80,000	6,900	80,000	6,300
50,000	4,800	90,000	7,600	90,000	7,000
60,000	5,600	100,000	8,300	100,000	7,600
70,000	6,300	200,000	15,300	200,000	13,600
80,000	7,100	300,000	22,200	300,000	19,500
90,000	7,800	400,000	29,100	400,000	25,300
100,000	8,500	500,000	36,100	500,000	31,100
200,000	15,700	600,000	43,200	600,000	36,900
300,000	22,800	700,000	50,300	700,000	42,700
400,000	29,900	800,000	57,500	800,000	48,600
500,000	37,100	900,000	64,700	900,000	54,500
600,000	44,400	1,000,000	72,000	1,000,000	60,400
700,000	51,700	2,000,000	148,800	2,000,000	121,400
800,000	59,200	3,000,000	231,300	3,000,000	185,600
900,000	66,700	4,000,000	318,700	4,000,000	252,700
1,000,000	74,200	5,000,000	410,300	5,000,000	322,200
2,000,000	153,800	6,000,000	505,800	6,000,000	394,000
3,000,000	239,400	7,000,000	604,800	7,000,000	468,000
4,000,000	330,200	8,000,000	707,000	8,000,000	544,000
5,000,000	425,500	9,000,000	812,400	9,000,000	621,800
6,000,000	524,800	10,000,000	920,800	10,000,000	701,400
6,500,000	575,900	11,000,000	1,031,900	11,000,000	782,700
7,000,000	628,000	12,000,000	1,145,600	12,000,000	865,600

$* SE = e^{a+b(\ln X)^2}, where$	$** SE = e^{a+b(\ln X)^2}, where$	$*** SE = e^{a+b(\ln X)^2}, where$
$a = 4.133760$	$a = 4.128400$	$a = 4.217410$
$b = 0.037100$	$b = 0.036970$	$b = 0.035580$

2008 NASS GES ESTIMATES AND STANDARD ERRORS

Crash Estimate (x)	Crash Standard Error (SE)*	Vehicle Estimate (x)	Vehicle Standard Error (SE)**	Person Estimate (x)	Person Standard Error (SE)***
1,000	400	1,000	400	1,000	400
5,000	900	5,000	1,000	5,000	900
6,000	1,000	10,000	1,500	10,000	1,400
7,000	1,100	20,000	2,400	20,000	2,300
8,000	1,300	30,000	3,300	30,000	3,000
9,000	1,400	40,000	4,100	40,000	3,800
10,000	1,500	50,000	4,800	50,000	4,400
20,000	2,400	60,000	5,600	60,000	5,100
30,000	3,200	70,000	6,300	70,000	5,800
40,000	4,000	80,000	7,100	80,000	6,400
50,000	4,800	90,000	7,800	90,000	7,000
60,000	5,500	100,000	8,500	100,000	7,700
70,000	6,300	200,000	15,400	200,000	13,700
80,000	7,000	300,000	22,200	300,000	19,400
90,000	7,700	400,000	29,000	400,000	25,200
100,000	8,400	500,000	35,800	500,000	30,900
200,000	15,500	600,000	42,600	600,000	36,600
300,000	22,400	700,000	49,500	700,000	42,300
400,000	29,400	800,000	56,500	800,000	48,000
500,000	36,400	900,000	63,500	900,000	53,700
600,000	43,500	1,000,000	70,500	1,000,000	59,500
700,000	50,600	2,000,000	143,700	2,000,000	118,700
800,000	57,800	3,000,000	221,600	3,000,000	180,500
900,000	65,100	4,000,000	303,400	4,000,000	244,800
1,000,000	72,400	5,000,000	388,800	5,000,000	311,300
2,000,000	149,300	6,000,000	477,300	6,000,000	379,900
3,000,000	231,700	7,000,000	568,900	7,000,000	450,300
4,000,000	318,800	8,000,000	663,200	8,000,000	522,400
5,000,000	410,000	9,000,000	760,000	9,000,000	596,200
6,000,000	505,100	10,000,000	859,400	10,000,000	671,600
6,500,000	553,900	11,000,000	961,000	11,000,000	748,400
7,000,000	603,600	12,000,000	1,064,900	12,000,000	826,700

$*SE = e^{a + b(\ln x)^2}$, *where* $a = 4.158710$ $b = 0.036840$	$**SE = e^{a + b(\ln x)^2}$, *where* $a = 4.238660$ $b = 0.036280$	$***SE = e^{a + b(\ln x)^2}$, *where* $a = 4.283070$ $b = 0.035160$

2009 NASS GES ESTIMATES AND STANDARD ERRORS

Crash Estimate (x)	Crash Standard Error (SE)*	Vehicle Estimate (x)	Vehicle Standard Error (SE)**	Person Estimate (x)	Person Standard Error (SE)***
1,000	400	1,000	400	1,000	400
5,000	1,000	5,000	1,000	5,000	1,000
6,000	1,100	10,000	1,500	6,000	1,100
7,000	1,200	20,000	2,400	7,000	1,200
8,000	1,300	30,000	3,200	8,000	1,300
9,000	1,400	40,000	4,000	9,000	1,400
10,000	1,500	50,000	4,800	10,000	1,500
20,000	2,500	60,000	5,500	20,000	2,500
30,000	3,300	70,000	6,200	30,000	3,300
40,000	4,100	80,000	6,900	40,000	4,100
50,000	4,900	90,000	7,600	50,000	4,900
60,000	5,600	100,000	8,300	60,000	5,600
70,000	6,300	200,000	15,000	70,000	6,300
80,000	7,000	300,000	21,500	80,000	7,000
90,000	7,700	400,000	28,000	90,000	7,700
100,000	8,400	500,000	34,500	100,000	8,400
200,000	15,200	600,000	41,000	200,000	15,200
300,000	21,800	700,000	47,500	300,000	21,800
400,000	28,300	800,000	54,100	400,000	28,300
500,000	34,800	900,000	60,700	500,000	34,800
600,000	41,300	1,000,000	67,300	600,000	41,300
700,000	47,800	2,000,000	136,200	700,000	47,800
800,000	54,400	3,000,000	208,900	800,000	54,400
900,000	61,000	4,000,000	285,100	900,000	61,000
1,000,000	67,700	5,000,000	364,400	1,000,00	67,700
2,000,000	136,400	6,000,000	446,400	2,000,00	136,400
3,000,000	208,900	7,000,000	530,900	3,000,00	208,900
4,000,000	284,500	8,000,000	617,900	4,000,00	284,500
5,000,000	363,100	9,000,000	707,100	5,000,00	363,100
6,000,000	444,400	10,000,000	798,400	6,000,00	444,400
6,500,000	486,000	11,000,000	891,700	6,500,00	486,000
7,000,000	528,100	12,000,000	987,000	7,000,00	528,100

$*SE = e^{a + b(\ln x)^2}$, *where*	$**SE = e^{a + b(\ln x)^2}$, *where*	$***SE = e^{a + b(\ln x)^2}$, *where*
$a = 4.310860$	$a = 4.310860$	$a = 4.310860$
$b = 0.035690$	$b = 0.035690$	$b = 0.035690$

2010 NASS GES ESTIMATES AND STANDARD ERRORS

Crash Estimate (x)	Crash Standard Error (SE)*	Vehicle Estimate (x)	Vehicle Standard Error (SE)**	Person Estimate (x)	Person Standard Error (SE)***
1,000	400	1,000	400	1,000	400
5,000	900	5,000	1,100	5,000	900
6,000	1,000	10,000	1,700	10,000	1,400
7,000	1,100	20,000	2,800	20,000	2,200
8,000	1,200	30,000	3,800	30,000	2,900
9,000	1,300	40,000	4,700	40,000	3,500
10,000	1,400	50,000	5,600	50,000	4,100
20,000	2,300	60,000	6,400	60,000	4,700
30,000	3,000	70,000	7,300	70,000	5,300
40,000	3,700	80,000	8,100	80,000	5,900
50,000	4,400	90,000	8,900	90,000	6,400
60,000	5,100	100,000	9,700	100,000	7,000
70,000	5,700	200,000	17,700	200,000	12,100
80,000	6,300	300,000	25,500	300,000	16,900
90,000	7,000	400,000	33,300	400,000	21,600
100,000	7,600	500,000	41,100	500,000	26,200
200,000	13,500	600,000	48,900	600,000	30,700
300,000	19,200	700,000	56,800	700,000	35,300
400,000	24,900	800,000	64,800	800,000	39,800
500,000	30,500	900,000	72,800	900,000	44,300
600,000	36,100	1,000,000	80,900	1,000,000	48,800
700,000	41,800	2,000,000	164,900	2,000,000	94,000
800,000	47,400	3,000,000	254,100	3,000,000	140,100
900,000	53,100	4,000,000	348,000	4,000,000	187,100
1,000,000	58,800	5,000,000	445,900	5,000,000	235,100
2,000,000	117,300	6,000,000	547,500	6,000,000	284,000
3,000,000	178,400	7,000,000	652,500	7,000,000	333,700
4,000,000	242,000	8,000,000	760,700	8,000,000	384,300
5,000,000	307,700	9,000,000	871,800	9,000,000	435,700
6,000,000	375,400	10,000,000	985,700	10,000,000	487,900
6,500,000	410,000	11,000,000	1,102,300	11,000,000	540,800
7,000,000	445,000	12,000,000	1,221,500	12,000,000	594,400

$*SE = e^{a + b(\ln x)^2}$, *where* $a = 4.271330$ $b = 0.035160$	$**SE = e^{a + b(\ln x)^2}$, *where* $a = 4.375840$ $b = 0.036280$	$***SE = e^{a + b(\ln x)^2}$, *where* $a = 4.420770$ $b = 0.033400$

2011 NASS GES ESTIMATES AND STANDARD ERRORS

Crash Estimate (x)	Crash Standard Error (SE)*	Vehicle Estimate (x)	Vehicle Standard Error (SE)**	Person Estimate (x)	Person Standard Error (SE)***
1,000	300	1,000	400	1,000	400
5,000	800	5,000	1,000	5,000	900
6,000	1,000	10,000	1,600	10,000	1,400
7,000	1,100	20,000	2,600	20,000	2,200
8,000	1,100	30,000	3,600	30,000	2,900
9,000	1,200	40,000	4,500	40,000	3,600
10,000	1,300	50,000	5,400	50,000	4,200
20,000	2,200	60,000	6,300	60,000	4,900
30,000	2,900	70,000	7,200	70,000	5,500
40,000	3,700	80,000	8,000	80,000	6,100
50,000	4,400	90,000	8,900	90,000	6,700
60,000	5,100	100,000	9,700	100,000	7,300
70,000	5,800	200,000	18,100	200,000	13,100
80,000	6,400	300,000	26,400	300,000	18,800
90,000	7,100	400,000	34,800	400,000	24,300
100,000	7,800	500,000	43,400	500,000	29,900
200,000	14,200	600,000	52,000	600,000	35,400
300,000	20,600	700,000	60,800	700,000	41,000
400,000	27,000	800,000	69,700	800,000	46,600
500,000	33,500	900,000	78,600	900,000	52,200
600,000	40,000	1,000,000	87,700	1,000,000	57,800
700,000	46,600	2,000,000	184,000	2,000,000	115,900
800,000	53,200	3,000,000	288,500	3,000,000	176,700
900,000	59,900	4,000,000	400,000	4,000,000	240,200
1,000,000	66,700	5,000,000	517,700	5,000,000	305,900
2,000,000	137,600	6,000,000	640,800	6,000,000	373,700
3,000,000	213,800	7,000,000	769,000	7,000,000	443,400
4,000,000	294,300	8,000,000	902,000	8,000,000	515,000
5,000,000	378,700	9,000,000	1,039,400	9,000,000	588,200
6,000,000	466,600	10,000,000	1,180,900	10,000,000	663,100
6,500,000	511,800	11,000,000	1,326,500	11,000,000	739,500
7,000,000	557,800	12,000,000	1,475,900	12,000,000	817,400

$*SE = e^{a + b(\ln x)^2}$, *where* $a = 4.064970$ $b = 0.036900$	$**SE = e^{a + b(\ln x)^2}$, *where* $a = 4.182410$ $b = 0.037720$	$***SE = e^{a + b(\ln x)^2}$, *where* $a = 4.210580$ $b = 0.035390$

2012 NASS GES ESTIMATES AND STANDARD ERRORS

Crash Estimate (x)	Crash Standard Error (SE)*	Vehicle Estimate (x)	Vehicle Standard Error (SE)**	Person Estimate (x)	Person Standard Error (SE)***
1,000	300	1,000	400	1,000	400
5,000	800	5,000	1,000	5,000	900
6,000	900	10,000	1,600	10,000	1,400
7,000	1,000	20,000	2,700	20,000	2,200
8,000	1,100	30,000	3,700	30,000	3,000
9,000	1,200	40,000	4,700	40,000	3,700
10,000	1,300	50,000	5,700	50,000	4,400
20,000	2,200	60,000	6,600	60,000	5,100
30,000	3,000	70,000	7,500	70,000	5,800
40,000	3,800	80,000	8,400	80,000	6,400
50,000	4,500	90,000	9,300	90,000	7,100
60,000	5,300	100,000	10,200	100,000	7,700
70,000	6,000	200,000	19,200	200,000	13,900
80,000	6,700	300,000	28,300	300,000	20,000
90,000	7,400	400,000	37,500	400,000	26,000
100,000	8,100	500,000	46,900	500,000	32,100
200,000	15,200	600,000	56,400	600,000	38,200
300,000	22,300	700,000	66,100	700,000	44,300
400,000	29,400	800,000	75,900	800,000	50,400
500,000	36,700	900,000	85,800	900,000	56,600
600,000	44,100	1,000,000	95,900	1,000,000	62,800
700,000	51,600	2,000,000	203,700	2,000,000	127,100
800,000	59,100	3,000,000	322,000	3,000,000	195,200
900,000	66,800	4,000,000	448,900	4,000,000	266,500
1,000,000	74,600	5,000,000	583,500	5,000,000	340,700
2,000,000	157,300	6,000,000	724,900	6,000,000	417,500
3,000,000	247,500	7,000,000	872,600	7,000,000	496,800
4,000,000	344,000	8,000,000	1,026,300	8,000,000	578,300
5,000,000	446,000	9,000,000	1,185,400	9,000,000	661,900
6,000,000	552,900	10,000,000	1,349,800	10,000,000	747,600
6,500,000	608,100	11,000,000	1,519,100	11,000,000	835,100
7,000,000	664,400	12,000,000	1,693,300	12,000,000	924,500

$*SE = e^{a + b(\ln x)^2}$, where $a = 3.969060$ $b = 0.037990$	$**SE = e^{a + b(\ln x)^2}$, where $a = 4.149790$ $b = 0.038360$	$***SE = e^{a + b(\ln x)^2}$, where $a = 4.187610$ $b = 0.035940$

2013 NASS GES ESTIMATES AND STANDARD ERRORS

Crash Estimate (x)	Crash Standard Error (SE)*	Vehicle Estimate (x)	Vehicle Standard Error (SE)**	Person Estimate (x)	Person Standard Error (SE)***
1,000	400	1,000	500	1,000	400
5,000	1,000	5,000	1,200	5,000	1,000
6,000	1,100	10,000	1,800	10,000	1,500
7,000	1,300	20,000	3,000	20,000	2,500
8,000	1,400	30,000	4,000	30,000	3,300
9,000	1,500	40,000	5,000	40,000	4,100
10,000	1,600	50,000	6,000	50,000	4,800
20,000	2,500	60,000	6,900	60,000	5,600
30,000	3,400	70,000	7,800	70,000	6,300
40,000	4,200	80,000	8,700	80,000	7,000
50,000	4,900	90,000	9,600	90,000	7,700
60,000	5,700	100,000	10,500	100,000	8,400
70,000	6,400	200,000	19,200	200,000	15,000
80,000	7,100	300,000	27,800	300,000	21,500
90,000	7,800	400,000	36,400	400,000	27,900
100,000	8,500	500,000	45,000	500,000	34,300
200,000	15,200	600,000	53,700	600,000	40,700
300,000	21,600	700,000	62,500	700,000	47,200
400,000	28,000	800,000	71,400	800,000	53,600
500,000	34,400	900,000	80,300	900,000	60,200
600,000	40,800	1,000,000	89,400	1,000,000	66,700
700,000	47,200	2,000,000	183,700	2,000,000	134,100
800,000	53,600	3,000,000	284,600	3,000,000	205,100
900,000	60,000	4,000,000	391,100	4,000,000	279,200
1,000,000	66,500	5,000,000	502,700	5,000,000	356,000
2,000,000	132,900	6,000,000	618,700	6,000,000	435,500
3,000,000	202,400	7,000,000	738,800	7,000,000	517,200
4,000,000	274,700	8,000,000	862,800	8,000,000	601,200
5,000,000	349,600	9,000,000	990,400	9,000,000	687,200
6,000,000	426,800	10,000,000	1,121,400	10,000,000	775,200
6,500,000	466,200	11,000,000	1,255,600	11,000,000	865,100
7,000,000	506,200	12,000,000	1,393,000	12,000,000	956,700

