

NATIONAL ACCIDENT SAMPLING SYSTEM (NASS)

CRASHWORTHINESS DATA SYSTEM

Analytical User's Manual

1991 File



U.S. Department of Transportation
National Highway Traffic Safety Administration
National Center for Statistics and Analysis
Washington, D.C. 20590

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SECTION 1

INTRODUCTION

The National Accident Sampling System (NASS) is a continuous nationwide accident data collection program sponsored by the U.S. Department of Transportation. It is operated by the National Center for Statistics and Analysis (NCSA) of the National Highway Traffic Safety Administration (NHTSA).

NASS provides an automated, comprehensive national traffic accident data base. Data collection began in 1979 in 10 geographic sites, called Primary Sampling Units (PSU's). The 1991 NASS file contains data from 24 PSU's. These data are weighted to represent all police reported motor vehicle accidents occurring in the USA during the year involving passenger cars, light trucks and vans that were towed due to damage.

The structure of the NASS was changed in 1988 to the Crashworthiness Data System (CDS), therefore comparing the 1988-1991 files with files from years prior to 1988 is not recommended. The principal attributes of the NASS CDS 1988-1991 files include: focusing on accidents involving automobiles and automobile derivatives, light trucks and vans with gross vehicle weight less than 10,000 pounds; giving special consideration to late model vehicles (the five most recent model years); emphasizing the more serious injury accidents; eliminating the pedestrian and non-motorist record, the driver record and vehicle registration information. A revised set of data collection forms was designed in 1988 for the crashworthiness data system. Some features are: the introduction of an Accident Event Record to capture all events in the accident; the creation of three new vehicle records (General Vehicle, External Vehicle, Internal Vehicle); and the separation of occupant records into an Occupant Assessment Record and an Occupant Injury Record, wherein all injuries are coded.

The 1991 NASS file is available in two automated formats: a sequential data set or a Statistical Analysis System (SAS) data set. Hard copy data collection records, sanitized to protect privacy, are available for review. These records contain photographic slides, scene diagrams, and vehicle damage diagrams.

This manual and the NASS Data Collection, Coding and Editing Manual - 1991 Crashworthiness Data System are the primary documentation supporting the automated file. When using this file one should be careful to understand the coding conventions of all variables used thoroughly. In addition, the user may find the following documents helpful:

CRASH3 Technical Manual, July 1986

Collision Deformation Classification (SAE J224 MAR 84)

Injury Coding Manual 1988

NASS Design for Crashworthiness Research, April 1986
(Internal Working Paper)

General Description of the NASS Crashworthiness Data System
Sample Design, April 1987 (Internal Working Paper)

The first document is available from the DOT/Volpe National Transportation Systems Center (VNTSC), DTS-44, Kendall Square, Cambridge, Massachusetts 02142. The second document is available from the Society of Automotive Engineers (SAE), Warrendale, Pennsylvania 15096. The last three documents are available from National Highway Traffic Safety Administration at the address below.

Comments on the content and utility of the files and primary documentation are appreciated. Please address them to the National Center for Statistics and Analysis - NRD-30, National Highway Traffic Safety Administration, U.S. Department of Transportation, 400 Seventh St., S.W., Washington, D.C. 20590.

SECTION 2

CHANGES IN 1991

New data elements were added to the NASS CDS covering the examination for and detection of "other drugs" i. e., drugs other than alcohol, multistage manufactured or altered vehicles, fire occurrence and origin, fuel tank types, air bags and automatic belt types, proper usage and failures. A detailed list of changes by record type and data element follows.

ACCIDENT RECORD

AOPS SPECIAL STUDY (AC07): Not Active in 1991.

AOPS FATALITY SPECIAL STUDY (AC08): Fatality in AOPS equipped late model vehicle. Not activated until September 1991.

GENERAL VEHICLE RECORD

POLICE REPORTED ALCOHOL OR DRUG PRESENCE (GV11): Split into two data elements, (1) POLICE REPORTED ALCOHOL PRESENCE (GV11) and (2) POLICE REPORTED OTHER DRUG PRESENCE (GV37).

Other new General Vehicle data elements:

POLICE REPORTED OBSERVATION/PERCEPTION TEST TYPE FOR DRIVER (GV38) and OTHER DRUG SPECIMEN TEST TYPE FOR DRIVER (GV39).

Two new data elements were added for each of seven categories of drugs:
OBSERVATION/PERCEPTION TEST RESULTS and SPECIMEN TEST RESULTS.
NARCOTIC DRUG (GV40 AND GV41)
DEPRESSANT DRUG (GV42 AND GV43)
STIMULANT DRUG (GV44 AND GV45)
HALLUCINOGEN DRUG (GV46 AND GV47)
CANNABINOID DRUG (GV48 AND GV49)
PHENCYCLIDINE DRUG (GV50 AND GV51)
INHALANT DRUG (GV52 AND GV53)
OTHER DRUG (GV54 AND GV55)

EXTERIOR VEHICLE RECORD

Four new data elements were added:

IS THIS A MULTI-STAGE MANUFACTURED VEHICLE AND/OR A CERTIFIED ALTERED VEHICLE? (EV29)
FIRE OCCURRENCE (EV30)
ORIGIN OF FIRE (EV31)

TYPE OF FUEL TANK(EV32)

INTERIOR VEHICLE RECORD

Four data elements were deleted:

STEERING COLUMN COLLAPSE DUE TO OCCUPANT LOADING (TV88)

DIRECTION AND MAGNITUDE OF STEERING COLUMN MOVEMENT

VERTICAL MOVEMENT (TV89)

LATERAL MOVEMENT (TV90)

LONGITUDINAL MOVEMENT (TV91)

OCCUPANT ASSESSMENT RECORD

A new attribute was added to the first through fourth rows of the data element OCCUPANT'S SEAT POSITION (OA10):

ON OR IN THE LAP OF ANOTHER OCCUPANT

FRONT SEAT (15)

SECOND SEAT (25)

THIRD SEAT (35)

FOURTH SEAT (45)

Three automatic restraint data elements were split into air bag and automatic belt.

AUTOMATIC (PASSIVE) RESTRAINT SYSTEM AVAILABILITY (OA21): Split into (1) AIR BAG SYSTEM AVAILABILITY/FUNCTION (OA21) and (2) AUTOMATIC (PASSIVE) BELT SYSTEM AVAILABILITY (OA44).

AUTOMATIC (PASSIVE) RESTRAINT FUNCTION (OA22): Split into (1) AIR BAG SYSTEM DEPLOYMENT (OA22) and (2) AUTOMATIC (PASSIVE) BELT SYSTEM USE (OA45).

DID AUTOMATIC (PASSIVE) RESTRAINT FAIL? (OA23): Split into (1) DID AIR BAG SYSTEM FAIL? (OA23) and (2) AUTOMATIC (PASSIVE) BELT FAILURE MODES DURING ACCIDENT (OA48).

Two additional automatic belt data elements were added:

AUTOMATIC (PASSIVE) BELT SYSTEM TYPE (OA46) and

PROPER USE OF AUTOMATIC (PASSIVE) BELT SYSTEM (OA47).

SECTION 3

THE SAMPLING SYSTEM AND SAMPLE DESIGN

The accidents investigated in NASS CDS are a probability sample of all police reported accidents in the U.S. A NASS CDS accident must fulfill the following requirements: must be police reported, must involve a harmful event (property damage and/or personal injury) resulting from an accident and must involve at least one towed passenger car or light truck or van in transport on a trafficway. Every accident which meets these conditions has a chance of being selected. This type of sample design makes it possible to compute estimates which are representative of the entire country.

The selection of sample accidents in NASS is accomplished in three stages: (1) selection of PSU's, (2) selection of police jurisdictions and (3) selection of accidents.

Stage 1 - Select PSU's

For the first stage of selection, the country was divided into 1195 geographic areas called Primary Sampling Units (PSU's). Each PSU consisted either of a large city, a county, a group of contiguous counties, a central city or the balance of a county which was not part of a central city. The PSU's were defined so that their minimum population was approximately 50,000.

The 1195 PSU's were grouped into 12 strata based on geographic region and type, e.g., large central city, other central cities and suburban counties, and other PSU's. The 24 PSU's to be sampled were allocated to each stratum roughly proportional to the number of accidents in each stratum. At least two PSU's were selected from each stratum.

Stage 2 - Select Police Jurisdictions

If every accident in each PSU were investigated, a national estimate could be obtained by weighting each accident by the inverse of the probability of selecting the PSU. Because it is uneconomical and impractical to investigate every accident in each sample PSU, a second and third stage of sampling are performed. Each PSU contains a number of police jurisdictions which process reports of accidents that occur within the PSU's boundaries. These police jurisdictions form the frame of the second stage of sampling. Each jurisdiction is assigned a measure of size based on the number, severity and type of its accidents. A sample of jurisdictions is selected which over-samples those having a larger measure of size.

Stage 3 - Select Accidents

The final stage of sampling is the selection of accidents within the sampled jurisdictions. Each

week, the police jurisdictions are contacted and all accidents that qualify for the NASS CDS for which a police accident report has been filed since the last date that jurisdiction was contacted are listed. While being listed, each accident is classified into a stratum based on type of vehicle, most severe police reported injury, disposition of the injured, tow status of the vehicles and model year of the vehicles. All qualifying accidents are listed, except in a few of the largest police jurisdictions. In these jurisdictions only accidents with either an even or an odd police accident report number are listed.

To select accidents, each team is assigned a fixed number of accidents to investigate each week. The number of accidents a team selects for investigation is governed by the number of researchers on a team. Sampling weights for the strata are assigned so that a larger percentage of the higher severity accidents is selected than of the lower severity accidents. Also, accidents in the same stratum have the same probability of being selected, regardless of the PSU.

To select the sample, each accident is assigned a weight equal to the inverse of the probability of selecting the police jurisdiction in which it was listed.

SAMPLING VARIABLES

The stratification category (1) by type of vehicle is "CDS applicable"---passenger cars, light trucks and vans and "other vehicles"---all other vehicle types; (2) by injury is "fatal injury"---K, "serious injury"---A or "minor injury, not injured or unknown"---B,C,O,U; (3) by disposition of the injured is "transported to a medical facility" or "not transported"; (4) by tow status is "towed due to damage" or "not towed", (5) by model year of the vehicle is "late model year"---1987 through 1992 or "non-late model year"---1985 or before.

SAMPLING STRATA

The eight PAR sampling Strata used by the CDS are listed below and shown in Table 2-1.

Stratum A-NASS accidents in which at least one occupant of a towed CDS applicable late model year vehicle had a police reported injury of "K" (fatal injury).

Stratum B-NASS accidents not qualifying for Stratum A in which at least one occupant of a towed CDS applicable non-late model year vehicle had a police reported injury of "K" (fatal injury).

Stratum C-NASS accidents not qualifying for Strata A or B in which at least one occupant of a towed CDS applicable late model year vehicle had a police reported injury of "A" (incapacitating injury) AND was transported to a treatment facility for treatment. If the accident involved more than one CDS applicable vehicle, then at least two CDS applicable vehicles must be towed.

Stratum D-NASS accidents not qualifying for Strata A, B or C in which at least one occupant of a towed CDS applicable non-late model year vehicle had a police reported injury of "A" (incapacitating injury) AND was transported to a treatment facility for treatment. If the accident involved more than one CDS applicable vehicle, then at least two CDS applicable vehicles must be towed.

Stratum E-NASS accidents not qualifying for Strata A, B, C or D in which at least one occupant of towed CDS applicable late model vehicle was transported from the scene to a treatment facility for treatment.

Stratum F-NASS accidents not qualifying for Strata A, B, C, D or E in which at least one occupant of a towed CDS applicable non-late model vehicle was transported from the scene to a treatment facility for treatment.

Stratum G-NASS accidents not qualifying for Strata A, B, C, D, E or F which involve at least one CDS applicable late model vehicle that was towed, according to the police report, from the scene due to damage.

Stratum H-NASS accidents not qualifying for Strata A, B, C, D, E, F or G which involve at least one CDS applicable non-late model vehicle that was towed, according to the police report, from the scene due to damage.

Example of Accident Stratification: A CDS applicable non-late model year vehicle and a bicycle crash. The CDS applicable vehicle is towed with minor injuries to the occupants, who are not transported. The bicyclist receives a serious injury---"A". The accident is classified as Stratum H because of the minor injuries to the occupants of the towed CDS applicable non-late model year vehicle.

Table 2-1
1991 NASS CDS Strata

Late Model Year (LMV) Vehicle Involve- ment	Most Severe Police Reported Injury					
	Transported				Nontransported	
	Fatal Injury "K"	Serious Injury "A"		Minor Injury or Unk. "B", "C", or "U"	Minor Injury, Not Injured or Unknown	
		Single CDS Veh.	Multiple CDS Applicable Vehicles		At Least One Towed CDS Applic. Veh.	No Towed CDS. Appli. Veh.
	Towed	Two or More Towed	Only One Towed			
Injury in Towed, LMY, CDS Veh.	A	C		E	G	NOT IN
Injury not in Towed, LMY, CDS Vehicle	B	D		F	H	SCOPE

Note Late Model Year refers to 1987 through 1992 model years

Sampling

Because the accidents selected in NASS CDS are a probability sample of all accidents occurring in the survey year, the data from these accidents can be "weighted" to produce either PSU or National Estimates. The weights or "Inflation Factors" result from the stages of selection, reflecting that accident's probability of selection. There are three weights on this analysis file.

PSU Inflation Factor

The PSU Inflation Factor is the within PSU sampling weight for each accident in that PSU's sample and is equal to the inverse of that accident's probability of selection within the PSU. It is equal to the product of the inverse of the probability of selecting that accident from the other accidents and the inverse of the probability of selecting the police jurisdiction in which the accident occurred from among all police jurisdictions listed in the PSU (Stage 2).

The sum of the PSU Inflation Factors for all accidents sampled within a PSU is an unbiased estimate of the number of accidents which occurred during the year in that PSU. Unbiased estimates of accident characteristics for a PSU can be obtained by multiplying the value of the characteristic for each accident sampled in the PSU by that accident's PSU Inflation Factor and summing.

National Inflation Factor

The National Inflation Factor is the overall sampling weight for each accident selected in the NASS sample and the inverse of the probability of selection of that accident. It is equal to product of the PSU Inflation Factor and the inverse of the probability of selection of the PSU (Stage 1).

The sum of the National Inflation Factors for all sampled NASS accidents in a year is an unbiased estimate of the total number of accidents which occurred during the year in the U.S. If restricted to an accident stratum, the sum is an estimate of the total number of that type of accident which occurred in that year. Unbiased estimates of National totals of accident characteristics can be obtained by multiplying the value of the characteristic for each accident in the NASS sample by the National Inflation Factor for that accident.

Ratio Inflation Factor

The Ratio Inflation Factor is the product of the National Inflation Factor and a rate which adjusts for differences between actual and estimated totals. This ratio is calculated using accident totals from both the sampled and non-sampled police jurisdictions. The totals for the sampled jurisdictions come from the Stage 3 frame. The totals for the non-sampled jurisdictions are collected periodically. The PSU's are grouped into predetermined sets. Ratios are formed by dividing the total accidents in each stratum and in each set of PSU's by the estimated total. Those estimated totals are sums of the PSU Inflation Factors for each accident in the accident strata and set of PSU's.

Estimates of National totals for accident characteristics can be obtained using the Ratio Inflation Factor. However, because the Ratio Inflation Factors have been adjusted to actual accident counts, some of the sampling variation has been removed. Therefore they will produce more precise estimates than the National Inflation Factor.

SECTION 4

DERIVED VARIABLES

Most of the data presented in the NASS record layout can be identified easily as coming from accident investigation and other activities of NASS field teams. The following data elements, however, are by-products of sampling procedures used by NASS or are derived from data processing applications, such as totaling the number of injured persons in a given accident. The following list identifies the specific data elements, gives their location in the Sequential File Record Layout and explains their derivation.

SPECIFICATION FOR DERIVED VARIABLES
VARIABLE NAME - LOCATION - DESCRIPTION

MAXIMUM TREATMENT (AC29) (SAS Label: ATREAT)

This single place numeric value indicates the most intensive treatment given to any occupant of a towed CDS applicable vehicle or non-towed CDS applicable AOPS vehicle in the accident, using the following order of codes:

- 1 FATAL
- 3 HOSPITALIZED
- 4 TRANSPORTED AND RELEASED
- 5 TREATMENT AT SCENE
- 6 TREATMENT LATER
- 8 TREATMENT - OTHER
- 2 FATAL - RULED DISEASE
- 9 UNKNOWN
- 0 NO TREATMENT
- . NOT COLLECTED

This variable is derived by scanning the TREATMENT-MORTALITY (OA35) variable in each occupant assessment record in the accident.

Source: TREATMENT-MORTALITY (OA35).

Missing Values: Occupant assessment records will be missing for: (1) Non CDS applicable vehicles-BODY TYPE (GV07) equals 50-99; (2) Non-towed CDS applicable Non AOPS vehicles-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV09) equals 0 or 9 and IS THIS AN AOPS VEHICLE? (GV36) equals 0; (3) Towed CDS applicable vehicles with no occupants-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV09) equals 1 and NUMBER OF OCCUPANT FORMS SUBMITTED (GV18) equals 0. If there are no occupants in any towed CDS applicable vehicle in the accident, then use code "BLANK" (Not Collected) on the Flat file and ".N" (Not Collected) on the SAS file.

SAS Codes: .N for Blank (Not Collected) and .U for 9 (Unknown).

MAXIMUM KNOWN A.I.S. (AC30) (SAS Label: AAIS)

This single place numeric value indicates the single most severe injury level reported for any occupant of a towed CDS applicable vehicle or non-towed CDS applicable AOPS vehicle in the accident, using the following order of codes:

- 6 MAXIMUM (UNTREATABLE) INJURY
- 5 CRITICAL INJURY
- 4 SEVERE INJURY
- 3 SERIOUS INJURY
- 2 MODERATE INJURY

1	MINOR INJURY
7	INJURY, UNKNOWN SEVERITY
9	UNKNOWN IF INJURED
0	NOT INJURED
.	NOT COLLECTED

This variable is derived by scanning the A.I.S. SEVERITY (OI010...OI100) variable on each occupant injury record in the accident. If none of the occupants in the accident has an occupant injury record, then scan the NUMBER OF RECORDED INJURIES FOR THIS OCCUPANT (OA43) variable on the occupant assessment record. Use the following order of codes: if "97", then code "7"; if "99", then code "9"; if "00", then code "0".

Source: A.I.S. SEVERITY (OI010...OI100) and NUMBER OF RECORDED INJURIES FOR THIS OCCUPANT (OA43).

Missing Values: Occupant injury and occupant assessment records will be missing for: (1) Non CDS applicable vehicles-BODY TYPE (GV07) equals 50-99; (2) Non-towed CDS applicable Non AOPS vehicles-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV09) equals 0 or 9 and IS THIS AN AOPS VEHICLE? (GV36) equals 0; (3) Towed CDS applicable vehicles with no occupants-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV09) equals 1 and NUMBER OF OCCUPANT FORMS SUBMITTED (GV18) equals 0. Occupant injury records will be missing for: (1) Towed CDS applicable vehicles with no known occupant injuries-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV09) equals 1 and NUMBER OF RECORDED INJURIES THIS OCCUPANT (OA43) equals 97, 99 or 00; (2) Non-towed CDS applicable AOPS vehicles with no known occupant injuries-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV09) equals 0 or 9, IS THIS AN AOPS VEHICLE? (GV36) equals 1 and NUMBER OF RECORDED INJURIES THIS OCCUPANT (OA43) equals 97, 99 or 00. If there are no occupants in any towed CDS applicable vehicle in the accident, then use code "BLANK" (Not Collected) on the Flat file and ".N" (Not Collected) on the SAS file.

SAS Codes: .N for Blank (Not Collected) and .U for 9 (Unknown).

NUMBER OF SERIOUSLY INJURED OCCUPANTS (AC31-32) (SAS Label: AINJSER)

This two place numeric value indicates the total number of fatally and other seriously injured occupants of towed CDS applicable vehicles or non-towed CDS applicable AOPS vehicles involved in the accident. It is derived by totaling for the accident either the number of occupant assessment records in which the TREATMENT-MORTALITY (OA35) value is coded "1" (Fatal) or the number of occupant injury records in which the A.I.S. SEVERITY (OI010...OI100) value is coded "3-6". (Add together "1"s in OA35 and if the code in OA35 is not equal to "1", add one injury per occupant where OI010...OI100 is "3-6").

Source: TREATMENT-MORTALITY (OA35) and A.I.S. SEVERITY (OI010...OI100).

Missing Values: Occupant injury and occupant assessment records will be missing

for: (1) Non CDS applicable vehicles-BODY TYPE (GV07) equals 50-99; (2) Non-towed CDS applicable Non AOPS vehicles-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV09) equals 0 or 9 and IS THIS AN AOPS VEHICLE? (GV36) equals 0; (3) Towed CDS applicable vehicles with no occupants-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV09) equals 1 and NUMBER OF OCCUPANT FORMS SUBMITTED (GV18) equals 0. Occupant injury records will be missing for: (1) Towed CDS applicable vehicles with no known occupant injuries-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV09) equals 1 and NUMBER OF RECORDED INJURIES THIS OCCUPANT (OA43) equals 97, 99 or 00; (2) Non-towed CDS applicable AOPS vehicles with no known occupant injuries-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV09) equals 0 or 9, IS THIS AN AOPS VEHICLE? (GV36) equals 1 and NUMBER OF RECORDED INJURIES THIS OCCUPANT (OA43) equals 97, 99 or 00. If none of the occupants in the accident has an occupant injury record or if, on all the occupant assessment records the only codes in OA43 are equal to "97, 99 or 00", then use code "0" (None) for this derived variable. If there are no occupants in any towed CDS applicable vehicle in the accident, then use code "BLANK" (Not Collected) on the Flat file and ".N" (Not Collected) on the SAS file.

SAS Codes: .N for Blank (Not Collected). Unknown is not a valid code.

NUMBER OF INJURED OCCUPANTS (AC33-34) (SAS Label: AINJURED)

This two place numeric value indicates the total number of injured occupants of towed CDS applicable vehicles or non-towed CDS applicable AOPS vehicles involved in the accident. It is derived by totaling the number of occupant assessment records in which the variable NUMBER OF RECORDED INJURIES FOR THIS OCCUPANT (OA43) has a value of 01-97.

Source: NUMBER OF RECORDED INJURIES FOR THIS OCCUPANT (OA43).
Missing Values: Occupant assessment records will be missing for: (1) Non CDS applicable vehicles-BODY TYPE (GV07) equals 50-99; (2) Non-towed CDS applicable Non AOPS vehicles-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV09) equals 0 or 9 and IS THIS AN AOPS VEHICLE? (GV36) equals 0; (3) Towed CDS applicable vehicles with no occupants-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV09) equals 1 and NUMBER OF OCCUPANT FORMS SUBMITTED (GV18) equals 0. Towed CDS applicable vehicles with no known occupant injuries will have codes-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV09) equals 1 and NUMBER OF RECORDED INJURIES THIS OCCUPANT (OA43) equals 99 or 00. Non-towed CDS applicable AOPS vehicles with no known occupant injuries will have codes-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV09) equals 0 or 9, IS THIS AN AOPS VEHICLE (GV36) equals 1 and NUMBER OF RECORDED INJURIES THIS OCCUPANT (OA43) equals 99 or 00. If, on all the occupant assessment records in the accident, the only codes in OA43 are equal to "99 or 00", then use code "0" (None) for this derived variable. If there are no occupants in any towed CDS applicable vehicle in the accident, then use code "BLANK" (Not Collected) on the

Flat file and ".N" (Not Collected) on the SAS file.

SAS Codes: .N for Blank (Not Collected). Unknown is not a valid code.

ALCOHOL INVOLVED (AC35) (SAS Label: ALCINV)

This single place numeric value indicates if any involved driver were reported to have had some alcohol involvement at the time of the accident, using the following order of codes:

- 1 YES
- 2 NO
- 9 UNKNOWN

This variable is derived by scanning the POLICE REPORTED ALCOHOL PRESENCE (GV11) and ALCOHOL TEST RESULT FOR DRIVER (GV12) variables on each general vehicle record in the accident. The ALCOHOL INVOLVED codes are derived as follows:

(YES) 1 - If POLICE REPORTED ALCOHOL PRESENCE equals 1 (YES-ALCOHOL PRESENT) or ALCOHOL TEST RESULT FOR DRIVER equals 01-49 (positive result).

(NO) 2 - If POLICE REPORTED ALCOHOL PRESENCE equals 0 (NO ALCOHOL PRESENT) and ALCOHOL TEST RESULT FOR DRIVER equals 00 (NONE) or 96 (NONE GIVEN).

(UNKNOWN) 9 - If the variables shown above have any other combination of values.

Source: POLICE REPORTED ALCOHOL PRESENCE (GV11) and ALCOHOL TEST RESULT FOR DRIVER (GV12).

Missing Values: None (must have at least one general vehicle record coded through the variable ACCIDENT TYPE (GV15) in the accident).

SAS Codes: .U for 9 (Unknown).

DAY OF WEEK (AC36-37) (SAS Label: DAYWEEK)

This two place numeric value indicates on which day of the week the accident occurred. To protect the confidentiality of records concerning specific accidents used by NASS, the accident date is not provided. Instead, the accident record indicates year, month and DAY OF WEEK of accident occurrence. DAY OF WEEK values are coded as follows:

- | | | | |
|----|-----------|----|----------|
| 01 | Sunday | 05 | Thursday |
| 02 | Monday | 06 | Friday |
| 03 | Tuesday | 07 | Saturday |
| 04 | Wednesday | | |

Source: DATE OF ACCIDENT (AC04).

Missing Values: None.

SAS codes: None. Unknown is not a valid code.

PSU INFLATION FACTOR (AC38-45) (SAS Label: PSUWGT)

This eight place numeric value has three implied decimal places. It indicates the within PSU sampling weight for each accident in that PSU's sample.

Source: Computed by NHTSA Headquarters.

Missing Values: None.

SAS Codes: None.

NATIONAL INFLATION FACTOR (AC46-53) (SAS Label: NATWGT)

This eight place numeric value has three implied decimal places. It indicates the overall sampling weight for each accident selected in the NASS sample.

Source: Computed by NHTSA Headquarters.

Missing Values: None.

SAS Codes: None.

RATIO INFLATION FACTOR (AC54-61) (SAS Label: RATWGT)

This eight place numeric value has three implied decimal places. It is the product of the National Inflation Factor and a ratio which adjusts for differences between actual and estimated totals.

Source: Computed by NHTSA Headquarters.

Missing Values: None.

SAS Codes: None.

DRUG INVOLVED (AC62) (SAS Label: DRGINV)

This single place numeric value indicates if any involved driver were reported to have had some drug involvement at the time of the accident, using the following order of codes:

- 1 YES
- 2 NO
- 3 UNKNOWN

This variable is derived by scanning the POLICE REPORTED OTHER DRUG PRESENCE (GV37) and the variables reporting SPECIMEN TEST RESULTS for NARCOTIC, DEPRESSANT, STIMULANT, HALLUCINOGEN, CANNABINOID, PHENCYCLIDINE, INHALANT and OTHER DRUGS (GV41, GV43, GV45, GV47, GV49, GV51, GV53 and GV55) on each general vehicle record in the accident. The DRUG INVOLVED codes are derived as follows:

(YES) 1 - If POLICE REPORTED OTHER DRUG PRESENCE equals 1 (YES - OTHER DRUG PRESENT) or NARCOTIC DRUG - SPECIMEN TEST RESULTS equals 2 (DRUG FOUND IN SPECIMEN) or DEPRESSANT DRUG equals 2 or STIMULANT DRUG equals 2 or HALLUCINOGEN DRUG equals 2 or CANNABINOID DRUG equals 2 or PHENCYCLIDINE DRUG equals 2 or

INHALANT DRUG equals 2 or OTHER DRUG equals 2.

(NO) 2 -If POLICE REPORTED OTHER DRUG PRESENCE equals 0 (NO OTHER DRUGS PRESENT) and [NARCOTIC DRUG - SPECIMEN TEST RESULTS equals 0 (NO SPECIMEN TEST GIVEN) or 1 (DRUG NOT FOUND IN SPECIMEN)] and [DEPRESSANT DRUG equals 0 or 1] and [STIMULANT DRUG equals 0 or 1] and [HALLUCINOGEN DRUG equals 0 or 1] and [CANNABINOID DRUG equals 0 or 1] and [PHENCYCLIDINE DRUG equals 0 or 1] and [INHALANT DRUG equals 0 or 1] and [OTHER DRUG equals 0 or 1].

(UNKNOWN) 9 - If the variables shown above have any other combination of values.

Source: POLICE REPORTED OTHER DRUG PRESENCE (GV37) and NARCOTIC DRUG - SPECIMEN TEST RESULTS (GV41) and DEPRESSANT DRUG (GV43) and STIMULANT DRUG (GV45) and HALLUCINOGEN DRUG (GV47) and CANNABINOID DRUG (GV49) and PHENCYCLIDINE DRUG (GV51) and INHALANT DRUG (GV53) and OTHER DRUG (GV55).

Missing Values: None (must have at least one general vehicle record coded from variable GV37 through GV55 in the accident).

SAS Codes: .U for 9 (Unknown).

MANNER OF COLLISION (AC63) SAS Label: MANCOLL)

This single place numeric value indicates the configuration of the accident based on the first harmful event, using the following codes:

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

This variable is derived by scanning the OBJECT CONTACTED (AC16) variable the accident event record and the ACCIDENT TYPE (GV15) variable on the general vehicle record, where VEHICLE NUMBER (AC13) equals VEHICLE NUMBER (GV03). The MANNER OF COLLISION codes are derived as follows:

- 0 (NOT COLLISION WITH VEHICLE IN TRANSPORT) - If OBJECT CONTACTED equals 31-99.
- 1 (REAR-END) - If OBJECT CONTACTED equals 01-30 and ACCIDENT TYPE equals 20-43.
- 2 (HEAD-ON) - If OBJECT CONTACTED equals 01-30 and ACCIDENT TYPE equals 50-63.
- 4 (ANGLE) - If OBJECT CONTACTED equals 01-30 and ACCIDENT TYPE equals 68-91.
- 5 (SIDESWIPE, SAME DIRECTION) - If OBJECT CONTACTED equals 01-30 and ACCIDENT TYPE equals 44-49.

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

Source: OBJECT CONTACTED (AC16) and ACCIDENT TYPE (GV15).

Missing Values: None (must have at least one general vehicle record coded through the variable ACCIDENT TYPE [GV15] in the accident.

SAS Codes: .U for 9 (Unknown).

MAXIMUM TREATMENT IN THIS VEHICLE (GV107) (SAS Label: VTREAT)

This single place numeric value indicates the most intensive treatment given to any occupant of this towed CDS applicable vehicle or non-towed CDS applicable AOPS vehicle using the following order of codes:

- 1 FATAL
- 3 HOSPITALIZED
- 4 TRANSPORTED AND RELEASED
- 5 TREATMENT AT SCENE
- 6 TREATMENT LATER
- 8 TREATMENT - OTHER
- 2 FATAL - RULED DISEASE
- 9 UNKNOWN
- 0 NO TREATMENT
- . NOT COLLECTED

This variable is derived by scanning the TREATMENT-MORTALITY (OA35) variable in each occupant assessment record in this vehicle.

Source: TREATMENT-MORTALITY (OA35).

Missing Values: Occupant assessment records will be missing for: (1) Non CDS applicable vehicles-BODY TYPE (GV07) equals 50-99; (2) Non-towed CDS applicable Non AOPS vehicles-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV09) equals 0 or 9 and IS THIS AN AOPS VEHICLE? (GV36) equals 0; (3) Towed CDS applicable vehicles with no occupants-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV09) equals 1 and NUMBER OF VEHICLE FORMS SUBMITTED (GV18) equals 0. If none of the occupants in the vehicle has an occupant assessment record, then use code "BLANK" (Not Collected) on the Flat file and ".N" (Not Collected) on the SAS file.

SAS Codes: .N for Blank (Not Collected) and .U for 9 (Unknown).

MAXIMUM KNOWN A.I.S. IN THIS VEHICLE (GV108) (SAS Label: VAIS)

This single place numeric value indicates the single most severe injury level reported for any occupant in this towed CDS applicable vehicle or non-towed CDS applicable AOPS vehicle using the following order of codes:

6	MAXIMUM (UNTREATABLE) INJURY
5	CRITICAL INJURY
4	SEVERE INJURY
3	SERIOUS INJURY
2	MODERATE INJURY
1	MINOR INJURY
7	INJURY, UNKNOWN SEVERITY
9	UNKNOWN IF INJURED
0	NOT INJURED
.	NOT COLLECTED

This variable is derived by scanning the A.I.S. SEVERITY (OI010...OI100) variable on each occupant injury record in this towed CDS applicable vehicle or non-towed CDS applicable AOPS vehicle. If none of the occupants in this vehicle has an occupant injury record, then scan the NUMBER OF RECORDED INJURIES FOR THIS OCCUPANT (OA43) variable on the occupant assessment record. Use the following order of codes: if "97", then code "7"; if "99", then code "9"; if "00", then code "0".

Source: A.I.S. SEVERITY (OI010...OI100) and NUMBER OF RECORDED INJURIES FOR THIS OCCUPANT (OA43).

Missing Values: Occupant injury and occupant assessment records will be missing for: (1) Non CDS applicable vehicles-BODY TYPE (GV07) equals 50-99; (2) Non-towed CDS applicable Non AOPS vehicles-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV09) equals 0 or 9 and IS THIS AN AOPS VEHICLE? (GV36) equals 0; (3) Towed CDS applicable vehicles with no occupants-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV09) equals 1 and NUMBER OF VEHICLE FORMS SUBMITTED (GV18) equals 0. Occupant injury records will be missing for: (1) Towed CDS applicable vehicles with no known occupant injuries-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV09) equals 1 and NUMBER OF RECORDED INJURIES THIS OCCUPANT (OA43) equals 97, 99 or 00; (2) Non-towed CDS applicable AOPS vehicles with no known occupant injuries-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV09) equals 0 or 9, IS THIS AN AOPS VEHICLE? (GV36) equals 1 and NUMBER OF RECORDED INJURIES THIS OCCUPANT (OA43) equals 97, 99 or 00. If none of the occupants in the vehicle has an occupant assessment record, then use code "BLANK" (Not Collected) on the Flat file and use ".N" (Not Collected) on the SAS file.