$*SE = e^{a + b(\ln x)^2}$, *where* $a = 4.372800$ $b = 0.035270$	$**SE = e^{a + b(\ln x)^2}$, *where* $a = 4.395660$ $b = 0.036700$	$***SE = e^{a + b(\ln x)^2}$, *where* $a = 4.314880$ $b = 0.035590$

2014 NASS GES ESTIMATES AND STANDARD ERRORS

Crash Estimate (x)	Crash Standard Error (SE)*	Vehicle Estimate (x)	Vehicle Standard Error (SE)**	Person Estimate (x)	Person Standard Error (SE)***
1,000	400	1,000	500	1,000	400
5,000	900	5,000	1,200	5,000	900
6,000	1,000	10,000	1,900	10,000	1,400
7,000	1,100	20,000	3,100	20,000	2,400
8,000	1,200	30,000	4,200	30,000	3,200
9,000	1,300	40,000	5,300	40,000	4,000
10,000	1,400	50,000	6,300	50,000	4,700
20,000	2,400	60,000	7,300	60,000	5,500
30,000	3,200	70,000	8,300	70,000	6,200
40,000	4,000	80,000	9,300	80,000	6,900
50,000	4,900	90,000	10,300	90,000	7,600
60,000	5,600	100,000	11,300	100,000	8,300
70,000	6,400	200,000	21,000	200,000	15,200
80,000	7,200	300,000	30,700	300,000	22,000
90,000	8,000	400,000	40,600	400,000	28,800
100,000	8,700	500,000	50,500	500,000	35,700
200,000	16,200	600,000	60,600	600,000	42,600
300,000	23,800	700,000	70,800	700,000	49,500
400,000	31,400	800,000	81,100	800,000	56,500
500,000	39,100	900,000	91,600	900,000	63,600
600,000	46,900	1,000,000	102,200	1,000,000	70,700
700,000	54,900	2,000,000	214,400	2,000,000	145,300
800,000	62,900	3,000,000	336,400	3,000,000	225,100
900,000	71,000	4,000,000	466,500	4,000,000	309,200
1,000,000	79,300	5,000,000	603,800	5,000,000	397,300
2,000,000	166,700	6,000,000	747,600	6,000,000	488,900
3,000,000	261,800	7,000,000	897,300	7,000,000	583,800
4,000,000	363,400	8,000,000	1,052,500	8,000,000	681,700
5,000,000	470,700	9,000,000	1,213,000	9,000,000	782,400
6,000,000	583,100	10,000,000	1,378,300	10,000,000	885,800
6,500,000	641,100	11,000,000	1,548,400	11,000,000	991,800
7,000,000	700,200	12,000,000	1,722,900	12,000,000	1,100,200

$*SE = e^{a + b(\ln x)^2}$, *where* $a = 4.056340$ $b = 0.037850$	$**SE = e^{a + b(\ln x)^2}$, *where* $a = 4.329200$ $b = 0.037750$	$***SE = e^{a + b(\ln x)^2}$, *where* $a = 4.167630$ $b = 0.036670$

2015 NASS GES ESTIMATES AND STANDARD ERRORS

Crash Estimate (x)	Crash Standard Error (SE)*	Vehicle Estimate (x)	Vehicle Standard Error (SE)**	Person Estimate (x)	Person Standard Error (SE)***
1,000	400	1,000	500	1,000	400
5,000	900	5,000	1,200	5,000	1,000
6,000	1,000	10,000	1,900	10,000	1,500
7,000	1,100	20,000	3,000	20,000	2,400
8,000	1,200	30,000	4,100	30,000	3,300
9,000	1,300	40,000	5,200	40,000	4,100
10,000	1,400	50,000	6,200	50,000	4,900
20,000	2,400	60,000	7,100	60,000	5,700
30,000	3,200	70,000	8,100	70,000	6,400
40,000	4,000	80,000	9,100	80,000	7,200
50,000	4,800	90,000	10,000	90,000	7,900
60,000	5,500	100,000	11,000	100,000	8,600
70,000	6,300	200,000	20,200	200,000	15,800
80,000	7,000	300,000	29,400	300,000	22,900
90,000	7,800	400,000	38,700	400,000	30,000
100,000	8,500	500,000	48,000	500,000	37,100
200,000	15,800	600,000	57,400	600,000	44,300
300,000	22,900	700,000	67,000	700,000	51,500
400,000	30,200	800,000	76,600	800,000	58,800
500,000	37,500	900,000	86,400	900,000	66,200
600,000	44,900	1,000,000	96,300	1,000,000	73,700
700,000	52,400	2,000,000	200,000	2,000,000	151,500
800,000	60,000	3,000,000	312,000	3,000,000	234,800
900,000	67,600	4,000,000	430,900	4,000,000	322,800
1,000,000	75,300	5,000,000	555,900	5,000,000	414,900
2,000,000	156,900	6,000,000	686,300	6,000,000	510,800
3,000,000	245,100	7,000,000	821,800	7,000,000	610,100
4,000,000	338,800	8,000,000	962,000	8,000,000	712,500
5,000,000	437,400	9,000,000	1,106,600	9,000,000	818,000
6,000,000	540,300	10,000,000	1,255,300	10,000,000	926,300
6,500,000	593,400	11,000,000	1,408,100	11,000,000	1,037,300
7,000,000	647,400	12,000,000	1,564,600	12,000,000	1,150,900
$*SE = e^{a + b(\ln x)^2}$, *where* $a = 4.097120$ $b = 0.037370$		$**SE = e^{a + b(\ln x)^2}$, *where* $a = 4.363020$ $b = 0.037260$		$***SE = e^{a + b(\ln x)^2}$, *where* $a = 4.196760$ $b = 0.036730$	

Appendix D:
Analytical Classification of Select NASS GES Data Elements

Several data elements in the NASS GES are classified or collapsed according to analytical needs. In various NCSA's published reports and analysis, select NASS GES data elements have been given a standard classification. This section will attempt to show how NASS GES data elements are classified, assisting users in understanding and duplicating statistics presented in NCSA's published reports.

Earlier publications using only NASS GES data included the fatal crash data from the NASS GES, but this method is no longer in practice. For analytical purposes, fatal crashes and fatalities are extracted from the Fatality Analysis Reporting System (FARS), not NASS GES. FARS contains data on a census of fatal traffic crashes within the 50 States, the District of Columbia, and Puerto Rico. To be included in FARS, a crash must involve a motor vehicle traveling on a trafficway customarily open to the public and result in the death of a person (occupant of a vehicle or non-motorist) within 30 days of the crash. Since FARS contains records on all fatal crashes, it's a more accurate representation of fatal crashes and fatalities than the sample contained in NASS GES.

It is important to note that these are NCSA's classifications and are subject to modification.

The following tables show the specific coding scheme of select NASS GES data elements that are used in NCSA's publications and analysis:

Time of Day/Day of Week

Classification	Data Year and Code
	1988-Later
Time of Day	**HOUR (Military)**
Daytime (6:00 a.m. – 5:59 p.m.)	6-17
Nighttime (6:00 p.m. – 5:59 a.m.)	0-5, 18-24*
Unknown	NA
Day of Week	**WKDY_I w/ HOUR_I**
Weekday 6 a.m. Monday thru 5:59 p.m. Friday	(WKDY_I =2 and 6<=HOUR_I<=23) or (WKDY_I in (3,4,5)) or (WKDY_I =6 and (0<= HOUR_I <=17 or HOUR_I=24*))
Weekend 6 p.m. Friday thru 5:59 a.m. Monday	(WKDY_I =6 and 18<= HOUR_I <=23) or (WKDY_I in (1,7)) or (WKDY_I =2 and (0<= HOUR_I <=5 or HOUR_I=24*))
Unknown	NA

* Hour 24 is the beginning of the day. In 2009 attribute 24 was dropped since 0 had the same meaning.

Univariate Maximum Injury Severity in Crash

NASS GES Description	Data Year and Code	Crash Severity Class
	1988 - Later	
No Injury / No Apparent Injury	0	Property-Damage-Only Crash
Possible Injury	1	Injury Crash
Non-incapacitating / Suspected Minor Injury	2	Injury Crash
Incapacitating / Suspected Serious Injury	3	Injury Crash
Fatal Injury*	4	Fatal Crash
Injured, Severity Unknown	5	Injury Crash
Died Prior to Crash	6	Property-Damage-Only Crash
No Person Coded in the Crash	8	Property-Damage-Only Crash

* Fatal counts from the FARS are used in NCSA's publications and analysis.

Injury Severity

NASS GES Description	Data Year and Code		Injury Severity Class
	1988-2012	2013-Later	
No Injury (O)	0	--	Not Injured
No Apparent Injury (O)	--	0	
Died Prior	6	6	
Possible Injury (C)	1	1	Injured
Nonincapacitating Evident Injury (B)	2	--	
Suspected Minor Injury (B)	--	2	
Incapacitating Injury (A)	3	--	
Suspected Serious Injury (A)	--	3	
Unknown Injury Severity (U)	5	5	
Fatal (K)*	4	4	Killed

* Fatality counts from the FARS are used in NCSA's publications and analysis.

Vehicle Body Type

NASS GES Description	Data Year and Code				
	1988-1991	1992-1998	1999-2008	2009	2010-Later
	(BDYTYP_H, BDYTYP_IM, BODY_TYP)				
Passenger Cars	01-11, 17[1]				
Light Trucks & Vans [6]	14, 20-41, 47[8], 48	14, 15, 16, 19, 20, 21, 22[2], 24[3], 25[4], 28, 29, 30, 31, 32, 33, 39, 40, 41, 45, 48			
Large Trucks	60, 65, 68	60, 64, 66, 78			60-63, 64[9], 66, 67, 68, 71, 72, 78
Motorcycles	70-79	80-89			
Buses	50-59 (55 Van-based Bus- GVWR > 10,000 lbs since 2011)				
Other/Unknown Vehicles	12, 13, 42, 63, 80-89	12, 13, 23, 42, 65, 73, 90-97, 98 (since 2010)			
Passenger Vehicles	01-11, 14, 15, 16, 17[1], 19, 20, 21, 22[2], 24[3], 25[4], 28, 29, 30, 31, 32, 33, 39, 40, 41, 45, 47[8], 48				
Utility Vehicles (a.k.a. On/Off Road)	14	14-16, 19			
Pickups	30-39				
Vans	20, 21, 22[2], 28, 29	20, 21, 22, 24[3], 25[4], 28, 29			
Medium Trucks	(60, 68) and (Trailer=0 or 9)	(60, 64, 78) and (Trailer=0 or 9)	(60, 64, 78) and (Trailer[5]=1 or 6)	(60, 64, 78) and (Tow_veh[5] in 0,5,6,9)	60-62, 64[9], 67, 68, 71
Heavy Trucks	((60, 68) and (Trailer in 1-4)) or 65	((60, 64, 78) and (Trailer in 1-4)) or 66	((60, 64, 78) and (Trailer[5] in 2-5)) or 66	((60, 64, 78) and (Tow_veh[5] in 1-4)) or 66	63, 66, 72, 78
Combination Trucks	((60, 68) and (Trailer in 1-4)) or 65	((60, 64, 78) and (Trailer in 1-4)) or 66	((60, 64, 78) and (Trailer[5] in 2-5)) or 66	((60, 64, 78) and (Tow_veh[5] in 1-4)) or 66	((60-63, 64[9], 67, 68, 71, 72, 78) and (Tow_veh [5] in 1-4)) or 66
Single Unit Trucks	(60, 68) and (Trailer=0 or 9)	(60, 64, 78) and (Trailer=0 or 9)	(60,64,78) and (Trailer[5]=1 or 6)	(60,64,78) and (Tow_veh [5] in 0,5,6,9)	(60-63, 64[9], 67,68,71,72,78, 79) and (Tow_veh [5] in 0,5,6,9)
Unknown (not in Imputed Body Type)	99				98, 99

Vehicle Body Type *(continued)*

(1) Body type code 17 *(3-Door Coupe)* was added in 1999. There appears to be no occurrences of this vehicle on the 1999 data file.

(2) Body type code 22 *(Step Van or Walk-In Van)* was added in 1990.

(3) Body type code 24 *(Van-Based School Bus)* was added in 1993. When defining School Buses be sure to include body type code 24.

(4) Body type code 25 *(Van-Based Transit Bus)* was added in 1993. When defining Transit Buses be sure to include body type code 25.

(5) The attributes for the Vehicle Trailing (TRAILER) data element were modified in 1999. In 2009, the data element name changed to TOW_VEH and attributes were revised to match FARS for compatibility purposes.

(6) "Light Trucks & Vans" is frequently referred to as just "Light Trucks."

(7) There is no distinction between heavy trucks and combination trucks in NASS GES.

(8) Body type code 47 (Other Light Conventional Truck Type (Not A Pickup)) only exists in 1988 and 1989. It was dropped in 1990.

(9) Body type attribute 64 (Single Unit Straight Truck) was deleted in 2010 and re-issued in 2011 as 64 (Single-Unit Straight Truck Or Cab-Chassis (GVWR Unknown)).

Body type codes 49, 69, and 99 are imputed in the 1988 through 1992 data files. Body type codes 49, 79, and 99 are imputed in the 1993 through 1999 data files. Therefore, these values do not exist within the BDYTYP_H (2009 and prior) or BDYTYP_IM (2010 and later).

Person Type

NASS GES Description	Data Year and Code		Classification
	1988-2008	2009-Later	
	(PER_TYPE)	(PER_TYP)	
Occupants			
Driver of a motor vehicle in-transport	1	01	Driver
Passenger of a motor vehicle in-transport	2	02	Passenger
Unknown occupant type of a motor vehicle in-transport (1)	9	09	Passenger
Not reported occupant type*	-	77 (2010)	Passenger
Non-occupants			
Occupant of a motor vehicle not in-transport (2)	3	03	Other non-occupant
Occupant of a non-motor vehicle transport device (3)	4	04	Other non-occupant
Pedestrian	5	05	Pedestrian
Cyclist	6	-	Pedalcyclist
Bicyclist	-	06	Pedalcyclist
Other Cyclist	-	07	Pedalcyclist
Person in or on working motor vehicle	7 (new in 2005) (8)	-	Other non-occupant
Persons on personal conveyances	-	08	Other non-occupant
Persons in/on buildings	-	10	Other non-occupant
Other or unknown non-occupant	8	-	Other or unknown non-occupant type
Unknown type of non-occupant	-	19	Unknown non-occupant type
Not reported non-occupant type*		78 (2010)	Unknown non-occupant type

* Not reported occupant type (77) and non-occupant type (78) were introduced in 2010. However, there were only two occurrences of 77 and no occurences of 78 on the file in 2010. These attributes were deleted in 2011.

Person Type *(continued)*

(1) Customarily, "Unknown Occupant" is placed in the "Passenger" category, unless they need to be distinguished from "Passengers".

(2) "Occupant of motor vehicle not in-transport" refers to occupants of parked motor vehicles (any motor vehicle stopped off the roadway). In 2005, this definition was expanded to include parked/stopped off roadway/working motor vehicles and occupants of motor vehicles in motion outside the trafficway boundaries. Prior to 2005, occupants of working motor vehicles (working highway maintenance vehicles, cherry pickers, etc.) were coded "08." At that time, code "08" was labeled "Other Pedestrians."

(3) "Occupant of non-motor vehicle transport device" refers to persons riding in an animal-drawn conveyance, on an animal, or injured occupants of railway trains, etc.

(8) A person in or on a working motor vehicle. Working motor vehicles are transport devices being used as equipment which would be classified under ANSI as motor vehicles, if not being used as equipment (e.g., a tow truck while using its winch, a pickup truck while being used to power a saw, a truck with cherry picker being used to repair or maintain a traffic signal or a concrete truck while discharging its load).

FARS and NASS GES "Person Type" and Entry System/Manual Differences

In FARS before 2005 only vehicle records for motor vehicles in-transport were collected. Any person involved in the crash that was not in a motor vehicle in-transport had records, but only needed to be classified using the general grouping of "NON-MOTORIST". A non-motorist by definition is any person who is not an occupant of a motor vehicle in-transport.

In 2005, FARS began to include records for motor vehicles not in-transport. At that point people had to be classified as OCCUPANTS or NON-OCCUPANTS. This was done so that persons in motor vehicles not in-transport could be coded with the vehicle they occupied even though they are "non-motorists" by definition.

When data elements meant for non-occupants (e.g. Non-motorist Action at Time of Crash, Non-motorist Safety Equipment) were added to FARS in 2010, separate Person Levels for people in motor vehicles and people not in motor vehicles were created. This is tied to the case organization and file structuring in MDE. FARS' split Person Type data element (P7 and NM7) reflects this separation of Person Types. The Person Type, 03 (Occupant of a Motor Vehicle Not In-Transport), has a special quality of being both a NON-MOTORIST by definition and a person in a motor vehicle.

The 2010 NASS GES entry system follows a scheme of breaking out persons as motorists or non-motorists. The "Long Names" of their data elements reflect this and the input system is structured around this. While the manual and entry systems reflect a difference in the organization of people in a case, FARS and NASS GES both have the same Person Type attributes in total. It is because of the differences in the two entry systems and handling of persons in structuring of the case that the data elements are presented differently.

This principally affects the Person Type of 03 (Occupant of a Motor Vehicle Not In-Transport). So while the Person Type attribute list is the same in total, P03 (Occupant) in NASS GES does not match exactly with FARS P7 because FARS includes 03 (Occupant of a Motor Vehicle Not In-Transport). It is the same situation but in reverse for GES P03 (Non-Motorist) and FARS NM7. This difference ended in 2011 when the entry systems became the same.

This difference affects how persons are counted in a case by Person Number but not the selection of Person Type for the individuals. For example, if a motor vehicle in-transport with just one occupant departed the roadway and struck a pedestrian and then a parked motor vehicle with one occupant both FARS and GES would have Person Level information for all three people and would utilize the same Person Type attribute to identify them. However, FARS would count two MOTOR VEHICLE OCCUPANTS, one NON-OCCUPANT and GES would count two NON-MOTORISTS and one NON-MOTORIST.

Restraint System Use

NASS GES Description	Data Year and Code							Classi-fication
	1988-1989	1990-1991	1992-1994	1995-2009	2010	2011-2012	2013-Later	
	(SAF_EQMT)	(REST_SYS)				(REST_USE)		
Non-occupant	00	-	-	-	-	-	-	Not Applicable
None used	10	-	-	-	-	-	-	Not Used
None available	11	-	-	7				
None used or Not applicable	-	0	0	0	-	-	-	
Not applicable	-	-	-	-	30	0	0	
None used – motor vehicle occupant	-	-	-	-	31	7	7	
No helmet	-	-	-	-	41	17	17	
Helmet used improperly	-	-	-	-	(42, 43) and *REST_MIS =2	(5, 16) and *REST_MIS =1	(5, 16, 19) and *REST_MIS =1	
Manual shoulder and lap belt	04	-	-	-	-	-	-	Used
Lap/shoulder belt	-	1	1	1	-	-	-	
Manual lap belt	02	-	-	-	-	-	-	
Lap belt	-	2	2	2	-	-	-	
Manual shoulder belt only	03	-	-	-	-	-	-	
Shoulder belt	-	3	3	3	-	-	-	
Shoulder and lap belt used	-	-	-	-	21	3	3	
Shoulder belt only	-	-	-	-	23	1	1	

Restraint System Use *(continued)*

NASS GES Description	Data Year and Code							Classi-fication
	1988-1989	1990-1991	1992-1994	1995-2009	2010	2011-2012	2013-Later	
	(SAF_EQMT)	(REST_SYS)				(REST_USE)		
Lap belt only	-	-	-	-	22	2	2	Used (continued)
Automatic belt used	05	-	-	-	-	-	-	
Air bag deployed	06	4	-	-	-	-	-	
Air bag deployed and lap/shoulder belt	-	5	-	-	-	-	-	
Child safety seat	01	6	6	6	-	-	-	
Child restraint system – forward facing	-	-	-	-	37	10	10	
Child restraint system – rear facing	-	-	-	-	38	11	11	
Booster seat	-	-	-	-	39	12	12	
Child restraint – type unknown	-	-	-	-	40	4	4	
Motorcycle helmet	07	7	7	5	-	-	-	
DOT-compliant motorcycle helmet	-	-	-	-	42 and *REST_MIS =1	5 and *REST_MIS =0	5 and *REST_MIS =0	
Other helmet	-	-	-	-	43 and *REST_MIS =1	16 and *REST_MIS =0	(16, 19) and *REST_MIS =0	
Other restraint/ safety equipment used	08	-	-	-	98	97	97	
Restraint used – type unknown	09	-	-	-	28	8	8	
Restraint used – specifics unknown or other	-	8	8	8	-	-	-	

Restraint System Use *(continued)*

NASS GES Description	Data Year and Code							Classi-fication
	1988-1989	1990-1991	1992-1994	1995-2009	2010	2011-2012	2013-Later	
	(SAF_EQMT)	(REST_SYS)				(REST_USE)		
Not reported	-	-	-	-	97	98	98	Unknown
Unknown if helmet worn	-	-	-	-	-	-	29	
Unknown if used	99	9	9	9	99	99	99	

* In 2010, the Restraint/Helmet Mis-Use (REST_MIS) element was introduced. Improperly used helmets are classified as "Not Used."

Alcohol Test Result

MAPPING OF BAC VALUES

In 2015, the Alcohol Test Results element changed from a 2-digit field to a 3-digit field. Prior to 2015, the 3rd digit was truncated – not rounded. The following table shows the translation for the 3-digit 2015 BAC values to the previously reported 2-digit BAC values:

BAC	2014 Code	2015 Code	BAC	2014 Code	2015 Code	BAC	2014 Code	2015 Code
BAC .00	0	000-009	***BAC .32***	32	320-329	***BAC .64***	64	640-649
BAC .01	1	010-019	***BAC .33***	33	330-339	***BAC .65***	65	650-659
BAC .02	2	020-029	***BAC .34***	34	340-349	***BAC .66***	66	660-669
BAC .03	3	030-039	***BAC .35***	35	350-359	***BAC .67***	67	670-679
BAC .04	4	040-049	***BAC .36***	36	360-369	***BAC .68***	68	680-689
BAC .05	5	050-059	***BAC .37***	37	370-379	***BAC .69***	69	690-699
BAC .06	6	060-069	***BAC .38***	38	380-389	***BAC .70***	70	700-709
BAC .07	7	070-079	***BAC .39***	39	390-399	***BAC .71***	71	710-719
BAC .08	8	080-089	***BAC .40***	40	400-409	***BAC .72***	72	720-729
BAC .09	9	090-099	***BAC .41***	41	410-419	***BAC .73***	73	730-739
BAC .10	10	100-109	***BAC .42***	42	420-429	***BAC .74***	74	740-749
BAC .11	11	110-119	***BAC .43***	43	430-439	***BAC .75***	75	750-759
BAC .12	12	120-129	***BAC .44***	44	440-449	***BAC .76***	76	760-769
BAC .13	13	130-139	***BAC .45***	45	450-459	***BAC .77***	77	770-779
BAC .14	14	140-149	***BAC .46***	46	460-469	***BAC .78***	78	780-789
BAC .15	15	150-159	***BAC .47***	47	470-479	***BAC .79***	79	790-799
BAC .16	16	160-169	***BAC .48***	48	480-489	***BAC .80***	80	800-809
BAC .17	17	170-179	***BAC .49***	49	490-499	***BAC .81***	81	810-819
BAC .18	18	180-189	***BAC .50***	50	500-509	***BAC .82***	82	820-829
BAC .19	19	190-199	***BAC .51***	51	510-519	***BAC .83***	83	830-839
BAC .20	20	200-209	***BAC .52***	52	520-529	***BAC .84***	84	840-849
BAC .21	21	210-219	***BAC .53***	53	530-539	***BAC .85***	85	850-859
BAC .22	22	220-229	***BAC .54***	54	540-549	***BAC .86***	86	860-869
BAC .23	23	230-239	***BAC .55***	55	550-559	***BAC .87***	87	870-879
BAC .24	24	240-249	***BAC .56***	56	560-569	***BAC .88***	88	880-889
BAC .25	25	250-259	***BAC .57***	57	570-579	***BAC .89***	89	890-899
BAC .26	26	260-269	***BAC .58***	58	580-589	***BAC .90***	90	900-909
BAC .27	27	270-279	***BAC .59***	59	590-599	***BAC .91***	91	910-919
BAC .28	28	280-289	***BAC .60***	60	600-609	***BAC .92***	92	920-929
BAC .29	29	290-299	***BAC .61***	61	610-619	***BAC .93***	93	930-939
BAC .30	30	300-309	***BAC .62***	62	620-629	***BAC .94+***	94	940
BAC .31	31	310-319	***BAC .63***	63	630-639			

Alcohol Test Result (contd.)	2014 code	2015 code
Not Reported	95	995
Test Not Given	96	996
AC Test Performed, Results Unknown	97	997
Positive Reading with No Actual Value	98	998
Unknown if Tested	99	999

Return

Univariate Traffic Control Device

Control Device Class	Data Year and Code	
	1988-1989	1990-Later
None	00	
Traffic Signal	01, 02, 03, 04, 08, 09	01, 04, 08, 09
Stop Sign	11	21
Other	12-14, 18,19,21,31,32,97,98	22,23,28,29, 40-43,49,51,61,62,97,98

Appendix E:
Rules for Derived Data Elements

Several derived data elements are included in the data files. A derived data element is any element that is not coded (i.e., data directly entered into the system) but translated from existing data. Derived data elements include:

- translations from coded data elements (e.g., "Driver Drinking in Vehicle")
- translations from collected information (e.g., "Land Use"),
- records counted from vehicle and person levels as crash level counters (e.g., "Number of Parked/Working Vehicles"),
- data extracted across several records (e.g., "First Harmful Event"), and
- element combinations (e.g., "Motor Carrier Issuing Authority and ID Number").

The derived data elements are provided to facilitate analyses and as a common platform for presenting findings. These elements and the translations used to derive them are described in this Appendix.

Crash Level Counts

Number of Motor Vehicles in Transport (MVIT)

Accident. VE_FORMS

(also provided as Vehicle.VE_FORMS, Parkwork.PVE_FORMS, Person.VE_FORMS)

Logic of Derivation

All Vehicle records linked to the crash are used. This data element is derived as the count of all vehicles in the crash where "Unit Type" = 1. It is the number of records in the Vehicle data file.

Number of Parked/Working Vehicles

Accident. PVH_INVL

Logic of Derivation

All Vehicle records linked to the crash are used. This data element is derived as the count of all vehicles in the crash where "Unit Type" is in (2, 3 or 4). It is the number of records in the Parkwork data file.

Number of Persons in Motor Vehicles in Transport (MVIT)

Accident. PERMVIT

Logic of Derivation

All Person records linked to the crash are used. This data element is derived as the count of all persons in the crash where "Person Type" is in (1, 2 or 9).

Number of Persons Not in Motor Vehicles in Transport (MVIT)

Accident. PERNOTMVIT

Logic of Derivation

All Person records linked to the crash are used. This data element is derived as the count of all persons in the crash where "Person Type" is in (3, 4, 5, 6, 7, 8, 10 or 19).

Crash and Vehicle Level Derived Data Elements

Maximum Injury Severity in Crash

Accident.MAX_SEV

Attribute Labels	1988-2012	2013-Later
No Injury	0	
No Apparent Injury		0
Possible Injury	1	1
Non-incapacitating Injury	2	
Suspected Minor Injury		2
Incapacitating Injury	3	
Suspected Serious Injury		3
Fatal	4	4
Injured, Severity Unknown	5	5
Died Prior to Crash	6	6
No person involved in the Crash	8	8
Unknown if Injured/ Not Reported	9	9

Logic of Derivation

All Person records linked to the crash are used. If there are no records, then the value 8 is assigned. If there is a single record, then the SAS code for Person.INJ_SEV is used. If there are multiple records, all SAS codes for Person.INJ_SEV are obtained and prioritized. Follow the priority ranking of each attribute as follows: 4, 3, 2, 1, 5, 0, 6, 9 (and 7 in 2010).

Maximum Injury Severity in Vehicle

Vehicle.MAX_VSEV

Attribute Labels	1988-2012	2013-Later
No Injury	0	
No Apparent Injury		0
Possible Injury	1	1
Non-incapacitating Injury	2	
Suspected Minor Injury		2
Incapacitating Injury	3	
Suspected Serious Injury		3
Fatal	4	4
Injured, Severity Unknown	5	5
Died Prior to Crash	6	6
No person in Vehicle	8	8
Unknown if Injured/ Not Reported	9	9

Logic of Derivation

All Person records linked to the vehicle are used. If there are no records, then the value 8 is assigned. If there is a single record, then the SAS code for Person.INJ_SEV is used. If there are multiple records, all SAS codes for Person.INJ_SEV are obtained and prioritized. Follow the priority ranking of each attribute as follows: 4, 3, 2, 1, 5, 0, 6, 9 (and 7 in 2010).

Number Known Injured in Crash

Accident.NUM_INJ

Attribute Labels	1988-Later
No Person Injured/Property Damage Only Crash	0
Number of Known Injured	x
No Person involved in the Crash	98
All Persons in Crash are Unknown If Injured	99

Logic of Derivation

All Person records linked to the crash are used. If there are no records, then the value 98 is assigned. If the SAS code for Person.INJ_SEV is 9 (or 7 in 2010) for all persons in the crash, then the value is 99. If not, the value assigned is the number (count) of Person records where the SAS code for Person.INJ_SEV is between 1 and 5.

Number Injured in Vehicle

Vehicle.NUM_INJV

Attribute Labels	1988-Later
No Person Injured in Vehicle	0
Number of Known Injured	1-97
No Person involved in the Vehicle	98
All Persons in Vehicle are Unknown If Injured	99

Logic of Derivation

All Person records linked to the vehicle are used. If there are no records, then the value 98 is assigned. If the SAS code for Person.INJ_SEV is 9 (or 7 in 2010) for all persons in the vehicle, then the value is 99. If not, the value assigned is the number (count) of Person records where the SAS code for Person.INJ_SEV is between 1 and 5.

Alcohol Involved in Crash

Accident.ALCOHOL

Attribute Labels	1988-1990	1991-1998	1999-Later
Alcohol Involved	1	1	1
No Alcohol involved	2	2	2
No applicable person	8	--	8
Unknown	9	9	9

Alcohol Involved in Crash is derived based on Police-Reported Alcohol Involvement from the Person data file as follows:

Police Reported Alcohol Involvement

Attribute Labels	1988-1989	1990-1998	1999-2001	2002-2008	2009-Later
No (Alcohol Not Involved)	0		1	1	0
Alcohol Not Involved or N/A		0			
Not Applicable			0	0	
Yes (Alcohol Involved)	1	1	2	2	1
Not on PAR				6	
Not Coded				7	
Alcohol and/or Drugs Involved		7			
Not Reported	8	8	8		8
Unknown (Police-Reported)	9	9	9	9	9

Logic of Derivation

Alcohol Involved in Crash is calculated based on drivers and non-motorists [except occupants of motor vehicles not in-transport] in the crash and are referred to here as "involved active participants". This translates to Person Type NOT in 2, 3, or 9.

The following order of alcohol involvement is used from 1999 through 2001. The SAS value for the case was determined by:

- 1 (Alcohol Involved)
  If "Police Reported Alcohol Involvement" is 'Yes' for any of the involved active participants in the crash,
  Then Alcohol Involved in Crash should be 1 (Alcohol Involved).
- 2 (No Alcohol Involved)
  If NOT #1 (Alcohol Involved) and "Police Reported Alcohol Involvement" is 'No' for any of the involved active participants in the crash,
  Then Alcohol Involved in Crash should be 2 (No Alcohol Involved).