SAS Codes: .N for Blank (Not Collected) and .U for 9 (Unknown).

NUMBER SERIOUSLY INJURED IN THIS VEHICLE (GV109-110) (SAS Label: VINJSER)

This two place numeric value indicates the total number of fatally and other seriously injured occupants of this towed CDS applicable vehicle or non-towed CDS applicable AOPS vehicle. It is derived by totaling for the vehicle either the number of occupant assessment records in which the TREATMENT-MORTALITY (OA35) value is coded "1" (Fatal) or the number of occupant injury records in which the A.I.S. SEVERITY

(OI010...OI100) value is coded "3-6". (Add together "1"s in OA35 and if the code in OA35 is not equal to "1", add one injury per occupant where OI010...OI100 is "3-6").

Source: TREATMENT-MORTALITY (OA35) and A.I.S. SEVERITY (OI010...OI100).

Missing Values: Occupant injury and occupant assessment records will be missing for: (1) Non CDS applicable vehicles-BODY TYPE (GV07) equals 50-99; (2) Non towed CDS applicable Non AOPS vehicles-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV09) equals 0 or 9 and IS THIS AN AOPS VEHICLE? (GV36) equals 0; (3) Towed CDS applicable vehicles with no occupants-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV09) equals 1 and NUMBER OF VEHICLE FORMS SUBMITTED (GV18) equals 0. Occupant injury records will be missing for: (1) Towed CDS applicable vehicles with no known occupant injuries-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV09) equals 1 and NUMBER OF RECORDED INJURIES THIS OCCUPANT (OA43) equals 97, 99 or 00; (2) Non towed CDS applicable AOPS vehicles with no known occupant injuries-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV09) equals 0 or 9, IS THIS AN AOPS VEHICLE? (GV36) equals 1 and NUMBER OF RECORDED INJURIES THIS OCCUPANT (OA43) equals 97, 99 or 00.

If none of the occupants in the vehicle has an occupant assessment record, then use code "BLANK" (Not Collected) on the Flat file and use ".N" (Not Collected) on the SAS file. If, on all the occupant assessment records in the vehicle, the only codes in OA43 are equal to "97, 99 or 00", then use code "0" (None) for this derived variable.

SAS Codes: .N for Blank (Not Collected). Unknown is not a valid code.

NUMBER INJURED IN THIS VEHICLE (GV111-112) (SAS Label: VINJURED)

This two place numeric value indicates the total number of injured occupants of this towed CDS applicable vehicle or non-towed CDS applicable AOPS vehicle. It is derived by totaling the number of occupant assessment records in which the variable NUMBER OF RECORDED INJURIES FOR THIS OCCUPANT (OA43) has a value of 01-97.

Source: NUMBER OF RECORDED INJURIES FOR THIS OCCUPANT (OA43).
Missing Values: Occupant assessment records will be missing for: (1) Non CDS applicable vehicles-BODY TYPE (GV07) equals 50-99; (2) Non-towed CDS applicable Non AOPS vehicles-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV09) equals 0 or 9 and IS THIS AN AOPS VEHICLE? (GV36) equals 0; (3) Towed CDS applicable vehicles with no occupants-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV09) equals 1 and NUMBER OF VEHICLE FORMS SUBMITTED (GV18) equals 0. Towed CDS applicable vehicles with no known occupant injuries will have codes-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV09) equals 1 and NUMBER OF RECORDED INJURIES THIS OCCUPANT

(OA43) equals 99 or 00. Non-towed CDS applicable AOPS vehicles with no known occupant injuries will have codes-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV09) equals 0 or 9, IS THIS AN AOPS VEHICLE? (GV36) equals 1 and NUMBER OF RECORDED INJURIES THIS OCCUPANT (OA43) equals 99 or 00. If none of the occupants in the vehicle has an occupant assessment record, then use code "BLANK" (Not Collected) on the Flat file and ".N" (Not Collected) on the SAS file. If, on all the occupant assessment records in the vehicle, the only codes in OA43 are equal to "99 or 00", then use code "0" (None) for this derived variable.

SAS Codes: .N for Blank (Not Collected). Unknown is not a valid code.

FRONT/REAR WHEEL DRIVE (GV113) (SAS Label: DRIVE)

This single place numeric value indicates which wheels of a passenger car are powered. Values are coded as follows:

- 1 REAR WHEEL DRIVE
- 2 FRONT WHEEL DRIVE
- 8 NOT APPLICABLE, NOT A PASSENGER CAR
- 9 UNKNOWN (FOUR WHEEL DRIVE POTENTIAL)

This variable is derived by scanning a coded table consisting of vehicle make, vehicle model and vehicle model year, to which a "drive" code has been appended.

Source: VEHICLE MODEL YEAR (GV04), VEHICLE MAKE (GV05), VEHICLE MODEL (GV06), BODY TYPE (GV07) and coded table.

Missing Values: None.

SAS Codes: .U for 9 (Unknown).

VIN LENGTH (GV114-115) (SAS Label: VINLNGTH)

This two place numeric value indicates the number of characters in the Vehicle Identification Number (VIN) as originally recorded. 99 denotes unknown (on the FLAT file).

Source: VEHICLE IDENTIFICATION NUMBER (GV08).

Missing Values: None.

SAS Codes: .U for 99 (Unknown).

WEIGHT OF THE OTHER VEHICLE (GV116-118) (SAS Label: OTVEHWGT)

This three place numeric value indicates the weight (in pounds) of the other vehicle, if the most severe impact is with another CDS applicable vehicle. (This vehicle must be an inspected CDS applicable vehicle, the other vehicle need only be a CDS applicable vehicle). Values are coded as follows:

- 010 LESS THAN 1,050 POUNDS
- 011 - 134 1,050-13,449 POUNDS
- 135 13,450 OR MORE
- 998 NOT APPLICABLE (MOST SEVERE IMPACT NOT WITH

999 ANOTHER VEHICLE OR WITH VEHICLE HITTING
ITSELF)
UNKNOWN
NOT COLLECTED

This variable is derived by scanning the OBJECT CONTACTED (EV05) variable from the HIGHEST DELTA "V" as coded on the exterior vehicle record. If the object contacted is another CDS applicable vehicle, then the weight is derived by scanning the VEHICLE CURB WEIGHT (GV19) variable as coded on the general vehicle record for the other CDS applicable vehicle.

Source: OBJECT CONTACTED (EV05), BODY TYPE (GV07) & VEHICLE CURB WEIGHT (GV19).

Missing Values: Exterior vehicle records will be missing and variables GV16-36 on general vehicle records will not be coded for Non CDS applicable vehicles-BODY TYPE (GV07) equals 50-99. If the most severe impact is between an inspected CDS applicable vehicle and a non CDS applicable vehicle, then use code "BLANK" (Not Collected) on the Flat file and use ".N" (Not Collected) on the SAS file. Exterior vehicle records will be missing for CDS applicable vehicles which are not inspected-BODY TYPE (GV07) equals 01-49 and TYPE OF VEHICLE INSPECTION (GV35) equals 0. Use code "BLANK" (Not Collected) on the Flat file and use ".N" (Not Collected) on the SAS file. If the OBJECT CONTACTED (EV05) variable is blank (non collision event) for an inspected CDS applicable vehicle, then use code 998 (Not Applicable).

SAS Codes: .N for Blank (Not Collected) and .U for 999 (Unknown)

BODY TYPE OF THE OTHER VEHICLE (GV119-120) (SAS Label: OTBDYTYP)

This two place numeric value indicates the body type of the other vehicle if the most severe impact is with another vehicle. (This vehicle must be an inspected CDS applicable vehicle, the other vehicle may be any vehicle type). If the impact is not with another vehicle, the value is coded as follows:

98 NOT APPLICABLE (MOST SEVERE IMPACT NOT WITH
ANOTHER VEHICLE OR WITH VEHICLE HITTING ITSELF)
NOT COLLECTED

This variable is derived by scanning the OBJECT CONTACTED (EV05) variable from the HIGHEST DELTA "V" as coded on the exterior vehicle record. If the object contacted is another vehicle, then the body type is derived by scanning the BODY TYPE (GV07) variable as coded on the general vehicle record for the other vehicle.

Source: OBJECT CONTACTED (EV05) and BODY TYPE (GV07).

Missing Values: Exterior vehicle records will be missing for:

- (1) Non CDS applicable vehicles-BODY TYPE (GV07) equals 50-99;
- (2) Not Inspected CDS applicable vehicles-BODY TYPE (GV07) equals 01-49 and TYPE OF VEHICLE INSPECTION (GV35) equals 0. For these vehicle types, use code "BLANK" (Not Collected) on the Flat file and ".N" (Not Collected) on the SAS file. If the OBJECT CONTACTED (EV05) variable is blank (non collision event) for

an inspected CDS applicable vehicle, then use code 98 (Not Applicable)
SAS Codes: .N for Blank (Not Collected) and .U for 99 (Unknown).

MAXIMUM KNOWN OCCUPANT A.I.S. (OA78) (SAS Label: MAIS)

This single place numeric value indicates the single most severe injury level reported for this occupant of a towed CDS applicable vehicle or non-towed CDS applicable AOPS vehicle using the following order of codes:

6	MAXIMUM (UNTREATABLE) INJURY
5	CRITICAL INJURY
4	SEVERE INJURY
3	SERIOUS INJURY
2	MODERATE INJURY
1	MINOR INJURY
7	INJURY, UNKNOWN SEVERITY
9	UNKNOWN IF INJURED
0	NOT INJURED

This variable is derived by scanning the A.I.S. SEVERITY (OI010...OI100) variable on the occupant injury record. If this occupant does not have an occupant injury record, then scan the NUMBER OF RECORDED INJURIES FOR THIS OCCUPANT (OA43) variable on the occupant assessment record. Use the following order of codes: if "97", then code "7"; if "99", then code "9"; if "00", then code "0".

Source: A.I.S. SEVERITY (OI010...OI100) and NUMBER OF RECORDED INJURIES FOR THIS OCCUPANT (OA43).

Missing Values: None (if you do not have an occupant injury record, you will have an occupant assessment record for each occupant of a towed CDS applicable vehicle or a non-towed CDS applicable AOPS vehicle). Occupant injury and occupant assessment records will be missing for: (1) Non CDS applicable vehicles-BODY TYPE (GV07) equals 50-99; (2) Non-towed CDS applicable Non AOPS vehicles-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV09) equals 0 or 9 and IS THIS AN AOPS VEHICLE? (GV36) equals 0.

Occupant injury records will be missing for: (1)Towed CDS applicable vehicles with no known occupant injuries-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV09) equals 1 and NUMBER OF RECORDED INJURIES THIS OCCUPANT (OA43) equals 97, 99 or 00; (2)Non-towed CDS applicable AOPS vehicles with no known occupant injuries-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV09) equals 0 or 9, IS THIS AN AOPS VEHICLE? (GV36) equals 1 and NUMBER OF RECORDED INJURIES THIS OCCUPANT (OA43) equals 97, 99 or 00.

SAS Codes: .U for 9 (Unknown).

OCCUPANT I.S.S. (OA79-80) (SAS Label: ISS)

This two place numeric value provides an index score indicating the relative severity of overall injury to the individual vehicle occupant of a towed CDS applicable vehicle

or a non-towed CDS applicable AOPS vehicle using the following order of codes

- 6 MAXIMUM (UNTREATABLE) INJURY
- 5 CRITICAL INJURY
- 4 SEVERE INJURY
- 3 SERIOUS INJURY
- 2 MODERATE INJURY
- 1 MINOR INJURY
- 0 NOT INJURED

It is derived by scanning the BODY REGION (OI006...OI096) and the A.I.S. SEVERITY (OI010...OI100) variables on the occupant injury record. The I.S.S. score is calculated by adding the squares of the highest A.I.S. SEVERITY entries for each of the three most severely injured body regions. For A.I.S. Code "7" (Injury, Unknown Severity), use code "0". If the occupant injury record is missing, scan the NUMBER OF RECORDED INJURIES FOR THIS OCCUPANT (OA43) variable on the occupant assessment record. If the codes in OA43 are "97, 99 or 00", then use code "0". An example of calculating an I.S.S. score is the following:

An Occupant suffered serious injury (A.I.S.=3) to the legs (Body Region 5), moderate injury (A I.S.=2) to the pelvic area (Body Region 4) and moderate to minor injuries elsewhere (A.I.S.=2). The resulting I S S. is the sum of the squares of these three A.I.S. Severity scores: $(3**2) + (2**2) + (2**2)$ or 17

Source: BODY REGION (OI006...OI096) and A.I.S. SEVERITY (OI010...OI100).

Missing Values: None (if you do not have an occupant injury record, you will have an occupant assessment record for each occupant of a towed CDS applicable vehicle or a non-towed CDS applicable AOPS vehicle). Occupant injury and occupant assessment records will be missing for: (1) Non CDS applicable vehicles-BODY TYPE (GV07) equals 50-99; (2) Non-towed CDS applicable Non AOPS vehicles-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV09) equals 0 or 9 and IS THIS AN AOPS VEHICLE? (GV36) equals 0. Occupant injury records will be missing for: (1)Towed CDS applicable vehicles with no known occupant injuries-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV09) equals 1 and NUMBER OF RECORDED INJURIES THIS OCCUPANT (OA43) equals 97, 99 or 00; (2)Non-towed CDS applicable AOPS vehicles with no known occupant injuries-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV09) equals 0 or 9, IS THIS AN AOPS VEHICLE? (GV36) equals 1 and NUMBER OF RECORDED INJURIES THIS OCCUPANT (OA43) equals 97, 99 or 00

SAS Codes: None

**SECTION 5
SEQUENTIAL ANALYTICAL FILE RECORD LAYOUTS**

ACCIDENT RECORD

1	PSU NUMBER	38	
2		39	
		40	
3		41	PSU INFLATION FACTOR
4	A SE NUMBER	42	
5		43	
6		44	
		45	
7	RECORD NUMBER (11)		
8		46	
	---	47	
9	VERSION NUMBER	48	
		49	NATIONAL INFLATION FACIOR
10	NUMBER OF GENERAL	50	
11	VEHICLE FORMS SUBMITTED	51	
		52	
12	MONTH OF ACCIDENT	53	
13			
	---	54	
14		55	
15		56	
		57	RATIO INFLATION FACTOR
16	YEAR OF ACCIDENT	58	
17		59	
	---	60	
18		61	
19	TIME OF ACCIDENT		--
20		62	DRUG INVOLVED
21			
		63	MANNER OF COLLISION
22	NOT ACTIVE		-
23	NOT ACTIVE		
24	AOFS FATALITY		
25			
26			
27	NUMBER OF RECORDED		
28	EVENTS IN THIS ACCIDENT		
29	MAXIMUM TREATMENT		
30	MAXIMUM KNOWN AIS		
31	NUMBER OF SERIOUSLY		
32	INJURED OCCUPANTS		

33	NUMBER OF INJURED OCCUPANTS		
34			
35	ALCOHOL/DRUG INVOLVEMENT		
36	DAY OF WEEK OF ACCIDENT		
37			

ACCIDENT EVENT RECORD

1 PSU NUMBER
2

3
4 CASE NUMBER
5
6

7 RECORD NUMBER (12)
8

9 VERSION NUMBER

10 ACCIDENT EVENT
11 SEQUENCE NUMBER

12 VEHICLE NUMBER (1)
13

14 CLASS OF VEHICLE (1)
15

16 GENERAL AREA OF DAMAGE (1)

17 VEHICLE NUMBER (2) OR
18 OBJECT CONTACTED

19 CLASS OF VEHICLE (2)
20

21 GENERAL AREA OF DAMAGE (2)

GENERAL VEHICLE FORM

<p>-----</p> <p>1 PSU NUMBER</p> <p>2</p> <p>-----</p> <p>3</p> <p>4 CASE NUMBER</p> <p>5</p> <p>6</p> <p>-----</p> <p>7 RECORD NUMBER (21)</p> <p>8</p> <p>-----</p> <p>9 VERSION NUMBER</p> <p>-----</p> <p>10 VEHICLE NUMBER</p> <p>11</p> <p>-----</p> <p>12 VEHICLE MODEL YEAR</p> <p>13</p> <p>-----</p> <p>14 VEHICLE MAKE</p> <p>15</p> <p>-----</p> <p>16</p> <p>17 VEHICLE MODEL</p> <p>18</p> <p>-----</p> <p>19 BODY TYPE</p> <p>20</p> <p>-----</p> <p>21</p> <p>22</p> <p>23</p> <p>24</p> <p>25 VEHICLE IDENTIFICATION</p> <p>26 NUMBER</p> <p>27</p> <p>28</p> <p>29</p> <p>30</p> <p>-----</p> <p>31</p> <p>32</p> <p>33</p> <p>34</p> <p>35</p> <p>36</p> <p>37</p> <p>-----</p> <p>38 VEHICLE DISPOSITION</p> <p>-----</p> <p>39 TRAVEL SPEED</p> <p>40</p> <p>-----</p> <p>41 ALCOHOL PRESENCE</p> <p>-----</p> <p>42 ALCOHOL TEST RESULT</p> <p>43</p> <p>-----</p> <p>44 SPEED LIMIT</p> <p>45</p> <p>-----</p> <p>46 ATTEMPTED</p> <p>47 AVOIDANCE MANEUVER</p> <p>-----</p> <p>48 ACCIDENT TYPE</p> <p>49</p> <p>-----</p> <p>50 DRIVER PRESENCE</p> <p>-----</p> <p>51 NUMBER OF OCCUPANTS</p> <p>52 THIS VEHICLE</p> <p>-----</p>	<p>-----</p> <p>53 NUMBER OF OCCUPANT FORMS</p> <p>54 SUBMITTED</p> <p>-----</p> <p>55 VEHICLE CURB WEIGHT</p> <p>56</p> <p>57</p> <p>-----</p> <p>58 VEHICLE CARGO WEIGHT</p> <p>59</p> <p>-----</p> <p>60 TOWED TRAILING UNIT</p> <p>-----</p> <p>61 DOC OF TRAJECTORY DATA</p> <p>-----</p> <p>62 CONDITION OF TREE OR POLE</p> <p>-----</p> <p>63 ROLLOVER</p> <p>-----</p> <p>64 FRONT OVERRIDE/UNDERRIDE</p> <p>-----</p> <p>65 REAR OVERRIDE/UNDERRIDE</p> <p>-----</p> <p>66 HEADING ANGLE FOR</p> <p>67 THIS VEHICLE</p> <p>68</p> <p>-----</p> <p>69 HEADING ANGLE FOR</p> <p>70 OTHER VEHICLE</p> <p>71</p> <p>-----</p> <p>72 BASIS FOR TOTAL DELTA V</p> <p>-----</p> <p>73 TOTAL DELTA V</p> <p>74</p> <p>-----</p> <p>75 LONGITUDINAL COMPONENT OF</p> <p>76 DELTA V</p> <p>77</p> <p>-----</p> <p>78 LATERAL COMPONENT OF</p> <p>79 DELTA V</p> <p>80</p> <p>-----</p> <p>81 ENERGY ABSORPTION</p> <p>82</p> <p>83</p> <p>84</p> <p>-----</p> <p>85 CONFIDENCE IN RECONS PGM</p> <p>-----</p> <p>86 TYPE OF VEHICLE INSPECTION</p> <p>-----</p> <p>87 AOPS VEHICLE</p> <p>-----</p>
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GENERAL VEHICLE FORM
(CONTINUED)

1 PSU NUMBER	31 MAXIMUM TREATMENT
2	
3	32 MAXIMUM KNOWN AIS
4 CASE NUMBER	33 NUMBER OF SERIOUSLY INJURED
5	34 IN THIS VEHICLE
6	
7 RECORD NUMBER (22)	35 NUMBER INJURED
8	36 IN THIS VEHICLE
9 VERSION NUMBER	37 FRONT/REAR WHEEL DRIVE
10 VEHICLE NUMBER	38 VIN LENGTH
11	39
12 DRUG PRESENCE	40 WEIGHT OF THE
13 OBSERVATION TEST TYPE	41 OTHER VEHICLE
14 SPECIMEN TEST TYPE	42
15 OBSERVED NARCOTIC DRUG	43 BODY TYPE OF
16 SPECIMEN NARCOTIC DRUG	44 THE OTHER VEHICLE
17 OBSERVED DEPRESSANT DRUG	
18 SPECIMEN DEPRESSANT DRUG	
19 OBSERVED STIMULANT DRUG	
20 SPECIMEN STIMULANT DRUG	
21 OBSERVED HALLUCINOGEN DRUG	
22 SPECIMEN HALLUCINOGEN DRUG	
23 OBSERVED CANNABINOID DRUG	
24 SPECIMEN CANNABINOID DRUG	
25 OBSERVED PHENCYCLIDINE DRUG	
26 SPECIMEN PHENCYCLIDINE DRUG	
27 OBSERVED INHALANT DRUG	
28 SPECIMEN INHALANT DRUG	
29 OBSERVED OTHER DRUG	
30 SPECIMEN OTHER DRUG	

EXTERIOR VEHICLE FORM

<p>-----</p> <p>1 PSU NUMBER</p> <p>2</p> <p>-----</p> <p>3</p> <p>4 CASE NUMBER</p> <p>5</p> <p>6</p> <p>-----</p> <p>7 RECORD NUMBER (31)</p> <p>8</p> <p>-----</p> <p>9 VERSION NUMBER</p> <p>-----</p> <p>10 VEHICLE NUMBER</p> <p>11</p> <p>-----</p> <p>12 ACCIDENT SEQUENCE - 1</p> <p>13</p> <p>-----</p> <p>14 OBJECT</p> <p>15 CONTACTED - 1</p> <p>-----</p> <p>16 DIRECTION</p> <p>17 OF FORCE - 1</p> <p>-----</p> <p>18 DEFORMATION LOCATION - 1</p> <p>-----</p> <p>19 LONG /LATERAL LOCATION - 1</p> <p>-----</p> <p>20 VERT /LATERAL LOCATION - 1</p> <p>-----</p> <p>21 TYPE OF DAMAGE DIST - 1</p> <p>-----</p> <p>22 DEFORMATION</p> <p>23 EXTENT - 1</p> <p>-----</p> <p>24 ACCIDENT SEQUENCE - 2</p> <p>25</p> <p>-----</p> <p>26 OBJECT</p> <p>27 CONTACTED - 2</p> <p>-----</p> <p>28 DIRECTION</p> <p>29 OF FORCE - 2</p> <p>-----</p> <p>30 DEFORMATION LOCATION - 2</p> <p>-----</p> <p>31 LONG /LATERAL LOCATION - 2</p> <p>-----</p> <p>32 VERT /LATERAL LOCATION - 2</p> <p>-----</p> <p>33 TYPE OF DAMAGE DIST. - 2</p> <p>-----</p> <p>34 DEFORMATION</p> <p>35 EXTENT - 2</p> <p>-----</p> <p>36 CRASH DAMAGE DATA FOR</p> <p>37 HIGHEST DELTA "V" - L</p> <p>38</p> <p>-----</p> <p>39 CRASH DAMAGE DATA FOR</p> <p>40 HIGHEST DELTA "V" - C1</p> <p>-----</p> <p>41 CRASH DAMAGE DATA FOR</p> <p>42 HIGHEST DELTA "V" - C2</p> <p>-----</p> <p>43 CRASH DAMAGE DATA FOR</p> <p>44 HIGHEST DELTA "V" - C3</p> <p>-----</p> <p>45 CRASH DAMAGE DATA FOR</p> <p>46 HIGHEST DELTA "V" - C4</p> <p>-----</p>	<p>-----</p> <p>47 CRASH DAMAGE DATA</p> <p>48 FOR HIGHEST DELTA "V" - C5</p> <p>-----</p> <p>49 CRASH DAMAGE DATA</p> <p>50 FOR HIGHEST DELTA "V" - C6</p> <p>-----</p> <p>51 CRASH DAMAGE DATA</p> <p>52 FOR HIGHEST DELTA "V" - D</p> <p>53</p> <p>54</p> <p>-----</p> <p>55 CRASH DAMAGE DATA</p> <p>56 FOR 2ND HIGHEST</p> <p>57 DELTA "V" - L</p> <p>-----</p> <p>58 CRASH DAMAGE DATA FOR</p> <p>59 2ND HIGHEST DELTA "V" - C1</p> <p>-----</p> <p>60 CRASH DAMAGE DATA FOR</p> <p>61 2ND HIGHEST DELTA "V" - C2</p> <p>-----</p> <p>62 CRASH DAMAGE DATA FOR</p> <p>63 2ND HIGHEST DELTA "V" - C3</p> <p>-----</p> <p>64 CRASH DAMAGE DATA FOR</p> <p>65 2ND HIGHEST DELTA "V" - C4</p> <p>-----</p> <p>66 CRASH DAMAGE DATA FOR</p> <p>67 2ND HIGHEST DELTA "V" - C5</p> <p>-----</p> <p>68 CRASH DAMAGE DATA FOR</p> <p>69 2ND HIGHEST DELTA "V" - C6</p> <p>-----</p> <p>70 CRASH DAMAGE DATA</p> <p>71 FOR 2ND HIGHEST</p> <p>72 DELTA "V" - D</p> <p>73</p> <p>-----</p> <p>74 CDCS DOCUMENTED-NOT CODED</p> <p>-----</p> <p>75 VEHICLE DISPOSITION (RES.)</p> <p>-----</p> <p>76 ORIGINAL WHEELBASE</p> <p>77</p> <p>78</p> <p>79</p> <p>-----</p> <p>80 ALTERED VEHICLE</p> <p>-----</p> <p>81 FIRE OCCURRENCE</p> <p>-----</p> <p>82 ORIGIN OF FIRE</p> <p>-----</p> <p>83 TYPE OF TANK</p> <p>-----</p>
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INTERIOR VEHICLE FORM

1	PSU NUMBER	40	TYPE OF GLAZING-WS
2		41	TYPE OF GLAZING-LF
3		42	TYPE OF GLAZING-RF
4	CASE NUMBER	43	TYPE OF GLAZING-LR
5		44	TYPE OF GLAZING-RR
6		45	TYPE OF GLAZING-BL
7	RECORD NUMBER (41)	46	TYPE OF GLAZING-RO
8		47	TYPE OF GLAZING-OT
9	VERSION NUMBER	48	PRECRASH GLAZING STATUS-WS
10	VEHICLE NUMBER	49	PRECRASH GLAZING STATUS-LF
11		50	PRECRASH GLAZING STATUS-RF
12	PASSENGER COMPARTMENT	51	PRECRASH GLAZING STATUS-LR
13	INTEGRITY	52	PRECRASH GLAZING STATUS-RR
14	DOOR/GATE/HATCH OPENING-LF	53	PRECRASH GLAZING STATUS-BL
15	DOOR/GATE/HATCH OPENING-RF	54	PRECRASH GLAZING STATUS-RO
16	DOOR/GATE/HATCH OPENING-LR	55	PRECRASH GLAZING STATUS-OT
17	DOOR/GATE/HATCH OPENING-RR		
18	DOOR/GATE/HATCH OPENING-TG		
19	DOOR/GATE/HATCH DAMAGE-LF		
20	DOOR/GATE/HATCH DAMAGE-RF		
21	DOOR/GATE/HATCH DAMAGE-LR		
22	DOOR/GATE/HATCH DAMAGE-RR		
23	DOOR/GATE/HATCH DAMAGE-TG		
24	GLAZING DAMAGE-IMPACT-WS		
25	GLAZING DAMAGE-IMPACT-LF		
26	GLAZING DAMAGE-IMPACT-RF		
27	GLAZING DAMAGE-IMPACT-LR		
28	GLAZING DAMAGE-IMPACT-RR		
29	GLAZING DAMAGE-IMPACT-BL		
30	GLAZING DAMAGE-IMPACT-RO		
31	GLAZING DAMAGE-IMPACT-OT		
32	GLAZING DAMAGE-CONTACT-WS		
33	GLAZING DAMAGE-CONTACT-LF		
34	GLAZING DAMAGE-CONTACT-RF		
35	GLAZING DAMAGE-CONTACT-LR		
36	GLAZING DAMAGE-CONTACT-RR		
37	GLAZING DAMAGE-CONTACT-BL		
38	GLAZING DAMAGE-CONTACT-RO		
39	GLAZING DAMAGE-CONTACT-OT		

INTERIOR VEHICLE FORM
(CONTINUED)

1 PSU NUMBER	46 MAGNITUDE OF INTRUSION-6TH
2	
3	47 CRUSH DIRECTION-6TH
4 CASE NUMBER	48 LOCATION OF INTRUSION-7TH
5	49
6	
7 RECORD NUMBER (42)	50 INTRUDING COMPONENT-7TH
8	51
9 VERSION NUMBER	52 MAGNITUDE OF INTRUSION-7TH
10 VEHICLE NUMBER	53 CRUSH DIRECTION-7TH
11	54 LOCATION OF INTRUSION-8TH
12 LOCATION OF INTRUSION-1ST	55
13	56 INTRUDING COMPONENT-8TH
14 INTRUDING COMPONENT-1ST	57
15	58 MAGNITUDE OF INTRUSION-8TH
16 MAGNITUDE OF INTRUSION-1ST	59 CRUSH DIRECTION-8TH
17 CRUSH DIRECTION-1ST	60 LOCATION OF INTRUSION-9TH
18 LOCATION OF INTRUSION-2ND	61
19	62 INTRUDING COMPONENT-9TH
20 INTRUDING COMPONENT-2ND	63
21	64 MAGNITUDE OF INTRUSION-9TH
22 MAGNITUDE OF INTRUSION-2ND	65 CRUSH DIRECTION-9TH
23 CRUSH DIRECTION-2ND	66 LOCATION OF INTRUSION-10TH
24 LOCATION OF INTRUSION-3RD	67
25	68 INTRUDING COMPONENT-10TH
26 INTRUDING COMPONENT-3RD	69
27	70 MAGNITUDE OF INTRUSION-10TH
28 MAGNITUDE OF INTRUSION-3RD	71 CRUSH DIRECTION-10TH
29 CRUSH DIRECTION-3RD	72 STEERING COLUMN TYPE
30 LOCATION OF INTRUSION-4TH	73 STEERING COLUMN COLLAPSE
31	74
32 INTRUDING COMPONENT-4TH	75 DIRECTION AND MAGNITUDE
33	76 OF STEERING COLUMN
34 MAGNITUDE OF INTRUSION-4TH	77 MOVEMENT-VERTICAL
35 CRUSH DIRECTION-4TH	78 DIRECTION AND MAGNITUDE
36 LOCATION OF INTRUSION-5TH	79 OF STEERING COLUMN
37	80 MOVEMENT-LATERAL
38 INTRUDING COMPONENT-5TH	81 DIRECTION AND MAGNITUDE
39	82 OF STEERING COLUMN
40 MAGNITUDE OF INTRUSION-5TH	83 MOVEMENT-LONGITUDINAL
41 CRUSH DIRECTION-5TH	84 RIM/SPOKE DEFORMATION
42 LOCATION OF INTRUSION-6TH	85 LOCATION OF STEERING
43	86 RIM/SPOKE DEFORMATION
44 INTRUDING COMPONENT-6TH	87 ODOMETER READING
45	88
	89
	90 INSTRUMENT PANEL DAMAGE
	91 KNEE BOLSTERS DEFORMED
	92 GLOVE COMPARTMENT DOOR OPEN

OCCUPANT ASSESSMENT FORM

<p>1 PSU NUMBER 2</p> <hr/> <p>3 4 CASE NUMBER 5 6</p> <hr/> <p>7 RECORD NUMBER (51) 8</p> <hr/> <p>9 VERSION NUMBER</p> <hr/> <p>10 VEHICLE NUMBER 11</p> <hr/> <p>12 OCCUPANT NUMBER 13</p> <hr/> <p>14 OCCUPANT'S AGE 15</p> <hr/> <p>16 OCCUPANT'S SEX</p> <hr/> <p>17 OCCUPANT'S HEIGHT 18</p> <hr/> <p>19 20 OCCUPANT'S WEIGHT 21</p> <hr/> <p>22 OCCUPANT'S ROLE</p> <hr/> <p>23 OCCUPANT'S SEAT POSITION 24</p> <hr/> <p>25 OCCUPANT'S POSTURE</p> <hr/> <p>26 EJECTION</p> <hr/> <p>27 EJECTION AREA</p> <hr/> <p>28 EJECTION MEDIUM</p> <hr/> <p>29 MEDIUM STATUS</p> <hr/> <p>30 ENTRAPMENT</p> <hr/> <p>31 MANUAL BELT AVAILABILITY</p> <hr/> <p>32 MANUAL BELT USE 33</p> <hr/> <p>34 PROPER USE OF MANUAL BELT</p> <hr/> <p>35 MANUAL BELT FAILURE</p> <hr/> <p>36 AIR BAG AVAILABILITY</p> <hr/> <p>37 AIR BAG DEPLOYMENT</p> <hr/> <p>38 DID AIR BAG FAIL?</p> <hr/> <p>39 POLICE REP. RESTRAINT USE</p> <hr/> <p>40 HEAD REST. TYPE/DAMAGE</p> <hr/> <p>41 SEAT TYPE 42</p> <hr/> <p>43 SEAT PERFORMANCE</p> <hr/> <p>44 CHILD SAFETY SEAT 45 MAKE/MODEL 46</p> <hr/>	<p>47 TYPE OF CHILD SAFETY SEAT</p> <hr/> <p>48 CHILD SAFETY SEAT 49 ORIENTATION</p> <hr/> <p>50 CHILD SAFETY SEAT 51 HARNESS USAGE</p> <hr/> <p>52 CHILD SAFETY SEAT 53 SHIELD USAGE</p> <hr/> <p>54 CHILD SAFETY SEAT 55 TETHER USAGE</p> <hr/> <p>56 INJURY SEVERITY</p> <hr/> <p>57 TREATMENT-MORTALITY</p> <hr/> <p>58 TYPE OF MEDICAL FACILITY</p> <hr/> <p>59 HOSPITAL STAY 60</p> <hr/> <p>61 WORKING DAYS LOST 62</p> <hr/> <p>63 TIME TO DEATH 64</p> <hr/> <p>65 1ST MEDICALLY REPORTED 66 CAUSE OF DEATH</p> <hr/> <p>67 2ND MEDICALLY REPORTED 68 CAUSE OF DEATH</p> <hr/> <p>69 3RD MEDICALLY REPORTED 70 CAUSE OF DEATH</p> <hr/> <p>71 NUMBER OF RECORDED INJURIES 72 FOR THIS OCCUPANT</p> <hr/> <p>73 AUTOMATIC BELT AVAILABILITY</p> <hr/> <p>74 AUTOMATIC BELT USE</p> <hr/> <p>75 AUTOMATIC BELT TYPE</p> <hr/> <p>76 PROPER USE - AUTOMATIC BELT</p> <hr/> <p>77 AUTOMATIC BELT FAILURE MODE</p> <hr/> <p>78 MAXIMUM KNOWN AIS</p> <hr/> <p>79 INJURY SEVERITY SCORE 80</p> <hr/>
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OCCUPANT INJURY FORM

1 PSU NUMBER
2

3
4 CASE NUMBER
5
6

7 RECORD NUMBER (61)
8

9 VERSION NUMBER

10 VEHICLE NUMBER
11

12 OCCUPANT NUMBER
13

14 INJURY NUMBER
15

16 SOURCE OF INJURY DATA

17 BODY REGION

18 ASPECT

19 LESION

20 SYSTEM ORGAN

21 AIS SEVERITY

22 INJURY SOURCE
23

24 CONFIDENCE LEVEL

25 DIRECT/INDIRECT INJURY

26 OCCUPANT AREA
27 INTRUSION NUMBER

SECTION 6 SAS FILE

NASS data are available in the form of a Statistical Analysis System (SAS) file. SAS is a highly flexible statistical package that provides a high level programming language for effective matrix manipulation and data management facilities.