- 9 (Unknown)
  If NOT #1 (Alcohol Involved) and NOT #2 (No Alcohol Involved) and "Police Reported Alcohol Involvement" is 'Unknown' or 'Not Reported' for ANY of the involved active participants,
  Then Alcohol Involved in Crash should be 9 (Unknown).
- 8 (No Applicable Person)
  Default value if no involved active participants coded for this case.

From 2002 through 2008, the translation remained the same, but 'Not Reported' was replaced by 'Not on PAR' and 'Not Coded':

- 1 (Alcohol Involved)
  If "Police Reported Alcohol Involvement" is 'Yes' for any of the involved active participants in the crash,
  Then Alcohol Involved in Crash should be 1 (Alcohol Involved).
- 2 (No Alcohol Involved)
  If NOT #1 (Alcohol Involved) and "Police Reported Alcohol Involvement" is 'No' for any of the involved active participants in the crash,
  Then Alcohol Involved in Crash should be 2 (No Alcohol Involved).
- 9 (Unknown)
  If NOT #1 (Alcohol Involved) and NOT #2 (No Alcohol Involved) and "Police Reported Alcohol Involvement" is 'Unknown' or 'Not on PAR' or 'Not Coded' for ANY of the involved active participants,
  Then Alcohol Involved in Crash should be 9 (Unknown).
- 8 (No Applicable Person)
  Default value if no involved active participants coded for this case.

From 2009 and on, the priority is different; it follows the logic below:

- 1 (Alcohol Involved)
  If "Police Reported Alcohol Involvement" is 'Yes' for any of the involved active participants in the crash,
  Then Alcohol Involved in Crash should be 1 (Alcohol Involved).
- 2 (No Alcohol Involved)
  If "Police Reported Alcohol Involvement" is 'No' for ALL of the involved active participants in the crash,
  Then Alcohol Involvement in Crash should be 2 (No Alcohol Involved).
- 9 (Unknown)
  If NOT #1 (Alcohol Involved) and "Police Reported Alcohol Involvement" is 'Unknown' or 'Not Reported' for ANY of the involved active participants,
  Then Alcohol Involvement in Crash should be 9 (Unknown).
- 8 (No Applicable Person)
  Default value if no active participants coded for this case.

Examples:

Case 1: *V1 Driver- alcohol is no,V2 Driver- alcohol is unknown, one non-motorist- alcohol is no,V3 with the situation that three unknown occupants with none coded the role of driver- alcohol for occ1 is yes, alcohol for occ2 is no, occ3 for alcohol is unknown.*
Alcohol Involved in Crash is 9 (Unknown).

Case 2: *V1 driver, alcohol is unknown, one non-motorist, alcohol is no,*
Alcohol Involved in Crash is 9 (Unknown).

Case 3: *V1 driver, alcohol is no, one non-motorist, alcohol is unknown,*
Alcohol Involved in Crash is 9 (Unknown).

Note that for a single vehicle crash, if an in-transport vehicle is listed as having a driver present, but no occupant is coded with the role of driver, then Alcohol Involved in Crash equals 9 (Unknown) unless all occupants are coded 'no (alcohol not involved)' or all the occupants are coded 'yes (alcohol involved).' In the case where all occupants are coded 'No (Alcohol Not Involved)' then Alcohol Involved in Crash is 2 (No Alcohol Involved). In the case where all occupants are coded 'Yes (Alcohol Involved)' then Alcohol Involved in Crash is 1 (Alcohol Involved). In the case where not all occupants are coded 'Yes' or 'No', then Alcohol Involved in Crash equals 9 (Unknown).

For a multi-vehicle crash or a crash having non-motorists, the highest priority alcohol value in each vehicle in the case and each applicable non-motorist is taken.

Driver Drinking in Vehicle

Vehicle.VEH_ALCH

Attribute Labels	1988-Later
Alcohol Involved	1
No Alcohol involved	2
No Driver Present/Unknown if Driver Present	8
Unknown	9

Logic of Derivation

- If "Driver Presence" equals 0 (No Driver Present/Not Applicable) or 9 (Unknown), Then "Driver Drinking in Vehicle" is set to 8 (No Driver Present/Unknown if Driver Present).
- If "Driver Presence" equals 1 (Yes) and there is a person in the vehicle where "Person Type" equals 1 (Driver of a Motor Vehicle In Transport),
  Then "Police-Reported Alcohol Involvement" for the driver is used for the derivation of "Driver Drinking in Vehicle" as follows:

Police-Reported Alcohol Involvement		Driver Drinking in Vehicle
0 No (Alcohol Not Involved)	→	2 No Alcohol Involved
1 Yes (Alcohol Involved)	→	1 Alcohol Involved
8 Not Reported	→	9 Unknown
9 Unknown (Police-Reported)	→	9 Unknown

- If "Driver Presence" equals 1 (Yes) and there is ***not*** a person in the vehicle where "Person Type" equals 1 (Driver of a Motor Vehicle In-Transport),
  Then
  - If "Police Reported Alcohol Involvement" is the same for the occupants of the vehicle where "Person Type" equals 9 (Unknown Occupant Type in a Motor Vehicle In Transport),
    Then "Driver Drinking in Vehicle" is derived from "Police Reported Alcohol Involvement" as shown above,
  - Else "Driver Drinking in Vehicle" is set to 9 (Unknown).

Example:

V1 Driver- alcohol is no, V2 Driver- alcohol is unknown, one non-motorist- alcohol is no, V3 (driver present) with the situation that three unknown occupants with none coded the role of driver- alcohol for occ1 is yes, alcohol for occ2 is no, occ3 for alcohol is unknown.

Driver Drinking in Vehicle for V1 is 2 (No Alcohol Involved), for V2 is 9 (Unknown), for V3 is 9 (Unknown).

If an in-transport vehicle is listed as having a driver present, but no occupant is coded with the role of driver, then Driver Drinking in Vehicle equals 9 (Unknown) unless all the unknown occupant types (PER_TYP=9) are coded 'no (alcohol not involved)' or all the unknown occupant types are coded 'yes (alcohol involved).' In the case where all the unknown occupant types are coded 'No (Alcohol Not Involved)' then Driver Drinking in Vehicle is 2 (No Alcohol Involved). In the case where all the unknown occupant types are coded 'Yes (Alcohol Involved)' then Driver Drinking in Vehicle is 1 (Alcohol Involved). For example, if there is a vehicle where there is a driver present and there are two unknown occupant types, both coded 'Yes (Alcohol Involved)' but neither is coded as the driver; then Driver Drinking in Vehicle equals 1 (Alcohol Involved). Another example: if there is a vehicle where there is a driver present and there are two unknown occupant types (neither coded as the driver--that is, the police report indicates it is unknown who was actually driving), and one is coded 'Yes (Alcohol Involved)' and the other is coded 'No (Alcohol Not Involved)'; then Driver Drinking in Vehicle equals 9 (Unknown).

Atmospheric Conditions

Accident.WEATHER

Attribute Labels	1988-2009	2010-2012	2013-Later
No Additional Atmospheric Conditions	1	0	0
Clear		1	1
Cloudy		10	10
Rain	2	2	2
Sleet, Hail (Freezing Rain or Drizzle)	3	3	
Sleet or Hail			3
Freezing Rain or Drizzle			12
Snow	4	4	4
Blowing Snow	5	11	11
Rain and Fog	6		
Sleet and Fog	7		
Fog, Smog, Smoke		5	5
Severe Crosswinds		6	6
Blowing Sand, Soil, Dirt		7	7
Other	8	8	8
Not Reported		98	98
Unknown	9	99	99

Logic of Derivation

This data element is derived from the coded data elements, Accident.WEATHER1 and Accident.WEATHER2. To derive WEATHER from these two data elements, the priority ranking of each attribute is as follows:

- Snow
- Blowing Snow
- Sleet or Hail
- Freezing Rain or Drizzle
- Rain
- Fog, Smog, Smoke
- Severe Crosswinds
- Blowing Sand, Soil, Dirt
- Other
- Cloudy
- Clear
- Not Reported
- Unknown
- No Additional Atmospheric Conditions

Region of the Country

Accident. REGION

Logic of Derivation

This element is derived from the data element "Primary Sampling Unit (PSU)" where the crash occurred. The country is divided into four regions with each of the 50 States and the District of Columbia falling into one of the regions. Region of the Country, therefore, is based on the State in which the Primary Sampling Unit is located.

Land Use

Accident. LAND_USE

Logic of Derivation

This element is derived from the data elements "Primary Sampling Unit (PSU)" and "Police Jurisdiction" where the crash occurred. Population is divided into four categories and Land Use is determined based on the population of the area associated with the police jurisdiction from which the police accident report (PAR) was selected.

First Harmful Event

Accident.HARM_EV
(also provided as Vehicle.HARM_EV, Parkwork.PHARM_EV, Person.HARM_EV)

Logic of Derivation

Since 2010, this data element is derived from the set of all crash events. Each event in a crash is recorded in chronological order. The data element that records the event is "Sequence of Events" and includes both harmful and non-harmful events. First Harmful Event, therefore, is the first "Sequence of Events" value that is not between codes 60 and 71 (non-harmful events).

Initial Contact Point

Vehicle. IMPACT1, Parkwork.PIMPACT1
(also provided as Person.IMPACT1)

Logic of Derivation

Since 2010, this data element is derived from the set of all crash events for a vehicle. Each event in a crash is recorded in chronological order. The data element that records each impact for a vehicle is "Area of Impact (This Vehicle)") for "This Vehicle" or "Area of Impact (Other Vehicle)" for the "Other Vehicle". The area of impact is only coded for harmful events, that is "Sequence of Events" values that are not between codes 60 and 71. Initial Contact Point, therefore, is the vehicle's first recorded Area of Impact value for a harmful event. Note that the vehicle may be "This Vehicle" or the "Other Vehicle" in the crash event.

Make Model Combined

Vehicle. MAK_MOD, Parkwork. PMAK_MOD
(also provided as Person. MAK_MOD)

Logic of Derivation

This 5-digit data element is the combination of two data elements, the 2-digit "Vehicle Make" code followed by the 3-digit "Vehicle Model" code.

Motor Carrier Identification Number

Vehicle. MCARR_ID, Parkwork. PMCARR_ID

Logic of Derivation

This 11-character data element is the combination of two data elements, the 2-digit "Motor Carrier Issuing Authority" code followed by the 9-character "Identification Number".

Pre-Crash 'Rolled Up' Data Elements (discontinued)

Trafficway Flow

Accident.TRAF_WAY (discontinued in Accident data file in 2010)

Attribute Labels	1988-2009
Non-Trafficway Area	
Not Physically Divided (Center 2-way Left Turn Lane)	0
Not Physically Divided (Two Way Trafficway)	1
Divided Highway (Median Strip, Barrier)	2
Two-Way, Not Divided	
Two-Way, Not Divided with a continuous left turn lane	
Two-Way, Divided, Unprotected (painted >4feet) Median	
Two-Way, Divided, Positive Median Barrier	
One Way Trafficway	3
Entrance/Exit ramp	
Not Reported	
Unknown	9

Logic of Derivation

This information is coded on the Vehicle level. The Accident level data element is derived by selecting one vehicle and using the coded values for that vehicle. The vehicle is chosen by the following process:

If there is only one vehicle, use that vehicle. If there is only one vehicle involved in the first event, then that vehicle is selected. If there are two vehicles in the first event, and the second vehicle has a larger number of travel lanes, and if that value is not 8, then the second vehicle is selected.

Follow the priority ranking of each attribute as follows:

- Two-Way, Divided, Positive Median Barrier
- Two-Way, Divided, Unprotected (Painted > 4 Feet) Median
- Two-Way, Not Divided With a Continuous Left-Turn Lane
- Two-Way, Not Divided
- One-Way Trafficway
- Entrance/Exit Ramp
- Non-Trafficway Area
- Not Reported
- Unknown

Number of Travel Lanes

Accident.NO_LANES (discontinued in Accident data file in 2010)

Attribute Labels	1988-2009
Non-Trafficway Area	
One Lane	1
Two Lanes	2
Three Lanes	3
Four Lanes	4
Five Lanes	5
Six Lanes	6
Seven or More Lanes	7
Not Reported	
Unknown	9

Logic of Derivation

This information is coded on the Vehicle level. The Accident level data element is derived by selecting one vehicle and using the coded values for that vehicle. The vehicle is chosen by the following process:

If there is only one vehicle, use that vehicle. If there is only one vehicle involved in the first event, then that vehicle is selected. If there are two vehicles in the first event, and the second vehicle has a larger number of travel lanes, and if that value is not 8, then the second vehicle is selected.

Follow the priority ranking of each attribute as follows:

- Seven or More Lanes
- Six Lanes
- Five Lanes
- Four Lanes
- Three Lanes
- Two Lanes
- One Lane
- Non-Trafficway Area
- Not Reported
- Unknown

Roadway Alignment

Accident.ALIGNMNT (discontinued in Accident data file in 2010)

Attribute Labels	1988-2009
Non-Trafficway Area	
Straight	1
Curve	2
Curve Right	
Curve Left	
Curve -Unknown Direction	
Not Reported	
Unknown	9

Logic of Derivation

This information is coded on the Vehicle level. The Accident level data element is derived by selecting one vehicle and using the coded values for that vehicle. The vehicle is chosen by the following process:

If there is only one vehicle, use that vehicle. If there is only one vehicle involved in the first event, then that vehicle is selected. If there are two vehicles in the first event, and the second vehicle has a larger number of travel lanes, and if that value is not 8, then the second vehicle is selected.

At crash level, combine the attributes Curve Right, Curve Left and Curve-Unknown direction into one code, 'Curve'. Then follow the priority ranking of each attribute as follows:

- Curve
- Straight
- Non-Trafficway Area
- Not Reported
- Unknown

Roadway Profile

Accident.PROFILE (discontinued in Accident data file in 2010)

Attribute Labels	2002-2009
Non-Trafficway Area	
Level	1
Grade	2
Grade, Unknown slope	
Hillcrest	3
Uphill	
Downhill	
Sag	8
Sag (Bottom)	
Not reported	
Unknown	9

Logic of Derivation

This information is coded on the Vehicle level. The Accident level data element is derived by selecting one vehicle and using the coded values for that vehicle. The vehicle is chosen by the following process:

If there is only one vehicle, use that vehicle. If there is only one vehicle involved in the first event, then that vehicle is selected. If there are two vehicles in the first event, and the second vehicle has a larger number of travel lanes, and if that value is not 8, then the second vehicle is selected.

At the crash level the attributes Uphill, Downhill, Grade, Unknown Slope are combined into one code, 'Grade'. Then follow the priority ranking of each attribute as follows:

- Grade
- Hillcrest
- Sag (Bottom)
- Level
- Non-Trafficway Area
- Not Reported
- Unknown

Roadway Surface Condition

Accident.SUR_COND (discontinued in Accident data file in 2010)

Attribute Labels	1988-2009
Non-Trafficway Area	
Dry	1
Wet	2
Snow or Slush	3
Snow	
Slush	
Ice	4
Ice/Frost	
Water (Standing, Moving)	
Sand, Dirt, Oil	5
Sand	
Mud, dirt, gravel	
Oil	
Other	8
Not Reported	
Unknown	9

Logic of Derivation

This information is coded on the Vehicle level. The Accident level data element is derived by selecting one vehicle and using the coded values for that vehicle. The vehicle is chosen by the following process:

If there is only one vehicle, use that vehicle. If there is only one vehicle involved in the first event, then that vehicle is selected. If there are two vehicles in the first event, and the second vehicle has a larger number of travel lanes, and if that value is not 8, then the second vehicle is selected.

Follow the priority ranking of each attribute as follows:

- Snow
- Slush
- Ice/Frost
- Water (Standing, Moving)
- Wet
- Sand
- Mud, Dirt, Gravel
- Oil
- Other
- Dry
- Non-Trafficway Area
- Not Reported
- Unknown

Traffic Control Device

Accident.TRAF_CON (discontinued in Accident data file in 2010)

Attribute Labels	1990-2009
Officer, Crossing Guard, Flagman, Etc.	51
Person	
Traffic Control Signal (On Colors)	1
Traffic control signal (on colors) without pedestrian signal	
Traffic control signal (on colors) with pedestrian signal	
Traffic control signal (on colors) not known if ped signal	
Flashing Traffic Control Signal Or Flashing Beacon	4
Flashing Traffic Control Signal	
Lane Use Control Signal	
Other highway traffic signal	8
Unknown Highway Traffic Signal	9
Stop Sign	21
Yield Sign	22
School Zone sign/ Device	23
Other Regulatory Sign	28
Unknown Regulatory Sign	29
Advisory Speed Sign	40
Warning Sign For Road Conditions (Hill, Steep Grade, etc.)	41
Warning Sign For Road Construction	42
Warning Sign For Environment/Traffic (Fog Ahead, Wind)	43
Unknown Type Warning Sign	49
Warning Sign	
Active Device At RR Crossing (e.g., Gates, Flashing Lights)	61
Passive Device At RR Crossing (e.g., Stop Sign, Cross Bucks)	62
Railway Crossing Device	
Other Traffic Control (Whether Or Not At RR Grade Crossing)	98
Other Traffic Control	
Traffic Control Present - No Details	97
Not Reported	
Unknown	99
No Controls	0

Logic of Derivation

All Vehicle.VTRAFCON SAS values for vehicles linked to the case are used, as well as all Biketraf.BTRAFCON values from 2002 to 2009. If there are no values, then 0 is assigned. If there is a single record, then that SAS code is assigned. If there are multiple records, then the minimum SAS code is assigned, with the following exceptions. If there is a record with a 0 SAS code, and any other record with a value other than 0, then the record with the 0 SAS code record is ignored (all other values take precedence over 0). If there is a record with SAS code value of 51, then 51 is assigned (51 takes precedence over all other values). SAS code 98 takes precedence over SAS code 97.

If the crash involves vehicles and cyclists subject to different traffic control devices, the device coded is based on the following priority:

- 51 - Officer, Crossing Guard, Flagman, etc
- The lowest numbered device
- No traffic control device.

Speed Limit

Accident.SP_LIMIT (discontinued in Accident data file in 2010)

Attribute Labels	1988-2009
No Statutory Limit	0
No Statutory Limit/Non-Trafficway Area	
Actual speed Limit	
Actual speed Limit (mph increments of 5)	5-75
Not Reported	
Unknown	99

Logic of Derivation

Speed Limit is coded on the Vehicle level. The derivation takes the largest non-unknown value for all the coded vehicles. If all the values are unknown, then the value is assigned 99.

Follow the priority ranking of each attribute as follows:

- Largest non-unknown values
- Not Reported
- Unknown
- No Limit

Multiple Response 'Rolled Up' Data Elements (discontinued)

Contributing Circumstances

Vehicle.FACTOR (discontinued in Vehicle data file in 2010)

Attribute Labels	1988-2009
None	0
Tires	1
Brake System	2
Steering	3
Suspension	4
Power Train	5
Exhaust System	6
Head lights	7
Signal lights	8
Other lights	9
Wipers	10
Wheels	11
Mirrors	12
Driver seating and control	13
Windows/Windshield	
Body, doors	14
Trailer Hitch	15
Truck Coupling/Trailer hitch/Safety chains	
Safety Systems	
Hit and Run Vehicle	50
Vehicle Contributing Factors – No Details	97
Other	98
Not Reported	
Unknown	99

Logic of Derivation

Prior to 2002, this value is data entered. From 2002 to 2009, Vehicle.FACTOR is rolled up from the Factor data file which allows multiple factors for a vehicle to be recorded. All records from the Factor data file are used. For all years the value is assigned using the following process: If there are no records, then the code 0 is assigned. If there is a single record, then the SAS code for that record is assigned. If there are multiple records, then the minimum SAS code of all the records is assigned.

Violations Charged

Vehicle.VIOLATN (discontinued in Vehicle data file in 2010)

Attribute Labels	2009
None	0
Reckless/Careless/Hit-and-Run Type Offenses	
Manslaughter or homicide	1
Willful reckless driving; driving to endanger; negligent driving	2
Unsafe reckless (not willful, wanton reckless) driving	3
Inattentive, careless, improper driving	4
Fleeing or eluding police	5
Fail to obey police, fireman, authorized person directing traffic	6
Hit-and-run, fail to stop after crash	7
Fail to give aid, information, wait for police after crash	8
Serious violation resulting in death	9
Impairment Offenses	
Driving while intoxicated (alcohol or drugs) or BAC above limit (any detectable BAC for CDLs)	11
Driving while impaired	12
Driving under influence of substance not intended to intoxicate	13
Drinking while operating	14
Illegal possession of alcohol or drugs	15
Driving with detectable alcohol	16
Refusal to submit to chemical test	18
Alcohol, drug or impairment violations generally	19
Speed-Related Offenses	
Racing	21
Speeding (above the speed limit)	22
Speed greater than reasonable & prudent (not necessarily over the limit)	23
Exceeding special limit (e.g.: for trucks, buses, cycles, or on bridge, in school zone, etc.)	24
Energy speed (exceeding 55 mph, non-pointable)	25
Driving too slowly	26
Speed related violations, generally	29

Attribute Labels	2009
Rules of the Road – Traffic Sign & Signals	
Fail to stop for red signal	31
Fail to stop for flashing red	32
Violation of turn on red (fail to stop & yield, yield to pedestrians before turning)	33
Fail to obey flashing signal (yellow or red)	34
Fail to obey signal, generally	35
Violate RR grade crossing device/regulations	36
Fail to obey stop sign	37
Fail to obey yield sign	38
Fail to obey traffic control device	39
Rules of the Road – Turning, Yielding, Signaling	
Turn in violation of traffic control (disobey signs, turn arrow or pavement marking; not a right-on-red violation)	41
Improper method & position of turn (too wide, wrong lane)	42
Fail to signal for turn or stop	43
Fail to yield to emergency vehicle	45
Fail to yield, generally	46
Enter intersection when space insufficient	48
Turn, yield, signaling violations, generally	49
Rules of the Road – Wrong Side, Passing & Following	
Driving wrong way on one-way road	51
Driving on left, wrong side of road, generally	52
Improper, unsafe passing	53
Pass on right (drive off pavement to pass)	54
Pass stopped school bus	55
Fail to give way when overtaken	56
Following too closely	58
Wrong side, passing, following violations, generally	59
Rules of the Road – Lane Usage	
Unsafe or prohibited lane change	61
Improper use of lane (enter of 3-lane road, HOV designated lane)	62
Certain traffic to use right lane (trucks, slow-moving, etc.)	63
Motorcycle lane violations (more than two per lane, riding between lanes, etc.)	66
Motorcyclist attached to another vehicle	67
Lane violations, generally	69

Attribute Labels	2009
Non-Moving – License and Registration Violations	
Driving while license withdrawn (including violation of provisions of work permit)	71
Other driver license violations	72
Commercial driver violations (log book, hours, permits carried)	73
Vehicle registration violations	74
Fail to carry insurance card	75
Driving uninsured vehicle	76
Non-moving violations, generally	79
Equipment	
Lamp violations	81
Brake violations	82
Failure to require restraint use (by self or passengers)	83
Motorcycle equipment violations (helmet, special equipment)	84
Violation of hazardous cargo regulations	85
Size, weight, load violations	86
Equipment violations, generally	89
License, Registration & Violations	
Parking	91
Theft, unauthorized use of motor vehicle	92
Driving where prohibited (sidewalk, limited access, off truck route)	93
Not Reported	97
Other moving violation (coasting, backing, opening door)	98
Unknown Violation	99

Logic of Derivation

Prior to 2002, this value is data entered. From 2002 to 2009, Vehicle.VIOLATN is rolled up from the Violatn data file which allows multiple violations for a driver to be recorded. All Violatn records linked to the vehicle are used. If there are no records, then the code 0 is assigned. For all years the value is assigned using the following process: If there is a single record, then the SAS code for that record is used. If there are multiple records, , the minimum SAS code is used in 2009. Prior to 2009, use the priority ranking of each attribute as follows: 1, 2, 3, 4, 5, 6, 7, 97, 98, 50, 96, 99, 0.

Driver's Vision Obscured By

Vehicle.VIS_OBSC (discontinued in Vehicle data file in 2010)

Attribute Labels	2009
No Obstruction Noted	0
Rain, Snow, Fog, Smoke, Sand, Dust	1
Reflected Glare, Bright Sunlight, Headlights	2
Curve, Hill or Other Roadway Design Feature	3
Building, Billboard, Other Structure	4
Trees, Crops, Vegetation	5
In-Transport Motor Vehicle (including load)	6
Not In-Transport Motor Vehicle (parked, working)	7
Splash or Spray of Passing Vehicle	8
Inadequate Defrost or Defog System	9
Inadequate Vehicle Lighting System	10
Obstruction Interior to the Vehicle	11
External Mirrors	12
Broken or Improperly Cleaned Windshield	13
Obstructing Angles on Vehicle	14
No Driver Present	95
Vision Obscured – No Details	97
Other Visual Obstruction	98
Unknown	99

Logic of Derivation

Prior to 2002, this value is data entered. From 2002 to 2009, Vehicle.VIS_OBSC is rolled up from the Vision data file which allows multiple obstructions for a driver to be recorded. All records from the Vision data file are used. For all years the value is assigned using the following process: If there are no records, then the code 0 is assigned. If there is a single record, then the SAS code for that record is assigned. If there are multiple records, then the minimum SAS code of all the records is assigned.

Driver Maneuvered To Avoid

Vehicle.DRMAN_AV (discontinued in Vehicle data file in 2010)

Attribute Labels	2004-2009
Driver Did Not Maneuver To Avoid	0
Object	1
Poor Road Conditions (Puddle, Ice, Pothole, etc.)	2
Live Animal	3
Motor Vehicle	4
Pedestrian, Pedalcyclist or Other Non-Motorist	5
Phantom/Non-Contact Motor Vehicle	92
No Driver Present	95
Hit and Run and no information	50
Avoidance maneuver--no details	97
Not on PAR	93
Not Coded	94
Not Reported	
Unknown	99

Logic of Derivation

Prior to 2002, this value is data entered. From 2002 to 2009, Vehicle.DRMAN_AV is rolled up from the Maneuver data file which allows multiple maneuvers by a driver to be recorded. All records fromthe Maneuver data file are used. For all years the value is assigned using the following process: If there are no records, then the code 0 is assigned. If there is a single record, then the SAS code for that record is assigned. If there are multiple records, then the minimum SAS code of all the records is assigned.

Driver Distracted By

Vehicle.DR_DSTRD (discontinued in Vehicle data file in 2010)

Attribute Labels	2007-2009
Not Distracted	0
Looked But Did Not See	1
By Other Occupant(s)	3
By Moving Object in Vehicle	4
While Talking or Listening to Cellular Phone	5
While Dialing Cellular Phone	6
Adjusting Audio And/or Climate Controls	
While adjusting climate controls	7
While adjusting radio, cassette, CD	8
While Using Other Device/Controls Integral to vehicle	9
While Using or Reaching For Device/Object Brought into Vehicle	10
Sleepy or fell asleep	11
Distracted by Outside Person, Object or Event	12
Eating or Drinking	13
Smoking Related	14
Other Cellular Phone Related	15
Not on PAR	93
Not coded	94
Hit and Run and no information	50
Inattentive or Lost in Thought	97
Other Distraction	98
Distraction/Inattention, Details Unknown	92
No Driver Present	95
Not Reported	
Unknown if Distracted	99

Logic of Derivation

Prior to 2002, this value is data entered. From 2002 to 2009, Vehicle.DR_DSTRD is rolled up from the Distract data file which allows multiple distractions for a driver to be recorded. All records from the Distract data file are used. For all years the value is assigned using the following process: If there are no records, then the code 0 is assigned. If there is a single record, then the SAS code for that record is assigned. If there are multiple records, then the minimum SAS code of all the records is assigned, with the exceptions that SAS code 98 has priority over 92, 92 has priority over 95, 95 has priority over 96, 96 has priority over 99, and all other values have priority over SAS code 0.

Condition (Impairment) At Time Of Crash

Person.IMPAIRMT (discontinued in Person data file in 2010)

Attribute Labels	2007-2009
None	0
None/Apparently Normal	
Ill, Blackout	1
Drowsy, Sleepy, Fell Asleep, Fatigued	2
Asleep or Fatigued	
Requires Cane Or Crutches	3
Walking with a Cane or Crutches	
Paraplegic Or Restricted To Wheelchair	4
Impaired Due To Previous Injury	5
Deaf	6
Blind	7
Emotional (Depressed, Angry, Disturbed, etc)	
Under the Influence of Alcohol, Drugs or Medication	
Physical Impairment – No Details	97
Other Physical Impairment	98
Other	
Not Reported	
Not on PAR	93
Not Coded	94
Hit and Run (and no information)	50
Unknown If Physically Impaired	99
Unknown	

Logic of Derivation

Prior to 2002, this value is data entered. From 2002 to 2009, Person.IMPAIRMT is rolled up from the Impair data file which allows multiple impairments for a driver or non-motorist to be recorded. All records from the Impair data file are used. For all years the value is assigned using the following process: If there are no records, then the code 0 is assigned. If there is a single record, then the SAS code for that record is assigned. If there are multiple records, then the minimum SAS code of all the records is assigned.

Non-Motorist Safety Equipment

Person.SAF_EQMT (discontinued in Person data file in 2010)

Attribute Labels	1999-2009
Not Applicable	0
None Used	1
Bicycle Helmet	2
Helmet	
Protective Pads Used (elbows, knees, shins, etc.)	
Bicycle Helmet and Reflective Equipment	4
Reflective Equipment/Clothing (jacket, backpack, etc.)	3
Lighting	
Other Safety Equipment	8
Not Reported	
Unknown if Used	9

Logic of Derivation

Prior to 2002, this value is data entered. From 2002 to 2009, Person.SAF_EQMT is rolled up from the Safetyeq data file which allows multiple items of safety equipment for a non-motorist to be recorded. All records from the Safetyeq data file are used. For all years the value is assigned using the following process: If there are no records, then the code 0 is assigned. If there is a single record, then the SAS code for that record is assigned. If there are multiple records, they are prioritized by the following SAS code order: 2, 3, 4, 5, 7, 8, 9, 0, and 1. Not Applicable is used when Person Type = 1, 2, 3, 9 or 77.

Non-Motorist Action

Person.ACTION (discontinued in Person data file in 2010)

Logic of Derivation

Prior to 2002, this value is data entered. From 2002 to 2009, Person.ACTION is rolled up from the Nmaction data file which allows multiple actions of a non-motorist to be recorded. All records linked to a person in the Nmaction data file are used. For all years the value is assigned using the following process: If there are no records, then the code 0 is assigned. If there is a single record, then that SAS code for that record is assigned. If there are multiple records, then the minimum SAS code of all the records is assigned, with the exception that if SAS code 0 is one of the values, it is excluded from the calculation (all other values take precedence over 0).

Appendix F:
Summary of the 2010 and 2011 NASS GES Changes

2010 FARS/NASS GES Standardization

The purpose of this document is to inform users of NHTSA's Fatality Analysis Reporting System (FARS) and National Automotive Sampling System General Estimates System (NASS GES) data about some of the more significant changes to the 2010 data as a result of the standardization of the data elements between the two systems. In addition to the changes outlined below, a listing of all specific data element changes can be found in the following table:

2010 Variables with Changes in Definitions, Attributes or SAS Codes

The FARS/NASS GES Standardization began in 2006, with the second phase being implemented in the 2010 data collection year. The definition and element attribute changes introduced in 2010 are the most substantive and most numerous changes in one year in the reconciliation of the FARS and NASS GES data systems. In the 2011 data collection year – the third and final planned phase of the FARS/NASS GES Standardization – nearly all remaining data element attribute and file structure differences will be addressed. As a single, unified data entry system, FARS/NASS GES will be compatible with the Model Minimum Uniform Crash Criteria (MMUCC), the guideline used by nearly all States to develop and revise their crash forms and databases. Once complete, the FARS/NASS GES Standardization will simplify crash data coding and analysis as well as reduce costs and errors.

Probably the most notable changes were the introduction of precrash information in FARS (already collected in NASS GES) and a change to case structure or how the groups of related data elements are organized. For example, in 2009 a FARS case consisted of Crash, Vehicle, Driver and Person coding forms. In 2010, the Person level form was split into Motor Vehicle Occupant and Non-Motor Vehicle Occupant forms, and the Precrash form was added (new to FARS, though not to NASS GES).