SAS is a non-hierarchical data base. The SAS data base for NASS consists of seven individual data sets, corresponding to the six NASS CDS data collection records. The exception is the Accident record which is broken into Accident and Accident Event data sets. The other data sets are General Vehicle, External Vehicle, Internal Vehicle, Occupant Assessment and Occupant Injury. Using modified relational database concepts, SAS allows the natural hierarchical structure of NASS data to be fully explored by the analyst. An analyst can create a new SAS data set by merging data from several levels of the NASS hierarchy--e. g., vehicle and occupant levels--through use of an appropriate set of SAS commands within the DATA step.

SAS Date Base Contents

The variable names in the NASS/SAS data base are from the data collection forms or derived variables and are limited to eight characters. The SAS data base is generally an exact representation of the data contained on the NASS master file. The only exceptions are the following:

- Numeric variables for which 9, 99, etc. represent "unknown" are recoded to the SAS special missing value .U ("dot-u") and are not included in percentage tabulations;
- The value of 95 ("test refused") for Alcohol Test Result For Driver (ALCTEST) has been recoded to .B; the value of 96 ("none given") has been recoded to .C; the value of 97 ("performed, results unknown") has been recoded to .D; the value of 98 ("no driver present") has been recoded to .E; and the value of 99 ("unknown") has been recoded to .U, these values are not included in percentage tabulations;
- Missing data for numeric values are recoded as "" in SAS and are not included in percentage tabulations;
- Values for derived variables which cannot be computed due to conditions where a form is not completed e.g., non CDS applicable vehicle, non towed CDS applicable non AOPS vehicle, have been recoded to .N ("not coded"),
- Hour of Day (Time) is stored as a SAS time value and has an output format of HHMM5.

PSU NUMBER (PSU), CASE NUMBER-STRATUM (CASEID) and CASE SEQUENCE NUMBER (CASENO) are identical variables across all NASS records. CASENO is the first three digits of CASEID. Therefore, PSU and either CASENO or CASEID can be used to merge NASS record levels. Similarly, VEHICLE NUMBER (VEHNO) is identical in the General Vehicle, External Vehicle, Internal Vehicle, Occupant Assessment and Occupant Injury record levels and can be used to merge these records in the DATA step

The remainder of this Section presents the SAS layout for the current year NASS Analysis file. In general, the order of variables in the SAS data sets follows the order of data fields on the master file (and thus the order of items on the data collection forms used by NASS investigation teams). The user can invoke PROC CONTENTS to produce the following list of SAS variables:

CONTENTS OF SAS MEMBER SAS91 ACCIDENT
AS DATA LIBRARY DIRECTORY

NAME	MEMTYPE	#OBS
ACCIDENT	DATA	4719
EVENT	DATA	8171
GA	DATA	8179
QA	DATA	19423
QI	DATA	26673
VE	DATA	5975
VI	DATA	7411

CONTENTS OF SAS MEMBER SAS91 ACCIDENT
ALPHABETIC LIST OF VARIABLES AND ATTRIBUTES

#	VARIABLE	TYPE	LENGTH	POSITION	FORMAT	INFORMAT	LABEL
13	AAIS	NUM	2	32			MAXIMUM KNOWN AIS IN ACCIDENT
15	AINJSEP	NUM	2	36			NUMBER OF SERIOUSLY INJURED OCCUPANTS
16	AINJURED	NUM	2	38			TOTAL NUMBER OF INJURED OCCUPANTS
14	ALCINV	NUM	2	34			ALCOHOL INVOLVED IN ACCIDENT
5	AOPSEAT	NUM	2	14			SS14 SPECIAL STUDIES CASE (AOPSEAT)
12	ATPEAT	NUM	2	30			MAXIMUM TREATMENT IN ACCIDENT
2	CASEID	CHAR	4	6			CASE NUMBER STRATUM
3	CASENO	NUM	3	10			CASE SEQUENCE NUMBER
17	DAYWEEK	NUM	2	40			DAY OF WEEK OF ACCIDENT
21	DRGINV	NUM	2	60			DRUG INVOLVED
11	EVENTS	NUM	2	28			NUMBER OF RECORDED EVENTS IN ACCIDENT
27	MANCOLL	NUM	2	62			MANNER OF COLLISION
8	MONTH	NUM	2	20			MONTH OF ACCIDENT
19	NATWGI	NUM	6	48			NATIONAL INFLATION FACTOR
1	PSU	NUM	2	4			PRIMARY SAMPLING UNIT NUMBER
18	PSUWT	NUM	6	12 8 3			PSU INFLATION FACTOR
10	RATWGI	NUM	6	54			RATIO INFLATION FACTOR
4	STRATIF	CHAR	1	13			CASE STRATUM
10	TIME	NUM	4	24			TIME OF ACCIDENT
7	VEHFORMS	NUM	2	18			NUMBER GENERAL VEHICLE FORMS SUBMITTED
6	VERSION	NUM	2	16			VERSION NUMBER
9	YEAR	NUM	2	22			YEAR OF ACCIDENT

CONTENTS OF SAS MEMBER SAS91 ACCIDENT
LIST OF VARIABLES AND ATTRIBUTES BY POSITION

#	VARIABLE	TYPE	LENGTH	POSITION	FORMAT	INFORMAT	LABEL
1	PSU	NUM	2	4			PRIMARY SAMPLING UNIT NUMBER
7	CASEID	CHAR	4	6			CASE NUMBER STRATUM
3	CASENO	NUM	3	10			CASE SEQUENCE NUMBER
4	STRATIF	CHAR	1	13			CASE STRATUM
5	AOPSEAT	NUM	2	14			SS14 SPECIAL STUDIES CASE (AOPSEAT)
6	VERSION	NUM	2	16			VERSION NUMBER
7	VEHFORMS	NUM	2	18			NUMBER GENERAL VEHICLE FORMS SUBMITTED
8	MONTH	NUM	2	20			MONTH OF ACCIDENT
9	YEAR	NUM	2	22			YEAR OF ACCIDENT
10	TIME	NUM	4	24			TIME OF ACCIDENT
11	EVENTS	NUM	2	28			NUMBER OF RECORDED EVENTS IN ACCIDENT
12	ATPEAT	NUM	2	30			MAXIMUM TREATMENT IN ACCIDENT
13	AAIS	NUM	2	32			MAXIMUM KNOWN AIS IN ACCIDENT
14	ALCINV	NUM	2	34			ALCOHOL INVOLVED IN ACCIDENT
15	AINJSEP	NUM	2	36			NUMBER OF SERIOUSLY INJURED OCCUPANTS
16	AINJURED	NUM	2	38			TOTAL NUMBER OF INJURED OCCUPANTS
17	DAYWEEK	NUM	2	40			DAY OF WEEK OF ACCIDENT
18	PSUWT	NUM	6	12 8 3			PSU INFLATION FACTOR
19	NATWGI	NUM	6	48			NATIONAL INFLATION FACTOR
20	RATWGI	NUM	6	54			RATIO INFLATION FACTOR
21	DRGINV	NUM	2	60			DRUG INVOLVED
27	MANCOLL	NUM	2	62			MANNER OF COLLISION

CONTENTS OF SAS MEMBER SAS41.EVEN

----ALPHABETIC LIST OF VARIABLES AND ATTRIBUTES-----

#	VARIABLE	TYPE	LENGTH	POSITION	FORMAT	INFORMAT	LABEL
6	ACCSEQ	NUM	2	16			ACCIDENT EVENT SEQUENCE NUMBER
2	CASEID	CHAR	4	6			CASE NUMBER - STRATUM
3	CASENO	NUM	3	10			CASE SEQUENCE NUMBER
8	CLASS1	NUM	2	20			CLASS OF FIRST VEHICLE
11	CLASS2	NUM	2	25			CLASS OF OTHER VEHICLE
9	GADEV1	CHAR	1	22			GENERAL AREA OF DAMAGE FIRST VEHICLE
12	GADEV2	CHAR	1	27			GENERAL AREA OF DAMAGE OTHER VEHICLE
13	NATWGT	NUM	6	28			NATIONAL INFLATION FACTOR
10	OBJCONT	NUM	2	23			OTHER VEHICLE NUMBER OR OBJECT CONTACTED
1	PSU	NUM	2	4			PRIMARY SAMPLING UNIT NUMBER
14	PSUWGT	NUM	6	34	8.3		PSU INFLATION FACTOR
15	RATWGT	NUM	6	40			RATIO INFLATION FACTOR
4	STRATIF	CHAR	1	13			CASE STRATUM
7	VEHNUM	NUM	2	18			VEHICLE NUMBER
5	VERSION	NUM	2	14			VERSION NUMBER

CONTENTS OF SAS MEMBER SAS91.EVENT

----LIST OF VARIABLES AND ATTRIBUTES BY POSITION----

#	VARIABLE	TYPE	LENGTH	POSITION	FORMAT	INFORMAT	LABEL
1	PSU	NUM	2	4			PRIMARY SAMPLING UNIT NUMBER
2	CASEID	CHAR	4	6			CASE NUMBER - STRATUM
3	CASENO	NUM	3	10			CASE SEQUENCE NUMBER
4	STRATIF	CHAR	1	13			CASE STRATUM
5	VERSION	NUM	2	14			VERSION NUMBER
6	ACCSEQ	NUM	2	16			ACCIDENT EVENT SEQUENCE NUMBER
7	VEHNUM	NUM	2	18			VEHICLE NUMBER
8	CLASS1	NUM	2	20			CLASS OF FIRST VEHICLE
9	GADEV1	CHAR	1	22			GENERAL AREA OF DAMAGE FIRST VEHICLE
10	OBJCONT	NUM	2	23			OTHER VEHICLE NUMBER OR OBJECT CONTACTED
11	CLASS2	NUM	2	25			CLASS OF OTHER VEHICLE
12	GADEV2	CHAR	1	27			GENERAL AREA OF DAMAGE OTHER VEHICLE
13	NATWGT	NUM	6	28			NATIONAL INFLATION FACTOR
14	PSUWGT	NUM	6	34	8.3		PSU INFLATION FACTOR
15	RATWGT	NUM	6	40			RATIO INFLATION FACTOR

SAS
 CONTENTS OF SAS MEMBER SAS91 GV
 ----ALPHABETIC LIST OF VARIABLES AND ATTRIBUTES-----

#	VARIABLE	TYPE	LENGTH	POSITION	FORMAT	INFORMAT	LABEL
22	ACCTYPE	NUM	2	69			ACCIDENT TYPE
19	ALCTEST	NUM	2	63			ALCOHOL TEST RESULT FOR DRIVER
35	ANGOTHER	NUM	3	98			HEADING ANGLE FOR OTHER VEHICLE
34	ANGTHIS	NUM	3	95			HEADING ANGLE FOR THIS VEHICLE
5	AOPSVEH	NUM	2	24			AOPS VEHICLE
14	BODYTYPE	NUM	2	45			VEHICLE BODY TYPE
27	CARGOWGT	NUM	3	80			VEHICLE CARGO WEIGHT
6	CASEID	CHAR	4	26			CASE NUMBER - STRATUM
7	CASENO	NUM	3	30			CASE SEQUENCE NUMBER
30	CONDTREE	NUM	2	87			POST COLLISION CONDITION OF TREE OR POLE
26	CURBWGT	NUM	3	77			VEHICLE CURB WEIGHT
29	DOCTRAJ	NUM	2	85			DOCUMENTATION OF TRAJECTORY DATA
18	DRINKING	NUM	2	61			POLICE REPORTED ALCOHOL PRESENCE
46	DRIVE	NUM	2	122			FRONT/REAR WHEEL DRIVE
23	DRPRES	NUM	2	71			DRIVER PRESENCE IN VEHICLE
51	DRUGS	NUM	2	133			POLICE REPORTD OTHER DRUG PRESENCE
36	DVBASIS	NUM	2	101			BASIS FOR TOTAL DELTA V (HIGHEST)
41	DVCONFID	NUM	2	112			CONFIDENCE IN RECONSTRUCTION
39	DVLAT	NUM	2	107			LATERAL COMPONENT OF DELTA V
38	DVLONG	NUM	2	105			LONGITUDINAL COMPONENT OF DELTA V
37	DVTOTAL	NUM	2	103			TOTAL DELTA V
40	ENERGY	NUM	3	109			ENERGY ABSORPTION
32	FOVERRIDE	NUM	2	91			FRONT OVERRIDE/UNDERRIDE THIS VEHICLE
42	INSPTYPE	NUM	2	114			TYPE OF VEHICLE INSPECTION
12	MAKE	NUM	2	40			VEHICLE MAKE
21	MANEUVER	NUM	2	67			ATTEMPTED AVOIDANCE MANEUVER
13	MODEL	NUM	3	42			VEHICLE MODEL
11	MODELYR	NUM	2	38			VEHICLE MODEL YEAR
2	NATWGT	NUM	6	10			NATIONAL INFLATION FACTOR
62	OBSCNAB	NUM	2	155			CANNABINOID DRUG OBS/PERC TEST RES
56	OBSDEPR	NUM	2	143			DEPRESSANT DRUG OBS/PERC TEST RES
60	OBShLUC	NUM	2	151			HALLUCINOGEN DRUG OBS/PERC TEST RES
66	OBSINHL	NUM	2	163			INHALANT DRUG OBS/PERC TEST RES
54	OBSNARC	NUM	2	139			NARCOTIC DRUG OBS/PERC TEST RES
68	OBSOTH	NUM	2	167			OTHER DRUG. OVS/PERC TEST RES
64	OBSPCP	NUM	2	159			PHENCYCLIDINE DRUG OBS/PERC TEST RES
58	OBSSTIM	NUM	2	147			STIMULANT DRUG OBS/PERC TEST RES
52	OBSTEST	NUM	2	135			OBS/PERC TEST TYPE FOR DRIVER
25	OCCFORMS	NUM	2	75			NUMBER OF OCCUPANT FORMS SUBMITTED
24	OCUPANTS	NUM	2	73			NUMBER OF OCCUPANTS THIS VEHICLE
49	OTBDYTYP	NUM	2	129			BODY TYPE OF THE OTHER VEHICLE
48	OTVEHWGT	NUM	3	126			WEIGHT OF THE OTHER VEHICLE
4	PSU	NUM	2	22			PRIMARY SAMPLING UNIT NUMBER
1	PSUWGT	NUM	6	4 8.3			PSU INFLATION FACTOR
3	RATWGT	NUM	6	16			RATIO INFLATION FACTOR
31	ROLLOVER	NUM	2	89			ROLLOVER
33	ROVERRIDE	NUM	2	93			REAR OVERRIDE/UNDERRIDE THIS VEHICLE
63	SPECCNAB	NUM	2	157			CANNABINOID DRUG: SPECIMEN TEST RESULTS
57	SPECDEPR	NUM	2	145			DEPRESSANT DRUG: SPECIMEN TEST RESULTS
61	SPECHLUC	NUM	2	153			HALLUCINOGEN DRUG: SPECIMEN TEST RESULTS
67	SPECINHL	NUM	2	165			INHALANT DRUG: SPECIMEN TEST RESULTS
55	SPECNARC	NUM	2	141			NARCOTIC DRUG: SPECIMEN TEST RESULTS
69	SPECOTH	NUM	2	169			OTHER DRUG: SPECIMEN TEST RESULTS
65	SPECPCP	NUM	2	161			PHENCYCLIDINE DRUG: SPECIMEN TEST RESULT
59	SPECSTIM	NUM	2	149			STIMULANT DRUG: SPECIMEN TEST RESULTS
53	SPECTEST	NUM	2	137			OTHER DRUG SPECIMEN TEST TYPE FOR DRIVER
20	SPLIMIT	NUM	2	65			SPEED LIMIT
8	STRATIF	CHAR	1	33			CASE STRATUM
28	TOWHITCH	NUM	2	83			TOWED TRAILING UNIT
16	TOWPAR	NUM	2	57			POLICE REPORTED VEHICLE DISPOSITION
17	TRAVELSP	NUM	2	59			POLICE REPORTED TRAVEL SPEED
50	VAIS	NUM	2	131			MAXIMUM KNOWN AIS IN THIS VEHICLE
10	VEHNO	NUM	2	36			VEHICLE NUMBER
9	VERSION	NUM	2	34			VERSION NUMBER
15	VIN	CHAR	10	47			VEHICLE IDENTIFICATION NUMBER
44	VINJSER	NUM	2	118			NUMBER SERIOUSLY INJURED IN THIS VEHICLE
45	VINJURED	NUM	2	120			NUMBER INJURED IN THIS VEHICLE
43	VINLNGTH	NUM	2	116			VIN LENGTH
47	VTREAT	NUM	2	124			MAXIMUM TREATMENT IN THIS VEHICLE

SAS
 CONTENTS OF SAS MEMBER SAS91 GV
 ----LIST OF VARIABLES AND ATTRIBUTES BY POSITION----

#	VARIABLE	TYPE	LENGTH	POSITION	FORMAT	INFORMAT	LABEL
1	PSUWGT	NUM	6	4	8	3	PSU INFLATION FACTOR
2	NATWGT	NUM	6	10			NATIONAL INFLATION FACTOR
3	RATWGT	NUM	6	16			RATIO INFLATION FACTOR
4	PSU	NUM	2	22			PRIMARY SAMPLING UNIT NUMBER
5	AOPSVEH	NUM	2	24			AOPS VEHICLE
6	CASEID	CHAR	4	26			CASE NUMBER - STRATUM
7	CASENO	NUM	3	30			CASE SEQUENCE NUMBER
8	STRATIF	CHAR	1	33			CASE STRATUM
9	VERSION	NUM	2	34			VERSION NUMBER
10	VEHNO	NUM	2	36			VEHICLE NUMBER
11	MODELyr	NUM	2	38			VEHICLE MODEL YEAR
12	MAKE	NUM	2	40			VEHICLE MAKE
13	MODEL	NUM	3	42			VEHICLE MODEL
14	BODYTYPE	NUM	2	45			VEHICLE BODY TYPE
15	VIN	CHAR	10	47			VEHICLE IDENTIFICATION NUMBER
16	TOWPAR	NUM	2	57			POLICE REPORTED VEHICLE DISPOSITION
17	TRAVELSP	NUM	2	59			POLICE REPORTED TRAVEL SPEED
18	DRINKING	NUM	2	61			POLICE REPORTED ALCOHOL PRESENCE
19	ALCTEST	NUM	2	63			ALCOHOL TEST RESULT FOR DRIVER
20	SPLIMIT	NUM	2	65			SPEED LIMIT
21	MANEUVER	NUM	2	67			ATTEMPTED AVOIDANCE MANEUVER
22	ACCTYPE	NUM	2	69			ACCIDENT TYPE
23	DRPRES	NUM	2	71			DRIVER PRESENCE IN VEHICLE
24	OCUPANTS	NUM	2	73			NUMBER OF OCCUPANTS THIS VEHICLE
25	OCCFORMS	NUM	2	75			NUMBER OF OCCUPANT FORMS SUBMITTED
26	CURBWGT	NUM	3	77			VEHICLE CURB WEIGHT
27	CARGOWGT	NUM	3	80			VEHICLE CARGO WEIGHT
28	TOWHITCH	NUM	2	83			TOWED TRAILING UNIT
29	DOCTRAJ	NUM	2	85			DOCUMENTATION OF TRAJECTORY DATA
30	CONDTREE	NUM	2	87			POST COLLISION CONDITION OF TREE OR POLE
31	ROLLOVER	NUM	2	89			ROLLOVER
32	FOVERRIDE	NUM	2	91			FRONT OVERRIDE/UNDERRIDE THIS VEHICLE
33	ROVERRIDE	NUM	2	93			REAR OVERRIDE/UNDERRIDE THIS VEHICLE
34	ANGTHIS	NUM	3	95			HEADING ANGLE FOR THIS VEHICLE
35	ANGOTHER	NUM	3	98			HEADING ANGLE FOR OTHER VEHICLE
36	DVBASIS	NUM	2	101			BASIS FOR TOTAL DELTA V (HIGHEST)
37	DVTOTAL	NUM	2	103			TOTAL DELTA V
38	DVLONG	NUM	2	105			LONGITUDINAL COMPONENT OF DELTA V
39	DVLAT	NUM	2	107			LATERAL COMPONENT OF DELTA V
40	ENERGY	NUM	3	109			ENERGY ABSORPTION
41	DVCONFID	NUM	2	112			CONFIDENCE IN RECONSTRUCTION
42	INSPTYPE	NUM	2	114			TYPE OF VEHICLE INSPECTION
43	VINLNGTH	NUM	2	116			VIN LENGTH
44	VINJSER	NUM	2	118			NUMBER SERIOUSLY INJURED IN THIS VEHICLE
45	VINJURED	NUM	2	120			NUMBER INJURED IN THIS VEHICLE
46	DRIVE	NUM	2	122			FRONT/REAR WHEEL DRIVE
47	VTREAT	NUM	2	124			MAXIMUM TREATMENT IN THIS VEHICLE
48	OTVEHWGT	NUM	3	126			WEIGHT OF THE OTHER VEHICLE
49	OTBDYTYP	NUM	2	129			BODY TYPE OF THE OTHER VEHICLE
50	VAIS	NUM	2	131			MAXIMUM KNOWN AIS IN THIS VEHICLE
51	DRUGS	NUM	2	133			POLICE REPORTD OTHER DRUG PRESENCE
52	OBSTEST	NUM	2	135			OBS/PERC TEST TYPE FOR DRIVER
53	SPECTEST	NUM	2	137			OTHER DRUG SPECIMEN TEST TYPE FOR DRIVER
54	OBSNARC	NUM	2	139			NARCOTIC DRUG: OBS/PERC TEST RES
55	SPECNARC	NUM	2	141			NARCOTIC DRUG: SPECIMEN TEST RESULTS
56	OBSDEPR	NUM	2	143			DEPRESSANT DRUG: OBS/PERC TEST RES
57	SPECDEPR	NUM	2	145			DEPRESSANT DRUG: SPECIMEN TEST RESULTS
58	OBSSTIM	NUM	2	147			STIMULANT DRUG: OBS/PERC TEST RES
59	SPECSTIM	NUM	2	149			STIMULANT DRUG: SPECIMEN TEST RESULTS
60	OBSHLUC	NUM	2	151			HALLUCINOGEN DRUG: OBS/PERC TEST RES
61	SPECHLUC	NUM	2	153			HALLUCINOGEN DRUG: SPECIMEN TEST RESULTS
62	OBSCHAB	NUM	2	155			CANNABINOID DRUG: OBS/PERC TEST RES
63	SPECCNAB	NUM	2	157			CANNABINOID DRUG: SPECIMEN TEST RESULTS
64	OBSPCP	NUM	2	159			PHENCYCLIDINE DRUG: OBS/PERC TEST RES
65	SPECPCP	NUM	2	161			PHENCYCLIDINE DRUG: SPECIMEN TEST RESULT
66	OBSINHL	NUM	2	163			INHALANT DRUG: OBS/PERC TEST RES
67	SPECINHL	NUM	2	165			INHALANT DRUG: SPECIMEN TEST RESULTS
68	OBSOTH	NUM	2	167			OTHER DRUG: OVS/PERC TEST RES
69	SPECOTH	NUM	2	169			OTHER DRUG: SPECIMEN TEST RESULTS

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 CONTENTS OF SAC MEMBER SAS91 VE
 ----ALPHABETIC LIST OF VARIABLES AND ATTRIBUTES-----

#	VARIABLE	TYPE	LENGTH	POSITION	FORMAT	INFORMAT	LABEL
7	ACCSEQ1	NUM	2	18			ACCIDENT EVENT SEQUENCE (HIGHEST)
15	ACCSEQ2	NUM	2	30			ACCIDENT EVENT SEQUENCE (2ND HIGHEST)
45	ALTVEH	NUM	2	120			MULTI-STAGE MANUFACTURED/CERT ALT VEH
2	CASEID	CHAR	4	6			CASE NUMBER - STRATUM
3	CASENO	NUM	3	10			CASE SEQUENCE NUMBER
39	DOCCDC	NUM	2	90			CDCs DOCUMENTED BUT NOT CODED ON FILE?
9	DOF1	NUM	2	22			DIRECTION OF FORCE (HIGHEST)
17	DOF2	NUM	2	34			DIRECTION OF FORCE (2ND HIGHEST)
24	DVC1	NUM	3	45			CRUSH PROFILE C1 (HIGHEST)
25	DVC2	NUM	3	48			CRUSH PROFILE C2 (HIGHEST)
26	DVC3	NUM	3	51			CRUSH PROFILE C3 (HIGHEST)
27	DVC4	NUM	3	54			CRUSH PROFILE C4 (HIGHEST)
28	DVC5	NUM	3	57			CRUSH PROFILE C5 (HIGHEST)
29	DVC6	NUM	3	60			CRUSH PROFILE C6 (HIGHEST)
30	DVD	NUM	3	63			CRUSH PROFILE D (HIGHEST)
23	DVL	NUM	3	42			CRUSH PROFILE L (HIGHEST)
14	EXTENT1	NUM	2	28			DEFORMATION EXTENT (HIGHEST)
22	EXTENT2	NUM	2	40			DEFORMATION EXTENT (2ND HIGHEST)
46	FIRE	NUM	2	122			FIRE OCCURRENCE
47	FIREORIG	NUM	2	124			ORIGIN OF FIRE
48	FUELANK	NUM	2	126			TYPE OF FUEL TANK
10	GAD1	CHAR	1	24			DEFORMATION LOCATION (HIGHEST)
18	GAD2	CHAR	1	36			DEFORMATION LOCATION (2ND HIGHEST)
42	NATWGT	NUM	6	102			NATIONAL INFLATION FACTOR
8	OBJCONT1	NUM	2	20			OBJECT CONTACTED (HIGHEST)
16	OBJCONT2	NUM	2	32			OBJECT CONTACTED (2ND HIGHEST)
1	PSU	NUM	2	4			PRIMARY SAMPLING UNIT NUMBER
43	PSUWGT	NUM	6	108 8 3			PSU INFLATION FACTOR
44	RATWGT	NUM	6	114			RATIO INFLATION FACTOR
32	SDVC1	NUM	3	69			CRUSH PROFILE C1 (2ND HIGHEST)
33	SDVC2	NUM	3	72			CRUSH PROFILE C2 (2ND HIGHEST)
34	SDVC3	NUM	3	75			CRUSH PROFILE C3 (2ND HIGHEST)
35	SDVC4	NUM	3	78			CRUSH PROFILE C4 (2ND HIGHEST)
36	SDVC5	NUM	3	81			CRUSH PROFILE C5 (2ND HIGHEST)
37	SDVC6	NUM	3	84			CRUSH PROFILE C6 (2ND HIGHEST)
38	SDVD	NUM	3	87			CRUSH PROFILE D (2ND HIGHEST)
31	SDVL	NUM	3	66			CRUSH PROFILE L (2ND HIGHEST)
11	SHL1	CHAR	1	25			SPECIFIC LONGITUDINAL LOCATION (HIGHEST)
19	SHL2	CHAR	1	37			SPECIFIC LONGITUDINAL LOC. (2ND HIGHEST)
4	STRATIF	CHAR	1	13			CASE STRATUM
12	SVL1	CHAR	1	26			SPECIFIC VERTICAL LOCATION (HIGHEST)
20	SVL2	CHAR	1	38			SPECIFIC VERTICAL LOCATION (2ND HIGHEST)
13	TDD1	CHAR	1	27			TYPE OF DAMAGE DISTRIBUTION (HIGHEST)
21	TDD2	CHAR	1	39			TYPE OF DAMAGE DISTRIBUTION(2ND HIGHEST)
40	TOWRES	NUM	2	92			RESEARCHER ASSESSMNT VEHICLE DISPOSITION
6	VEHNO	NUM	2	16			VEHICLE NUMBER
5	VERSION	NUM	2	14			VERSION NUMBER
41	WHEELBAS	NUM	8	94			ORIGINAL WHEELBASE

SAS
 CONTENTS OF SAS MEMBER SAS91 VE
 ----LIST OF VARIABLES AND ATTRIBUTES BY POSITION----

#	VARIABLE	TYPE	LENGTH	POSITION	FORMAT	INFORMAT	LABEL
1	PSU	NUM	2	4			PRIMARY SAMPLING UNIT NUMBER
2	CASEID	CHAR	4	6			CASE NUMBER - STRATUM
3	CASENO	NUM	3	10			CASE SEQUENCE NUMBER
4	STRATIF	CHAR	1	13			CASE STRATUM
5	VERSION	NUM	2	14			VERSION NUMBER
6	VEHNO	NUM	2	16			VEHICLE NUMBER
7	ACCSEQ1	NUM	2	18			ACCIDENT EVENT SEQUENCE (HIGHEST)
8	OBJCONT1	NUM	2	20			OBJECT CONTACTED (HIGHEST)
9	DOF1	NUM	2	22			DIRECTION OF FORCE (HIGHEST)
10	GAD1	CHAR	1	24			DEFORMATION LOCATION (HIGHEST)
11	SHL1	CHAR	1	25			SPECIFIC LONGITUDINAL LOCATION (HIGHEST)
12	SVL1	CHAR	1	26			SPECIFIC VERTICAL LOCATION (HIGHEST)
13	TDD1	CHAR	1	27			TYPE OF DAMAGE DISTRIBUTION (HIGHEST)
14	EXTENT1	NUM	2	28			DEFORMATION EXTENT (HIGHEST)
15	ACCSEQ2	NUM	2	30			ACCIDENT EVENT SEQUENCE (2ND HIGHEST)
16	OBJCONT2	NUM	2	32			OBJECT CONTACTED (2ND HIGHEST)
17	DOF2	NUM	2	34			DIRECTION OF FORCE (2ND HIGHEST)
18	GAD2	CHAR	1	36			DEFORMATION LOCATION (2ND HIGHEST)
19	SHL2	CHAR	1	37			SPECIFIC LONGITUDINAL LOC (2ND HIGHEST)
20	SVL2	CHAR	1	38			SPECIFIC VERTICAL LOCATION (2ND HIGHEST)
21	TDD2	CHAR	1	39			TYPE OF DAMAGE DISTRIBUTION(2ND HIGHEST)
22	EXTENT2	NUM	2	40			DEFORMATION EXTENT (2ND HIGHEST)
23	DVL	NUM	3	42			CRUSH PROFILE L (HIGHEST)
24	DVC1	NUM	3	45			CRUSH PROFILE C1 (HIGHEST)
25	DVC2	NUM	3	48			CRUSH PROFILE C2 (HIGHEST)
26	DVC3	NUM	3	51			CRUSH PROFILE C3 (HIGHEST)
27	DVC4	NUM	3	54			CRUSH PROFILE C4 (HIGHEST)
28	DVC5	NUM	3	57			CRUSH PROFILE C5 (HIGHEST)
29	DVC6	NUM	3	60			CRUSH PROFILE C6 (HIGHEST)
30	DVD	NUM	3	63			CRUSH PROFILE D (HIGHEST)
31	SDVL	NUM	3	66			CRUSH PROFILE L (2ND HIGHEST)
32	SDVC1	NUM	3	69			CRUSH PROFILE C1 (2ND HIGHEST)
33	SDVC2	NUM	3	72			CRUSH PROFILE C2 (2ND HIGHEST)
34	SDVC3	NUM	3	75			CRUSH PROFILE C3 (2ND HIGHEST)
35	SDVC4	NUM	3	78			CRUSH PROFILE C4 (2ND HIGHEST)
36	SDVC5	NUM	3	81			CRUSH PROFILE C5 (2ND HIGHEST)
37	SDVC6	NUM	3	84			CRUSH PROFILE C6 (2ND HIGHEST)
38	SDVD	NUM	3	87			CRUSH PROFILE D (2ND HIGHEST)
39	DOCCDC	NUM	2	90			CDCs DOCUMENTED BUT NOT CODED ON FILE?
40	TOWRES	NUM	2	92			RESEARCHER ASSESSMNT VEHICLE DISPOSITION
41	WHEELBAS	NUM	8	94			ORIGINAL WHEELBASE
42	NATWGT	NUM	6	102			NATIONAL INFLATION FACTOR
43	PSUWGT	NUM	6	108	8.3		PSU INFLATION FACTOR
44	RATWGT	NUM	6	114			RATIO INFLATION FACTOR
45	ALTVEH	NUM	2	120			MULTI-STAGE MANUFACTURED/CERT. ALT. VEH.
46	FIRE	NUM	2	122			FIRE OCCURRENCE
47	FIREORIG	NUM	2	124			ORIGIN OF FIRE
48	FUELTANK	NUM	2	126			TYPE OF FUEL TANK

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 CONTENTS OF SAS MEMBER SAS91 V1
 ----ALPHABETIC LIST OF VARIABLES AND ATTRIBUTES-----

#	VARIABLE	TYPE	LENGTH	POSITION	FORMAT	INFORMAT	LABEL
95	BOLSTDEF	NUM	2	195			KNEE BOLSTER DEFORMED - OCCUPANT CONTACT
2	CASEID	CHAR	4	6			CASE NUMBER - STRATUM
3	CASENO	NUM	3	10			CASE SEQUENCE NUMBER
53	CDRIR1	NUM	2	110			1ST DOMINANT CRUSH DIRECTION
57	CDRIR2	NUM	2	118			2ND DOMINANT CRUSH DIRECTION
61	CDRIR3	NUM	2	126			3RD DOMINANT CRUSH DIRECTION
65	CDRIR4	NUM	2	134			4TH DOMINANT CRUSH DIRECTION
69	CDRIR5	NUM	2	142			5TH DOMINANT CRUSH DIRECTION
73	CDRIR6	NUM	2	150			6TH DOMINANT CRUSH DIRECTION
77	CDRIR7	NUM	2	158			7TH DOMINANT CRUSH DIRECTION
81	CDRIR8	NUM	2	166			8TH DOMINANT CRUSH DIRECTION
85	CDRIR9	NUM	2	174			9TH DOMINANT CRUSH DIRECTION
89	CDRIR10	NUM	2	182			10TH DOMINANT CRUSH DIRECTION
90	COLUMTYP	NUM	2	184			STEERING COLUMN TYPE
13	FAILLF	NUM	2	30			LF DAMAGE/FAILURE ASSOCIATED W
15	FAILLR	NUM	2	34			LR DAMAGE/FAILURE - OPENING IN COLLISION
14	FAILRF	NUM	2	32			RF DAMAGE/FAILURE - OPENING IN COLLISION
16	FAILRR	NUM	2	36			RR DAMAGE/FAILURE - OPENING IN COLLISION
17	FAILTG	NUM	2	38			TG DAMAGE/FAILURE - OPENING IN COLLISION
23	GLIMPBL	NUM	2	50			BL GLAZING DAMAGE FROM IMPACT FORCES
19	GLIMPLF	NUM	2	42			LF GLAZING DAMAGE FROM IMPACT FORCES
21	GLIMPLR	NUM	2	46			LR GLAZING DAMAGE FROM IMPACT FORCES
25	GLIMPTH	NUM	2	54			OTHER GLAZING DAMAGE FROM IMPACT FORCES
20	GLIMPRF	NUM	2	44			RF GLAZING DAMAGE FROM IMPACT FORCES
22	GLIMPRR	NUM	2	48			RR GLAZING DAMAGE FROM IMPACT FORCES
24	GLIMPRUF	NUM	2	52			ROOF GLAZING DAMAGE FROM IMPACT FORCES
18	GLIMPWS	NUM	2	40			WS GLAZING DAMAGE FROM IMPACT FORCES
31	GLOCCBL	NUM	2	66			BL GLAZING DAMAGE FROM OCCUPANT CONTACT
27	GLOCCLF	NUM	2	58			LF GLAZING DAMAGE FROM OCCUPANT CONTACT
29	GLOCCLR	NUM	2	62			LR GLAZING DAMAGE FROM OCCUPANT CONTACT
33	GLOCCOTH	NUM	2	70			OTHER GLAZING DAMAGE FROM OCC CONTACT
28	GLOCCRF	NUM	2	60			RF GLAZING DAMAGE FROM OCCUPANT CONTACT
30	GLOCCRR	NUM	2	64			RR GLAZING DAMAGE FROM OCCUPANT CONTACT
32	GLOCCRUF	NUM	2	68			ROOF GLAZING DAMAGE FROM OCC CONTACT
26	GLOCCWS	NUM	2	56			WS GLAZING DAMAGE FROM OCCUPANT CONTACT
96	GLOVOPEN	NUM	2	197			DID GLOVE COMPARTMENT DOOR OPEN
47	GLPREBL	NUM	2	98			BL WINDOW PRECRASH GLAZING STATUS
43	GLPRELF	NUM	2	90			LF WINDOW PRECRASH GLAZING STATUS
45	GLPRELR	NUM	2	94			LR WINDOW PRECRASH GLAZING STATUS
49	GLPREOTH	NUM	2	102			OTHER WINDOW PRECRASH GLAZING STATUS
44	GLPRERF	NUM	2	92			RF WINDOW PRECRASH GLAZING STATUS
46	GLPRERR	NUM	2	96			RR WINDOW PRECRASH GLAZING STATUS
48	GLPRERUF	NUM	2	100			ROOF WINDOW PRECRASH GLAZING STATUS
42	GLPREWS	NUM	2	88			WS WINDOW PRECRASH GLAZING STATUS
39	GLTYPBL	NUM	2	82			BL TYPE OF WINDOW/WINDSHIELD GLAZING
35	GLTYPLF	NUM	2	74			LF TYPE OF WINDOW/WINDSHIELD GLAZING
37	GLTYPLR	NUM	2	78			LR TYPE OF WINDOW/WINDSHIELD GLAZING

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 CONTENTS OF SAS MEMBER SAS91 V1
 ----ALPHABETIC LIST OF VARIABLES AND ATTRIBUTES----

#	VARIABLE	TYPE	LENGTH	POSITION	FORMAT	INFORMAT	LABEL
41	GLTYPOTH	NUM	2	86			OTHER TYPE OF WINDOW/WINDSHIELD GLAZING
36	GLTYPRF	NUM	2	76			RF TYPE OF WINDOW/WINDSHIELD GLAZING
38	GLTYPRR	NUM	2	80			RR TYPE OF WINDOW/WINDSHIELD GLAZING
40	GLTYPRUF	NUM	2	84			ROOF TYPE OF WINDOW/WINDSHIELD GLAZING
34	GLTYPWS	NUM	2	72			WS TYPE OF WINDOW/WINDSHIELD GLAZING
51	INCOMP1	NUM	2	106			1ST INTRUDING COMPONENT
55	INCOMP2	NUM	2	114			2ND INTRUDING COMPONENT
59	INCOMP3	NUM	2	122			3RD INTRUDING COMPONENT
63	INCOMP4	NUM	2	130			4TH INTRUDING COMPONENT
67	INCOMP5	NUM	2	138			5TH INTRUDING COMPONENT
71	INCOMP6	NUM	2	146			6TH INTRUDING COMPONENT
75	INCOMP7	NUM	2	154			7TH INTRUDING COMPONENT
79	INCOMP8	NUM	2	162			8TH INTRUDING COMPONENT
83	INCOMP9	NUM	2	170			9TH INTRUDING COMPONENT
87	INCOMP10	NUM	2	178			10TH INTRUDING COMPONENT
50	INLOC1	NUM	2	104			1ST LOCATION OF INTRUSION
54	INLOC2	NUM	2	112			2ND LOCATION OF INTRUSION
58	INLOC3	NUM	2	120			3RD LOCATION OF INTRUSION
62	INLOC4	NUM	2	128			4TH LOCATION OF INTRUSION
66	INLOC5	NUM	2	136			5TH LOCATION OF INTRUSION
70	INLOC6	NUM	2	144			6TH LOCATION OF INTRUSION
74	INLOC7	NUM	2	152			7TH LOCATION OF INTRUSION
78	INLOC8	NUM	2	160			8TH LOCATION OF INTRUSION
82	INLOC9	NUM	2	168			9TH LOCATION OF INTRUSION
86	INLOC10	NUM	2	176			10TH LOCATION OF INTRUSION
52	INMAG1	NUM	2	108			1ST MAGNITUDE OF INTRUSION
56	INMAG2	NUM	2	116			2ND MAGNITUDE OF INTRUSION
60	INMAG3	NUM	2	124			3RD MAGNITUDE OF INTRUSION
64	INMAG4	NUM	2	132			4TH MAGNITUDE OF INTRUSION
68	INMAG5	NUM	2	140			5TH MAGNITUDE OF INTRUSION
72	INMAG6	NUM	2	148			6TH MAGNITUDE OF INTRUSION
76	INMAG7	NUM	2	156			7TH MAGNITUDE OF INTRUSION
80	INMAG8	NUM	2	164			8TH MAGNITUDE OF INTRUSION
84	INMAG9	NUM	2	172			9TH MAGNITUDE OF INTRUSION
88	INMAG10	NUM	2	180			10TH MAGNITUDE OF INTRUSION
97	NATWGT	NUM	6	199			NATIONAL INFLATION FACTOR
93	ODOMETER	NUM	3	190			ODOMETER READING
8	OPENLF	NUM	2	20			LF DOOR, TAILGATE OR HATCH OPENING
10	OPENLR	NUM	2	24			LR DOOR, TAILGATE OR HATCH OPENING
9	OPENRF	NUM	2	22			RF DOOR, TAILGATE OR HATCH OPENING
11	OPENRR	NUM	2	26			RR DOOR, TAILGATE OR HATCH OPENING
12	OPENTG	NUM	2	28			TG DOOR, TAILGATE OR HATCH OPENING
94	PANELDAM	NUM	2	193			INSTRUMENT PANEL DAMAGE - OCC. CONTACT
7	PASINTEG	NUM	2	18			PASSENGER COMPARTMENT INTEGRITY
1	PSU	NUM	2	4			PRIMARY SAMPLING UNIT NUMBER
98	PSUWGT	NUM	6	205	8 3		PSU INFLATION FACTOR
99	RATWGT	NUM	6	211			RATIO INFLATION FACTOR
92	RDEFLOC	NUM	2	188			LOCATION STEERING RIM/SPOKE DEFORMATION
91	RIMDEF	NUM	2	186			STEERING RIM/SPOKE DEFORMATION
4	STRATIF	CHAR	1	13			CASE STRATUM
6	VEHNO	NUM	2	16			VEHICLE NUMBER
5	VERSION	NUM	2	14			VERSION NUMBER

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 CONTENTS OF SAS MEMBER SAS91 V1
 ----LIST OF VARIABLES AND ATTRIBUTES BY POSITION----

#	VARIABLE	TYPE	LENGTH	POSITION	FORMAT	INFORMAT	LABEL
1	PSU	NUM	2	4			PRIMARY SAMPLING UNIT NUMBER
2	CASEID	CHAR	4	6			CASE NUMBER - STRATUM
3	CASENO	NUM	3	10			CASE SEQUENCE NUMBER
4	STRATIF	CHAR	1	13			CASE STRATUM
5	VERSION	NUM	2	14			VERSION NUMBER
6	VEHNO	NUM	2	16			VEHICLE NUMBER
7	PASINTEG	NUM	2	18			PASSENGER COMPARTMENT INTEGRITY
8	OPENLF	NUM	2	20			LF DOOR, TAILGATE OR HATCH OPENING
9	OPENRF	NUM	2	22			RF DOOR, TAILGATE OR HATCH OPENING
10	OPENLR	NUM	2	24			LR DOOR, TAILGATE OR HATCH OPENING
11	OPENRR	NUM	2	26			RR DOOR, TAILGATE OR HATCH OPENING
12	OPENTG	NUM	2	28			TG DOOR, TAILGATE OR HATCH OPENING
13	FAILLF	NUM	2	30			LF DAMAGE/FAILURE ASSOCIATED W
14	FAILRF	NUM	2	32			RF DAMAGE/FAILURE - OPENING IN COLLISION
15	FAILLR	NUM	2	34			LR DAMAGE/FAILURE - OPENING IN COLLISION
16	FAILRR	NUM	2	36			RR DAMAGE/FAILURE - OPENING IN COLLISION
17	FAILTG	NUM	2	38			TG DAMAGE/FAILURE - OPENING IN COLLISION
18	GLIMPWS	NUM	2	40			WS GLAZING DAMAGE FROM IMPACT FORCES
19	GLIMPLF	NUM	2	42			LF GLAZING DAMAGE FROM IMPACT FORCES
20	GLIMPRF	NUM	2	44			RF GLAZING DAMAGE FROM IMPACT FORCES
21	GLIMPLR	NUM	2	46			LR GLAZING DAMAGE FROM IMPACT FORCES
22	GLIMPRR	NUM	2	48			RR GLAZING DAMAGE FROM IMPACT FORCES
23	GLIMPBL	NUM	2	50			BL GLAZING DAMAGE FROM IMPACT FORCES
24	GLIMPRUF	NUM	2	52			ROOF GLAZING DAMAGE FROM IMPACT FORCES
25	GLIMPOTH	NUM	2	54			OTHER GLAZING DAMAGE FROM IMPACT FORCES
26	GLOCCWS	NUM	2	56			WS GLAZING DAMAGE FROM OCCUPANT CONTACT
27	GLOCCLF	NUM	2	58			LF GLAZING DAMAGE FROM OCCUPANT CONTACT
28	GLOCCRF	NUM	2	60			RF GLAZING DAMAGE FROM OCCUPANT CONTACT
29	GLOCCLR	NUM	2	62			LR GLAZING DAMAGE FROM OCCUPANT CONTACT
30	GLOCCRR	NUM	2	64			RR GLAZING DAMAGE FROM OCCUPANT CONTACT
31	GLOCCBL	NUM	2	66			BL GLAZING DAMAGE FROM OCCUPANT CONTACT
32	GLOCCRUF	NUM	2	68			ROOF GLAZING DAMAGE FROM OCC CONTACT
33	GLOCCOTH	NUM	2	70			OTHER GLAZING DAMAGE FROM OCC CONTACT
34	GLTYPWS	NUM	2	72			WS TYPE OF WINDOW/WINDSHIELD GLAZING
35	GLTYPLF	NUM	2	74			LF TYPE OF WINDOW/WINDSHIELD GLAZING
36	GLTYPRF	NUM	2	76			RF TYPE OF WINDOW/WINDSHIELD GLAZING
37	GLTYPLR	NUM	2	78			LR TYPE OF WINDOW/WINDSHIELD GLAZING
38	GLTYPRR	NUM	2	80			RR TYPE OF WINDOW/WINDSHIELD GLAZING
39	GLTYPBL	NUM	2	82			BL TYPE OF WINDOW/WINDSHIELD GLAZING
40	GLTYPRUF	NUM	2	84			ROOF TYPE OF WINDOW/WINDSHIELD GLAZING
41	GLTYPOTH	NUM	2	86			OTHER TYPE OF WINDOW/WINDSHIELD GLAZING
42	GLPREWS	NUM	2	88			WS WINDOW PRECRASH GLAZING STATUS
43	GLPRELF	NUM	2	90			LF WINDOW PRECRASH GLAZING STATUS
44	GLPRERF	NUM	2	92			RF WINDOW PRECRASH GLAZING STATUS
45	GLPRELR	NUM	2	94			LR WINDOW PRECRASH GLAZING STATUS
46	GLPRERR	NUM	2	96			RR WINDOW PRECRASH GLAZING STATUS
47	GLPREBL	NUM	2	98			BL WINDOW PRECRASH GLAZING STATUS
48	GLPRERUF	NUM	2	100			ROOF WINDOW PRECRASH GLAZING STATUS
49	GLPREOTH	NUM	2	102			OTHER WINDOW PRECRASH GLAZING STATUS
50	INLOC1	NUM	2	104			1ST LOCATION OF INTRUSION
51	INCOMP1	NUM	2	106			1ST INTRUDING COMPONENT
52	INMAG1	NUM	2	108			1ST MAGNITUDE OF INTRUSION
53	CDRIR1	NUM	2	110			1ST DOMINANT CRUSH DIRECTION
54	INLOC2	NUM	2	112			2ND LOCATION OF INTRUSION
55	INCOMP2	NUM	2	114			2ND INTRUDING COMPONENT
56	INMAG2	NUM	2	116			2ND MAGNITUDE OF INTRUSION

SAS
 CONTENTS OF SAS MEMBER SAS91 VI

----LIST OF VARIABLES AND ATTRIBUTES BY POSITION----

#	VARIABLE	TYPE	LENGTH	POSITION	FORMAT	INFORMAT	LABEL
57	CDRIR2	NUM	2	118			2ND DOMINANT CRUSH DIRECTION
58	INLOC3	NUM	2	120			3RD LOCATION OF INTRUSION
59	INCOMP3	NUM	2	122			3RD INTRUDING COMPONENT
60	INMAG3	NUM	2	124			3RD MAGNITUDE OF INTRUSION
61	CDRIR3	NUM	2	126			3RD DOMINANT CRUSH DIRECTION
62	INLOC4	NUM	2	128			4TH LOCATION OF INTRUSION
63	INCOMP4	NUM	2	130			4TH INTRUDING COMPONENT
64	INMAG4	NUM	2	132			4TH MAGNITUDE OF INTRUSION
65	CDRIR4	NUM	2	134			4TH DOMINANT CRUSH DIRECTION
66	INLOC5	NUM	2	136			5TH LOCATION OF INTRUSION
67	INCOMP5	NUM	2	138			5TH INTRUDING COMPONENT
68	INMAG5	NUM	2	140			5TH MAGNITUDE OF INTRUSION
69	CDRIR5	NUM	2	142			5TH DOMINANT CRUSH DIRECTION
70	INLOC6	NUM	2	144			6TH LOCATION OF INTRUSION
71	INCOMP6	NUM	2	146			6TH INTRUDING COMPONENT
72	INMAG6	NUM	2	148			6TH MAGNITUDE OF INTRUSION
73	CDRIR6	NUM	2	150			6TH DOMINANT CRUSH DIRECTION
74	INLOC7	NUM	2	152			7TH LOCATION OF INTRUSION
75	INCOMP7	NUM	2	154			7TH INTRUDING COMPONENT
76	INMAG7	NUM	2	156			7TH MAGNITUDE OF INTRUSION
77	CDRIR7	NUM	2	158			7TH DOMINANT CRUSH DIRECTION
78	INLOC8	NUM	2	160			8TH LOCATION OF INTRUSION
79	INCOMP8	NUM	2	162			8TH INTRUDING COMPONENT
80	INMAG8	NUM	2	164			8TH MAGNITUDE OF INTRUSION
81	CDRIR8	NUM	2	166			8TH DOMINANT CRUSH DIRECTION
82	INLOC9	NUM	2	168			9TH LOCATION OF INTRUSION
83	INCOMP9	NUM	2	170			9TH INTRUDING COMPONENT
84	INMAG9	NUM	2	172			9TH MAGNITUDE OF INTRUSION
85	CDRIR9	NUM	2	174			9TH DOMINANT CRUSH DIRECTION
86	INLOC10	NUM	2	176			10TH LOCATION OF INTRUSION
87	INCOMP10	NUM	2	178			10TH INTRUDING COMPONENT
88	INMAG10	NUM	2	180			10TH MAGNITUDE OF INTRUSION
89	CDRIR10	NUM	2	182			10TH DOMINANT CRUSH DIRECTION
90	COLUMTYP	NUM	2	184			STEERING COLUMN TYPE
91	RIMDEF	NUM	2	186			STEERING RIM/SPOKE DEFORMATION
92	RDEFLOC	NUM	2	188			LOCATION STEERING RIM/SPOKE DEFORMATION
93	ODOMETER	NUM	3	190			ODOMETER READING
94	PANELDAM	NUM	2	193			INSTRUMENT PANEL DAMAGE - OCC. CONTACT
95	BOLSTDEF	NUM	2	195			KNEE BOLSTER DEFORMED - OCCUPANT CONTACT
96	GLOVOPEN	NUM	2	197			DID GLOVE COMPARTMENT DOOR OPEN
97	MATWGT	NUM	6	199			NATIONAL INFLATION FACTOR
98	PSUWGT	NUM	6	205	8.3		PSU INFLATION FACTOR
99	RATWGT	NUM	6	211			RATIO INFLATION FACTOR

A
 CONTENT OF AT MEMBER SAS9.0A
 ---ALPHABETIC LIST OF VARIABLES AND ATTRIBUTES-----

#	VARIABLE	TYPE	LENGTH	POSITION	FORMAT	INFORMAT	LABEL
52	ABELTAVL	NUM	2	122			AUTOMATIC BELT SYSTEM AVAILABILITY/FUNC
53	ABELTUSE	NUM	2	124			AUTOMATIC BELT (PASSIVE) SYSTEM USE
54	ABELTYPE	NUM	2	126			AUTOMATIC (PASSIVE) BELT SYSTEM TYPE
56	ABLTFAIL	NUM	2	130			AUTOMATIC (PASSIVE) BELT SYSTEM FAILURE
55	ABLTPROP	NUM	2	128			PROPER USE OF AUTO (PASSIVE) BELT SYSTEM
8	AGE	NUM	2	20			AGE OF OCCUPANT
24	BAGAVAIL	NUM	2	53			AIR BAG SYSTEM AVAILABILITY
25	BAGDEPLY	NUM	2	55			AIR BAG SYSTEM DEPLOYED
26	BAGFAIL	NUM	2	57			AIR BAG SYSTEM FAILURE
2	CASEID	CHAR	4	6			CASE NUMBER - STRATUM
3	CASENO	NUM	3	10			CASE SEQUENCE NUMBER
43	CAUSE1	NUM	2	92			1ST MEDICALLY REPORTED CAUSE OF DEATH
44	CAUSE2	NUM	2	94			2ND MEDICALLY REPORTED CAUSE OF DEATH
45	CAUSE3	NUM	2	96			3RD MEDICALLY REPORTED CAUSE OF DEATH
34	CHHARNES	NUM	2	74			CHILD SAFETY SEAT HARNESS USAGE
31	CHMAKE	NUM	3	67			CHILD SAFETY SEAT MAKE/MODEL
33	CHORIENT	NUM	2	72			CHILD SAFETY SEAT ORIENTATION
35	CHSHIELD	NUM	2	76			CHILD SAFETY SEAT SHIELD USAGE
36	CHTETHER	NUM	2	78			CHILD SAFETY SEAT TETHER USAGE
32	CHTYPE	NUM	2	70			TYPE OF CHILD SAFETY SEAT
42	DEATH	NUM	2	90			TIME TO DEATH
16	EJCTAREA	NUM	2	37			EJECTION AREA
17	EJCTMED	NUM	2	39			EJECTION MEDIUM
15	EJECTION	NUM	2	35			EJECTION
19	ENTRAP	NUM	2	43			ENTRAPMENT
28	HEADREST	NUM	2	61			HEAD RESTRAINT TYPE/DAMAGE BY OCCUPANT
10	HEIGHT	NUM	2	24			HEIGHT OF OCCUPANT
40	HOSPSTAY	NUM	2	86			HOSPITAL STAY
46	INJNUM	NUM	2	98			NUMBER RECORDED INJURIES THIS OCCUPANT
37	INJSEV	NUM	2	80			INJURY SEVERITY (POLICE RATING)
48	ISS	NUM	2	102			INJURY SEVERITY SCORE
47	MAIS	NUM	2	100			MAXIMUM KNOWN OCCUPANT AIS
20	MANAVAIL	NUM	2	45			MANUAL BELT SYSTEM AVAILABILITY
23	MANFAIL	NUM	2	51			MANUAL BELT FAILURE MODE DURING ACCIDENT
22	MANPROPR	NUM	2	49			PROPER USE OF MANUAL BELTS
21	MANUSE	NUM	2	47			MANUAL BELT SYSTEM USE
39	MEDFACIL	NUM	2	84			TYPE MEDICAL FACILITY INITIAL TREATMENT
18	MEDSTA	NUM	2	41			MEDIUM STATUS (PRIOR TO IMPACT)
49	NATWGT	NUM	6	104			NATIONAL INFLATION FACTOR
7	OCCNO	NUM	2	18			OCCUPANT NUMBER
27	PARUSE	NUM	2	59			POLICE REPORTED RESTRAINT USE
14	POSTURE	NUM	2	33			OCCUPANT'S POSTURE
1	PSU	NUM	2	4			PRIMARY SAMPLING UNIT NUMBER
50	PSUWGT	NUM	6	110 8 3			PSU INFLATION FACTOR
51	RATWGT	NUM	6	116			RATIO INFLATION FACTOR
12	ROLE	NUM	2	29			OCCUPANT'S ROLE
30	SEATPERF	NUM	2	65			SEAT PERFORMANCE (THIS POSITION)
13	SEATPOS	NUM	2	31			OCCUPANT'S SEAT POSITION
29	SEATTYPE	NUM	2	63			SEAT TYPE (THIS OCCUPANT POSITION)
9	SEX	NUM	2	22			OCCUPANT'S SEX
4	STRATIF	CHAR	1	13			CASE STRATUM
38	TREATMNT	NUM	2	82			TREATMENT - MORTALITY
6	VEHNO	NUM	2	16			VEHICLE NUMBER
5	VERSION	NUM	2	14			VERSION NUMBER
11	WEIGHT	NUM	3	26			OCCUPANT'S WEIGHT
41	WORKDAYS	NUM	2	88			WORKING DAYS LOST

SAS
 CONTENTS OF SAS MEMBER SAS91 0A
 -LIST OF VARIABLES AND ATTRIBUTES BY POSITION----

#	VARIABLE	TYPE	LENGTH	POSITION	FORMAT	INFORMAT	LABEL
1	PSU	NUM	2	4			PRIMARY SAMPLING UNIT NUMBER
2	CASEID	CHAR	4	6			CASE NUMBER - STRATUM
3	CASENO	NUM	3	10			CASE SEQUENCE NUMBER
4	STRATIF	CHAR	1	13			CASE STRATUM
5	VERSION	NUM	2	14			VERSION NUMBER
6	VEHNO	NUM	2	16			VEHICLE NUMBER
7	OCCNO	NUM	2	18			OCCUPANT NUMBER
8	AGE	NUM	2	20			AGE OF OCCUPANT
9	SEX	NUM	2	22			OCCUPANT'S SEX
10	HEIGHT	NUM	2	24			HEIGHT OF OCCUPANT
11	WEIGHT	NUM	3	26			OCCUPANT'S WEIGHT
12	ROLE	NUM	2	29			OCCUPANT'S ROLE
13	SEATPOS	NUM	2	31			OCCUPANT'S SEAT POSITION
14	POSTURE	NUM	2	33			OCCUPANT'S POSTURE
15	EJECTION	NUM	2	35			EJECTION
16	EJCTAREA	NUM	2	37			EJECTION AREA
17	EJCTMED	NUM	2	39			EJECTION MEDIUM
18	MEDSTA	NUM	2	41			MEDIUM STATUS (PRIOR TO IMPACT)
19	ENTRAP	NUM	2	43			ENTRAPMENT
20	MANAVAIL	NUM	2	45			MANUAL BELT SYSTEM AVAILABILITY
21	MANUSE	NUM	2	47			MANUAL BELT SYSTEM USE
22	MANPROPR	NUM	2	49			PROPER USE OF MANUAL BELTS
23	MANFAIL	NUM	2	51			MANUAL BELT FAILURE MODE DURING ACCIDENT
24	BAGAVAIL	NUM	2	53			AIR BAG SYSTEM AVAILABILITY
25	BAGDEPLY	NUM	2	55			AIR BAG SYSTEM DEPLOYED
26	BAGFAIL	NUM	2	57			AIR BAG SYSTEM FAILURE
27	PARUSE	NUM	2	59			POLICE REPORTED RESTRAINT USE
28	HEADREST	NUM	2	61			HEAD RESTRAINT TYPE/DAMAGE BY OCCUPANT
29	SEATTYPE	NUM	2	63			SEAT TYPE (THIS OCCUPANT POSITION)
30	SEATPERF	NUM	2	65			SEAT PERFORMANCE (THIS POSITION)
31	CHMAKE	NUM	3	67			CHILD SAFETY SEAT MAKE/MODEL
32	CHTYPE	NUM	2	70			TYPE OF CHILD SAFETY SEAT
33	CHORIENT	NUM	2	72			CHILD SAFETY SEAT ORIENTATION
34	CHHARNES	NUM	2	74			CHILD SAFETY SEAT HARNESS USAGE
35	CHSHIELD	NUM	2	76			CHILD SAFETY SEAT SHIELD USAGE
36	CHTETHER	NUM	2	78			CHILD SAFETY SEAT TETHER USAGE
37	INJSEV	NUM	2	80			INJURY SEVERITY (POLICE RATING)
38	TREATMNT	NUM	2	82			TREATMENT - MORTALITY
39	MEDFACIL	NUM	2	84			TYPE MEDICAL FACILITY INITIAL TREATMENT
40	HOSPSTAY	NUM	2	86			HOSPITAL STAY
41	WORKDAYS	NUM	2	88			WORKING DAYS LOST
42	DEATH	NUM	2	90			TIME TO DEATH
43	CAUSE1	NUM	2	92			1ST MEDICALLY REPORTED CAUSE OF DEATH
44	CAUSE2	NUM	2	94			2ND MEDICALLY REPORTED CAUSE OF DEATH
45	CAUSE3	NUM	2	96			3RD MEDICALLY REPORTED CAUSE OF DEATH
46	INJNUM	NUM	2	98			NUMBER RECORDED INJURIES THIS OCCUPANT
47	MAIS	NUM	2	100			MAXIMUM KNOWN OCCUPANT AIS
48	ISS	NUM	2	102			INJURY SEVERITY SCORE
49	NATWGT	NUM	6	104			NATIONAL INFLATION FACTOR
50	PSUWGT	NUM	6	110	8.3		PSU INFLATION FACTOR
51	RATWGT	NUM	6	116			RATIO INFLATION FACTOR
52	ABELTAVL	NUM	2	122			AUTOMATIC BELT SYSTEM AVAILABILITY/FUNC
53	ABELTUSE	NUM	2	124			AUTOMATIC BELT (PASSIVE) SYSTEM USE
54	ABELTYPE	NUM	2	126			AUTOMATIC (PASSIVE) BELT SYSTEM TYPE
55	ABLTPROP	NUM	2	128			PROPER USE OF AUTO (PASSIVE) BELT SYSTEM
56	ABLTFAIL	NUM	2	130			AUTOMATIC (PASSIVE) BELT SYSTEM FAILURE

SAS
 CONTENTS OF SAS MEMBER SAS91 01
 ----ALPHABETIC LIST OF VARIABLES AND ATTRIBUTES-----

#	VARIABLE	TYPE	LENGTH	POSITION	FORMAT	INFORMAT	LABEL
14	AIS	NUM	2	28			A I S SEVERITY (O I C - A I S)
11	ASPECT	CHAR	1	25			ASPECT (O.I.C. - A.I.S.)
10	BODYREG	CHAR	1	24			BODY REGION (O.I.C - A.I.S.)
2	CASEID	CHAR	4	6			CASE NUMBER - STRATUM
3	CASENO	NUM	3	10			CASE SEQUENCE NUMBER
17	DIRINJ	NUM	2	34			DIRECT/INDIRECT INJURY
8	INJNO	NUM	2	20			INJUR Y NUMBER
15	INJSOU	NUM	2	30			INJURY SOURCE
18	INTRUNO	NUM	2	36			OCCUPANT AREA INTRUSION NO.
12	LESION	CHAR	1	26			LESION (O I C - A I.S.)
19	NATWGT	NUM	6	38			NATIONAL INFLATION FACTOR
7	OCCNO	NUM	2	18			OCCUPANT NUMBER
1	PSU	NUM	2	4			PRIMARY SAMPLING UNIT NUMBER
20	PSUWGT	NUM	6	44 8 3			PSU INFLATION FACTOR
21	RATWGT	NUM	6	50			RATIO INFLATION FACTOR
16	SOUCON	NUM	2	32			INJURY SOURCE CONFIDENCE LEVEL
9	SODAT	NUM	2	22			SOURCE OF INJURY DATA
4	STRATIF	CHAR	1	13			CASE STRATUM
13	SYSORG	CHAR	1	27			SYSTEM/ORGAN (O.I.C - A.I.S.)
6	VEHNO	NUM	2	16			VEHICLE NUMBER
5	VERSION	NUM	2	14			VERSION NUMBER

SAS
 CONTENTS OF SAS MEMBER SAS91 01
 ----LIST OF VARIABLES AND ATTRIBUTES BY POSITION----

#	VARIABLE	TYPE	LENGTH	POSITION	FORMAT	INFORMAT	LABEL
1	PSU	NUM	2	4			PRIMARY SAMPLING UNIT NUMBER
2	CASEID	CHAR	4	6			CASE NUMBER - STRATUM
3	CASENO	NUM	3	10			CASE SEQUENCE NUMBER
4	STRATIF	CHAR	1	13			CASE STRATUM
5	VERSION	NUM	2	14			VERSION NUMBER
6	VEHNO	NUM	2	16			VEHICLE NUMBER
7	OCCNO	NUM	2	18			OCCUPANT NUMBER
8	INJNO	NUM	2	20			INJUR Y NUMBER
9	SODAT	NUM	2	22			SOURCE OF INJURY DATA
10	BODYREG	CHAR	1	24			BODY REGION (O I.C - A.I.S.)
11	ASPECT	CHAR	1	25			ASPECT (O I C. - A.I.S.)
12	LESION	CHAR	1	26			LESION (O I C. - A I.S.)
13	SYSORG	CHAR	1	27			SYSTEM/ORGAN (O.I.C. - A.I.S.)
14	AIS	NUM	2	28			A I.S SEVERITY (O.I.C. - A.I.S.)
15	INJSOU	NUM	2	30			INJURY SOURCE
16	SOUCON	NUM	2	32			INJURY SOURCE CONFIDENCE LEVEL
17	DIRINJ	NUM	2	34			DIRECT/INDIRECT INJURY
18	INTRUNO	NUM	2	36			OCCUPANT AREA INTRUSION NO.
19	NATWGT	NUM	6	38			NATIONAL INFLATION FACTOR
20	PSUWGT	NUM	6	44 8.3			PSU INFLATION FACTOR
21	RATWGT	NUM	6	50			RATIO INFLATION FACTOR

APPENDIX A

DATA COLLECTION FORMS



ACCIDENT FORM

1 Primary Sampling Unit Number ___ ___
2 Case Number - Stratum ___ ___ ___

IDENTIFICATION

3 Number of General Vehicle Forms Submitted ___ ___
4 Date of Accident (Month, Day, Year) ___ ___ / ___ ___ / **9 1**
5 Time of Accident ___ ___ ___
Code reported military time of accident
NOTE Midnight - 2400
 Unknown - 9999

SPECIAL STUDIES INDICATORS

Check (✓) each special study (SS12-SS16 below) that has been completed code 1 for the checked special studies and 0 for the special studies not checked