These structure changes also include changes to how the data are now stored and made available. For example, for FARS, there are now 16 data tables rather than 4. This results from the changes in the number of coding forms and from changes in specific data elements. Several data elements that used to allow only a specified number of responses now have a "select-all-that-apply" format. There is a separate data table for each of these data elements.

At the Crash level, a Crash Events Table was added to FARS (and modified in NASS GES). In NASS GES, Non-Harmful Events were added to the Crash Events Table.

The precrash information represents not only a new coding form, but more importantly, largely a new concept for FARS, attempting to collect data about the conditions, events and driver actions that preceded and may have contributed to the crash. Precrash data is intended to improve crash avoidance research and has been included in NASS GES since 1992.

The new FARS Precrash form information consists of 23 data elements, 9 of which were previously coded at the Crash level, 3 each at the Vehicle and Driver levels, and 8 new elements. Nine trafficway descriptor data elements were moved from the crash level to the new precrash level. These elements provide details about the characteristics of the trafficway selected for each vehicle.

A Pedestrian/Bicycle crash typing software application was added to the Non-Motor Vehicle Occupant form for both systems to help identify the precrash actions for parties involved in certain non-motorist-related crashes.

Type of Intersection was added to both systems. Bus Use and Vehicle Configuration were two Vehicle level elements that are new to NASS GES in 2010 and modified for FARS (element attributes were consolidated and redefined). Condition at Time of Crash was added at the Driver and the Non-Motor Vehicle Occupant levels for both systems. For motor vehicle occupants, there is now an Indication of Misuse of Restraint System or Helmet Use in both systems.

Some of the information that had been collected under FARS Related Factors was redistributed to new data elements. For example, some Person Related Factors have been removed and are now captured in two new Non-Motor Vehicle Occupant elements; Non-Motorist Action/Circumstances Prior to Crash and Non-Motorist Action/Circumstances at Time of Crash. Some Vehicle Related Factors are now captured under the new Precrash elements, Contributing Circumstances, Motor Vehicle and Driver Distracted By. The Driver Level element, Violations Charged, is now a "Select-all-That-Apply" element.

Multiple data elements that are part of the Model Minimum Uniform Crash Criteria (MMUCC) had the attribute "Not Reported" added in 2010 to account for information missing from the case source materials.

To ensure that data quality was not compromised as a result of the standardization, NHTSA refined and enhanced its quality control processes. These enhancements enable the identification of coding discrepancies and development of training tailored to eliminate or reduce these discrepancies.

The final phase of the FARS/NASS GES standardization will occur during the 2011 data collection year, at which point FARS and NASS GES, while remaining separate data systems, will share a single data entry system and uniform set of data elements.

New in 2010 NASS GES

There were many changes to the 2010 NASS GES, most of which were the result of NHTSA's efforts to standardize data elements in the NASS GES and the Fatality Analysis Reporting System (FARS). Additions, deletions, and changes are listed below.

More detailed information on each data element can be found in the NASS GES Coding and Validation Manuals, which NHTSA publishes for each year of data collection. While the 2010 changes are addressed in this Analytical User's Manual, data users should compare the 2009 and 2010 Coding and Validation Manuals for a more thorough understanding. Manuals for 1995 to the present can be found at:

NCSA Publications - FARS/NASS GES Manuals and Documentation.

General changes to 2010 NASS GES were:

- Non-harmful events were added to the Cevent (formerly the Event) data file.
- A new data file (Vevent) was added which lists the harmful and non-harmful events for each in-transport motor vehicle.
- The Nmprior and Nmcrash data files were added in 2010; they replaced the Nmaction data file and contain information about what people (who are not occupants of motor vehicles) are doing prior to the crash (Nmprior) and any improper actions or contributing circumstances noted on the PAR (Nmcrash).
- The Trafcon data file was retired in 2010. In prior years (2002-2009) the Trafcon data file could contain multiple traffic controls for each in-transport motor vehicle. In 2010, one traffic control is coded per in-transport motor vehicle eliminating the need for the Trafcon data file. The traffic control coded in 2010 is the one which best describes the traffic controls in the vehicle's environment just prior to its critical precrash event.

2010 Data Elements with Changes in Definitions, Attributes or SAS Codes

Accident:

A06	First Harmful Event EVENT1
A07	Manner of Collision MAN_COL
A09	Relation to Junction REL_JCT1/REL_JCT2
A10	Relation to Trafficway REL_ROAD
A11/V_A11	Trafficway Description VTRAFWAY (V41 in 2010)
A12/V_A12	Total Lanes of Roadway VNUM_LAN
A13/V_A13	Roadway Alignment VALIGN
A14/V_A14	Roadway Grade VPROFILE
A15/V_A15	Roadway Surface Conditions VSURCOND
A16/V_A16	Traffic Control Device VTRAFCON
A18/V_A18	Speed Limit VSPD_LIM
A19	Light Condition LGT_COND
A20	Atmospheric Conditions WEATHER/WEATHER1/WEATHER2
A21	School Bus Related SCH_BUS
A25	Work Zone WRK_ZONE

Cevent/Vevent (only **Event** in 2009 and prior, modified in 2010):

E03/V24	Areas of Impact (This Vehicle)/ Areas of Impact – Initial GAD/IMPACT1
E03/V38	Areas of Impact (This Vehicle)/ Areas of Impact – Most Damaged GAD/IMPACT2
E04	Non-Collision Category or Object Contacted (Sequence of Events) OBJCONT
E05/V24	Areas of Impact (Other Vehicle) OBJGAD/IMPACT1
E06/VE06	Action E_ACTION

Vehicle:

V02	Hit and Run HIT_RUN
V03	Vehicle Make MAKE
V04	Vehicle Model MODEL
V05	Body Type BODY_TYP
V06	Vehicle Model Year MODEL_YR
V07	Vehicle Identification Number VIN
V08	Special Use SPEC_USE
V09	Emergency Use EMER_USE
V10B	Number of Occupants NUMOCCS
V18	Extent of Damage DEFORMED
V19	Vehicle Removal TOWED
V20	Most Harmful Event V_EVENT
V31	Vehicle Motor Carrier Identification Number MCARR_ID
V33	Cargo Body Type CARGO_BT
V41	Trafficway Description VTRAFWAY (it was V_A11 in 2009)

Parkwork:

PV05	Parked/Working Body Type PBODYTYP
PV06	Parked/Working Vehicle Model Year PMODELYR
PV07	Parked/Working Vehicle Identification Number PVIN
PV08	Parked/Working Special Use PSP_USE
PV10	Parked/Working Number of Occupants Coded POCCINVL

PV10B Parked/Working Number of Occupants PNUMOCCS
PV18 Parked/Working Extent of Damage PVEH_SEV
PV19 Parked/Working Vehicle Removal PTOWED
PV31 Parked/Working Vehicle Motor Carriers Identification Number PCARIDNO
PV33 Parked/Working Cargo Body Type PCARGTYP
PV34 Parked/Working Hazardous Materials Placard PHAZPLAC
PV37 Parked/Working Vehicle Location PREL_RWY
PV38 Parked/Working Vehicle Areas of Impact – Most Damaged PIMPACT2

Person:

P03 Person Type PER_TYP
P04 Seating Position SEAT_POS
P06 Ejection EJECTION
P07 Age AGE
P08 Sex SEX
P09 Injury Severity INJ_SEV
P10 Transported to Medical Facility By HOSPITAL
P11A Alcohol Test Status ALCHTEST
P11B Alcohol Test Type ALTSTYPE
P11C Alcohol Test Result ALTRSULT
P13 Non-Motorist Location at Time of Crash LOCATN
P15 Restraint System/Helmet Use REST_SYS
P17A Drug Test Status DRUGTEST
P17B Drug Test Type DRTSTYPE
P17C Drug Test Result DRTRSULT
P21 Air Bag Deployed AIR_BAG

Safetyeq:

M_P20 Non-Motorist Safety Equipment Use MSAFEQMT

New Data Elements

Accident:

A28 Type of Intersection TYP_INT

Vehicle:

V_A17 Device Functioning VTCONT_F
V39 Bus Use BUS_USE
V40 Vehicle Configuration V_CONFIG

Person:

P24 Any Indication of Mis-use of Restraint System/Helmet Use REST_MIS

Parkwork:

PV38 Parked/Working Vehicle Areas of Impact – Most Damaged PIMPACT2
PV40 Parked/Working Vehicle Configuration PV_CONFIG

The following were new SAS tables in 2010:

- Vevent
- Nmprior
- Nmcrash

Deleted Data Elements

Accident:

A11	Trafficway Description TRAF_WAY
A12	Total Lanes of Roadway NO_LANES
A13	Roadway Alignment ALIGNMNT
A14	Roadway Grade PROFILE
A15	Roadway Surface Conditions SUR_COND
A16	Traffic Control Device TRAF_CON
A18	Speed Limit SP_LIMIT
A24	Pedestrian/Cyclist Crash Type PED_ACC

Vehicle:

V22	Vehicle Role VEH_ROLE
V25	Damaged Areas DAM_AREA
D02	Violations Charged VIOLATN
D04	Driver's Vision Obscured By VIS_OBSC
D06	Driver Maneuvered to Avoid DR_MANAV
D07	Driver Distracted By DR_DSTRD

Person:

P18	Condition (Impairment) at the Time of Crash IMPAIRMT
P19	Non-Motorist Action ACTION
P20	Non-Motorist Safety Equipment Use SAF_EQMT

Nmaction (this data file replaced by Nmprior and Nmcrash)**:**

M_P19	Non-Motorist Action MACTION

Trafcon (this data file is not available in 2010)**:**

M_A16	Traffic Control Device MTRAFCON

Other Changes in the 2010 Coding and Validation Manual

The following data elements had changes to the remarks and/or attribute definitions in 2010.

Cevent/Vevent (only **Event** in 2009 and prior, modified in 2010)**:**

E06/VE06 Action E_ACTION

Vehicle:

V21 Movement Prior to Critical Event P_CRASH1

Person:

P03 Person Type PER_TYP
P13 Non-Motorist Location at Time of Crash LOCATN
P15 Restraint System/Helmet Use REST_SYS

Parkwork:

PV05 Parked/Working Body Type PBODYTYP
PV06 Parked/Working Vehicle Model Year PMODELYR
PV07 Parked/Working Vehicle Identification Number PVIN
PV08 Parked/Working Special Use PSP_USE
PV10 Parked/Working Number of Occupants Coded POCCINVL
PV10B Parked/Working Number of Occupants PNUMOCCS
PV18 Parked/Working Extent of Damage PVEH_SEV
PV19 Parked/Working Vehicle Removal PTOWED
PV31 Parked/Working Vehicle Motor Carriers Identification Number PCARIDNO
PV33 Parked/Working Cargo Body Type PCARGTYP
PV34 Parked/Working Hazardous Materials Placard PHAZPLAC
PV37 Parked/Working Vehicle Location PREL_RWY
PV38 Parked/Working Vehicle Areas of Impact – Most Damaged PIMPACT2
PV40 Parked/Working Vehicle Configuration PV_CONFIG

Biketraf:

MB_A16 Traffic Control Device-Cyclist BTRAFCON

Summary of the SAS Naming Changes in 2010

Locator Code	2009 SAS Name	New 2010 SAS Name	Data Element Name
A05	N/A	LAND_USE	Land Use
A09A	REL_JCT	RELJCT1	Relation To Junction -Within Interchange Area?
A09B	REL_JCT	RELJCT2	Relation To Junction -Junction
A11	TRAF_WAY	Deleted this derived data element	Trafficway Description
A12	NO_LANES	Deleted this derived data element	Total Lanes in Roadway
A13	ALIGNMNT	Deleted this derived data element	Roadway Alignment
A14	PROFILE	Deleted this derived data element	Roadway Grade
A15	SUR_COND	Deleted this derived data element	Roadway Surface Condition
A16	TRAF_CON	Deleted this derived data element	Traffic Control Device
A17	N/A	N/A	Traffic Control Device Functioning
A18	SP_LIMIT	Deleted this derived data element	Speed Limit
A24	PED_ACC	Deleted	Ped/Cycle Accident Type
A27	N/A	TYP_INT	Type of Intersection
V12	FACTOR	Deleted in Vehicle data file	Vehicle Contributing Factors (MFACTOR) stored in Factor data file
V22	VEH_ROLE	Deleted in Vehicle data file	Vehicle Role
V24	IMPACT	IMPACT1	Areas of Impact – Initial Damaged Area
V31	CARINDUM	MCARR_ID	Carrier's Identification Number
V39	N/A	BUS_USE	Bus Use
V40	N/A	V_CONFIG	Vehicle Configuration
D02	VIOLATN	Deleted in Vehicle data file	Violations Charged (MVIOLATN) stored in Violatn data file
D04	VIS_OBSC	Deleted in Vehicle data file	Violations Charged (MVISOBSC) stored in Vision data file
D06	DRMAN_AV	Deleted in Vehicle data file	Driver Maneuvered to Avoid (MDRMANAV) stored in Maneuver data file
D07	DR_DSTRD	Deleted in Vehicle data file	Driver Distracted By (MDRSTRD) stored in Distract data file

Locator Code	2009 SAS Name	New 2010 SAS Name	Data Element Name
P18	IMPAIRMT	Deleted in Person data file	Condition at Time of Crash (MIMPAIR) stored in Impair data file
P19	ACTION	Deleted in Person data file	Non-Motorist Action (changed in 2010)
P20	SAF_EQMT	Deleted in Person data file	Non-Motorist Safety Equipment Use (MSAFEQMT) stored in Safetyeq data file
P24	N/A	REST_MIS	Indication of Restraints/Helmet Mis-Use
P25	N/A	MPR_ACT	Non-Motorist Actions/Circumstances At Time of Crash (MPR_ACT) stored in Nmcrash data file
P26	N/A	MTM_CRSH	Non-Motorist Actions/Circumstances Prior to Crash (MTM_CRSH) stored in Nmprior data file

The data elements in RED are new to 2010 NASS GES.
The data elements in BLUE are changed in 2010 NASS GES.

New in 2011 NASS GES

Most changes in 2011 NASS GES are the result of NHTSA's efforts to standardize variables in NASS GES and the Fatality Analysis Reporting System (FARS). The final phase of the FARS/NASS GES standardization occur during the 2011 data collection year, while remaining separate data systems, FARS and NASS GES are sharing a single data entry system and uniform set of data elements. All the locator codes for NASS GES data elements have changed, the summary of this change is documented in *Appendix G: 2011 Changes to Locator Codes*. The additions, deletions, and changes for 2011 NASS GES data files and data elements are listed below.

More detailed information on each data element can be found in the NASS GES Coding and Validation Manuals, which NHTSA publishes for each year of data collection. While the 2011 changes are addressed in this Analytical User's Manual, data users should compare the 2010 and 2011 Coding and Validation Manuals for a more thorough understanding. Manuals for 1995 to the present can be found at:

NCSA Publications - FARS/NASS GES Manuals and Documentation.