6 ___ SS12 Not Active 0
7 ___ SS13 **Not Active** 0
8 ___ SS14 ___ ___
9 ___ SS15 ___ ___
10 ___ SS16 ___ ___

NUMBER OF EVENTS

11 Number of Recorded Events in This Accident ___ ___
Code the number of events which occurred in this accident

ACCIDENT EVENTS

For each event that occurred in the accident, code the lowest numbered vehicle in the left columns and the other involved vehicle or object on the right

Accident Event Sequence Number	Vehicle Number	Class of Vehicle	General Area of Damage	Vehicle Number or Object Contacted	Class of Vehicle	General Area of Damage
12. <u>0 1</u>	13. ___	14. ___	15. ___	16. ___	17. ___	18. ___
19. <u>0 2</u>	20. ___	21. ___	22. ___	23. ___	24. ___	25. ___
26. <u>0 3</u>	27. ___	28. ___	29. ___	30. ___	31. ___	32. ___
33. <u>0 4</u>	34. ___	35. ___	36. ___	37. ___	38. ___	39. ___
40. <u>0 5</u>	41. ___	42. ___	43. ___	44. ___	45. ___	46. ___

IF GREATER THAN FIVE EVENTS, CONTINUE CODING ON THE ACCIDENT EVENTS SUPPLEMENT

**CODES FOR
CLASS OF VEHICLE**

- (00) Not a motor vehicle
- (01) Subcompact/mini (wheelbase 100)
- (02) Compact (wheelbase - 100 -104)
- (03) Intermediate (wheelbase - 105 -109)
- (04) Full size (wheelbase - 110 -114)
- (05) Largest (wheelbase 115)
- (09) Unknown passenger car size
- (11) Short utility vehicle
- (12) Truck based utility (10,000 lbs GVWR)
- (13) Passenger van (10 000 lbs GVWR)
- (14) Other van (10 000 lbs GVWR)
- (15) Pickup truck (10 000 lbs GVWR)
- (18) Other truck (10 000 lbs GVWR)
- (19) Unknown light truck type
- (20) School bus
- (21) Other bus
- (22) Truck (10,000 lbs GVWR)
- (23) Tractor without trailer
- (24) Tractor-trailer(s)
- (25) Motored cycle
- (28) Other vehicle
- (99) Unknown

**CODES FOR GENERAL AREA
OF DAMAGE (GAD)**

**CDC APPLICABLE
AND
OTHER VEHICLES**

**TDC APPLICABLE
VEHICLES**

- | | |
|-------------------------|--|
| (0) Not a motor vehicle | (0) Not a motor vehicle |
| (N) Noncollision | (N) Noncollision |
| (F) Front | (F) Front |
| (R) Right side | (R) Right side |
| (L) Left side | (L) Left side |
| (B) Back | (B) Back of unit with cargo area (rear of trailer or straight truck) |
| (T) Top | (D) Back (rear of tractor) |
| (U) Undercarriage | (C) Rear of cab |
| (9) Unknown | (V) Front of cargo area |
| | (T) Top |
| | (U) Undercarriage |
| | (9) Unknown |

CODES FOR VEHICLE NUMBER OR OBJECT CONTACTED

(01-30) - Vehicle number

Noncollision

- (31) Overturn - rollover
- (32) Fire or explosion
- (33) Jackknife
- (34) Other intraunit damage (specify)

-
- (35) Noncollision injury
 - (38) Other noncollision (specify)

(39) Noncollision - details unknown

Collision with Fixed Object

- (41) Tree (≤ 4 inches in diameter)
- (42) Tree (> 4 inches in diameter)
- (43) Shrubbery or bush
- (44) Embankment

(45) Breakaway pole or post (any diameter)

Nonbreakaway Pole or Post

- (50) Pole or post (≤ 4 inches in diameter)
- (51) Pole or post (> 4 but ≤ 12 inches in diameter)
- (52) Pole or post (> 12 inches in diameter)
- (53) Pole or post (diameter unknown)

- (54) Concrete traffic barrier
- (55) Impact attenuator
- (56) Other traffic barrier (specify)

- (57) Fence
- (58) Wall
- (59) Building
- (60) Ditch or culvert
- (61) Ground
- (62) Fire hydrant
- (63) Curb
- (64) Bridge
- (68) Other fixed object (specify)

(69) Unknown fixed object

Collision with Nonfixed Object

- (71) Motor vehicle not in-transport
- (72) Pedestrian
- (73) Cyclist or cycle
- (74) Other nonmotorist or conveyance (specify):

-
- (75) Vehicle occupant
 - (76) Animal
 - (77) Train
 - (78) Trailer, disconnected in transport
 - (88) Other nonfixed object (specify):

(89) Unknown nonfixed object

(98) Other event (specify):

(99) Unknown event or object



GENERAL VEHICLE FORM

<p>1 Primary Sampling Unit Number _____</p> <p>2 Case Number – Stratum _____</p> <p>3 Vehicle Number _____</p> <p style="text-align: center;">VEHICLE IDENTIFICATION</p> <p>4. Vehicle Model Year _____ Code the last two digits of the model year (99) Unknown</p> <p>5 Vehicle Make (specify) _____ Applicable codes are found in your NASS CDS Data Collection, Coding, and Editing Manual (99) Unknown</p> <p>6 Vehicle Model (specify) _____ Applicable codes are found in your NASS CDS Data Collection, Coding, and Editing Manual (999) Unknown</p> <p>7 Body Type _____ Note: Applicable codes are found on the back of this page</p> <p>8 Vehicle Identification Number _____ Left justify. Slash zeros and letter Z (0 and Z) No VIN – Code all zeros Unknown – Code all nine's</p> <p style="text-align: center;">OFFICIAL RECORDS</p> <p>9 Police Reported Vehicle Disposition _____ (0) Not towed due to vehicle damage (1) Towed due to vehicle damage (9) Unknown</p> <p>10 Police Reported Travel Speed _____ Code to the nearest mph (NOTE: 00 means less than 0.5 mph) (97) 96.5 mph and above (99) Unknown</p>	<p>11. Police Reported Alcohol Presence _____ (0) No alcohol present (1) Yes (alcohol present) (7) Not reported (8) No driver present (9) Unknown</p> <p style="text-align: center;">Note: See Variables 37 through 55 (Page 4) for Information on Other Drugs</p> <p>12 Alcohol Test Result for Driver _____ Code actual value (decimal implied before first digit – 0 xx) (95) Test refused (96) None given (97) AC test performed, results unknown (98) No driver present (99) Unknown</p> <p>Source _____</p> <p style="text-align: center;">ACCIDENT RELATED</p> <p>13. Speed Limit _____ (00) No statutory limit Code posted or statutory speed limit (99) Unknown</p> <p>14 Attempted Avoidance Maneuver _____ (00) No impact (01) No avoidance actions (02) Braking (no lockup) (03) Braking (lockup) (04) Braking (lockup unknown) (05) Releasing brakes (06) Steering left (07) Steering right (08) Braking and steering left (09) Braking and steering right (10) Accelerating (11) Accelerating and steering left (12) Accelerating and steering right (97) No driver present (98) Other action (specify) _____ (99) Unknown</p> <p>15. Accident Type _____ Applicable codes may be found on the back of page two of this field form (00) No impact Code the number of the diagram that best describes the accident circumstance (98) Other accident type (specify) _____ (99) Unknown</p>
<p>****SKIP TO VARIABLE GV37 IF GV07 DOES NOT EQUAL 01-49****</p>	

CODES FOR BODY TYPE

CDS APPLICABLE VEHICLES

Automobiles

- (01) Convertible (excludes sun-roof, t-bar)
- (02) 2-door sedan, hardtop, coupe
- (03) 3-door/2 door hatchback
- (04) 4-door sedan, hardtop
- (05) 5-door/4-door hatchback
- (06) Station wagon (excluding van and truck based)
- (08) Other automobile type (specify)

(09) Unknown automobile type

Automobile Derivatives

- (10) Auto based pickup (includes El Camino, Caballero, Ranchero, and Brat)
- (11) Auto based panel (cargo station wagon, includes auto based ambulance/hearse)
- (12) Large limousine - more than four side doors or stretched chassis

Utility Vehicles

- (13) Short utility - not truck based (includes Jeep CJ-5, Jeep CJ-7, Renegade, Landrover, Pre-78 Bronco, Landcruiser, Thing)
- (14) Truck based utility (2-door includes Blazer Bronco - 78 on, Bronco II, Jimmy, Ramcharger, Cherokee Trailduster, Scout)

Van Based Light Trucks (< 10,000 lbs GVWR)

- (20) Minivan (Lumina APV, Astro, Caravan, Plymouth Vista, Aerostar, Safari, Voyager [84 and after], Dodge Vista, Mini Ram Van, Toyota Cargo Van, Toyota Van Vanagon, VW Bus, Kombi)
- (21) Standard van (Sportvan, Chevy Van, Club Wagon, Ford Econoline, Ram Van, Chateau, Ram Wagon, Vandura, Rally, Voyager [83 and before], Beauville, Sportsman)
- (28) **Other van type (Hi-Cube Van, Kary) (specify):**

(29) Unknown van type

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-15 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 - D350, W150 - W350, F100 - F350, Comanche, J10 - J30, Dakota)
- (32) Pickup with slide-in camper
- (33) Truck based station wagon (4-door, includes Suburban, Travelall, Wagoneer)
- (34) Light truck based suburban limousine
- (35) Convertible pickup
- (39) Unknown (pickup style) light conventional truck type

Other Light Trucks (< 10,000 lbs GVWR)

- (40) Cab chassis based (includes rescue vehicle, light stake, dump, and tow truck)
- (41) Truck based panel
- (42) Light truck based motorhome (chassis mounted)
- (47) **Other light conventional truck type (not a pickup - includes step vans <= 10,000 lbs GVWR, Grumman LLV vehicle) (specify):**

-
- (48) Unknown other light truck type (not a pickup)
 - (49) Unknown light vehicle type (automobile, van, or light truck)

OTHER VEHICLES

Buses (Excludes Van Based)

- (50) School bus (designed to carry students, not cross-country or transit)
- (58) Other bus type (e.g., transit, intercity, bus based motorhome) (specify)

(59) Unknown bus type

Medium/Heavy Trucks (> 10,000 lbs GVWR)

- (60) Step van
- (61) Single unit straight truck (10,000 lbs GVWR - 26,000 lbs)
- (62) Single unit straight truck (> 26,000 lbs GVWR)
- (63) Medium/heavy truck based motorhome
- (64) Truck-tractor with no cargo trailer
- (65) Truck-tractor pulling one trailer
- (66) Truck-tractor pulling two or more trailers
- (67) Truck-tractor (unknown if pulling trailer)
- (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)
- (78) Other motored cycle type (minibike, motorscooter) (specify)

(79) Unknown motored cycle type

Other Vehicles

- (80) ATV (All-Terrain Vehicle) and ATC (All-Terrain Cycle)
- (88) Other vehicle type (specify)

(99) Unknown body type

OCCUPANT RELATED

16 Driver Presence in Vehicle _____
 (0) Driver not present
 (1) Driver present
 (9) Unknown

17 Number of Occupants This Vehicle _____
 (00-96) Code actual number of occupants for this vehicle
 (97) 97 or more
 (99) Unknown

18. Number of Occupant Forms Submitted _____

24 Rollover _____
 (0) No rollover (no overturning)

Rollover (primarily about the longitudinal axis)
 (1) Rollover, 1 quarter turn only
 (2) Rollover, 2 quarter turns
 (3) Rollover, 3 quarter turns
 (4) Rollover, 4 or more quarter turns (specify)

(5) Rollover – end-over-end (i.e., primarily about the lateral axis)
 (9) Rollover (overturn), details unknown

VEHICLE WEIGHT ITEMS

19 Vehicle Curb Weight _____ 00
 _____ Code weight to nearest 100 pounds.
 (010) Less than 1050 pounds
 (135) 13,500 lbs or more
 (999) Unknown

Source _____

20 Vehicle Cargo Weight _____ 00
 _____ Code weight to nearest 100 pounds
 (00) Less than 50 pounds
 (97) 9,650 lbs or more
 (99) Unknown

VERRIDE/UNDERRIDE (THIS VEHICLE)

25. Front Override/Underride (this vehicle) _____

26 Rear Override/Underride (this vehicle) _____

(0) No override/underride, or not an end-to-end impact

Override (see specific CDC)
 (1) 1st CDC
 (2) 2nd CDC
 (3) Other not automated CDC (specify)

Underride (see specific CDC)
 (4) 1st CDC
 (5) 2nd CDC
 (6) Other not automated CDC (specify)

(7) Medium/heavy truck or bus override
 (9) Unknown

RECONSTRUCTION DATA

21. Towed Trailing Unit _____
 (0) No towed unit
 (1) Yes – towed trailing unit
 (9) Unknown

22 Documentation of Trajectory Data for This Vehicle _____
 (0) No
 (1) Yes

23. Post Collision Condition of Tree or Pole (for Highest Delta V) _____
 (0) Not collision (for highest delta V) with tree or pole
 (1) Not damaged
 (2) Cracked/sheared
 (3) Tilted 45 degrees
 (4) Tilted -45 degrees
 (5) Uprooted tree
 (6) Separated pole from base
 (7) Pole replaced
 (8) Other (specify)

(9) Unknown

HEADING ANGLE AT IMPACT FOR HIGHEST DELTA V

Values (000)-(359) Code actual value
 (997) Noncollision
 (998) Impact with object
 (999) Unknown

27. Heading Angle for This Vehicle _____

28. Heading Angle for Other Vehicle _____

Category	Configuration	ACCIDENT TYPES (Includes Intent)						
I Single Driver	A Right Roadside Departure	01 DRIVE OFF ROAD	02 CONTROL/ TRACTION LOSS	03 AVOID COLLISION WITH VEH, PED, ANIM	04 SPECIFICS OTHER	05 SPECIFICS UNKNOWN		
	B Left Roadside Departure	06 DRIVE OFF ROAD	07 CONTROL/ TRACTION LOSS	08 AVOID COLLISION WITH VEH, PED, ANIM	09 SPECIFICS OTHER	10 SPECIFICS UNKNOWN		
	C Forward Impact	11 PARKED VEH	12 STA OBJECT	13 PEDESTRIAN/ ANIMAL	14 END DEPARTURE	15 SPECIFICS OTHER	16 SPECIFICS UNKNOWN	
II Same Trafficway Same Direction	D Rear End	20 STOPPED 21 22 23	22 SLOWER 24 25 26 27	24 DECCEL 28 29 30 31	26 AVOID COLLISION WITH VEH	28 AVOID COLLISION WITH OBJECT	(EACH • 32) SPECIFICS OTHER	(EACH • 33) SPECIFICS UNKNOWN
	E Forward Impact	34 CONTROL TRACTION LOSS	36 CONTROL TRACTION LOSS	38 AVOID COLLISION WITH VEH	40 AVOID COLLISION WITH OBJECT	41 AVOID COLLISION WITH OBJECT	(EACH • 42) SPECIFICS OTHER	(EACH • 43) SPECIFICS UNKNOWN
	F Sideswipe Angle	44 45	46 45 47	(EACH • 48) SPECIFICS OTHER		(EACH • 49) SPECIFICS UNKNOWN		
III Same Trafficway Opposite Direction	G Head On	50 LATERAL MOVE	51 LATERAL MOVE	(EACH • 52) SPECIFICS OTHER		(EACH • 53) SPECIFICS UNKNOWN		
	H Forward Impact	54 CONTROL TRACTION LOSS	56 CONTROL TRACTION LOSS	58 AVOID COLLISION WITH VEH	60 AVOID COLLISION WITH OBJECT	61 AVOID COLLISION WITH OBJECT	(EACH • 62) SPECIFICS OTHER	(EACH • 63) SPECIFICS UNKNOWN
	I Sideswipe Angle	64 LATERAL MOVE	65 LATERAL MOVE	(EACH • 66) SPECIFICS OTHER		(EACH • 67) SPECIFICS UNKNOWN		
IV Change Trafficway Vehicle Turning	J Turn Across Path	68 INITIAL OPPOSITE DIRECTIONS	71 INITIAL SAME DIRECTIONS	73 INITIAL SAME DIRECTIONS	72 INITIAL SAME DIRECTIONS	(EACH • 74) SPECIFICS OTHER	(EACH • 75) SPECIFICS UNKNOWN	
	K Turn Into Path	77 TURN INTO SAME DIRECTION	79 TURN INTO SAME DIRECTION	80 TURN INTO OPPOSITE DIRECTIONS	81 TURN INTO OPPOSITE DIRECTIONS	83 TURN INTO OPPOSITE DIRECTIONS	(EACH • 84) SPECIFICS OTHER	(EACH • 85) SPECIFICS UNKNOWN
V Intersecting Paths (Vehicle Damage)	L Straight Paths	86 87	88 89	(EACH • 90) SPECIFICS OTHER		(EACH • 91) SPECIFICS UNKNOWN		
VI Miscellaneous	M Backing Etc	92 BACKING VEH	93 OTHER VEH OR OBJECT	98 Other Accident Type 99 Unknown Accident Type 00 No Impact				

29. Basis for Total Delta V (Highest) _____

Delta V Calculated

- (1) CRASH program – damage only routine
- (2) CRASH program – damage and trajectory routine
- (3) Missing vehicle algorithm

Delta V Not Calculated

- (4) At least one vehicle (which may be this vehicle) is beyond the scope of an acceptable reconstruction program, regardless of collision conditions.
- (5) All vehicles within scope (CDC applicable) of CRASH program but one of the collision conditions is beyond the scope of the CRASH program or other acceptable reconstruction techniques, regardless of adequacy of damage data.
- (6) All vehicles and collision conditions are within scope of one of the acceptable reconstruction programs, but there is insufficient data available

COMPUTER GENERATED DELTA V

30. Total Delta V _____

_____ Nearest mph _____

(NOTE 00 means less than 0.5 mph)
 (97) 96.5 mph and above
 (99) Unknown

31. Longitudinal Component of Delta V _____

_____ Nearest mph _____

(NOTE 00 means greater than -0.5 and less than -0.5 mph)
 (± 97) ± 96.5 mph and above
 (99) Unknown

Secondary Highest

32. Lateral Component of Delta V _____

_____ Nearest mph _____

(NOTE 00 means greater than -0.5 and less than -0.5 mph)
 (± 97) ± 96.5 mph and above
 (99) Unknown

33. Energy Absorption _____ 00

_____ Nearest 100 foot-lbs _____

(NOTE 0000 means less than 50 Foot-Lbs)
 (9997) 999,650 foot-lbs or more
 (9999) Unknown

34 Confidence in Reconstruction Program Results (for Highest Delta V) _____

- (0) No reconstruction
- (1) Collision fits model – results appear reasonable
- (2) Collision fits model – results appear high
- (3) Collision fits model – results appear low
- (4) Borderline reconstruction – results appear reasonable

35. Type of Vehicle Inspection _____

- (0) No Inspection
- (1) Complete inspection
- (2) Partial inspection (specify)

36 Is this an AOPS Vehicle? _____

- (0) No
- (1) Yes

IS OLDMISS APPLICABLE FOR THIS VEHICLE? [] YES [] NO
 IF YES: IS A COMPLETED OLDMISS PROGRAM SUMMARY INCLUDED? [] YES [] NO

37. Police Reported Other Drug Presence _____

- (0) No other drugs present
- (1) Yes (other drug present)
- (7) Not reported
- (8) No driver present
- (9) Unknown

38. Police Reported Observation/Perception Test Type For Driver _____

- (0) No observation/perception test given
- (1) Drug recognition technician (DRT) determination
- (2) Behavioral
- (3) Other physical observation/perception determination (specify):

- (7) Other observation/perception test
- (8) No driver present
- (9) Unknown if observation/perception test given

39. Other Drug Specimen Test Type For Driver _____

- (0) No specimen test given
- (1) Blood test
- (2) Urine test
- (3) Other specimen tests (specify):

- (7) Unspecified specimen test
- (8) No driver present
- (9) Unknown if specimen test given

OTHER DRUGS TEST RESULTS FOR DRIVER

	Observation/ Perception Test Results	Specimen Test Results
Narcotic Drug	40. _____	41. _____
Depressant Drug	42. _____	43. _____
Stimulant Drug	44. _____	45. _____
Hallucinogen Drug	46. _____	47. _____
Cannabinoid Drug	48. _____	49. _____
Phencyclidine (PCP)	50. _____	51. _____
Inhalant Drug	52. _____	53. _____
Other Drug (Excluding Nicotine, Aspirin, Alcohol, Drugs Administered Post-Crash)	54. _____	55. _____

Codes For Observation/Perception Test Results

- (0) No observation/perception test given
- (1) Passed observation/perception test
- (2) Failed observation/perception test
- (3) Observation/perception test given - results unknown
- (8) No driver present
- (9) Unknown if observation perception test given

Codes for Specimen Test Results

- (0) No specimen test given
- (1) Drug not found in specimen
- (2) Drug found in specimen
- (8) No driver present
- (9) Unknown if specimen test given

*** IF THE CDS APPLICABLE VEHICLE WAS NOT INSPECTED (I.E., GV35 = 0), ***
DO NOT COMPLETE THE EXTERIOR AND INTERIOR VEHICLE FORMS.

*** IF GV07 DOES NOT EQUAL 01-49, DO NOT COMPLETE ***
THE EXTERIOR VEHICLE, INTERIOR VEHICLE,
OCCUPANT ASSESSMENT, AND OCCUPANT INJURY FORMS.

COLLISION DEFORMATION CLASSIFICATION

HIGHEST DELTA "V"

Accident Event Sequence Number	Object Contacted	(1) (2) Direction of Force	(3) Deformation Location	(4) Specific Longitudinal or Lateral Location	(5) Specific Vertical or Lateral Location	(6) Type of Damage Distribution	(7) Deformation Extent
4 _____	5. _____	6 _____	7. _____	8 _____	9. _____	10 _____	11. _____

Second Highest Delta "V"

12. _____	13. _____	14. _____	15. _____	16. _____	17. _____	18. _____	19. _____
-----------	-----------	-----------	-----------	-----------	-----------	-----------	-----------

CRUSH PROFILE

(The crush profile for the damage described in the CDC(s) above should be documented in the appropriate space below. ALL MEASUREMENTS ARE IN INCHES)

HIGHEST DELTA "V"

20. _____ L	21. _____ C1	_____ C2	_____ C3	_____ C4	_____ C5	_____ C6	22. + - D
_____	_____	_____	_____	_____	_____	_____	_____

Second Highest Delta "V"

23. _____ L	24. _____ C1	_____ C2	_____ C3	_____ C4	_____ C5	_____ C6	25. + - D
_____	_____	_____	_____	_____	_____	_____	_____

26. Are CDCs Documented but Not Coded on The Automated File ? _____
(0) No
(1) Yes

27. Researcher's Assessment of Vehicle Disposition _____
(0) Not towed due to vehicle damage
(1) Towed due to vehicle damage
(9) Unknown

28. Original Wheelbase _____
Code to the nearest tenth of an inch
(9999) Unknown

<p>29. Is This A Multi-Stage Manufactured Vehicle And/Or A Certified Altered Vehicle? _____</p> <p>(0) No post manufacturer modifications</p> <p>(1) Yes - post manufacturer modifications (specify): _____</p> <p>_____</p> <p>(Include photograph of CERTIFICATION PLACARD in case report)</p> <p>(9) Unknown if vehicle is modified</p> <p>30. Fire Occurrence _____</p> <p>(0) No fire</p> <p>Yes, fire occurred</p> <p>(1) Minor</p> <p>(2) Major</p> <p>(9) Unknown</p>	<p>31. Origin of Fire _____</p> <p>(0) No fire</p> <p>(1) Vehicle exterior (front, side, back, top)</p> <p>(2) Exhaust system</p> <p>(3) Fuel tank (and other fuel retention system parts)</p> <p>(4) Engine compartment</p> <p>(5) Cargo/trunk compartment</p> <p>(6) Instrument panel</p> <p>(7) Passenger compartment area</p> <p>(8) Other location (specify): _____</p> <p>(9) Unknown</p> <p>32. Type of Fuel Tank _____</p> <p>(0) No fuel tank (electrical vehicle)</p> <p>(1) Metallic</p> <p>(2) Non-metallic</p> <p>(9) Unknown</p>
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*** STOP: IF THE CDS APPLICABLE VEHICLE WAS NOT TOWED ***
 (I.E., GV09 = 0 OR 9), DO NOT COMPLETE THE INTERIOR VEHICLE FORM.



1. Primary Sampling Unit Number _____
 2. Case Number—Stratum _____
 3. Vehicle Number _____

INTEGRITY

4. Passenger Compartment Integrity _____
 (00) No integrity loss
 Yes, Integrity Was Lost Through
 (01) Windshield
 (02) Door (side)
 (03) Door/hatch (back door)
 (04) Roof
 (05) Roof glass
 (06) Side window
 (07) Rear window (backlight)
 (08) Roof and roof glass
 (09) Windshield and door (side)
 (10) Windshield and roof
 (11) Side and rear window (side window and backlight)
 (12) Windshield and side window
 (13) Door and side window
 (98) Other combination of above (specify) _____
 (99) Unknown

Door, Tailgate Or Hatch Opening
 5. LF _____ 6. RF _____ 7. LR _____ 8. RR _____ 9. TG/H _____
 (0) No door/gate/hatch
 (1) Door/gate/hatch remained closed and operational
 (2) Door/gate/hatch came open during collision
 (3) Door/gate/hatch jammed shut
 (8) Other (specify) _____
 (9) Unknown

Damage/Failure Associated with Door, Tailgate or Hatch Opening in Collision. If IV05-IV09 ≠ 2, Then Code 0.
 10. LF _____ 11. RF _____ 12. LR _____ 13. RR _____ 14. TG/H _____
 (0) No door/gate/hatch or door not opened
 Door, Tailgate, or Hatch Came Open During Collision
 (1) Door operational (no damage)
 (2) Latch/striker failure due to damage
 (3) Hinge failure due to damage
 (4) Door structure failure due to damage
 (5) Door support (i.e., pillar, sill, roof side rail, etc.) failure due to damage
 (6) Latch/striker and hinge failure due to damage
 (8) Other failure (specify) _____
 (9) Unknown

GLAZING

Glazing Damage from Impact Forces
 15. WS _____ 16. LF _____ 17. RF _____ 18. LR _____ 19. RR _____
 20. BL _____ 21. Roof _____ 22. Other _____

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

Glazing Damage from Occupant Contact
 23. WS _____ 24. LF _____ 25. RF _____ 26. LR _____ 27. RR _____
 28. BL _____ 29. Roof _____ 30. Other _____

- (0) No occupant contact to glazing or no glazing
- (1) Glazing contacted by occupant but no glazing damage
- (2) Glazing in place and cracked by occupant contact
- (3) Glazing in place and holed by occupant contact
- (4) Glazing out-of-place (cracked or not) by occupant contact and not holed by occupant contact
- (5) Glazing out-of-place by occupant contact and holed by occupant contact
- (6) Glazing disintegrated by occupant contact
- (9) Unknown if contacted by occupant

If No Glazing Damage *And* No Occupant Contact or No Glazing, Then Code IV 31 Through IV 46 As 0

Type of Window/Windshield Glazing
 31. WS _____ 32. LF _____ 33. RF _____ 34. LR _____ 35. RR _____
 36. BL _____ 37. Roof _____ 38. Other _____

- (0) No glazing contact and no damage, or no glazing
- (1) AS-1 – Laminated
- (2) AS-2 – Tempered
- (3) AS-3 – Tempered-tinted
- (4) AS-14 – Glass/Plastic
- (8) Other (specify) _____
 (9) Unknown

Window Pre-crash Glazing Status
 39. WS _____ 40. LF _____ 41. RF _____ 42. LR _____ 43. RR _____
 44. BL _____ 45. Roof _____ 46. Other _____

- (0) No glazing contact and no damage, or no glazing
- (1) Fixed
- (2) Closed
- (3) Partially opened
- (4) Fully opened
- (9) Unknown

OCCUPANT AREA INTRUSION

Note If no intrusions, leave variables IV 47-IV 86 blank.

	<u>Location of Intrusion</u>	<u>Intruding Component</u>	<u>Magnitude of Intrusion</u>	<u>Dominant Crush Direction</u>
1st	47. _____	48. _____	49. _____	50. _____
2nd	51. _____	52. _____	53. _____	54. _____
3rd	55. _____	56. _____	57. _____	58. _____
4th	59. _____	60. _____	61. _____	62. _____
5th	63. _____	64. _____	65. _____	66. _____
6th	67. _____	68. _____	69. _____	70. _____
7th	71. _____	72. _____	73. _____	74. _____
8th	75. _____	76. _____	77. _____	78. _____
9th	79. _____	80. _____	81. _____	82. _____
10th	83. _____	84. _____	85. _____	86. _____

LOCATION OF INTRUSION

- | | |
|--|--|
| Front Seat
(11) Left
(12) Middle
(13) Right | Fourth Seat
(41) Left
(42) Middle
(43) Right |
| Second Seat
(21) Left
(22) Middle
(23) Right | (97) Catastrophic
(98) Other enclosed area (specify): _____
(99) Unknown |
| Third Seat
(31) Left
(32) Middle
(33) Right | |

INTRUDING COMPONENT

- Interior Components**
- (01) Steering assembly
 - (02) Instrument panel left
 - (03) Instrument panel center
 - (04) Instrument panel right
 - (05) Toe pan
 - (06) A-pillar
 - (07) B-pillar
 - (08) C-pillar
 - (09) D-pillar
 - (10) Door panel (side)
 - (12) Roof (or convertible top)
 - (13) Roof side rail
 - (14) Windshield
 - (15) Windshield header
 - (16) Window frame
 - (17) Floor pan (includes sill)
 - (18) Backlight header
 - (19) Front seat back
 - (20) Second seat back
 - (21) Third seat back
 - (22) Fourth seat back
 - (23) Fifth seat back
 - (24) Seat cushion
 - (25) Back door/panel (e.g., tailgate)
 - (26) Other interior component (specify): _____
 - (27) Side panel - forward of the A-pillar
 - (28) Side panel - rear of the A-pillar
- Exterior Components**
- (30) Hood
 - (31) Outside surface of vehicle (specify): _____
 - (32) Other exterior object in the environment (specify): _____
 - (33) Unknown exterior object
 - (97) Catastrophic
 - (98) Intrusion of unlisted component(s) (specify): _____
 - (99) Unknown

MAGNITUDE OF INTRUSION

- (1) ≥ 1 inch but < 3 inches
- (2) ≥ 3 inches but < 6 inches
- (3) ≥ 6 inches but < 12 inches
- (4) ≥ 12 inches but < 18 inches
- (5) ≥ 18 inches but < 24 inches
- (6) ≥ 24 inches
- (7) Catastrophic
- (9) Unknown

DOMINANT CRUSH DIRECTION

- (1) Vertical
- (2) Longitudinal
- (3) Lateral
- (7) Catastrophic
- (9) Unknown

STEERING COLUMN

87. Steering Column Type _____
 (1) Fixed column
 (2) Tilt column
 (3) Telescoping column
 (4) Tilt and telescoping column
 (8) Other column type (specify): _____
 (9) Unknown

88. Blank X X
 (This variable is left blank so that numbering consistency can be maintained with the 1988-90 CDS.)

89. Blank X X X
 (This variable is left blank so that numbering consistency can be maintained with the 1988-90 CDS.)

90. Blank X X X
 (This variable is left blank so that numbering consistency can be maintained with the 1988-90 CDS.)

91. Blank X X X
 (This variable is left blank so that numbering consistency can be maintained with the 1988-90 CDS.)

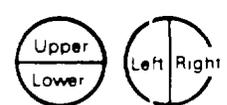
92. Steering Rim/Spoke Deformation _____
 _____ Code actual measured deformation to the nearest inch.
 (0) No steering rim deformation
 (1-5) Actual measured value
 (6) 6 inches or more
 (8) Observed deformation cannot be measured
 (9) Unknown

93. Location of Steering Rim/Spoke Deformation _____
 (00) No steering rim deformation

Quarter Sections
 (01) Section A
 (02) Section B
 (03) Section C
 (04) Section D



Half Sections
 (05) Upper half of rim/spoke
 (06) Lower half of rim/spoke
 (07) Left half of rim/spoke
 (08) Right half of rim/spoke



(09) Complete steering wheel collapse
 (10) Undetermined location
 (99) Unknown

INSTRUMENT PANEL

94. Odometer Reading _____,000
 _____miles – Code mileage to the nearest 1,000 miles
 (000) No odometer
 (001) Less than 1,500 miles
 (300) 299,500 miles or more
 (999) Unknown
 Source: _____

95. Instrument Panel Damage from Occupant Contact? _____
 (0) No
 (1) Yes
 (9) Unknown

96. Knee Bolsters Deformed from Occupant Contact? _____
 (0) No
 (1) Yes
 (8) Not present
 (9) Unknown

97. Did Glove Compartment Door Open During Collision(s)? _____
 (0) No
 (1) Yes
 (8) Not present
 (9) Unknown



OCCUPANT ASSESSMENT FORM

<p>1. Primary Sampling Unit Number _____</p> <p>2. Case Number – Stratum _____</p> <p>3. Vehicle Number _____</p> <p>4. Occupant Number _____</p>	<p>11. Occupant's Posture _____</p> <p>(0) Normal posture</p> <p>(1) Abnormal posture (specify): _____</p> <p>(9) Unknown</p>
OCCUPANT'S CHARACTERISTICS	
<p>5. Occupant's Age _____</p> <p>Code actual age at time of accident.</p> <p>(00) Less than one year old (specify by month) _____</p> <p>(97) 97 years and older</p> <p>(99) Unknown</p> <p>6. Occupant's Sex _____</p> <p>(1) Male</p> <p>(2) Female</p> <p>(9) Unknown</p> <p>7. Occupant's Height _____</p> <p>Code actual height to the nearest inch.</p> <p>(99) Unknown</p> <p>8. Occupant's Weight _____</p> <p>Code actual weight to the nearest pound</p> <p>(999) Unknown</p> <p>9. Occupant's Role _____</p> <p>(1) Driver</p> <p>(2) Passenger</p> <p>(9) Unknown</p> <p>10. Occupant's Seat Position _____</p> <p>Front Seat</p> <p>(11) Left side</p> <p>(12) Middle</p> <p>(13) Right side</p> <p>(14) Other (specify): _____</p> <p>(15) On or in the lap of another occupant</p> <p>Second Seat</p> <p>(21) Left side</p> <p>(22) Middle</p> <p>(23) Right side</p> <p>(24) Other (specify): _____</p> <p>(25) On or in the lap of another occupant</p> <p>Third Seat</p> <p>(31) Left side</p> <p>(32) Middle</p> <p>(33) Right side</p> <p>(34) Other (specify): _____</p> <p>(35) On or in the lap of another occupant</p> <p>Fourth Seat</p> <p>(41) Left side</p> <p>(42) Middle</p> <p>(43) Right side</p> <p>(44) Other (specify): _____</p> <p>(45) On or in the lap of another occupant</p> <p>(97) In or on unenclosed area</p> <p>(98) Other seat (specify): _____</p> <p>(99) Unknown</p>	<p style="text-align: center; background-color: black; color: white; font-weight: bold;">EJECTION/ENTRAPMENT</p> <p>12. Ejection _____</p> <p>(0) No ejection</p> <p>(1) Complete ejection</p> <p>(2) Partial ejection</p> <p>(3) Ejection, unknown degree</p> <p>(9) Unknown</p> <p>13. Ejection Area _____</p> <p>(0) No ejection</p> <p>(1) Windshield</p> <p>(2) Left front</p> <p>(3) Right front</p> <p>(4) Left rear</p> <p>(5) Right rear</p> <p>(6) Rear</p> <p>(7) Roof</p> <p>(8) Other area (e.g., back of pickup, etc.) _____</p> <p>(specify) _____</p> <p>(9) Unknown</p> <p>14. Ejection Medium _____</p> <p>(0) No ejection</p> <p>(1) Door/hatch/tailgate</p> <p>(2) Nonfixed roof structure</p> <p>(3) Fixed glazing</p> <p>(4) Nonfixed glazing (specify): _____</p> <p>(5) Integral structure</p> <p>(8) Other medium (specify): _____</p> <p>(9) Unknown</p> <p>15. Medium Status (Immediately Prior to Impact) _____</p> <p>(0) No ejection</p> <p>(1) Open</p> <p>(2) Closed</p> <p>(3) Integral structure</p> <p>(9) Unknown</p> <p>16. Entrapment _____</p> <p>(NOTE: Entrapped means that part of the person was in the vehicle and mechanically restrained; jammed doors and immobilizing injuries by themselves are not sufficient to constitute entrapment.)</p> <p>(0) Not entrapped</p> <p>(1) Entrapped</p> <p>(9) Unknown</p>

RESTRAINT SYSTEM AND SEAT EVALUATION**17. Manual (Active) Belt System Availability** _____

- (0) Not available
- (1) Belt removed/destroyed
- (2) Shoulder belt
- (3) Lap belt
- (4) Lap and shoulder belt
- (5) Belt available – type unknown
- (8) Other belt (specify): _____

(9) Unknown _____

18. Manual (Active) Belt System Use _____

- (00) None used, not available, or belt removed/destroyed
- (01) Inoperative (specify): _____

- (02) Shoulder belt
- (03) Lap belt
- (04) Lap and shoulder belt
- (05) Belt used – type unknown
- (08) Other belt used (specify): _____

- (12) Shoulder belt used with child safety seat
- (13) Lap belt used with child safety seat
- (14) Lap and shoulder belt used with child safety seat
- (15) Belt used with child safety seat – type unknown
- (18) Other belt used with child safety seat (specify): _____
- (99) Unknown if belt used

19. Proper Use of Manual (Active) Belts _____

- (0) None used or not available
- (1) Belt used properly
- (2) Belt used properly with child safety seat

Belt Used Improperly

- (3) Shoulder belt worn under arm
- (4) Shoulder belt worn behind back or seat
- (5) Belt worn around more than one person
- (6) Lap belt worn on abdomen
- (7) Lap belt or lap and shoulder belt used improperly with child safety seat (specify): _____

- (8) Other improper use of manual belt system (specify): _____

(9) Unknown _____

20. Manual (Active) Belt Failure Modes During Accident _____

- (0) No manual belt used or not available
- (1) No manual belt failure(s)
- (2) Torn webbing (stretched webbing not included)
- (3) Broken buckle or latchplate
- (4) Upper anchorage separated
- (5) Other anchorage separated (specify): _____

- (6) Broken retractor
- (7) Combination of above (specify): _____

- (8) Other manual belt failure (specify): _____

(9) Unknown _____

21. Air Bag System Availability/Function _____

- (0) Not equipped/not available
- (1) Air bag

Non-functional

- (2) Air bag disconnected (specify): _____
- (3) Air bag not reinstalled
- (9) Unknown

22. Air Bag System Deployment _____

- (0) Not equipped/not available
- (1) Air bag deployed during accident
- (2) Air bag deployed inadvertently just prior to accident
- (3) Air bag deployed, accident sequence undetermined
- (4) Nondeployed
- (5) Unknown if deployed
- (9) Unknown

23. Did Air Bag System Fail? _____

- (0) Not equipped/not available
- (1) No
- (2) Yes (specify): _____
- (9) Unknown

Note: See Variables 44 through 48 (Page 5) for Information on Automatic Belts

24. Police Reported Restraint Use _____

- (0) None used
- (1) Police did not indicate restraint use
- (2) Shoulder belt
- (3) Lap belt
- (4) Lap and shoulder belt
- (5) Belt used, type not specified
- (6) Child safety seat
- (7) Other or automatic restraint (specify): _____
- (8) Restrained, type unknown
- (9) Police indicated "unknown"

25. Head Restraint Type/Damage by Occupant at This Occupant Position _____

- (0) No head restraints
- (1) Integral – no damage
- (2) Integral – damaged during accident
- (3) Adjustable – no damage
- (4) Adjustable – damaged during accident
- (5) Add-on – no damage
- (6) Add-on – damaged during accident
- (8) Other (specify): _____
- (9) Unknown

- 26. Seat Type (This Occupant Position)** _____
- (00) Occupant not seated or no seat
 - (01) Bucket
 - (02) Bucket with folding back
 - (03) Bench
 - (04) Bench with separate back cushions
 - (05) Bench with folding back(s)
 - (06) Split bench with separate back cushions
 - (07) Split bench with folding back(s)
 - (08) Pedestal (i.e., van type)
 - (09) Other seat type (specify):

 - (99) Unknown

- 27. Seat Performance (This Occupant Position)** _____
- (0) Occupant not seated or no seat
 - (1) No seat performance failure(s)
 - (2) Seat adjusters failed
 - (3) Seat back folding locks failed
 - (4) Seat track/anchors failed
 - (5) Deformed by impact of occupant
 - (6) Deformed by passenger compartment intrusion (specify):

 - (7) Combination of above (specify):

 - (8) Other (specify):

 - (9) Unknown

CHILD SAFETY SEAT

- 28. Child Safety Seat Make/Model** _____
- (000) No child safety seat
 - Applicable codes are found in your NASS CDS Data Collection, Coding, and Editing Manual
 - (997) Other make/model (specify):

 - (998) Unknown make/model
 - (999) Unknown if child safety seat used

- 29. Type of Child Safety Seat** _____
- (0) No child safety seat
 - (1) Infant seat
 - (2) Toddler seat
 - (3) Convertible seat
 - (4) Booster seat
 - (7) Other type child safety seat (specify):

 - (8) Unknown child safety seat type
 - (9) Unknown if child safety seat used

- 30. Child Safety Seat Orientation** _____
- (00) No child safety seat
 - Designed for Rear Facing for This Age/Weight
 - (01) Rear facing
 - (02) Forward facing
 - (08) Other orientation (specify):

 - (09) Unknown orientation
 - Designed for Forward Facing for This Age/Weight
 - (11) Rear facing
 - (12) Forward facing
 - (18) Other orientation (specify):

 - (19) Unknown orientation
 - Unknown Design or Orientation for This Age/Weight, or Unknown Age/Weight
 - (21) Rear facing
 - (22) Forward facing
 - (28) Other orientation (specify):

 - (29) Unknown orientation
 - (99) Unknown if child safety seat used

- 31. Child Safety Seat Harness Usage** _____
- 32. Child Safety Seat Shield Usage** _____
- 33. Child Safety Seat Tether Usage** _____
- Note: Options below applicable to Variables OA31-OA33.
- (00) No child safety seat

- Not Designed with Harness/Shield/Tether
- (01) After market harness/shield/tether added, not used
 - (02) After market harness/shield/tether used
 - (03) Child safety seat used, but no after market harness/shield/tether added
 - (09) Unknown if harness/shield/tether added or used

- Designed with Harness/Shield/Tether
- (11) Harness/shield/tether not used
 - (12) Harness/shield/tether used
 - (19) Unknown if harness/shield/tether used

- Unknown If Designed with Harness/Shield/Tether
- (21) Harness/shield/tether not used
 - (22) Harness/shield/tether used
 - (29) Unknown if harness/shield/tether used
 - (99) Unknown if child safety seat used

INJURY CONSEQUENCES

- 34. Injury Severity (Police Rating)** _____
 (0) O – No injury
 (1) C – Possible injury
 (2) B – Nonincapacitating injury
 (3) A – Incapacitating injury
 (4) K – Killed
 (5) U – Injury, severity unknown
 (6) Died prior to accident
 (9) Unknown
- 35. Treatment – Mortality** _____
 (0) No treatment
 (1) Fatal
 (2) Fatal – ruled disease
- Nonfatal
 (3) Hospitalized
 (4) Transported and released
 (5) Treatment at scene – nontransported
 (6) Treatment later
 (8) Treatment – other (specify)

 (9) Unknown
- 36. Type of Medical Facility (for Initial Treatment)** _____
 (0) Not treated at a medical facility
 (1) Trauma center
 (2) Hospital
 (3) Medical clinic
 (4) Physician's office
 (5) Treatment later at medical facility
 (8) Other (specify)

 (9) Unknown
- 37. Hospital stay** _____
 _____ Code number of days (up through 60)
 that the occupant stayed in the hospital
 (00) Not hospitalized
 (61) 61 days or more
 (99) Unknown

- 38. Working Days Lost** _____
 _____ Code the number of days
 (up through 60) that the occupant
 lost from work due to the accident
 (00) No working days lost
 (61) 61 days or more
 (62) Fatally injured
 (97) Not working prior to accident
 (99) Unknown
- 39. Time to Death** _____
 _____ Code number of hours from time of
 accident to time of death up through 24
 hours. If time of death is greater than 24
 hours, code number of days. (Note: 1 day =
 31, 2 days = 32, ... n days = 30 + n up through
 30 days = 60)
 (00) Not fatal
 (96) Fatal – ruled disease
 (99) Unknown
- 40. 1st Medically Reported Cause of Death** _____
- 41. 2nd Medically Reported Cause of Death** _____
- 42. 3rd Medically Reported Cause of Death** _____
 _____ Code the Occupant Injury from line
 number(s) for the medically reported
 injury(s) which reportedly contributed to
 this occupant's death
 (00) Not fatal or no additional causes
 (97) Other result (specify)

 (99) Unknown
- 43. Number of Recorded Injuries for
 This Occupant** _____
 _____ Code the actual number of
 injuries recorded for this occupant.
 (00) No recorded injuries
 (97) Injured, details unknown
 (99) Unknown if injured

<p>44. Automatic (Passive) Belt System Availability/ Function _____</p> <p>(0) Not equipped/not available (1) 2 point automatic belts (2) 3 point automatic belts (3) Automatic belts - type unknown</p> <p>Non-functional</p> <p>(4) Automatic belts destroyed or rendered inoperative (9) Unknown</p> <p>45. Automatic (Passive) Belt System Use _____</p> <p>(0) Not equipped/not available/destroyed or rendered inoperative (1) Automatic belt in use (2) Automatic belt not in use (manually disconnected, motorized track inoperative) (specify): _____ (3) Automatic belt use unknown (9) Unknown</p> <p>46. Automatic (Passive) Belt System Type _____</p> <p>(0) Not equipped/not available (1) Non-motorized system (2) Motorized system (9) Unknown</p>	<p>47. Proper Use of Automatic (Passive) Belt System _____</p> <p>(0) Not equipped/not available/not used (1) Automatic belt used properly (2) Automatic belt used properly with child safety seat</p> <p>Automatic Belt Used Improperly</p> <p>(3) Automatic shoulder belt worn under arm (4) Automatic shoulder belt worn behind back (5) Automatic belt worn around more than one person (6) Lap portion of automatic belt worn on abdomen (7) Automatic lap and shoulder belt or automatic shoulder belt used improperly with child safety seat (specify): _____ (8) Other improper use of automatic belt system (specify): _____ (9) Unknown</p> <p>48. Automatic (Passive) Belt Failure Modes During Accident _____</p> <p>(0) Not equipped/not available/not in use (1) No automatic belt failure(s) (2) Torn webbing (stretched webbing not included) (3) Broken buckle or latchplate (4) Upper anchorage separated (5) Other anchorage separated (specify): _____ (6) Broken retractor (7) Combination of above (specify): _____ (8) Other automatic belt failure (specify): _____ (9) Unknown</p>
---	---

UPDATE CANDIDATE? NO [] YES []

OCCUPANT INJURY FORM INCLUDED WITH INITIAL SUBMISSION? NO [] YES []

***** STOP HERE *****
IF THERE ARE NO RECORDED INJURIES
(I.E., OA43 = 00,97,99)



OCCUPANT INJURY FORM

1. Primary Sampling Unit Number _____ 3. Vehicle Number _____
2. Case Number - Stratum _____ 4. Occupant Number _____

INJURY DATA

Record below the actual injuries sustained by this occupant that were identified from the official and unofficial data sources. Remember not to double count an injury just because it was identified from two different sources. If greater than ten injuries have been documented, encode the balance on the Occupant Injury Supplement.

	Source of Injury Data	OIC - AIS					Injury Source	Injury Source Confidence Level	Direct/ Indirect Injury	Occupant Area Intrusion No
		Body Region	Aspect	Lesion	System Organ	AIS Severity				
1st	5. ___	6. ___	7. ___	8. ___	9. ___	10. ___	11. ___	12. ___	13. ___	14. ___
2nd	15. ___	16. ___	17. ___	18. ___	19. ___	20. ___	21. ___	22. ___	23. ___	24. ___
3rd	25. ___	26. ___	27. ___	28. ___	29. ___	30. ___	31. ___	32. ___	33. ___	34. ___
4th	35. ___	36. ___	37. ___	38. ___	39. ___	40. ___	41. ___	42. ___	43. ___	44. ___
5th	45. ___	46. ___	47. ___	48. ___	49. ___	50. ___	51. ___	52. ___	53. ___	54. ___
6th	55. ___	56. ___	57. ___	58. ___	59. ___	60. ___	61. ___	62. ___	63. ___	64. ___
7th	65. ___	66. ___	67. ___	68. ___	69. ___	70. ___	71. ___	72. ___	73. ___	74. ___
8th	75. ___	76. ___	77. ___	78. ___	79. ___	80. ___	81. ___	82. ___	83. ___	84. ___
9th	85. ___	86. ___	87. ___	88. ___	89. ___	90. ___	91. ___	92. ___	93. ___	94. ___
10th	95. ___	96. ___	97. ___	98. ___	99. ___	100. ___	101. ___	102. ___	103. ___	104. ___

SOURCE OF INJURY DATA

OFFICIAL

- (1) Autopsy records with or without hospital medical records
- (2) Hospital medical records other than emergency room (eg discharge summary)
- (3) Emergency room records only (including associated X rays or other lab reports)
- (4) Private physician, walk-in or emergency clinic

UNOFFICIAL

- (5) Lay coroner report
- (6) E.M.S. personnel
- (7) Interviewee
- (8) Other source (specify)

- (9) Police

- (26) Left side window glass including one or more of the following: frame, window sill, A-pillar, B-pillar or roof side rail
- (27) Other left side object (specify)

RIGHT SIDE

- (30) Right side interior surface, excluding hardware or armrests
- (31) Right side hardware or armrest
- (32) Right A pillar
- (33) Right B pillar
- (34) Other right pillar (specify)

- (35) Right side window glass or frame
- (36) Right side window glass including one or more of the following: frame, window sill, A-pillar, B-pillar, roof side rail
- (37) Other right side object (specify)

INTERIOR

- (40) Seat, back support
- (41) Belt restraint webbing buckle
- (42) Belt restraint B pillar attachment point
- (43) Other restraint system component (specify)

- (44) Head restraint system
- (45) Air bag
- (46) Other occupants (specify)

- (47) Interior loose objects
- (48) Child safety seat (specify)

- (49) Other interior object (specify)

ROOF

- (50) Front header
- (51) Rear header
- (52) Roof left side rail
- (53) Roof right side rail
- (54) Roof or convertible top

FLOOR

- (56) Floor including toe pan
- (57) Floor or console mounted transmission lever, including console
- (58) Parking brake handle
- (59) Foot controls including parking brake

REAR

- (60) Backlight (rear window)
- (61) Backlight storage rack, door, etc
- (62) Other rear object (specify)

EXTERIOR OF OCCUPANT'S VEHICLE

- (65) Hood
- (66) Outside hardware (eg outside mirror, antenna)
- (67) Other exterior surface or tires (specify)

- (68) Unknown exterior objects

EXTERIOR OF OTHER MOTOR VEHICLE

- (70) Front bumper
- (71) Hood edge
- (72) Other front of vehicle (specify)

- (73) Hood
- (74) Hood ornament
- (75) Windshield, roof rail, A-pillar
- (76) Side surface
- (77) Side mirrors
- (78) Other side protrusions (specify)

- (79) Rear surface
- (80) Undercarriage
- (81) Tires and wheels
- (82) Other exterior of other motor vehicle (specify)

- (83) Unknown exterior of other motor vehicle

OTHER VEHICLE OR OBJECT IN THE ENVIRONMENT

- (84) Ground
- (85) Other vehicle or object (specify)

- (86) Unknown vehicle or object

NONCONTACT INJURY

- (90) Fire in vehicle
- (91) Flying glass
- (92) Other noncontact injury source (specify)

- (97) Injured, unknown source

INJURY SOURCE

FRONT

- (01) Windshield
- (02) Mirror
- (03) Sunvisor
- (04) Steering wheel rim
- (05) Steering wheel hub spoke
- (06) Steering wheel (combination of codes 04 and 05)
- (07) Steering column, transmission selector lever, other attachment
- (08) Add-on equipment (eg CB tape deck, air conditioner)
- (09) Left instrument panel and below
- (10) Center instrument panel and below
- (11) Right instrument panel and below
- (12) Glove compartment door
- (13) Knee bolster
- (14) Windshield including one or more of the following: front header, A-pillar, instrument panel, mirror, or steering assembly (driver side only)
- (15) Windshield including one or more of the following: front header, A-pillar, instrument panel, or mirror (passenger side only)
- (16) Other front object (specify)

LEFT SIDE

- (20) Left side interior surface, excluding hardware or armrests
- (21) Left side hardware or armrest
- (22) Left A pillar
- (23) Left B pillar
- (24) Other left pillar (specify)
- (25) Left side window glass or frame

INJURY SOURCE CONFIDENCE LEVEL

- (1) Certain
- (2) Probable
- (3) Possible
- (9) Unknown

DIRECT/INDIRECT INJURY

- (1) Direct contact injury
- (2) Indirect contact injury
- (3) Noncontact injury
- (7) Injured, unknown source

OCCUPANT INJURY CLASSIFICATION

O I C Body Region

- (M) Abdomen
- (Q) Ankle-foot
- (A) Arm (upper)
- (B) Back-thoracolumbar spine
- (C) Chest
- (E) Elbow
- (F) Face
- (R) Forearm
- (H) Head-skull
- (U) Injured, unknown region
- (K) Knee
- (L) Leg (lower)
- (Y) Lower limb(s) (whole or unknown part)
- (N) Neck-cervical spine
- (P) Pelvic-hip
- (S) Shoulder
- (T) Thigh
- (X) Upper limb(s) (whole or unknown part)
- (D) Whole body

(W) Wrist-hand

Aspect of Injury

- (A) Anterior-front
- (B) Bilateral (rib fracture only)
- (C) Central
- (I) Inferior-lower
- (U) Injured, unknown aspect
- (L) Left
- (P) Posterior-back
- (R) Right
- (S) Superior-upper
- (W) Whole region

Lesion

- (A) Abrasion
- (M) Amputation
- (V) Avulsion
- (B) Burn
- (K) Concussion
- (C) Contusion
- (N) Crush

(G) Detachment, separation

- (D) Dislocation
- (F) Fracture
- (Z) Fracture and dislocation
- (U) Injured, unknown lesion
- (L) Laceration
- (O) Other
- (P) Perforation puncture
- (R) Rupture
- (S) Sprain
- (T) Strain
- (E) Total severance transection

System/Organ

- (W) All systems in region
- (A) Arteries-veins
- (B) Brain
- (D) Digestive
- (E) Ears
- (O) Eye
- (H) Heart
- (U) Injured, unknown system

(I) Integumentary

- (J) Joints
- (K) Kidneys
- (L) Liver
- (M) Muscles
- (N) Nervous system
- (P) Pulmonary-lungs
- (R) Respiratory
- (S) Skeletal
- (C) Spinal cord
- (Q) Spleen
- (T) Thyroid, other endocrine gland
- (G) Urogenital
- (V) Vertebrae

Abbreviated Injury Scale

- (1) Minor injury
- (2) Moderate injury
- (3) Serious injury
- (4) Severe injury
- (5) Critical injury
- (6) Maximum (untreatable)
- (7) Injured, unknown severity

APPENDIX B

CODING INFORMATION FOR VEHICLE MAKE/MODEL

The primary source of information on vehicle make and model is vehicle inspection; the VIN provides vehicle make data. Secondary sources include the police report and interviews.

If the make of the vehicle is known, but if the model is not known, then Vehicle Model is coded as '999" (Unknown).

If the make of the vehicle is not known but the body type is known (e.g., a hit-and-run vehicle), then Vehicle Make is coded "99" (Unknown) and Vehicle Model is coded "999" (Unknown).

If no information is available for a vehicle, then Vehicle Make and Body Type are coded "99" (Unknown) and Vehicle Model is coded "999" (Unknown).

Vehicle models are organized into general groups. These groups are:

- 001-397 - Passenger vehicle (automobile)
- 398 - Other passenger vehicle
- 401-497 - Light trucks (including truck based utility vehicles, mini vans, standard vans, van based station wagons, van based buses, van derivatives, compact pickup trucks, standard pickup trucks and truck based station wagons)
- 498 - Other light truck
- 701-797 - Motored Cycles/ATCs/ATVs (including motorcycles, mopeds, minibikes, motorscooters and dirt bikes) (701 - 706 Motorcycles/Mopeds) (731 - 734 ATCs/ATVs)
- 798 - Other motored cycle
- 801-897 - Medium/heavy trucks (includes all trucks over 10,000 lbs. GVWR except some pickup type trucks under Body Type code "31" -Standard pickup)
- 898 - Other medium/heavy truck
- 901-996 - Buses
- 997 - Other bus
- 998 - Other vehicle (includes construction equipment, farm vehicles and go-karts)
- 999 - Unknown

Within these groups, the model codes for automobiles and light trucks generally are not ordered to give any indication of vehicle size or type. However, the model codes for motored cycles, medium/heavy trucks, buses and other have specific definition. These definitions are:

Motored Cycles

701	0-50cc
702	51-124cc
703	125-349cc
704	350-449cc
705	450-749cc
706	750cc or greater

All Terrain Cycles/Vehicles

731	0-50cc
732	51-124cc
733	125-349cc
734	350cc or greater

Trucks and Buses

881	Medium/Heavy - CBE
882	Medium/Heavy - COE/low entry
883	Medium/Heavy - COE/high entry
901	Bus - conventional front engine
902	Bus - front engine/flat front
903	Bus - rear engine/flat front
950	Truck based motor home

Other

398	Other passenger vehicle
498	Other light truck
798	Other motored cycle
898	Other medium/heavy truck
997	Other bus
998	Other vehicle (farm vehicle, go-kart)

Variable Name: Vehicle Make (specify):

Element Values:

Passenger Vehicles/Light Trucks (01-69)

	<u>GV06</u> <u>Subpage</u>		<u>GV06</u> <u>Subpage</u>
01 American Motors	1st	30 Volkswagen	(20)
02 Jeep (includes Kaiser-Jeep)	(2)	31 Alfa Romeo	(21)
03 AM General	(2)	32 Audi	(21)
06 Chrysler	(3)	33 Austin/Austin Healey	(22)
07 Dodge	(4)	34 BMW	(22)
08 Imperial	(6)	35 Nissan/Datsun	(23)
09 Plymouth	(6)	36 Fiat	(24)
10 Eagle	(7)	37 Honda	(25)
12 Ford	(8)	38 Isuzu	(26)
13 Lincoln	(10)	39 Jaguar	(27)
14 Mercury	(11)	40 Lancia	(27)
18 Buick	(12)	41 Mazda	(28)
19 Cadillac	(13)	42 Mercedes Benz	(29)
20 Chevrolet	(14)	43 MG	(30)
21 Oldsmobile	(16)	44 Peugeot	(30)
22 Pontiac	(17)	45 Porsche	(31)
23 GMC	(18)	46 Renault	(31)
24 Saturn	(19)	47 Saab	(32)
29 Other domestic: GV06 =	(19)	48 Subaru	(32)
001 - Studebaker/Avanti		49 Toyota	(33)
002 - Checker		50 Triumph	(34)
398 - Other domestic		51 Volvo	(35)
(i.e., DeSoto		52 Mitsubishi	(36)
Hudson, Packard)		53 Suzuki	(37)
		54 Acura	(37)
		55 Hyundai	(38)
		56 Merkur	(38)
		57 Yugo	(38)
		58 Infiniti	(39)
		59 Lexus	(39)
		60 Daihatsu	(39)
		69 Other foreign	(40)

Motored Cycle/ATC/ATV (70-79)

	<u>GV06</u> <u>Subpage</u>		<u>GV06</u> <u>Subpage</u>
70 BSA	(41)	78 All mopeds other	(41)
71 Ducati	(41)	than those above	
72 Harley-Davidson	(41)	79 Other Motored Cycle	(41)
73 Kawasaki	(41)	Also see: [34] - BMW	(22)
74 Moto-Guzzi	(41)	[37] - Honda	(25)
75 Norton	(41)	[50] - Triumph	(34)
76 Yamaha	(41)	[53] - Suzuki	(37)

Medium/Heavy Trucks and Buses (80-89)

	<u>GV06</u> <u>Subpage</u>	Also see:	<u>GV06</u> <u>Subpage</u>
80 Brockway	(43)		
81 Diamond Reo/Reo	(43)		
82 Freightliner/White	(43)	[03] AM General	(2)
83 FWD	(43)	[07] Dodge	(5)
84 International	(42)	[12] Ford	(9)
Harvester/Navistar		[20] Chevrolet	(15)
85 Kenworth	(43)	[23] GMC	(18)
86 Mack	(43)	[35] Nissan/Datsun	(23)
87 Peterbilt	(43)	[36] Fiat	(24)
88 Iveco/Magirus	(43)	[38] Isuzu	(26)
89 Other: GV06 =	(43)	[42] Mercedes Benz	(29)
801 - Autocar		[51] Volvo	(35)
802 - Auto-Union-DKW		[52] Mitsubishi	(36)
803 - Divco			
804 - Western Star			
805 - Oshkosh			
898 - Other truck (e.g., Ward LaFrance, Marmon)			
901 - Grumman (bus)			
902 - NeoPlan (bus)			
950 - Truck based motorhome			
997 - Other bus			
998 - Other vehicle (i.e., farm vehicle, go-kart)			

Unknown (99)

99 Unknown

Source: Vehicle inspection, police report, and interview

Remarks:

Write the Vehicle Make in the available space for ready visual reference.

Code "99" (Unknown) is used for a "hit-and-run" vehicle unless reliable evidence indicates the vehicle's make.

Variable Name: Vehicle Model (specify):

Element Values:

MAKE "01"

AMERICAN MOTORS*

CODE	MODEL	INCLUDES	YEAR	SIZE	STIFFNESS
001	Rambler/American	Rogue, Scrambler, 220, 440	all	3	3
002	Rebel/Matador	Barcelona, Classic Brougham, 550, 660, 770 Matador (-78), Marlin	all	114" WB = 4 118" WB = 5	4 5
003	Ambassador	Brougham, DPL, SST, DL, Limited, 880, 990	all	5	5
004	Pacer	Limited, DL	75-80	2	2
005	AMX	(2 seater only)	68-70	2	2
006	Javelin	SST, AMX (71-74)	all	2	2
007	Hornet/Concord	Sportabout, Limited, DL, SC-360, SST, AMX (75-78)	all	2	2
008	Spirit/Gremlin	Limited, DL, Custom, X, GT (83-on) AMX (79-on)	all	2	2
009	Eagle	Concord based	80-87	3	3
010	Eagle SX-4	Spirit/Gremlin based	81-84	2	2
398	Other passenger vehicle		-	-	-
999	Unknown		-	-	-

* Alliance, Encore, Premier--See Renault - Make "46"

Variable Name: Vehicle Model (specify): [cont'd.]

MAKE "02" JEEP (Includes KAISER-JEEP)

CODE	MODEL	INCLUDES	YEAR	SIZE	STIFFNESS
401	CJ-2/CJ-3/CJ-4	Military	-66	81" WB = 1 101" WB = 2	7** 7**
402	CJ-5/CJ-6/CJ-7	Scrambler, Golden Eagle, Renegade, Laredo, Wrangler	67-on	84" WB = 1 104" WB = 3	7**
403	YJ-series	Wrangler	86-on	1	7**
404	Wagoneer	Custom, Brougham Limited Grand Wagoneer	71-on	2 3	7** 7**
405	Cherokee	Wide Track, Chief, Comando, Jeepster, Grand (92-on)	all	2	7**
410	Pickup	J-10, J-20, Honcho	all	per WB	7**
411	Comanche	Chief	86-on	111" WB = 3 119" WB = 4	7** 7**
498	Other light truck		-	-	-
999	Unknown		-	-	-

** Applies to front and rear impacts. Use size value for side impacts.

MAKE "03" AM GENERAL

CODE	MODEL	INCLUDES	YEAR	SIZE	STIFFNESS
401	Dispatcher	Post Office (Jeep)	all	1	1
420	Dispatcher	DJ-series-Post Office Van	all	N/A	N/A
498	Other light truck		-	-	-
884	Medium/Heavy	Military off-road	-	-	-
898	Other medium/heavy truck		-	-	-
903	Bus (rear engine)	Transit	all	N/A	N/A
997	Other bus		all	N/A	N/A
999	Unknown		-	-	-

Variable Name: Vehicle Model (specify): [cont'd.]

MAKE "06"

CHRYSLER

CODE	MODEL	INCLUDES	YEAR	SIZE	STIFFNESS
009	Condoba	Crown, 300, LS	75-83	4	4
010	New Yorker/Newport/ 5th Avenue/Imperial	Custom, Royal, Brougham, Town and Country, 300 (-71) (excludes all FWD)	-78 79-81 82-89	6 5 4	6 5 4
014	New Yorker/E Class/ Imperial (90-on) 5th Avenue	FWD vehicles, Turbo	83-on	3	9***
015	Laser	Turbo, XE, XT	84-86	2	9***
016	Lebaron	Medallion, Salon (RWD) FWD except GTS or GTC Sport Coupe	77-81 82-on	4 2	4 9***
017	Lebaron GTS/GTC	GTS-Turbo GTC-Sport Coupe	85-on 87-on	3 2	9*** 9***
031	TC (Maserati Sport)	Turbo Convertible	88-on	1	1
035	Conquest	TSI, Turbo	87-on	2	2
398	Other passenger vehicle		-	-	-
472	Town and Country	Minivan	90-on	5	7**
999	Unknown		-	-	-

*** Code 9 applies only to frontal impacts. Use size code for stiffness for side or rear impacts.

Variable Name: Vehicle Model (specify): [cont'd.]

MAKE "07"

DODGE

CODE	MODEL	INCLUDES	YEAR	SIZE	STIFFNESS
001	Dart	Custom, Swinger, Sport, GT, Demon, Special, Special Edition, 170, 270, 340, 360	62-70 71-76	111" WB = 4 108" WB = 3	4 3
002	Coronet/Charger (-78)/ Magnum	Brougham, Custom, Superbee, Crestwood, Deluxe, XE, R/T, SE 440, 500, Police	-79	4	4
003	Polara/Monaco Royal Monaco	Custom, Special, Crestwood, Brougham, Police, Taxi	-76 77-78	5 4	5 4
004	Viper		92-on	2	2
005	Challenger	R/T, T/A, Rallye	70-74	3	3
006	Aspen	Custom, Special Edition, Police, R/T, Sport	76-80	113" WB = 4 109" WB = 3	3 3
007	Diplomat	Medallion, Salon, S	77-on	4	4
008	Omni/Charger (83 on)	024, DeTomaso, Miser, GLH, GLHS Shelby, Charger 2.2, America, Expo	78-on	2	2
009	Mirada		80-83	4	4
010	St. Regis	Police, Taxi	79-81	5	5
011	Aries (K)	Custom, SE, LE	81-on	2	9***
012	400	LS	82-83	2	9***
013	Rampage (car based pickup)	2.2, GT, Sport	82-84	2	2
014	600	ES, Turbo	83-88	2	9***
015	Daytona	Turbo 2, Shelby 2, Pacifica, C/S Competition IROC R/T	84-on	2	9***
016	Lancer	Pacifica, Turbo, ES, Shelby	85-on	3	9***
017	Shadow	ES, Turbo	87-on	2	9***
018	Dynasty		88-on	-	-
019	Spirit	ES, Shelby, R/T	89-on	3	9***
033	Challenger	all imported	78-83	2	2
034	Colt (excludes Vista)	RS, Turbo, Custom, GTS, DL, E, Premier, Deluxe, Carousel, GT	74-76 77-80 80-on	2 2 1	2 1 1
035	Conquest	Turbo	84-86	2	2
039	Stealth		91-on		
040	Monaco		90-on	3	3
398	Other passenger vehicle			-	-

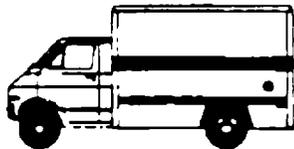
*** Code 9 applies only to frontal impacts. Use size code for stiffness for side or rear impacts.