2011 New, Deleted and Changed Data Elements

New or Changed SAS Data Files:

- Vsoe
- Drimpair
- Nmimpair
- Parkwork (previously Parked data file)

New Data Elements:

Locator Code	Data Element Name	SAS Name
Accident:		
C3	Number of Persons Not in Motor Vehicles	PEDS
C4	Number of Total Motor Vehicles Involved	VE_TOTAL
C5	Number of Persons in Motor Vehicles	PERSONS
C5A	Number of Persons in Motor Vehicles in-Transport (MVIT)	PERMVIT
Vehicle:		
V5	Unit Type	UNITTYPE
V16A	MCID Issuing Authority	MCARR_I1, PMCARR_I1
V16B	MCID Identification Number	MCARR_I2, PMCARR_I2

Locator Code	Data Element Name	SAS Name
V17	Gross Vehicle Weight Rating	GVWR, PGVWR
Cevent, Vevent:		
C17	Vehicle Number (Other Vehicle) [Cevent & Vevent data files]	VNUMBER2
C17	Area of Impact Associated with the Event [Vsoe data file]	AOI
C17	Vehicle Event Number [Vevent & Vsoe data files]	VEVENTNUM
Parkwork:		
C4A	Number of Vehicles Involved	PVE_FORMS
C8A	Month of Crash	PMONTH
C9A	Hour of Crash	PHOUR
C9B	Minute of Crash	PMINUTE
C18	First Harmful Event	PHARM_EV
C19	Manner of Collision	PMAN_COLL
V6	Hit and Run	PHIT_RUN
V16A	MCID Issuing Authority	MCARR_I1, PMCARR_I1
V16B	MCID Identification Number	MCARR_I2, PMCARR_I2
V17	Gross Vehicle Weight Rating	GVWR, PGVWR
V21	Bus Use	PBUS_USE
V32	Most Harmful Event	PM_HARM

Deleted Data Elements:

Locator Code	Data Element Name	SAS Name
V20A	Most Harmful Event Number	MHENUM
EO6/VE6	Vehicle's Action	E_ACTION
VE7	Vehicle Number (Parked/Working Vehicle)	PVEHNUM

Locator Code	Data Element Name	SAS Name
VE8	Area of Impact (Parked/Working Vehicle)	PGAD
PV30	Rollover	PROLLOVR
PV30A	Location of Rollover	PROLINLOC
PV37	Vehicle Location	PREL_RWY

Changed Data Elements:

Locator Code	Data Element Name	SAS Name	Change
V3/D3/PC3/P3	Vehicle Number	VEH_NO	Updated SAS name (was VEHNO, PVEHNO in Parked data file)
P4/NM3	Person Number	PER_NO	Updated SAS name (was PERNO)
Accident:			
C3A	Number of Persons Not in Motor Vehicles in-Transport (MVIT)	PERNOTMVIT	Updated SAS name (was NON_INVL)
C4A	Number of Motor Vehicles in-Transport (MVIT) Involved	VE_FORMS	Updated SAS name (was VEH_INVL)
C18	First Harmful Event	HARM_EV	Updated SAS name (was EVENT1)
C19	Manner of Collision	MAN_COLL	Updated SAS name (was MAN_COL) Updated attribute codes
C19I	Imputed Manner of Collision	MANCOL_IM	Updated Imputation
C21	Type of Intersection	TYP_INT	Updated attribute codes
C22	Relation to Trafficway	REL_ROAD	Updated attribute codes
C23	Work Zone	WRK_ZONE	Updated attribute codes
C26	School Bus Related	SCH_BUS	Updated attribute codes
C92	Alcohol Involved in Crash	ALCOHOL	Updated attribute codes
Vehicle:			
V6	Hit and Run	HIT_RUN	Updated attribute codes

Locator Code	Data Element Name	SAS Name	Change
V9	Vehicle Make	MAKE	New attributes
V10	Vehicle Model	MODEL	New attributes
V11	Body Type	BODY_TYP	Updated attributes
V12	Vehicle Model Year	MOD_YEAR	Updated SAS name (was MODEL_YR) Updated attribute codes
V15	Jackknife	J_KNIFE	Updated SAS name (was JACKNIFE)
V16	Motor Carrier Identification Number (MCID)	MCARR_ID	Updated attributes
V18	Vehicle Configuration	V_CONFIG	Updated attribute codes
V21	Bus Use	BUS_USE	Updated attribute codes
V22	Special Use	SPEC_USE	Updated attribute codes
V23	Emergency Use	EMER_USE	Updated attribute codes
V27	Location of Rollover	ROLINLOC	Updated attribute codes
V28A	Initial Damaged Area	IMPACT1	Updated attribute codes
V28B	Most Damaged Area	IMPACT2	Updated attribute codes
V29	Extent of Damage	DEFORMED	Updated attribute codes
V30	Vehicle Removal	TOWED	Updated attribute codes
V32	Most Harmful Event	M_HARM	Updated SAS name (was V_EVENT) Updated attribute codes
D6	Driver's ZIP Code	DR_ZIP	Updated SAS name (was DZIPCODE) Updated attribute codes
PC7	Speed Limit	VSPD_LIM	Updated attribute codes
PC12	Traffic Control Device	VTRAFCON	Updated attribute codes
PC17	Pre-Event Movement (Prior To Recognition of Critical Event)	P_CRASH1	Updated element name (was "Movement Prior to Critical Event") Updated attributes

Locator Code	Data Element Name	SAS Name	Change
PC19	Critical Event- Precrash	P_CRASH2	Updated attributes
PC20	Attempted Avoidance Maneuver	P_CRASH3	Updated element name (was "Corrective Action Attempted")
PC21	Pre-Impact Stability	PCRASH4	Updated element name (was "Precrash Vehicle Control")
PC22	Pre-Impact Location	PCRASH5	Updated element name (was "Precrash Location") Updated attribute codes
PC23	Crash Type	ACC_TYPE	Updated element name (was "Accident Type") Updated attributes
Person:			
P5/NM5	Age	AGE	Updated attribute codes
P6/NM6	Sex	SEX	Updated attribute codes
P7/NM7	Person Type	PER_TYP*	Updated attribute codes
P9	Seating Position	SEAT_POS	Updated attribute codes
P10	Restraint System Use	REST_USE	Updated SAS name (was REST_SYS) Updated attribute codes
P11	Indication of Misuse of Restraint System/Helmet	REST_MIS	Updated attribute codes
P12	Air Bag Deployed	AIR_BAG	Updated attribute codes Updated information
P13	Ejection	EJECTION	Updated information
P16/NM15	Police-Reported Alcohol Involvement	DRINKING	Updated SAS name (was PER_ALCH)
P18A/ NM17A	Alcohol Test Status	ALC_STATUS	Updated SAS name (was ALCHTEST) Updated attribute codes
P18B/ NM17B	Alcohol Test Type	ATST_TYP	Updated SAS name (was ALTSTYPE) Updated attribute codes

Locator Code	Data Element Name	SAS Name	Change
P18C/ NM17C	Alcohol Test Result	ALTRSULT	Updated SAS name (was ALC_RES)
P19/NM18	Police Reported Drug Involvement	DRUGS	Updated SAS name (was PER_DRUG)
P21A/ NM20A	Drug Test Status	DSTATUS	Updated SAS name (was DRUGTEST) Updated attribute codes
P21B/ NM20B	Drug Test Type	DRUGTST1, DRUGTST2, DRUGTST3	Updated SAS name (was DRTSTYPE) Updated attribute codes
P21C/ NM20C	Drug Test Result	DRUGRES1, DRUGRES2, DRUGRES3	Updated SAS name (was DRTRSULT) Updated attribute codes
P22/NM21	Transported to Medical Facility By	HOSPITAL	Updated attribute codes
NM4	Non-Motorist Striking Vehicle Number	STR_VEH	Updated attribute codes
NM10	Non Motorist Location	LOCATION	Updated SAS name (was LOCATN) Updated attribute codes
Cevent, Vevent:			
C17	Vehicle Number (This Vehicle)	VNUMBER1	Updated SAS name (was VEHNUM) Updated attribute codes
C17	Area of Impact (This Vehicle)	AOI1	Updated SAS name (was GAD) Updated attribute codes
V31	Sequence of Events	SOE	Updated SAS name (was OBJCONT) Updated element name (was "Non-Collision Category or Object Contacted") Updated attributes and attribute codes
C17	Area of Impact (Other Vehicle)	AOI2	Updated SAS name (was OBJGAD) Updated attribute codes

Locator Code	Data Element Name	SAS Name	Change
Factor:			
PC4	Contributing Circumstances, Motor Vehicle	MFACTOR	Updated element name (was "Vehicle Contributing Factors")
Maneuver:			
PC15	Driver Maneuvered to Avoid	MDRMANAV	Updated attribute codes
Distract:			
PC16	Driver Distracted By	MDRDSTRD	Updated attribute codes
Nmprior:			
NM11	Non-Motorist Action/ Circumstances Prior to Crash	MPR_ACT	Updated attribute codes
Parkwork:			
V3	Vehicle Number	VEH_NO	Updated SAS name (was PVEHNO)
V5	Unit Type	PTYPE	Updated attribute codes
V6	Hit and Run	PHIT_RUN	Updated attribute codes
V9	Vehicle Make	PMAKE	New attributes
V10	Vehicle Model	PMODEL	New attributes
V11	Body Type	PBODYTYP	Updated attributes
V12	Vehicle Model Year	PMODYEAR	Updated SAS name (was PMODELYR) Updated attribute codes
V16	Motor Carrier Identification Number (MCID)	PMCARR_ID	Updated SAS name (was PCARIDNO) Updated attributes
V18	Vehicle Configuration	PV_CONFIG	Updated attribute codes
V22	Special Use	PSP_USE	Updated attribute codes
V23	Emergency Use	PEM_USE	Updated attribute codes
V28A	Initial Damaged Area	PIMPACT1	Updated attribute codes
V28B	Most Damaged Area	PIMPACT2	Updated attribute codes

Locator Code	Data Element Name	SAS Name	Change
V29	Extent of Damage	PVEH_SEV	Updated attribute codes
V30	Vehicle Removal	PTOWED	Updated attribute codes

* The 2010 NASS GES entry system follows a scheme of breaking out persons as motorists or non-motorists. The "Long Names" of their elements reflect this and the input system are structured around this. While the manual and entry systems reflect a difference in the organization of people in a case, FARS and NASS GES both have the same Person Type attributes in total. It is because of the differences in the two entry systems and handling of persons in structuring of the case that the elements are presented differently. This principally affects the Person Type of "03 (Occupant of a Motor Vehicle Not In-Transport)" when 2011 NASS GES and FARS shared the same data entry system. P03 (Occupant) in 2010 NASS GES does not match exactly with 2011 NASS GES because it includes "03 (Occupant of a Motor Vehicle Not In-Transport)" in 2011. It is the same situation but in reverse for 2010 NASS GES P03 (Non-motorist) and 2011 NASS GES NM7.

Summary of the SAS Naming Changes in 2011

Locator Code	2010 SAS Name	2011 SAS Name	Data Element Name
C3	N/A	PEDS	Number of Persons Not in Motor Vehicles
C3A	NON_INVL	PERNOTMVIT	Number of Persons Not in Motor Vehicles in Transport (MVIT)
C4	N/A	VE_TOTAL	Number of Total Motor Vehicles Involved
C4A	VEH_INVL	VE_FORMS	Number of Motor Vehicles in Transport (MVIT) Involved
C4A (Parkwork)	N/A	PVE_FORMS	Number of Motor Vehicles Involved
C5	N/A	PERSONS	Number of Persons in Motor Vehicles
C5A	N/A	PERMVIT	Number of Persons in Motor Vehicles in Transport (MVIT)
C8A (Parkwork)	N/A	PMONTH	Month of Crash
C9A (Parkwork)	N/A	PHOUR	Hour of Crash
C9B (Parkwork)	N/A	PMINUTE	Minute of Crash
C17 (Cevent,Vevent)	VEHNUM	VNUMBER1	Vehicle Number (This Vehicle)
C17 (Cevent,Vevent)	GAD	AOI1	Area of Impact (This Vehicle)
C17 (Cevent, Vevent)	N/A	VNUMBER2	Vehicle Number (Other Vehicle)
C17 (Cevent,Vevent)	OBJGAD	AOI2	Area of Impact (Other Vehicle)
C17 (Vevent,Vsoe)	N/A	VEVENTNUM	Vehicle Event Number
C17 (Vsoe)	N/A	AOI	Area of Impact Associated with the Event
C18	EVENT1	HARM_EV	First Harmful Event
C18 (Parkwork)	N/A	PHARM_EV	First Harmful Event
C19	MAN_COL	MAN_COLL	Manner of Collision
C19 (Parkwork)	N/A	PMAN_COLL	Manner of Collision
V3/D3/ PC3/P3	VEHNO	VEH_NO	Vehicle Number
V3 (Parkwork)	PVEHNO	VEH_NO	Vehicle Number
V5	N/A	UNITTYPE	Unit Type
V6 (Parkwork)	N/A	PHIT_RUN	Hit and Run
V12	MODEL_YR	MOD_YEAR	Vehicle Model Year

Locator Code	2010 SAS Name	2011 SAS Name	Data Element Name
V12 (Parkwork)	PMODELYR	PMODYEAR	Vehicle Model Year
V15	JACKNIFE	J_KNIFE	Jackknife
V16 (Parkwork)	PCARIDNO	PMCARR_ID	Motor Carrier Identification Number (MCID)
V16A	N/A	MCARR_I1	MCID Issuing Authority
V16A (Parkwork)	N/A	PMCARR_I1	MCID Issuing Authority
V16B	N/A	MCARR_I2	MCID Identification Number
V16B (Parkwork)	N/A	PMCARR_I2	MCID Identification Number
V17	N/A	GVWR	Gross Vehicle Weight Rating/GCWR
V17 (Parkwork)	N/A	PGVWR	Gross Vehicle Weight Rating/GCWR
V21 (Parkwork)	N/A	PBUS_USE	Bus Use
V31 (Cevent)	OBJCONT	SOE	Non-Collision Category or Object Contacted → Sequence of Events
V32	V_EVENT	M_HARM	Most Harmful Event
V32 (Parkwork)	N/A	PM_HARM	Most Harmful Event
D6	DZIPCODE	DR_ZIP	Driver's ZIP Code
D23	MIMPAIR	DRIMPAIR	Condition (Impairment) at Time of Crash- Driver (stored in Drimpair data file)
P4/NM3	PERNO	PER_NO	Person Number
P10	REST_SYS	REST_USE	Restraint System Use
P16/NM15	PER_ALCH	DRINKING	Police-Reported Alcohol Involvement
P18A/ NM17A	ALCHTEST	ALC_STATUS	Alcohol Test Status
P18B/ NM17B	ALTSTYPE	ATST_TYP	Alcohol Test Type
P18C/ NM17C	ALTRSULT	ALC_RES	Alcohol Test Result
P19/NM18	PER_DRUG	DRUGS	Police-Reported Drug Involvement
P21A/ NM20A	DRUGTEST	DSTATUS	Drug Test Status
P21B/ NM20B	DRTSTYPE	DRUGTST1, DRUGTST2, DRUGTST3	Drug Test Type
P21C/ NM20C	DRTRSULT	DRUGRES1, DRUGRES2, DRUGRES3	Drug Test Result
NM10	LOCATN	LOCATION	Non-Motorist Location

Locator Code	2010 SAS Name	2011 SAS Name	Data Element Name
NM14	MIMPAIR	NMIMPAIR	Condition (Impairment) at Time of Crash- Non-Motorist (stored in Nmimpair data file)

The data elements in RED are new to 2011 NASS GES.
The data elements in BLUE are changed in 2011 NASS GES.