Variable Name: Vehicle Model (specify): [cont'd.]

MAKE "07"

DODGE (Continued)

CODE	MODEL	INCLUDES	YEAR	SIZE	STIFFNESS
443	D50, Colt P/U Ram 50		-82 83-on	per WB per WB	8** 8**
444	Vista	4 x 4	84-on	3	7**
445	Raider	Sport	8	1	8**
471	Ramcharger		all	3	8**
472	Caravan	Mini-Ram, 112 and 119 WB, SE	84-on	112" WB = 4 119" WB = 5	7** 7**
473	B, W-series pickup	Ram, Custom, Royal, Miser	all	per WB	8**
474	D-series vans	Sportsman, Royal, MaxiWagon, Ram	all	7	7**
475	Van derivative	Kary Van	all	7	7**



Parcel Van

477	Dakota		87-on	112" WB = 3 124" WB = 6	8**
498	Other light truck		-	-	-
881	Medium/Heavy: CBE		all	N/A	N/A
882	Medium/Heavy: COE low entry		all	N/A	N/A
883	Medium/Heavy: COE high entry		all	N/A	N/A
898	Other medium/heavy truck		all	N/A	N/A
901	Medium bus	(not van based)	all	N/A	N/A
997	Other bus		all	N/A	N/A
999	Unknown		-	-	-

** Applies to front and rear impacts. Use size value for side impacts.
*** Code 9 applies only to frontal impacts. Use size code for stiffness for side or rear impacts.

Variable Name: Vehicle Model (specify): [cont'd.]

MAKE "08"

IMPERIAL

CODE	MODEL	INCLUDES	YEAR	SIZE	STIFFNESS
010	Imperial	Lebaron Mark Cross, Frank Sinatra editions	-76 81-83	6 4	6 4
398	Other passenger vehicle		-	-	-
999	Unknown		-	-	-

MAKE "09"

PLYMOUTH

CODE	MODEL	INCLUDES	YEAR	SIZE	STIFFNESS
001	Valiant/Duster (-76)/ Scamp	100, 200, Brougham, Signet Custom, Special 340/360, 340, 360, Twister	-76	108" WB = 3 111" WB = 4	3 4
002	Satellite/Belvedere	Belvedere I/II, GTX, Roadrunner (-74), Sebring, Sebring Plus, Superbird, Brougham	-74	4	4
003	Fury	I, II, III, Roadrunner (75), Salon, VIP, Sport, Salon, Suburban	-74 75-78	5 4	5 4
004	Gran Fury	Sedan, Brougham, Custom Sport, Suburban	75-81 82-on	5 4	5 4
005	Barracuda	Formula, S, 340, AAR, 'Cuda Gran Coupe	65-73	3	3
006	Volare'	Custom, Premier, Roadrunner (76-on), Police	76-80	109" WB = 3 113" WB = 4	3 4
007	Caravelle	Turbo, SE	85-on	3	9***
008	Horizon	TC-3, Miser, Turismo 2.2, Custom, SE, Duster (85-on) America, Expo	78-on	2	2
011	Reliant (K)	SE, LE	81-on	2	9***
013	Scamp (car based pickup)	GT, 2.2	82-84	2	2
017	Sundance	Turbo	87-on	2	9***
019	Acclaim	LX, LE	89-on	3	9***
031	Cricket		71-72	2	2
032	Arrow	Fire Arrow, GS, GT	76-80	1	1
033	Sappero	all imported	78-83	2	2

*** Code 9 applies only to frontal impacts. Use size code for stiffness for side or impacts.

Variable Name: Vehicle Model (specify): [cont'd.]

MAKE "09" PLYMOUTH (Continued)

CODE	MODEL	INCLUDES	YEAR	SIZE	STIFFNESS
034	Champ/Colt (excludes Vista)	Turbo, Custom - Station Wagon (84-on)	79-on 84-on	1 103" WB = 3	1 2
035	Conquest	TSI	84-89	2	2
036	CHANGED TO CODE 037 IN 1990				
037	Laser	RS, Turbo	89-on	2	2
398	Other passenger vehicle				
444	Vista	4 x 4	87-on	3	7**
471	Trailduster		all	3	8**
472	Voyager (minivan)	SE	84-on	112" WB = 4 119" WB = 5	7** 7**
474	Van-fullsize	Voyager, Sport, Premier	all	7	7**
477	Arrow pickup (foreign)		all	per WB	8**
498	Other light truck				
999	Unknown				

MAKE "10" EAGLE

CODE	MODEL	INCLUDES	YEAR	SIZE	STIFFNESS
034	Summit	DL, LX	89-on	3	3
037	Talon		90-on	2	2
040	Premier	LX, ES	88-on	3	3
044	Medallion	DL, LX	88-on	3	3
398	Other passenger vehicle				
472	Summit Wagon		92-on	99.2 WB = 2	7**
999	Unknown				

** Applies to front and rear impacts. Use size for side impacts.

Variable Name: Vehicle Model (specify): [cont'd.]

MAKE "12"

FORD

CODE	MODEL	INCLUDES	YEAR	SIZE	STIFFNESS
001	Falcon	Sprint, GT, Futura	thru-70	4	3
002	Fairlane	Torino thru 1970	thru-70	4	4
003	Mustang/Mustang II	Mach, Boss, Grande, Cobra Ghia, SVO, GT, LX, Shelby	65-73 74-on	3 2	3 2
004	Thunderbird (all sizes)	Landau, Heritage, Turbo coupe, Elan, Fila, Sport, LX SC, Sport, LX	72-76 58-71, 77-79 55-57, 80-88 89-on	5 4 3 4	6 4 3 4
005	LTD II	S, Squire, Brougham	77-79	4	4
006	LTD/Custom/Galaxie (all sizes)	XL, Landau, Ranch Wagon, Country Squire, S, 500, Brougham, XL GT	thru-77 78-82 83-on	5 4 3	5 4 3
007	Ranchero	Falcon/Fairlane based Torino/LTD II based	thru-71 72-79	3 4	3 4
008	Maverick	Grabber	70-77	3	3
009	Pinto	Pony, MPG, ESS	71-80	1	1-Front 2-Rear
010	Torino/Gran Torino/Elite	GT, Cobra, Sport, Squire, Brougham	71-76	4	4
011	Granada	ESS, Ghia	75-82	3	3
012	Fairmont	Futura, Sport Coupe	78-83	3	3
013	Escort/EXP	L, GL, GLX, SS, GT, LX	81-on	1	9***
015	Tempo	L, GL, GLX, Sport, 4 x 4	84-on	2	9***
016	Crown Victoria		81-on	4	4
017	Taurus	MT-5, L, GL, LX, SHO	86-on	3	3
018	Probe	GL, LX, GT	88-on	2	2
031	English Ford	Cortina		per WB	per WB
032	Fiesta	Sport, Ghia	78-80	1	1
033	Festiva		88-on	1	1
398	Other passenger vehicle	Laser	all	per WB	per WB

*** Code 9 applies only to frontal impacts. Use size code for stiffness for side or rear impacts.

Variable Name: Vehicle Model (specify): [cont'd.]

MAKE "12"

FORD (Continued)

CODE	MODEL	INCLUDES	YEAR	SIZE	STIFFNESS
470	Bronco II/Bronco (-77)/ Explorer	Eddie Bauer, XL, XLT, Explorer (90-on)	83-on	1	7**
471	Bronco-fullsize	Eddie Bauer, Custom, XL, XLT	78-on	3	8**
472	Aerostar	XLT, Cargo Van	86-on	7	7**
473	F-series pickup	F-100 - F-350	all	per WB	8**
474	E-series vans	Econoline, Clubwagon, Chateau	all	7	7**
475	Van derivative	i.e.:	all	7	7**
					
Parcel Van					
477	Ranger	Supercab, 4 x 4, STX	82-on	108" WB = 3 114" WB = 4	8**
478	Courier	Imported pickup	all	7	7**
498	Other light truck		-	-	-
881	Medium/Heavy COE	F-5 through F-8 L-series, FT-series	all	N/A	N/A
882	Medium/Heavy COE low entry	C/CT series	all	N/A	N/A
883	Medium/Heavy COE high entry	C/CLT series	all	N/A	N/A
898	Other medium/heavy truck		-	-	-
901	Medium bus	B-series (not van based)	all	N/A	N/A
997	Other bus		all	N/A	N/A
998	Other vehicle		-	-	-
999	Unknown		-	-	-

** Applies to front and rear impacts. Use size value for side impacts.

Variable Name: Vehicle Model (specify): [cont'd.]

MAKE "13"

LINCOLN

CODE	MODEL	INCLUDES	YEAR	SIZE	STIFFNESS
001	Continental/Town Car	Continental (-81), Town Car (82-on)	thru-79 80-on	6 4	6 5
002	Mark	I, II, III, IV, V, VI, VII, LSC, all Signature/Designer Series	-70 71-80 80-83 84-on	4 5 4 3	4 5 4 3
005	Continental (82-on)	All Signature/Designer Series	82-87 88-on	4 3	5 3
011	Versailles		77-80	3	3
398	Other passenger vehicle		-	-	-
999	Unknown		-	-	-

Variable Name: Vehicle Model (specify): [cont'd.]

MAKE "14" MERCURY (MERKUR: See "56")

CODE	MODEL	INCLUDES	YEAR	SIZE	STIFFNESS
002	Cyclone	GT, CJ, Spoiler	thru-71	4	4
003	Capri-domestic	RS, Turbo, GS, Black Magic	79-86	2	2
004	Cougar/XR7	XR-7, RS, LS, GS, Eliminator, Bougham, Villager, (includes all body styles)	67-76	4	4
			77-79	114" WB = 4	4
				118" WB = 5	5
			80-88	3	3
			89-on	4	4
006	Marquis/Monterey	Marauder, X-100, Parklane, S-55, Custom, Brougham, Montclair, Grand Marquis	thru-78	121" WB = 5	5
				124" WB = 6	6
			79-82	4	4
			82-on	106" WB = 3	3
				114" WB = 4	4
008	Comet	Caliente, GT, Voyager, 202, Capri (66-67)	62-67	4	4
			71-77	3	3
009	Bobcat	Runabout, Villager	75-80	1	1-Front 2-Rear
010	Montego	Comet (68-70), GT, MX, Villager, Brougham	68-73	3	3
			72-76	114" WB = 3	3
				118" WB = 4	4
011	Monarch	Ghia	75-80	3	3
012	Zephyr	GS, Z-7	78-83	3	3
013	Lynx/LN-7 (82-83)	L, LS, GS, RS, XR-3	81-on	1	9***
015	Topaz	L, LS, GS, 4 x 4	84-on	2	9***
017	Sable	LS, GS	86-on	3	3
031	Capri - foreign	Capri II 2 + 2	70-77	2	2
			90-on	1	1
033	Pantera	deTomaso	72-74	2	2
036	Tracer	L, GL	88-on	1	1
398	Other passenger vehicle		-	-	-
999	Unknown		-	-	-

*** Code 9 applies only to frontal impacts. Use size code for stiffness for side or rear impacts.

Variable Name: Vehicle Model (specify): [cont'd.]

MAKE "18"

BUICK

CODE	MODEL	INCLUDES	YEAR	SIZE	STIFFNESS
001	Special/Skylark	GS, GS-350, GS-400, GS-455, GS California, Sport wagon, Custom	thru 72	4	4
002	LeSabre/Centurion/ Wildcat	Estate Wagon, Luxus, Invicta, Custom, Limited T-Type	-76	6	6
			77-85	4	4
			86-on	4	9***
003	Electra/Electra 225/ Park Avenue (91-on)	Limited, Park Avenue, Ultra	-76	6	6
			77-84	5	5
			85-on	4	9***
004	Roadmaster	Estate Wagon, Limited	91-on	4	4
005	Riviera	S-Type, T-Type	63-65	4	4
			66-76	5	5
			77-85	4	4
			86	3	9***
007	Century	Luxus, T-Type, FWD (82-on) Custom, Regal (72-77)	thru 77	4	4
			78-81	3	3
			82-on	3	9***
008	Apollo/Skylark*	Skylark (75)*, S/R	73-76	4	4
010	Regal	Turbo, Luxus, Grand National, GNX, T-Type	78-88	3	3
012	Skyhawk	S-Type, Roadhawk, T-Type, GT	75-81	2	2
			82-on	2	9***
015	Skylark (76-85)	(except 75), S/R, S, Limited, Sport, T-Type	76-79	4	4
			80-85	3	9***
018	Somerset/Skylark**	Skylark (86-on)**, Somerset, GS Regal, Custom, Limited, T-Type	85-on	3	9***
020	Regal (FWD)	Limited	88-on	3	9***
021	Reatta		88-on	TBD	TBD
031	Opel Kadett		-75	2	2
032	Opel Manta	1900, Luxus, Rallye, Sports Coupe	-75	2	2
033	Opel GT		-75	2	2
034	Opel Isuzu	Deluxe, Sport	76-79	1	1
398	Other passenger vehicle		-	-	-
999	Unknown		-	-	-

*** Code 9 applies only to frontal impacts. Use size code for stiffness for side or rear impacts.

Variable Name: Vehicle Model (specify): [cont'd.]

MAKE "19"

CADILLAC

CODE	MODEL	INCLUDES	YEAR	SIZE	STIFFNESS
003	Deville/Fleetwood (except Limousine)	Coupe de Ville, Sedan de Ville, Fleetwood Bougham, Fleetwood 60 Special, d'Elegance	-76 RWD 77-on FWD 85-on	6 5 4	6 5 9***
004	Limousine	Fleetwood 75, Formal DeVille-based	all	6	6
005	Eldorado	Biarritz, El-doro, Touring Coupe	-78 79-85 86-on	6 4 3	6 4 9***
006	Commercial Series	Ambulance/Hearse	all	6	6
009	Allante'		87-on	2	2
014	Seville	Elegante STS	76-85 86-on	4 3	4 9***
016	Cimarron	D'oro	82-88	2	9***
398	Other passenger vehicle		-	-	-
999	Unknown		-	-	-

*** Code 9 applies only to frontal impacts. Use size code for stiffness for side or rear impacts.

Variable Name: Vehicle Model (specify): [cont'd.]

MAKE "20"

CHEVROLET

CODE	MODEL	INCLUDES	YEAR	SIZE	STIFFNESS
001	Chevelle/Malibu	Classic, Concours, S-3, Laguna, Nomad, 300, Greenbriar, Estate, Deluxe, SS 396/454	64-77 78-83	4 3	4 3
002	Impala/Caprice	Biscayne, Belair, Super Sport, Classic, Classic Brougham, Townsman Brookwood, Kingswood	-76 77-on	5 St. Wgn.=6 4	5 6 4
004	Corvette	Stingray	53-62 63-on	3 2	3 2
006	Corvaire	Monza, Corsa, 500, Yenko	60-69	N/A	N/A
007	El Camino	Royal Knight, SS	59-60 64-77 78-on	5 4 3	8** 8** 8**
008	Nova (-79)	Chevy II, LN, LE, Concours SS-350/396, Rally	62-79	4	4
009	Camaro	SS, RS, LT, Berlinetta, IROC-Z, Z28	67-on	3	3
010	Monte Carlo	LS, SS, Aerocoupe, Landau	70-77 78-88	4 3	4 3
011	Vege	GT, Cosworth	71-77	2	2
012	Monza	Spyder, 2 + 2, Towne Coupe	75-80	2	2
013	Chevette	S, Scooter, CS	76-87	2dr-1 4dr-2	1 2
015	Citation	X-11, Citation II	80-85	3	9***
016	Cavalier	CS, RS, Z24	82-on	2	9***
017	Celebrity	CS, Eurosport, VR	82-on	3	9***
019	Beretta/Corsica	GT	88-on	3	9***
020	Lumina	(GM-10 based), 2-3 $\frac{1}{2}$ Euro	90-on	3	9***
031	Spectrum		85-on	1	1
032	Nova/Geo Prizm	CL, NUMMI-built vehicles	85-on	2	9**
033	Sprint/Geo Sprint		85-on	1	1
034	Geo Metro	LSi, XFi	89-on	1	1
035	Geo Storm	SSI	85-on	1	1
398	Other passenger vehicle		-	-	-

** Applies to front and rear impacts. Use size value for side impacts.
*** Code 9 applies only to frontal impacts. Use size code for stiffness for side or rear impacts.

Variable Name: Vehicle Model (specify): [cont'd.]

MAKE "20" CHEVROLET (Continued)

CODE	MODEL	INCLUDES	YEAR	SIZE	STIFFNESS
470	S-10 Blazer	S-10 p/u based (100.5# WB)	83-on	2	7**
471	Fullsize Blazer	K-series, fullsize p/u based	69-on	3	8**
472	Astro Van	Minivan	85-on	7	7**
473	C-series pickup	C10-C30, Silverado K-series	all	per WB	8**
474	G-series van	Beauville, Chevy Van, Sport Van	all	7	7**
475	Van derivative	Hi-cube, Parcel Van	all	7	7**
476	Suburban	All models	all	6	8**
477	S-10		82-on	per WB	8**
478	LUV	Imported pickup	all	7	7**
479	Geo Tracker	LS1	89-on	2	8**
480	Lumina APV		90-on	per WB	TBD
498	Other light truck	Includes Grumman LLV Postal Vehicle	-	-	-
881	Medium/Heavy COE	C50/60/65; M60/65; H70/80/90; J70/80/90; Bison 90; all other COE	all	N/A	N/A
882	Medium/Heavy COE low entry	T60/65 - all other COE low entry	all	N/A	N/A
883	Medium/Heavy COE high entry	Titan 90, all other COE high entry	all	N/A	N/A
898	Other medium/heavy truck	-	all	N/A	N/A
901	Bus	S-60 series	all	N/A	N/A
997	Other bus		all	N/A	N/A
999	Unknown	-	-	-	-

** Applies to front and rear impacts. Use size value for side impacts.

Variable Name: Vehicle Model (specify): [cont'd.]

MAKE "21"

OLDSMOBILE

CODE	MODEL	INCLUDES	YEAR	SIZE	STIFFNESS
001	Cutlass (RWD-only)	Supreme, S, LS, Salon Brougham, Vista Cruiser, F85 (thru 72) Rallye 350, Hurst Olds, 442, Calais, Classic (88)	-77 78-88	4 3	4 3
002	Delta 88	Royale, Custom, Delta, Jetstar 88, Delmont 88, Starfire (thru 66), Custom Cruiser	-76 77-85 86-on	6 4 4	6 4 9***
003	Ninety-Eight	Regency, Luxury	-76 77-84 85-on	6 5 4	6 5 4
005	Toronado	XSR, Trofeo, Brougham Custom	66-78 79-85 86-on	5 4 3	5 4 3
006	Commercial Series	Ambulance/Hearse	all	6	6
012	Starfire	SX, GT	75-80	2	2
015	Omega	X-body type	RWD 75-79 FWD 80-85	4 3	4 9
016	Firenza	S, LS, SX, Cruiser, GT	82-88	2	9***
017	Ciera	Cutlass Ciera, Brougham, ES	82-on	3	9***
018	Calais	GT, ES, 500	85-on	3	9***
020	Cutlass (FWD)	Supreme	88-on	3	9***
021	Achieva	SC	92-on	3	9***
398	Other passenger vehicle		-	-	-
470	Bravado		91-on	TBD	TBD
480	Silhouette		90-on	per WB	TBD
999	Unknown		-	-	-

*** Code 9 applies only to frontal impacts. Use size code for stiffness for side or rear impacts.

Variable Name: Vehicle Model (specify): [cont'd.]

MAKE "22"

PONTIAC

CODE	MODEL	INCLUDES	YEAR	SIZE	STIFFNESS
001	Lemans/Tempest (thru 79)	Safari, T-37, Luxury, Grand Sport, GTO (-73), GT-37, Sprint, Judge Grand AM (73-75) Grand Lemans	thru 77 78-79	4 3	4 3
002	Bonneville/Catalina/ Parisienne*	Brougham, Grand Safari, Safari, Grandville, 2+2 Executive, Starchief SE, SSE, SSE†	-68 69-76 77-81 82-84 87-on 83-84	5 6 4 3 4 4	5 6 4 3 4 4
005	Fiero	2M6, 2M6, GT, SE	84-88	1	1
008	Ventura	II, SJ, Sprint, GTO (74-on) Custom	71-77	4	4
009	Firebird/Trans AM	Esprit, Formula, GTA, Redbird, Yellowbird, Skybird, SE	67-81 82-on	3 2	3 2
010	Grand Prix (RWD)	J, LJ, SJ, Brougham, 2+2	63-72 73-77 78-87	5 4 3	5 4 3
011	Astre	Safari, SJ, Custom	75-77	2	2
012	Sunbird (thru 80)	Safari, Sport, Formula	76-80	2	2
013	T-1000/1000		81-87	2dr-1 4dr-2	1 2
015	Phoenix	LJ, SJ	77-79 80-84	4 3	4 9***
016	J2000/2000/Sunbird	Sunbird (85-on), LE, SE, GT, Convertible	82-on	2	9***
017	6000	STE, SE, LE	82-on	3	9***
018	Grand AM	SE, LE	80 85-on	3 3	3 9***
020	Grand Prix (FWD)	SE, McLaren Turbo, GTP	88-on	3	9***
031	Lemans (88-on)	SE, Tempest (Canadian)	88-on	2	2
398	Other passenger vehicle		-	-	-
480	Trans Sport		90-on	per WB	TBD
999	Unknown		-	-	-

*** Code 9 applies only to frontal impacts. Use size code for stiffness for side or rear impacts.

Variable Name: Vehicle Model (specify): [cont'd.]

MAKE "23"

GMC

CODE	MODEL	INCLUDES	YEAR	SIZE	STIFFNESS
007	Caballero/Sprint	Sierra Madre del Sur, SP	-77 78-on	4 3	8** 8**
398	Other passenger vehicle		-	-	-
470	Jimmy/Phoenix	S15 based (100.5" WB)	83-on	2	7**
471	Fullsize Jimmy/Yukon	fullsize pickup based	all	3	8**
472	Safari (Minivan)		86-on	7	7**
473	C and K-series pickup	C15-35: K15-35	all	per WB	8**
474	G-series van	Rally Van, Vandura	all	7	7**
475	Van derivative	Micube, parcel van, Value Van, Magna Van, P-series	all	7	7**
476	Suburban	all models	all	6	8**
477	S15/T15/Sonoma	4x4, Cyclone	82-on	per WB	8**
498	Other light truck	-	-	-	-
881	Medium/Heavy COE	W5000/6000/7000 series, Brigadier/General models	all	N/A	N/A
882	Medium/Heavy COE low entry	W6000/W7000, all other COE, low entry	all	N/A	N/A
883	Medium/Heavy COE high entry	Astro 95, all other COE, high entry	all	N/A	N/A
898	Other medium/heavy truck	-	all	N/A	N/A
901	Bus	B6000	all	N/A	N/A
997	Other bus		all	N/A	N/A
999	Unknown		-	-	-

** Applies to front and rear impacts. Use size value for side impacts.

Variable Name: Vehicle Model (specify): [cont'd.]

MAKE "24"

SATURN

CODE	MODEL	INCLUDES	YEAR	SIZE	STIFFNESS
001	SL	SL1, SL2	91-on	3	3
002	SC		91-on	2	2
398	Other passenger vehicle		-	-	-
999	Unknown		-	-	-

** Applies to front and rear impacts. Use size value for side impacts.

MAKE "29"

OTHER DOMESTIC MANUFACTURER

CODE	MODEL	INCLUDES	YEAR	SIZE	STIFFNESS
001	Studebaker/Avanti	Lark, Gran Turismo, Hawk, Cruiser, all associated subseries	thru-66	per WB	= size
002	Checker	Marathon, Superba, Taxi, Aerobus	thru-82	per WB	= size
398	Other auto	Desoto, Excaliber, Stutz, Hudson, Peckard	all	per WB	= size

Variable Name: Vehicle Model (specify): [cont'd.]

MAKE "30"

VOLKSWAGEN

CODE	MODEL	INCLUDES	YEAR	SIZE	STIFFNESS
031	Karmann Ghia		-74	1	1
032	Beetle 1300/1500	flat windshield, 94.5" WB	-77	1	1
033	Super Beetle	distinguished by curved windshield, 95.3" WB	71-80	2	1
034	411/412	Squareback/Fastback	71-74	2	1
035	Squareback/Fastback	Type 3, 1600	-74	1	1
036	Rabbit	L, GTI, Sport, LS, Custom, DL, Deluxe	75-84	1	1
037	Dasher		74-81	2	2
038	Scirocco	16V	75-on	1	1
039	The Thing (181)		73-75	1	1
040	Jetta	GL, GLI	81-on	2	2
041	Quantum (82-88)/	Synco	82-on	2	2
042	Golf	Synco, GTI, Cabriolet, GT, GL	85-on	2	1
043	Rabbit pickup	car-based pickup	80-83	1	1
044	Fox	GL	87-on	1	1
045	Corrado		89-on	TBD	TBD
046	Passat		90-on	2	2
398	Other imported auto		-	-	-
472	Vanagon/Camper	Bus, Kombi, Van	all	1	7**
473	Eurovan		92-on	+	+
498	Other light truck		-	-	-
999	Unknown		-	-	-

** Applies to front and rear impacts. Use size value for side impacts.

Variable Name: Vehicle Model (specify): [cont'd.]

MAKE "31"

ALFA ROMEO

CODE	MODEL	INCLUDES	YEAR	SIZE	STIFFNESS
031	Spider	All roadsters, Veloce, 1750/2000 roadsters	all	1	1
032	Sports Sedan	All 4 door sedans; Milano (86), Giulia, Super, Berlina, Alfetta, 1750/2000 sedans	all	per WB	= size
033	Sprint Veloce	All 2-door coupes; Alfetta GT, 1750/2000 GTV, Sprint GT	all	per WB	= size
034	GTV-6		81-on	1	1
035	164		89-on	TBD	TBD
398	Other passenger vehicle		-	-	-
999	Unknown		-	-	-

MAKE "32"

AUDI

CODE	MODEL	INCLUDES	YEAR	SIZE	STIFFNESS
031	Super 90		70-72	2	2
032	100	S, LS, GL Quattro (89-on)	70-77 89-on	3 3	3 3
033	Fox		74-79	2	2
034	4000	Quattro, Coupe GT, CS, S	80-	2	2
035	5000	Quattro, CS, S, Turbo	78-	3	3
036	80/90	Quattro	88-on	2	2
037	200	Quattro	89-on	TBD	TBD
038	V-8 Quattro		90-on	TBD	TBD
398	Other passenger vehicle		-	-	-
999	Unknown		-	-	-

Variable Name: Vehicle Model (specify): [cont'd.]

MAKE "33"

AUSTIN/AUSTIN HEALEY

CODE	MODEL	INCLUDES	YEAR	SIZE	STIFFNESS
031	Marina	GT	all	2	2
032	America		all	1	1
033	Healey Sprite		all	1	1
034	Healy 3000	Healy 100	all	1	1
035	Mini		all	1	1
398	Other passenger vehicle		-	-	-
999	Unknown		-	-	-

MAKE "34"

BMW

CODE	MODEL	INCLUDES	YEAR	SIZE	STIFFNESS
031	1600, 2002	Tii, 1800, 2000CS	-76	2	2
032	Coupe	2800CS, 3.0CS	69-76	3	3
033	Bavaria Sedan	2500, 2800	69-74	3	3
034	3-series	318i, 320i, 325e, 325es, 325i	77-on	2	2
035	5-series	524i, 528i, 530i, 533i, 535i, TD	75-on	3	3
036	6-series	630, 633, 635, csi	77-on	3	3
037	7-series	733i, 735i, L7	78-on	3	3
038	8-series	850	90-on		
398	Other passenger vehicle		-	-	-
	<u>Motorcycles</u>				
701	0-50cc				
702	51-124cc				
703	125-349cc				
704	350-449cc				
705	450-749cc				
706	750cc-over				
999	Unknown				

Variable Name: Vehicle Model (specify): [cont'd.]

MAKE "35"

NISSAN/DATSUN

CODE	MODEL	INCLUDES	YEAR	SIZE	STIFFNESS
031	F10		77-78	1	1
032	200/240 SX		78-83 84-on	1 2	1 2
033	1200/210/B210	Honeybee	71-82	1	1
034	2-car, ZX	240/260/280Z, 300 ZX, Turbo 2 + 2 2 + 2	70-on 75-78 79-on	1 3 2	1 3 2
035	310		79-82	1	1
036	510	PL	68-73 78-81	2 1	2 1
037	610	PL	73-76	2	2
038	710	PL	74-77	2	2
039	810/Maxima		77-on	3	3
040	Roadster	SPL 311, SRL 311, 1600, 2000, convertible	-70	1	1
041	PL 411, RL 411		-67	1	1
042	Stanza	XE	82-on	2	2
043	Sentra		83-on	1	1
044	Pulsar	MX, EXA (86-on)	83-on	2	2
045	Micra		87-on	1	1
046	MX 1600/2000		92-on	2	2
398	Other passenger vehicle		-	-	-
470	Pathfinder	MPV, 4 x 4	86-on	-	-
472	Van	XE, GXE	88-on	1	7**
477	Datsun/Nissan Pickup	PL620, King Cab, Handbody	73-on	per WB	8**
480	Axxess		89-on	3	TBD
498	Other light truck	Patrol (1960)	-	-	-
883	Medium/Heavy COE high entry		all	N/A	N/A
898	Other medium/heavy truck		all	N/A	N/A
999	Unknown		-	-	-

** Applies to front and rear impacts. Use size values for side impacts.

Variable Name: Vehicle Model (specify): [cont'd.]

MAKE "36"

FIAT

CODE	MODEL	INCLUDES	YEAR	SIZE	STIFFNESS
031	124 (Coupe/Sedan)	Sport	67-75	1	1
032	124 Spider/Racer	Spider 2000/1500	68-83	1	1
033	Brava - 131		75-82	2	2
034	850 (Coupe/Spyder)		67-73	1	1
035	128		72-79	2	2
036	X-1/9		75-83	1	1
037	Strada		79-83	2	2
398	Other passenger vehicle	600, 1100	-	-	-
882	Medium/Heavy COE low entry		all	N/A	N/A
883	Medium/Heavy COE high entry		all	N/A	N/A
898	Other medium/heavy truck		all	N/A	N/A
999	Unknown		-	-	-

Variable Name: Vehicle Model (specify): [cont'd.]

MAKE "37" HONDA (ACURA: See "54")

CODE	MODEL	INCLUDES	YEAR	SIZE	STIFFNESS
031	Civic/CRX	1300, 1500, CVCC, DX, EX, VX CRX, S, Si, HF, 4WD Wagon	all	1	1
032	Accord	LX, CVCC, SE-i, LX-i, EX wagon	-81 82-86 87	1 2 3	1 9*** 9***
033	Prelude	Si	80-83 84-on	1 2	1 9***
034	600	Coupe, Sedan	all	1	1
398	Other passenger vehicle	all Honda's not listed above	all	per WB	= size
<u>Motorcycle</u>					
701	0-50cc				
702	51-124cc				
703	125-349cc				
704	350-449cc				
705	450-749cc				
706	750cc or greater				
<u>All Terrain Cycles/Vehicles</u>					
731	0-50cc	includes all ATCs/ATVs			
732	51-124cc	designed solely for			
733	125-249cc	off-road use.			
734	350cc or greater				
999	Unknown		-	-	-

*** Code 9 applies only to frontal impacts. Use size code for stiffness for side or rear impacts.

Variable Name: Vehicle Model (specify): [cont'd.]

MAKE "38"

ISUZU

CODE	MODEL	INCLUDES	YEAR	SIZE	STIFFNESS
031	I-Mark	S, RS, Turbo	85-on	1	1
032	Impulse	Turbo, RS	84-on	2	2
033	Stylus		90-on	2	2
398	Other passenger vehicle		-	-	-
470	Trooper II	Deluxe, LS	84-on	2	7
471	Rodeo		91-on	TBD	TBD
477	P'up (pickup)	4 x 4	all	3	8**
479	Amigo		89-on	2	8**
498	Other light truck		-	-	-
881	Medium/Heavy - CBE		all	N/A	N/A
882	Medium/Heavy COE low entry		all	N/A	N/A
883	Medium/Heavy COE high entry		all	N/A	N/A
898	Other medium/heavy truck		all	N/A	N/A
999	Unknown		-	-	-

** Applies to front and rear impacts. Use size value for side impacts.

Variable Name: Vehicle Model (specify): [cont'd.]

MAKE "39"

JAGUAR

CODE	MODEL	INCLUDES	YEAR	SIZE	STIFFNESS
031	XJ-S Coupe		76-on	3	3
032	XJ6/12 Sedan/Coupe	L, XJ, C, 340/420 Sedan	all	3	3
033	XKE	V12, Roadster, 120 2 + 2	all	2 3	3 3
398	Other passenger vehicle		-	-	-
999	Unknown		-	-	-

MAKE "40"

LANCIA

CODE	MODEL	INCLUDES	YEAR	SIZE	STIFFNESS
031	Beta Sedan - HPG		-80	2	2
032	Beta Coupe - Zagato		-82	1	1
033	Scorpion		-78	1	1
398	Other passenger vehicle		-	-	-
999	Unknown		-	-	-

Variable Name: Vehicle Model (specify): [cont'd.]

MAKE "41"

MAZDA

CODE	MODEL	INCLUDES	YEAR	SIZE	STIFFNESS
031	RX2		72-74	2	2
032	RX3		72-78	1	1
033	RX4		74-78	2	2
034	RX7	S, GS, GSL, SE	79-on	2	2
035	323/GLC/Protege	DX, Protege (90-on)	77-on	1	1
036	Cosmo		76-78	2	2
037	626	GT, GS, GSL, SE	79-on	2	2
038	808		72-77	1	1
039	Mizer		76	1	1
040	R-100		-72	1	1
041	616/618		-72	2	2
042	1800		-72	2	2
043	929		88-on	-	-
044	MX-6	Turbo	88-on	2	2
045	Miata		90-on	1	1
046	MX-3	GS	92-on	1	1
398	Other passenger vehicle		-	-	-
470	Navajo		91-on	3	8**
472	MPV		89-on	3	7**
477	Mazda pickup	B-2000, B2200, SE-5, LX,	all	per WB	8**
498	Other light truck		-	-	-
999	Unknown		-	-	-

** Applies to front and rear impacts. Use size value for side impacts.

Variable Name: Vehicle Model (specify): [cont'd.]

MAKE "42"

MERCEDES BENZ

(Check "INCLUDES" comments carefully to determine proper code.)

CODE	MODEL	INCLUDES	YEAR	SIZE	STIFFNESS
031	200/220/230/240/250/260/ 280/300	Sedan and 5 passenger "C" only, SE, CD, D, SD, TD, TE, CE, E. <u>DOES NOT</u> include <u>280 SE</u> (75 on), <u>300 SD</u> - see code 037	all	3	3
032	230/280 SL	2 seater only	all	1	1
033	300/350/380/450/500 SL/ 560 SL	2 seater only, 300/500 SL (90-on)	all	2	2
034	350/380/420/450/560 SLC		all	4	4
035	280/300 SEL		all	4	4
036	380/420/450/500/560 SEL and 500/560 SEC/350 SDL/ 300 SDL		all	4	4
037	300 SE/380/450 SE	280 S, 280 SE (75 on), 300 SD Sedan/350 SD	all	4	4
038	600, 6.9 Sedan	Pullman	all	6	6
039	190	D, E, 2.3, 2.5	all	3	3
398	Other passenger vehicle		-	-	-
475	Van derivative	Kurbstar	82-on	N/A	N/A
498	Other light truck		-	-	-
881	Medium/Heavy - CBE		all	N/A	N/A
882	Medium/Heavy - COE low entry		all	N/A	N/A
883	Medium/Heavy - COE high entry		all	N/A	N/A
898	Other medium/heavy		all	N/A	N/A
901	Medium bus		all	N/A	N/A
997	Other bus		-	-	-
999	Unknown		-	-	-

Variable Name: Vehicle Model (specify): [cont'd.]

MAKE "43"

MG

CODE	MODEL	INCLUDES	YEAR	SIZE	STIFFNESS
031	Midget	MKIII, 1500	-79	1	1
032	MGB	GT	-79	1	1
034	MGA		all	1	1
035	TA/TC/TD/TF		all	1	1
036	MGC	GT	-69	1	1
398	Other passenger vehicle	Sport Sedan	-	-	-
999	Unknown		-	-	-

MAKE "44"

PEUGEOT

CODE	MODEL	INCLUDES	YEAR	SIZE	STIFFNESS
031	304		71-73	3	3
032	403		-67	3	3
033	404		-70	3 4-SW	3 4-SW
034	504/505	STI, STX, Turbo, S, GL, GLS, Liberte,	70-on	3 4-SW	3 4-SW
035	604	SL, D	77-84	3	3
036	405	Mi-16	89-on	3	9***
398	Other passenger vehicle		-	-	-
	<u>Motorcycle</u>				
701	0-50cc				
702	51-124cc				
999	Unknown		-	-	-

*** Code 9 applies only to frontal impacts. Use size code for stiffness for side or rear impact.

Variable Name: Vehicle Model (specify): [cont'd.]

MAKE "45"

PORSCHE

CODE	MODEL	INCLUDES	YEAR	SIZE	STIFFNESS
031	911	L, S, E, T, SC, Carrera, Slopenose	all	1	1
032	912	E, T	-69	1	1
033	914	S, 1.8, 2.0, 914/6	70-76	2	2
034	924	Turbo, S	77-88	1	1
035	928	S	78-on	2	2
036	930	Turbo	79	1	1
037	944	Turbo, S	83-on	1	1
038	959		89-on	1	1
039	968		92-on	1	1
398	Other passenger vehicle	Spyder, Speedster, 356	-	-	-
999	Unknown		-	-	-

MAKE "46"

RENAULT

CODE	MODEL	INCLUDES	YEAR	SIZE	STIFFNESS
031	LeCar	S	76-83	2	2
032	Dauphine/10/R-8 Caravelle	all models	thru '71	1	1
033	12	R12L, R12TL	72-77	2	2
034	15	R15TL	73-76	2	2
035	16	R16	69-72	3	3
036	17	R17, Gordini Coupe, R17TL	73-80	2	2
037	R18i	Sportwagon	81-on	2	2
038	Fuego	TL, TS, GTL, GTS, Turbo	82-85	2	2
039	Alliance/Encore GTA, Convertible	L, DL, Limited, X-37,	83-on	2	2
041	Alpine	GT	87-on	2	2
044	Medallion	DL, LX	87-only	3	3
045	Premier		87-only	3	3
398	Other passenger vehicle		-	-	-
999	Unknown		-	-	-

Variable Name: Vehicle Model (specify): [cont'd.]

MAKE "47"

SAAB

CODE	MODEL	INCLUDES	YEAR	SIZE	STIFFNESS
031	99/99E/900	S, Turbo, Cabriolet	all	2	2
032	Sonnett	II, III, V-4	68-74	1	1
033	95/96/97		-73	2	2
034	9000	S, Turbo	85-on	3	3
398	Other passenger vehicle	Monte Carlo 850	-	-	-
999	Unknown		-	-	-

MAKE "48"

SUBARU

CODE	MODEL	INCLUDES	YEAR	SIZE	STIFFNESS
031	DL/FE/G/GF/GL/GLF/STD/Loyale	4 wheel drive, Turbo	72-89 90-on	per WB	= size
032	Star		70-71	2	2
033	360		69-70	1	1
034	Legacy		89-on	2	2
035	XT/XT6	4WD Turbo, convertible, DL	86-on	2	2
036	Justy	DL, GL	87-on	1	1
037	SVX		92-on	3	3
043	Brat	DL, GL	78-on	2	2
398	Other passenger vehicle		-	-	-
999	Unknown		-	-	-

Variable Name: Vehicle Model (specify): [cont'd.]

MAKE "49"

TOYOTA

CODE	MODEL	INCLUDES	YEAR	SIZE	STIFFNESS
031	Corona	Mark II, Custom, 1900, 2000, Deluxe	-82	2	2
032	Corolla	1100, 1200, 1600, SR-5, LE, Deluxe, Custom, FX16	69-85 FWD 86-on	1 2	1 9***
033	Celica	1900, 2000, GT, ST, GTS	72-on	2	2
034	Supra	Celica Supra, Soarer	79-on	3	3
035	Cressida		78-on	3	3
036	Crown	2300, 2600	-71	3	3
037	Carina	2000	72-73	2	2
038	Tercel	Corolla Tercel, 4WD Wagon	80-on	2	2
039	Starlet		81-84	1	1
040	Camry	LE, Deluxe, XLE	83-on	3	3
041	MR-2		85-on	1	1
042	Paseo		92-on	1	1
398	Other passenger vehicle	2000 GT Coupe (1960s)	-	-	-
471	Landcruiser		76-on	1	8**
472	Minivan Previa	LE, Congo	84-90 91-on	1	7**
473	4-Runner		85-on	3	8**
477	Pickup	SR-5, Extra Cab, Sport, LN44, Chinook, Wander Wagon	74-on	per WB	8**
498	Other light truck		-	-	-
999	Unknown		-	-	-

** Applies to front and rear impacts. Use size value for side impacts.

*** Code 9 applies only to frontal impacts. Use size code for stiffness for side or rear impact.

Variable Name: Vehicle Model (specify): [cont'd.]

MAKE "50"

TRIUMPH

CODE	MODEL	INCLUDES	YEAR	SIZE	STIFFNESS
031	Spitfire	1, 11, 111, 1V, 1500	-81	1	1
032	GT-6	MK3	67-73	1	1
033	TR4	TR2, TR3, TR4A	-68	1	1
034	TR6		69-76	1	1
035	TR7/8		75-81	1	1
036	Herald	Vitesse	-	-	-
037	Stag		71-73	2	2
398	Other passenger vehicle	2000, 1200 series	-	-	-
	<u>Motorcycles</u>				
701	0-50cc				
702	51-124cc				
703	125-349cc				
704	350-449cc				
705	450-749cc				
706	750cc or greater				
999	Unknown		-	-	-

Variable Name: Vehicle Model (specify): [cont'd.]

MAKE "51"

VOLVO

CODE	MODEL	INCLUDES	YEAR	SIZE	STIFFNESS
031	122	S	-68	3	3
032	142/144/145	S, E, GL, GLS, Deluxe	-74	3	3
033	164	S, E	69-75	3	3
034	240/242/244/245	DL, GL, GLE, GLT, Deluxe	75-	3	3
035	262/264/265	GL	76-82	-	-
036	1800	E, S, ES	-73	2	2
037	P-544				
038	760 780	GLE, Turbo	83-on 87-on	3 3	3 3
039	740	GLE, GT, Turbo, GL	86-on	3	3
040	940	GLE, Turbo, SE	92-on	3	3
041	960		92-on	3	3
398	Other passenger vehicle		-	-	-
881	Medium/Heavy COE		all	N/A	N/A
882	Medium/Heavy COE low entry		all	N/A	N/A
883	Medium/Heavy COE high entry		all	N/A	N/A
898	Other medium/heavy truck		all	N/A	N/A
901	Medium bus		all	N/A	N/A
997	Other bus		all	N/A	N/A
999	Unknown		-	-	-

Variable Name: Vehicle Model (specify): [cont'd.]

MAKE "52"

MITSUBISHI

CODE	MODEL	INCLUDES	YEAR	SIZE	STIFFNESS
031	Starion	2 + 2, LE, Turbo	83-on	2	2
032	Tredia	L, LS, Turbo	83-88	2	2
033	Cordia	L, Turbo	83-88	2	2
034	Galant	ECS, Sigma (thru 88)	85-on	3	3
035	Mirage	L, Turbo	85-on	1	1
036	Precis		88-on	1	1
037	Eclipse		90-on	2	2
038	Sigma		89-on		
039	3000GT		91-on		
040	Diamante		92-on	-	-
398	Other passenger vehicle		-	-	-
470	Montero	Sport	85-on	1	8**
472	Minivan	LS	87-on	1	7**
473	Expo Wagon	LRV, Sport	92-on	99.2** LB = 2 107.1** LB = 3	7** 7**
477	Pickup	Mighty Max, SPX, 4 x 4	all	3	8**
498	Other light truck		-	-	-
882	Medium/Heavy - CDE Low entry	FUSO FE	all	N/A	N/A
898	Other medium/heavy truck		-	-	-
999	Unknown		-	-	-

** Applies to front and rear impacts. Use size value for side impacts.

Variable Name: Vehicle Model (specify): [cont'd.]

MAKE "53"

SUZUKI

CODE	MODEL	INCLUDES	YEAR	SIZE	STIFFNESS
031	SA310	GLX	86-on	1	1
034	Swift	Gti, GTX	89-on	1	1
398	Other passenger vehicle		-	-	-
470	Samurai	Standard, Deluxe	85-on	1	8**
471	CHANGED TO CODE 479 IN 1990				
479	Sidekick		89-on	2	8**
498	Other light truck		-	-	-
	<u>Motorcycles</u>				
701	0-50cc				
702	51-124cc				
703	125-349cc				
704	350-449cc				
705	450-749cc				
706	750cc-over				
	<u>All Terrain Cycles/Vehicles</u>				
731	0-50cc	includes all ATCs/ATVs			
732	51-124cc	designed solely for			
733	125-349cc	off-road use.			
734	350cc or greater				
999	Unknown		-	-	-

** Applies to front and rear impacts. Use size value for side impacts.

MAKE "54"

ACURA

CODE	MODEL	INCLUDES	YEAR	SIZE	STIFFNESS
031	Integra	RS, LS, GS	86-on	2	9***
032	Legend		86-on	3	9***
033	NSX		91-on		
398	Other passenger vehicle		-	-	-
999	Unknown		-	-	-

*** Code 9 applies only to frontal impacts. Use code for stiffness for side or rear impact.

Variable Name: Vehicle Model (specify): [cont'd.]

MAKE "55"

HYUNDAI

CODE	MODEL	INCLUDES	YEAR	SIZE	STIFFNESS
031	Pony		84-on	2	2
032	Excel	GL, GLS	84-on	1	1
033	Sonata		89-on	3	3
034	Scoupe		91-on	1	1
035	Elantra		92-on	2	2
398	Other passenger vehicle		-	-	-
999	Unknown		-	-	-

MAKE "56"

MERKUR

CODE	MODEL	INCLUDES	YEAR	SIZE	STIFFNESS
031	XR4Ti	Turbo	85-on	3	3
032	Scorpio	Turbo	87-on	3	3
398	Other passenger vehicle		-	-	-
999	Unknown		-	-	-

MAKE "57"

YUGO

CODE	MODEL	INCLUDES	YEAR	SIZE	STIFFNESS
031	GV	GVX, Cabriolet	86-on	1	1
398	Other passenger vehicle		-	-	-
999	Unknown		-	-	-

Variable Name: Vehicle Model (specify): [cont'd.]

MAKE "58"

INFINITI

CODE	MODEL	INCLUDES	YEAR	SIZE	STIFFNESS
031	M30		90-on	3	3
032	Q45		90-on	4	4
033	Q20		91-on		
398	Other passenger vehicle		-	-	-
999	Unknown		-	-	-

MAKE "59"

LEXUS

CODE	MODEL	INCLUDES	YEAR	SIZE	STIFFNESS
031	ES-250/ES-300		90-on	3	3
032	LS-400		90-on	4	4
033	SC-300/SC-400	2-door Coupe	92-on	3	3
398	Other passenger vehicle		-	-	-
999	Unknown		-	-	-

MAKE "60"

DAIHATSU

CODE	MODEL	INCLUDES	YEAR	SIZE	STIFFNESS
031	Charade		90-on	3	3
398	Other passenger vehicle		"	"	"
479	Rocky		90-on		
498	Other light truck		"	"	"
999	Unknown		"	"	"

Variable Name: Vehicle Model (specify): [cont'd.]

MAKE "69"

OTHER IMPORTS

CODE	MODEL	INCLUDES	YEAR	SIZE	STIFFNESS
031	Aston Martin	Lagonda, Vantage, Volante, Saloon	all	per WB	= size
032	Bricklin		all	per WB	= size
033	Citreon		all	per WB	= size
034	Delorean		all	per WB	= size
035	Ferrari		all	per WB	= size
036	Hillman		all	per WB	= size
037	Jensen	Healy	all	per WB	= size
038	Lamborghini	Countach 5000S, Jalpa	all	per WB	= size
039	Lotus	Europe, Esprit	all	per WB	= size
040	Maserati	Biturbo	all	per WB	= size
041	Morris	Minor	all	per WB	= size
042	Rolls Royce/Bentley	Cloud/shadow series	all	per WB	= size
043	Rover		all	per WB	= size
044	Simca		all	per WB	= size
045	Sunbeam		all	per WB	= size
046	TVR		all	per WB	= size
048	DeSla		all	per WB	= size
049	Reliant		all	per WB	= size
052	Bertone	X/19	all	per WB	= size
053	Lada		all	per WB	= size
055	Sterling	8255/8255L	all	per WB	= size
398	Other imported auto	Morgan, Singer	all	per WB	= size

Variable Name: Vehicle Model (specify): [cont'd.]

Vehicle Classification: Motored Cycle/ATC/ATV

Variable GV05 Vehicle Make				Code	Variable GV06 Vehicle Model	Code
	<u>M</u>	<u>C</u>	<u>ATC</u>	<u>ATV</u>		
BMW	x				Motored Cycles 0-50cc	701
Honda	x	x	x		51-124cc	702
Peugeot	X				125-349cc	703
Triumph	x				350-449cc	704
Suzuki	x	x	x		450-749cc	705
BSA	x				750cc-or greater	706
Ducati	x					
Harley-Davidson	x				All Terrain Cycles/Vehicles	
Kawasaki	x	x	x		0-50cc	731
Moto-Guzzi	x				51-124cc	732
Norton	x				125-349cc	733
Yamaha	x	x	x		350cc or greater	734
Moped other than listed above	x				Unknown	999
Other motorized cycle	x	x	x			
Unknown						99

Variable Name: Vehicle Model (specify): [cont'd.]

MAKE "84"

INTERNATIONAL HARVESTER

CODE	MODEL	INCLUDES	YEAR	SIZE	STIFFNESS
471	Scout	Scout II, Utility pickup, SS-2, Roadstar, 800 series, Traveler, Terra Traveltop	all	per WB	8**
472	Pickup/Panel	R-100-500, 900A-1500C/D, 1010-1510	all	per WB	8**
475	Multistop Van	Metro RM, 120-160, MS 1210, MS 1510	all	per WB	7**
476	Travelall	1010-1210, 100-200	all	per WB	8**
498	Other light truck	-	-	-	-
881	Medium Heavy - CBE	Loadstar/Fleetstar, Paystar, CBE Transtar, 4200, S-series Mixer	all	N/A	N/A
882	Medium/Heavy - COE low entry	CO, VCO, DCO, 190-1950, Cargostar, LFM, 5370	all	N/A	N/A
883	Medium/Heavy - COE high entry	DCO, DCOT, UCO, VCOT, 405-series, COE Transtar, Unistar, Conco 707B, 9600	all	N/A	N/A
898	Other medium/heavy truck		all	N/A	N/A
901	Conventional bus	R153-1853 - Loadstar, 1603-1853	all	N/A	N/A
902	Bus-flat front, front engine	173FC, 183FC	all	N/A	N/A
903	Bus-flat front, rear engine	183RE, 193RE-transit	all	N/A	N/A
950	Motorhome		all	N/A	N/A
997	Other bus		all	N/A	N/A
998	Other vehicle		-	-	-
999	Unknown		-	-	-

** Applies to front and rear impacts. Use size value for side impacts.

Variable Name: Vehicle Model (specify): [cont'd.]

Vehicle Classification: Medium/Heavy Trucks and Buses

Variable GV05 Vehicle Make			Code	Variable GV06 Vehicle Model	Code
	Truck	Bus			
AM General	x	x	03	Medium/Heavy - CBE	881
Dodge	x	x	07	Medium/Heavy - COE/low entry	882
Ford	x	x	12	Medium/Heavy - COE/high entry	883
Chevrolet	x	x	20	Medium/Heavy - Other	898
GMC	x	x	23		
Nissan/Datsun	x		35	Bus - conventional front	901
Fiat	x		36	engine	
Isuzu	x		38	Bus - front engine/flat front	902
Mercedes Benz	x	x	42	Bus - rear engine/flat front	903
Volvo	x	x	51		
Mitsubishi	x		52	Truck based motorhome	950
Brockway	x		80		
Diamond Reo/Reo	x		81	Unknown	999
Freightliner/White	x		82		
FWD	x		83		
International Har-			84		
vester/Navistar	x	x			
Kenworth	x		85		
Mack	x		86		
Peterbilt	x		87		
Iveco/Magirus	x		88		
Other: (if code "89" is used for GV05, then GV06 must be 801-805, 898, 901, 902, 950, 997, or 998, irrespective of Body Type)			89	Autocar	801
				Auto-Union-DKW	802
				Divco	803
				Western Star	804
				Oshkosh	805
				Other truck: e.g., Marmon, Ward LaFrance, specify	898
				Grumman (bus)	901
				Neoplan (bus)	902
				Truck based motorhome	950
				Other bus	997
				Other vehicle	998

MISSING RECORD RULES

Under the NASS Crashworthiness Data System (CDS) the rules for the presence or absence of forms (records) in an accident will depend on whether data exists or has been collected. For example, if a vehicle is not inspected there will not be an Exterior Vehicle record; if an occupant does not have a recorded injury there will not be an Occupant Injury record. In the current year NASS CDS at least one of each record type will be required for an accident which includes (1) a towed, inspected, CDS applicable vehicle or (2) a non-towed, inspected, CDS applicable, AOPS vehicle involved in a CDC applicable event (or CDC is blank) with an occupant having a recorded injury. The rules for the presence and absence of each record type and whether partial or complete are as follows:

Accident Record	One required for every accident.
Accident Event Record	At least one required for every accident.
General Vehicle Record	
Complete Record:	One required for every CDS applicable vehicle (GV07=01-49).
Partial Record:	One required (completed through variable GV15) for every non CDS applicable vehicle (GV07=50-99).
External Vehicle Record	
Complete Record:	One required for every inspected (GV35=1 or 2) CDS applicable vehicle (GV07=01-49) involved in a CDC applicable event.
Partial Record:	One required for every inspected CDS applicable vehicle not involved in a CDC applicable event (variables EV04-19 will be blank).
Missing Record:	(1) Not inspected (GV35=0) CDS applicable vehicle. (2) Non CDS applicable vehicle (GV07=50-99).
Internal Vehicle Record	
Complete Record:	(1) Towed (GV09=1), inspected (GV35=1 or 2), CDS applicable vehicle (GV07=01-49). (2) Not towed (GV09=0 or 9), inspected, CDS applicable, AOPS (GV36=1) vehicle.
Missing Record:	(1) Towed, not inspected (GV35=0) CDS applicable vehicle. (2) Not towed (GV09=0 or 9) CDS applicable, Non AOPS (GV36=0) vehicle. (3) Non CDS applicable vehicle (GV07=50-99).
Occupant Assessment	
Complete Record:	(1) Towed (GV09=1), CDS applicable vehicle (GV07=01-49). (2) Not towed (GV09=0 or 9), CDS applicable, AOPS (GV36=1) vehicle
Missing Record:	(1) Not towed (GV09=0 or 9), CDS applicable, Non AOPS (GV36=0) vehicle. (2) Non CDS applicable vehicle (GV07=50-99).
Occupant Injury Record	
Complete Record:	(1) Towed (GV09=1), CDS applicable vehicle (GV07=01-49) with an occupant having a recorded injury (OA43=01-96). (2) Not towed (GV09=0 or 9), CDS applicable, AOPS (GV36=1) with an occupant having a recorded injury.
Missing Record:	(1) Towed, CDS applicable vehicle with no occupant having a recorded injury (OA43=00,97,99). (2) Not towed (GV09=0 or 9), CDS applicable, Non AOPS (GV36=0) vehicle. (3) Non CDS applicable vehicle (GV07=50-99).

APPENDIX D

CDC AND DELTA-V

This section gives an overview of the Collision Deformation Classification (C.D.C.) for cars, vans, and light trucks, per SAE J224 MAR 84 in the current year NASS. The C.D.C. codes contain eight characters. If there is no C.D.C., these codes are left blank. If there is a C.D.C., these codes are as follows:

Direction of Force (2-character numeric). Sum of Clock Direction and Incremental Value of Shift if both are known. If either is unknown, direction of force is coded "99".

Clock Direction is coded as follows:

00	Non-horizontal force	07	7 o'clock
01	1 o'clock	08	8 o'clock
02	2 o'clock	09	9 o'clock
03	3 o'clock	10	10 o'clock
04	4 o'clock	11	11 o'clock
05	5 o'clock	12	12 o'clock
06	6 o'clock	99	Unknown

Incremental Value of Shift i.e., change in direction of the structure as opposed to crushing of the structure. It is coded as follows:

00	No shift
20	End shift vertical--up; top shift--forward
40	End shift vertical--down; top shift--rearward
60	End or top shift lateral--right
80	End or top shift lateral--left
99	Unknown

Deformation Location (1 character alphanumeric) is coded as follows:

F	Front
R	Right side
L	Left side
B	Back (rear)
T	Top
U	Undercarriage
9	Unknown

Specific Longitudinal or Lateral Location (1 character alphanumeric) is coded as follows

<u>Horizontal Impacts</u>		<u>Top or Undercarriage</u>	
D	Distributed--side or end	D	Distributed (F+P+B)
L	Left--front or rear	F	Front Section
C	Center--front or rear	P	Center Section
R	Right--front or rear	B	Rear Section
F	Side front--left or right	Y	F+P
P	Side center section--L or R	Z	P+B
B	Side rear--left or right	9	Unknown
Y	Side (F + P) or end (L + C)		
Z	Side (P + B) or end (C + R)		
9	Unknown		

Specific Vertical or Lateral Location (1 character alphanumeric) is coded as follows:

Vertical - Front, Rear, or Side Impacts

A	All
H	Top of frame to top
E	Everything below belt line
G	Belt line and above
M	Middle--top of frame to belt line or hood
L	Frame--top of frame, frame, bottom of frame (including undercarriage)
W	Below undercarriage level (wheel and tires only)
9	Unknown

Lateral - Top and Undercarriage Impacts

D	Distributed
L	Left
C	Center
R	Right
Y	Left and Center (L + C)
Z	Right and Center (R + C)
9	Unknown

Type of Damage Distribution (1 character alphanumeric) is coded as follows.

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

Deformation Extent Guide (2 character alphanumeric) is coded as follows:

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

Delta-V.

Delta-V is defined as the vector velocity change during the collision phase of an accident, or in a simple accident, as separation velocity minus approach velocity:

$$\Delta V = V \text{ separation} - V \text{ approach}$$

The direction of the vector is determined by the investigator as the direction of principal force. For each vehicle, the components of its Delta-V are obtained by projecting on the longitudinal and lateral axes of that vehicle.

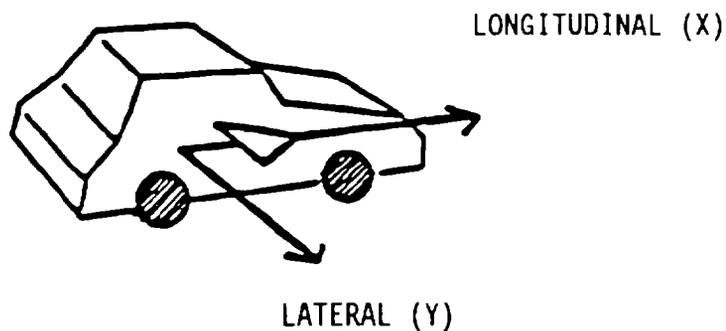


Figure D-1

Figure D-1 shows the positive direction of the longitudinal and lateral components of Delta-V. For example, in a head-on collision, a vehicle is decelerated and the initial high positive longitudinal velocity is reduced; thus it will have a negative longitudinal Delta-V.

APPENDIX E

SELECTED COUNTS

Users of the NASS Analysis file occasionally have requested that the manual include total counts for certain NASS statistics. These counts may help assure that the users are accessing the desired NASS tape. Further, such counts help to identify the source of apparent anomalies.

For this edition of the User's Manual, the following counts have been identified as potentially the most useful:

- Total Number of Accident Records 4,748
- Total Number of Accident Event Records 8,571
- Total Number of General Vehicle Records 8,199
- Total Number of External Vehicle Records 5,975
- Total Number of Internal Vehicle Records 5,411
- Total Number of Occupant Assessment Records 10,823
- Total Number of Occupant Injury Records 26,673

APPENDIX F - PSU DEMOGRAPHIC DATA

- (1) PSU Codes
- (2) PSU Description
- (3) Population (1990 & 1980)
- (4) Land Area (Square Miles)
- (5) Population (by Age Group)
- (6) Number of Workers and Means of Transportation to Work
- (7) Number of Housing Units and Vehicles Available

Demographics data on the 24 PSU's are included to give researchers supplementary information on the nature of the PSU's when analyzing NASS data. The land area figures are from the County and City Data Book, 1988. The 1990 population figures and the figures on age distribution of the population in 1990 are from Tables 54 and 61 of "1990 Census of Population, General Population Characteristics, Age and Sex by Race and Hispanic Origin: 1990 - County, Place and County Subdivision". The 1980 population figures and the figures on age distribution of the population in 1980 are from Tables 26 and 46 of "1980 Census of Population, Chapter B, General Population Characteristics, Persons by Age for Countries, Areas and Places: 1980". The figures pertaining to number of workers, means of transportation to work, number of housing units and vehicles available are from Table 6 "Employment Status and Journey to Work Characteristics: 1990" and Table 14 "Fuels and Equipment Characteristics: 1990" of "1990 Census of Population and Housing, Summary Social, Economic and Housing Characteristics".

PRIMARY SAMPLING UNIT (PSU) CODES AND DESCRIPTION

<u>VALUES</u>	<u>STRATA</u>	<u>DESCRIPTION</u>
03, 06, 41, 49, 72, 74, 79, 82	1	Central City, one of the 60 largest SMSAs
05, 08, 09, 12, 45, 73, 75, 81	2	Suburban, one of the 17 - 60th largest SMSAs or PSU within 61st - 119th largest SMSAs either containing or not containing a central city
02, 04, 11, 13, 43, 48, 76, 78	3	Other PSU

POPULATION

PSU	1990	1980	PERCENT CHANGE	LAND AREA
P02	165,304	158,158	+4.5	1131
P03	2,300,664	2,230,936	+3.1	70
P04	433,203	346,038	+25.2	641
P05	678,111	643,621	+5.4	486
P06	1,585,577	1,688,210	-6.1	136
P08	966,570	1,026,147	-5.8	672
P09	830,422	737,822	+12.6	939
P11	282,937	264,748	+6.9	710
P12	430,459	450,449	-4.4	642
P13	158,983	157,589	+0.9	507
P41	271,074	274,602	-1.3	55
P43	423,380	301,327	+40.5	854
P45	335,749	319,694	+5.0	506
P48	167,098	153,264	+9.0	1961
P49	1,006,877	904,078	+11.4	331
P72	2,783,726	3,005,072	-7.4	228
P73	475,594	522,965	-9.1	501
P74	416,444	397,038	+4.9	333
P75	441,500	374,194	+18.0	917
P76	74,778	71,348	+4.8	11219
P78	120,739	90,554	+33.3	9994
P79	4,948,333	4,149,319	+19.3	3554
P81	991,060	775,903	+27.7	2044
P82	516,259	493,846	+4.5	84
All PSUs	20,804,841	19,536,922	+6.5	38,515
Total U.S.	248,709,873	226,542,203	+9.8	

POPULATION BY AGE GROUP (1990)

PSU	UNDER 5	5 TO 9	10 TO 14	15 TO 19	20 TO 24
P02	11396	11045	10150	11765	12206
P03	178420	165956	164476	164977	179622
P04	28816	27497	26434	25568	24228
P05	45837	43619	39570	39910	44516
P06	115871	104113	100472	107408	135952
P08	61325	59345	54992	54766	56554
P09	64026	58331	53667	59426	77972
P11	19160	17431	15395	24922	39623
P12	33436	33652	33493	33647	30825
P13	12854	12930	12082	11336	10353
P41	16068	14648	12681	13713	16586
P43	30174	27295	25468	29177	40887
P45	21426	21148	20155	24918	30077
P48	10818	11073	11539	15863	19330
P49	81138	70967	61951	65369	91074
P72	216468	201140	190488	200988	235616
P73	34039	37502	38942	36770	30902
P74	33314	32489	29325	28498	31740
P75	33469	34032	31125	29471	25841
P76	5771	6388	6418	5781	3973
P78	10160	10104	9608	9091	9573
P79	416258	377775	348590	364937	419299
P81	75665	74986	67462	62023	65249
P82	29269	23842	20057	25641	48364

POPULATION BY AGE GROUP (1990) CONT.

PSU	25 TO 29	30 TO 44	45 TO 64	65 & OVER
P02	14201	41415	32628	21498
P03	204387	538749	419020	285057
P04	30151	91778	78323	100408
P05	56186	165576	140904	101993
P06	142337	347907	290803	240714
P08	72966	232418	208629	165575
P09	88137	220574	151373	56916
P11	29635	71793	43592	21226
P12	34807	102684	84086	43829
P13	12576	36925	29149	20798
P41	22707	64861	55147	54663
P43	46171	118537	72478	33193
P45	28850	81291	65194	42690
P48	13062	36760	29473	19180
P49	120170	254770	163547	97891
P72	278694	645300	484450	330182
P73	35923	109188	93649	58679
P74	39112	101480	73153	47333
P75	37177	128350	86421	35614
P76	4502	14717	15167	12061
P78	9670	24212	20826	17495
P79	478019	1217438	859606	466411
P81	89923	275550	191520	88692
P82	55845	149538	85303	78400

WORKERS AND MEANS OF TRANSPORTATION TO WORK

PSU	WORKERS	% USING CAR, TRUCK OR VAN	% IN CARPOOLS	% USING PUBLIC TRANSIT
P02	78,739	88.6	12.3	1.7
P03	907,010	31.3	8.8	58.0
P04	178,966	92.7	13.3	2.0
P05	352,960	88.8	10.0	4.2
P06	640,577	57.8	13.2	28.7
P08	444,449	85.6	12.8	8.7
P09	468,944	83.7	19.0	11.2
P11	148,727	83.1	9.6	3.0
P12	174,589	95.2	10.1	0.8
P13	63,855	93.7	11.3	0.7
P41	126,578	88.7	13.3	3.6
P43	237,181	93.0	12.1	1.6
P45	160,829	91.1	12.4	1.1
P48	71,893	93.6	13.5	0.7
P49	500,566	87.6	15.2	6.7
P72	1,181,677	61.1	14.8	29.7
P73	199,700	91.5	12.4	3.6
P74	210,358	91.1	11.4	2.7
P75	238,304	90.8	12.2	3.0
P76	23,706	88.3	14.3	0.2
P78	45,834	86.4	18.2	1.3
P79	2,283,850	89.5	15.8	4.2
P81	525,998	89.2	11.0	4.9
P82	279,748	70.5	11.8	15.9

HOUSING UNITS AND VEHICLE AVAILABILITY

PSU	ALL OCCUPIED HOUSING UNITS	PERCENT WITH VEHICLES AVAILABLE		
		NONE	1	2 OR MORE
P02	60,807	9.0	33.2	57.8
P03	828,199	56.7	33.2	10.1
P04	168,147	8.9	42.0	49.1
P05	254,995	7.0	32.6	60.4
P06	603,075	38.1	40.5	21.4
P08	387,778	13.3	38.0	48.8
P09	290,961	8.9	33.7	57.4
P11	104,528	7.2	35.2	57.6
P12	161,296	11.3	34.7	54.0
P13	57,798	9.7	33.5	56.8
P41	119,344	13.6	46.1	40.3
P43	165,743	6.3	31.7	62.0
P45	133,639	9.4	33.8	56.8
P48	61,099	10.2	32.0	57.8
P49	402,042	11.2	44.2	44.6
P72	1,025,174	34.3	41.1	24.6
P73	170,748	12.5	35.2	52.3
P74	161,113	10.5	34.6	54.9
P75	167,853	3.3	26.8	69.9
P76	26,177	8.8	33.9	57.4
P78	41,139	6.4	39.3	54.3
P79	1,613,172	7.8	32.5	59.6
P81	379,090	4.2	27.7	68.1
P82	236,702	16.7	40.9	42.3