Appendix G:
2011 Changes to Locator Codes

As part of NHTSA's efforts to standardize NASS GES and FARS, both systems began using the same data entry system in 2011 with a common set of data elements. Locator Codes are used to find data elements on the FARS coding forms, on the display of the data entry system and in the FARS/NASS GES Coding and Validation Manual. The NASS GES locator codes changed to conform to the shared system. The conversion of these locator codes is shown in the table below:

2010 GES Locator	2011 FARS/GES Locator	Data Element Name
Accident:		
A01	C8	Crash Date
A02	C9	Crash Time
A03 & A03D*	C4	Number of Vehicle Forms Submitted
A04*	C3	Number of Forms Submitted for Persons Not in MV
A05	C105	Land Use
A06	C18	First Harmful Event
A07	C19	Manner of Collision
A08	C32	Interstate Highway
A09	C20	Relation to Junction
A10	C22	Relation to Trafficway
A19	C24	Light Condition
A20	C25	Atmospheric Conditions
A21	C26	School Bus Related
A22	C34	Police Jurisdiction
A23	C33	Stratum
A25	C23	Workzone
A28	C21	Type of Intersection
A90	C90	Maximum Injury Severity in Crash
A91	C91	Number Known Injured in Crash
A92	C92	Alcohol Involved in Crash

2010 GES Locator	2011 FARS/GES Locator	Data Element Name
Vehicle, Parked → Parkwork:		
V01, PV01*	V3/D3/PC3/P3	Vehicle Number
V02	V6	Hit and Run
PV02*	V5	Unit Type *[formerly Parked/Working Vehicle Type]*
V03, PV03	V9	Vehicle Make
V04, PV04	V10	Vehicle Model
V05, PV05	V11	Body Type
V06, PV06	V12	Model Year
V07, PV07	V13	Vehicle Identification Number
V08, PV08	V22	Special Use
V09, PV09	V23	Emergency Use
V10, PV10*	C5, C5A	Number of Persons in Motor Vehicles, Number of Persons in Motor Vehicles in Transport (MVIT), *[formerly Number of Occupants Coded]*
V10B, PV10B	V4	Number of Occupants
V11	V24	Travel Speed
V13, PV13	V14	Vehicle Trailing
V14	V15	Jackknife
V16, PV16	V34	Fire Occurrence
V18, PV18	V29	Extent of Damage
V19, PV19	V30	Vehicle Removal
V20	V32	Most Harmful Event
V21	PC17	Pre-Event Movement (Prior to Critical Event) *[Movement Prior to Critical Event]*
V23	PC23	Crash Type *[formerly Accident Type]*
V24, PV24	V28A	Area of Impact - Initial Damaged Area
V26	PC19	Critical Event – Precrash
V27	PC20	Attempted Avoidance Maneuver *[formerly Corrective Action Attempted]*
V28	PC21	Pre-Impact Stability *[formerly Precrash Vehicle Control]*

2010 GES Locator	2011 FARS/GES Locator	Data Element Name
V29	PC22	Pre-Impact Location *[formerly Precrash Location]*
V30, PV30	V26	Rollover
V30A, PV30A	V27	Location of Rollover
V31, PV31	V16	Motor Carrier Identification Number
V33, PV33	V19	Cargo Body Type
V33A, PV33A	V20	Hazardous Material Involvement - HM1
V34, PV34	V20	Hazardous Material Placard - HM2
V35, PV35	V20	Hazardous Material Identification Number - HM3
V35A, PV35A	V20	Hazardous Material Class Number - HM4
V36, PV36	V20	Release of Hazardous Material from the Cargo Compartment - HM5
V38, PV38	V28B	Area of Impact – Most Damaged Area
V39	V21	Bus Use
V40, PV40	V18	Vehicle Configuration
V41, V_A11	PC5	Trafficway Description
V90	V90	Maximum Injury Severity in Vehicle
V91	V91	Number Injured in Vehicle
V92	V92	Driver Drinking in Vehicle
D01	D4	Driver Presence
D08	D6	Driver's ZIP Code
D09	D22	Speed Related
V_A12	PC6	Total Lanes in Roadway
V_A13	PC8	Roadway Alignment
V_A14	PC9	Roadway Grade *[formerly Roadway Profile]*
V_A15	PC11	Roadway Surface Condition
V_A16	PC12	Traffic Control Device
V_A17	PC13	Traffic Control Device Functioning

2010 GES Locator	2011 FARS/GES Locator	Data Element Name
V_A18	PC7	Speed Limit
Person:		
P02/PB02*	P4/NM3	Person Number
P03	P7/NM7	Person Type
P04	P9	Seating Position
P06	P13	Ejection
P07	P5/NM5	Age
P08	P6/NM6	Sex
P09	P8/NM8	Injury Severity
P10	P22/NM21	Transported to Medical Facility By *[formerly Taken to Hospital or Treatment Facility]*
P11	P16/NM15	Police-Reported Alcohol Involvement
P11A	P18/NM17	Alcohol Test Status
P11B	P18/NM17	Alcohol Test Type
P11C	P18/NM17	Alcohol Test Result
P13	NM10	Non-Motorist Location
P15	P10	Restraint System / Helmet Use *[formerly Restraint System Use]*
P17	P19/NM18	Police Reported Drug Involvement
P17A	P21/NM20	Drug Test Status
P17B	P21/NM20	Drug Test Type
P17C	P21/NM20	Drug Test Result
P21	P12	Air Bag Deployed
P22	NM4	Non-Motorist Striking Vehicle Number
P24	P11	Indications of Misuse of Restraint System/Helmet
Cevent, Vevent:		
E01, VE1	C17	Event Number, Vehicle Event Number
E02, VE2	C17	Vehicle Number (This Vehicle)
E03, VE3	C17	Area of Impact (This Vehicle)

2010 GES Locator	2011 FARS/GES Locator	Data Element Name
E04, VE4	C17	Sequence of Events *[formerly Non-Collision Category or Object Contacted]*
E05, VE5	C17	Area of Impact (Other Vehicle)
E06, VE6	C17	Vehicle's Action
VE7	N/A	Vehicle Number (Parked/Working Vehicle)
VE8	N/A	Area of Impact (Parked/Working Vehicle)
Factor:		
M_V12	PC4	Vehicle Contributing Factors
Violatn:		
M_D02	D21	Violations Charged
Vision:		
M_D04	PC14	Driver's Vision Obscured By
Maneuver:		
M_D06	PC15	Driver Maneuvered to Avoid
Distract:		
M_D07	PC16	Driver Distracted By
Impair → Drimpair & Nmimpair:		
M_P18	D23 NM14	Condition at Time of Crash- Driver Condition at Time of Crash- Non-Motorist *[formerly Condition at Time of Crash]*
Nmcrash:		
P26	NM12	Non-Motorist Action/Circumstances at Time of Crash
Nmprior:		
P25	NM11	Non-Motorist Action/Circumstances Prior to Crash
Safetyeq:		
M_P20	NM13	Non-Motorist Safety Equipment Use

*Not an exact translation

Appendix H:
VIN Decoded Data Elements

NASS GES added a new data file for VIN decoded data elements starting in 2013. The output is stored in the Vindecode data file. The data file contains over 100 VIN decoded data elements. Descriptions of these data elements are provided below from the Polk VINtelligence Deluxe Package and Field Descriptions documentation.

Element Identifier	SAS Name	Field Description
V200	ABS	(Brakes - ABS Code) A code that describes whether a vehicle has or does not have anti-lock brakes, and what kind of brakes they are. (Not coded for heavy truck). This is based on the series code that is assigned the vehicle from VINA.
V201	ABS_T	(Brakes - ABS Code) description
V202	BATKWRTG	The measure of total battery power expressed in kilowatts. For example: 71KW, 85KW, 75KW, 67KW.
V203	BATTYP	A value that identifies the kind of battery in the vehicle. For example: PbA- Lead Acid, NMH- Nickel Metal Hydride.
V204	BATTYP_T	The description of the Polk assigned code for the Battery Type Code. For example: PbA- Lead Acid, NMH- Nickel Metal Hydride.
V205	BATVOLT	The voltage rating of the battery as provided by the manufacturer.
V206	BLOCKTYPE	(Block Type) Description
V207	BODYSTYL	A Polk assigned code that describes the body style of the vehicle. For example, CP=Coupe.
V208	BODYSTYL_T	The description of the Polk assigned code Body Style Code For example: Coupe
V209	CARBBRLS	The number of barrels on a carbureted engine.
V210	CARBTYPE	Carburetion types include "Carburetor", "Fuel Injection", N/A
V211	CARBTYPE_T	The description of the Polk assigned code which identifies the vehicle carburetion type. For example Carburetor, Fuel Injection, Unknown or Electric.
V212	CYCLES	(Cycle Count) Refers to the cycle or stroke of an engine. 2-strokes are lightweight and simpler, but they burn oil, by design. Few cars on the road in North America are two-strokes, the last one offered was a 1967 Saab.
V213	CYLNDRS	Contains a code that represents the number of cylinders a vehicle's combustion engine can have.
V214	DISPCLMT	(Displacement Liters) displacement in rounded Liters, where 1,000 cubic centimeters = 1 liter. Even domestic makes will advertise displacement in terms of liters (e.g. 5.0 liter mustang, which equates to a 302 CID or 4967 cc displacement).
V215	DISPLCC	(Displacement CC) displacement in cubic centimeters. We intend to use this as the definitive, exact displacement value, i.e. 4967 cc.
V216	DISPLCI	(Displacement CID) displacement in cubic inches. This is a rounded, marketing value, like 302 cubic inches, instead of 4967 cc.
V217	DOORS	The number of doors the vehicle has
V218	DRIVETYP	(Drive Type) This element describes type of driving configuration for cars and trucks such as FWD, AWD, RWD.
V219	DRIVETYP_T	(Drive Type) description
V220	DRIVWHLS	Number of wheels driven by the power train. For example in a 6x4 configuration this would be the 4.
V221	DRL	(Daytime Running Lights)A Polk assigned code that identifies whether or not the vehicle has daytime running lights.

Element Identifier	SAS Name	Field Description
V222	DRL_T	(Daytime Running Lights) description
V223	ENGHEAD	(Head Configuration) Describes the cylinder head's camshaft/valve configuration.
V224	ENGHEAD_T	(Head Configuration) description
V225	ENGMFG	(Mfr.) A Polk assigned code given to the original equipment manufacture of the within a vehicle
V226	ENGMFG_T	(Mfr.) description
V227	ENGMODEL	(Model) description
V228	ENGVINCD	(Code) Code derived from the VIN (not the secondary VIN for a motorcycle). Usually a single character, some manufactures give full positions 4-8 and engine information from that; they do not break it down any further.
V229	ENGVVT	Used to determine if a car has Variable Valve Timing
V230	FUEL	(Fuel) What an internal combustion burns to move a piston in a cylinder
V231	FUEL_T	(Fuel) description
V232	FUELINJ	The type of fuel injection
V233	FUELINJ_T	The type of fuel injection used by a vehicle. For example, Direct, Throttle body
V234	GVWRANGE	Contains a code that identifies the Polk standard groupings of gross vehicle weights to which a vehicle may belong. This information is typically captured only for trucks.
V235	GVWRANGE_T	The description for the manufacturers assigned Gross Vehicle Weight (GVW) for trucks. This rating may or may not equal the actual GVW.
V236	INCOMPLT	Indicator that signifies whether the vehicle is consider "incomplete" (Y/N)
V237	MCYUSAGE	A further breakdown of body style for motorcycles to indicate if is it On-Road or Off-Road.
V238	MCYUSAGE_T	A further breakdown of body style for motorcycles to indicate if is it On-Road or Off-Road.
V239	MFG	(Vehicle Manufacturer Name) Standard abbreviation of the name of the vehicle manufacturer, i.e. General Motors, as defined by the National Crime Information Center
V240	MFG_T	(Vehicle Manufacturer Name) The name of the vehicle manufacturer, i.e. General Motors, as defined by the National Crime Information Center
V241	MSRP	Contains the base price of the vehicle as designated by the OEM's specifications. BASE PRICE includes only the price for the base model of the vehicle, excluding any optional equipment that may have been added as a result of the vehicle's TRIM LEVEL.
V242	NCICMAKE	Contains the Polk standardized abbreviation for the OEM's vehicle make. The vehicle make generally contains what the general public usually considers to be a vehicle brand name, for example, Chrysler, Dodge, Ford, Mercury, Toyota, GMC, Chevy, etc.
V243	ORIGIN	(Origin) A code that indicates the origin of a vehicle.
V244	ORIGIN_T	(Origin) description
V245	PLANT	(Plant Code) Plant code where vehicle was manufactured.
V246	PLNTCITY	(City) This is the city where the plant is located.
V247	PLNTCTRY	A code representing the country the plant is in.
V248	PLNTCTRY_T	(Country) This is the country where the plant is located. Example values are USA, Canada and Japan.
V249	PLNTSTAT	A code representing the State or province the plant is in.

Element Identifier	SAS Name	Field Description
V250	PLNTSTAT_T	(State or Province) This is the State or province (Canada) location of the plant.
V251	PSI_F	(Front Tire Pressure) Vehicle Mfr. recommendation for tire pressure, in pounds/sq. in.
V252	PSI_R	(Rear Tire Pressure) Vehicle Mfr. recommendation for tire pressure, in pounds/sq. in.
V253	REARSIZE	The size of the rear tires. example "17R245"
V254	REARSIZE_T	(Rear Tire Size Description) As in "17R245"
V255	RSTRNT	(Restraint Type) A Polk assigned code that identifies the type of restraints that a vehicle has based on VIN.
V256	RSTRNT_T	(Restraint Type) description
V257	SALECTRY	(Country Sold / Specific Market) Country where the vehicle is planned to be sold (may have different emissions standards).
V258	SALECTRY_T	(Country Sold / Specific Market) description
V259	SECURITY	(Security Type) Describes the security system (if any) installed on this model.
V260	SECURITY_T	(Security Type) description
V261	SEGMNT	The Polk standard segmentation code
V262	SEGMNT_T	Description of SEGMENTATION_CODE that represents the Polk Standard Segmentation applied.
V263	SHIPWEIGHT	Contains the base weight of the vehicle, rounded to the nearest one hundred pounds, as defined in the OEM's specifications. The base weight of a vehicle is the empty weight of the base model of the vehicle (i.e., the stripped down version of the vehicle)
V264	SUPCHRGR	Indicates if the engine has a supercharger or not.
V265	SUPCHRGR_T	Indicates if the engine has a supercharger or not. Yes, No or Unknown.
V266	TIREDESC_F	(Front Tire) More specific tire description (ex. Michelin Eagle P245/40ZR)"
V267	TIREDESC_R	(Rear Tire) More specific tire description (ex. Michelin Eagle P245/40ZR)"
V268	TIRESZ_F	Describes the size of the front tire. For example "17R245"
V269	TIRESZ_F_T	(Front Tire Size Description) As in "17R245"
V270	TKAXLEF	(Axle- Type, Front Axle) The location of the front axle of a truck tractor. Set forward increases stability on the highway, Setback increases maneuverability in tight spaces.
V271	TKAXLEF_T	(Axle- Type, Front Axle) short description
V272	TKAXLER	(Axle- Type, Rear Axle) Represents rear axle configuration on a truck tractor. Tandem axles increase load bearing capability.
V273	TKAXLER_T	(Axle- Type, Rear Axle) short description
V274	TKBEDL	(Bed Length) Code representing the manufacturer's description of the relative size of the cargo area of a pickup truck or van. A "long" Ford Ranger bed (compact pickup) may well be shorter than a "short" bed on an F350 (large industrial pickup).
V275	TKBEDL_T	(Bed Length) description
V276	TKBRAK	(Brake Type) The type of brakes on the Vehicle (currently commercial truck only). Truck VIN determines this currently
V277	TKBRAK_T	(Brake Type) description
V278	TKCAB	(Cab Configuration) Cab Type describes the physical configuration of a truck's cabin.
V279	TKCAB_T	(Cab Configuration) medium description

Element Identifier	SAS Name	Field Description
V280	TKDUTY	(Duty Type) A Polk assigned code that represents the duty type of a truck engine, based on manufacturer information.
V281	TKDUTY_T	(Duty Type) medium description
V282	TONRATING	(Tonnage Rating) description
V283	TURBO	Indicates if the engine has a turbocharger.
V284	TURBO_T	Indicates if the engine has a turbocharger. Yes, No or Unknown.
V285	VEHTYPE	A Polk assigned code that defines the type of a vehicle represented by a specific VIN. For example: M,P,C or T.
V286	VEHTYPE_T	The description of the Polk assigned code for the vehicle type code. For example: passenger, truck, motorcycle, commercial trailer.
V287	VINMAKE_T	(Make- Name) Full name of the make (i.e. Chevrolet)
V288	VINMODEL_T	(Model Code) description
V289	VINTRIM_T	The Trim of the vehicle
V290	VINTRIM1_T	The trim of the vehicle. This field is used when a VIN Pattern could have more than 1 trim assigned.
V291	VINTRIM2_T	The trim of the vehicle. This field is used when a VIN Pattern could have more than 2 trims assigned.
V292	VINTRIM3_T	The trim of the vehicle. This field is used when a VIN Pattern could have more than 3 trims assigned.
V293	VINTRIM4_T	The trim of the vehicle. This field is used when a VIN Pattern could have more than 4 trims assigned.
V294	VINYEAR	The marketing year defined by the OEM within which the vehicle was produced. The value contained in this attribute may not always match the calendar year in which the vehicle was actually manufactured. Many OEMs release models prior to calendar year.
V295	VLVCLNDR	(Valves Per Cylinder) Number of intake/exhaust valves per cylinder.
V296	VLVTOTAL	(Valves Total) Total number of intake/exhaust valves.
V297	WHEELS	The number of wheel ends on the vehicle. For example in a 6x4 configuration this would be the 6.
V298	WHLBLG	Contains the longest distance between the front and rear axles of a vehicle in inches for a particular series of that vehicle.
V299	WHLBSH	Contains the distance between the front and rear axles of a vehicle in inches of the base model of the vehicle.

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