NATIONAL ACCIDENT SAMPLING SYSTEM (NASS)

Analytical User's Manual

1983 File

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

TABLE OF CONTENTS

SECTION 1

INTRODUCTION

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

NASS was developed to provide an automated, comprehensive national traffic accident data base. Data collection began in 1979 in 10 geographic sites, called Primary Sampling Units (PSU's). The 1983 NASS file contains data for a full year from 50 sites, which are monitored by 4 Zone (Quality Control) Centers. These data are weighted to represent all police reported motor vehicle accidents occurring in the USA during the year.

Some data element definitions have been revised over the years to meet changing analytical requirements. Care should be exercised to assure consistent definitions if this 1983 file is to be used in conjuntion with NASS files from prior years.

The 1983 NASS file is available in two automated formats: either as a sequential data set, or as a Statistical Analysis System (SAS) data set. Hardcopy data collection records, sanitized to protect privacy, are also available for review. These records contain photographic slides, scene diagrams, and vehicle diagrams.

This Manual and the NASS Data Collection, Coding and Editing Manual - 1983 Continuous Sampling System are the primary documentation supporting the automated files. In addition, the user may find the following documents helpful:

Injury Coding Manual 1983 (Revised Edition)

CRASH3 User's Guide and Technical Manual (DOT-HS-805-732)

National Accident Sampling System Sample Design, Phases 2 and 3 (DOT-HS-805-273,274,275)

Collision Deformation Classification (SAE J224 MAR 80)

Truck Deformation Classification (SAE J1301)

The first document is available from the DOT/Transportation Systems Center (DTS-32), Kendall Square, Cambridge, Massachusetts 02142. The next two documents are available through the National Technical Information Service (NTIS) Springfield, Virginia 22161; the last two are available from the Society of Automotive Engineers (SAE), Warrendale, Pennsylvania 15096.

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

THE SAMPLING SYSTEM AND SAMPLE DESIGN

The accidents investigated in NASS are a probability sample of all police-reported accidents in the U.S. A NASS 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 a motor vehicle 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 is divided into 1279 geographic areas called Primary Sampling Units (PSU's). Each PSU consists either of a large city, a county, a group of contiguous counties, a central city or the balance of a county which is not part of a central city. The PSU's were defined so that their minimum population was approximately 50,000.

The 1,279 PSU's were grouped into 75 strata based on geographic region, percent of urban population, per capita service station sales, and per capita road miles. The strata were formed to be about equal in population; however, five PSU's had total population approaching or exceeding that of some strata. These were identified as self-representing and included in the sample with certainty. From each of the remaining 70 strata, containing at least two PSU's, one PSU was selected randomly with probability proportional to its 1977 population. The 75 selected sample PSU's are the first stage in the selection of NASS sample accidents and the inverse of the probability of selecting the PSU is the first stage expansion factor for all accidents in that PSU.

The NASS PSU sample also was designed to be implemented in stages: that is, not all 75 PSU's became operational at once. Three probability subsamples of the selected PSU's which would provide valid estimates during a period of

staged implementation were defined. The stages provided for growth from an original 10 PSU's, to 30 PSU's, to 50 PSU's, and finally to 75 PSU's.

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 oversamples those having a larger measure of size.

Stage 3 - Select Accidents

The final stage of sampling is the selection of accidents within the samoled jurisdictions. A simple random sample would produce a large percentage of accidents with minor property damage and little or no injury because these types of accidents constitute the largest fraction of the accident population. A sample with a large percentage of such accidents would not be effective in providing detailed and accurate information to help mitigate serious accident consequences. For this reason, a substantial sample of serious injury accidents is required for NASS.

Unequal probability selection is used to capture the desired sample sizes by accident type and severity. Each listed accident is categorized by: (1) the most severe injury level reported (fatal, incapacitating, nonincapacitating, no injury); (2) disposition of accident victims (i.e., transported to a medical facility or not); (3) vehicle type (motorcycle, light truck or van, medium or heavy truck, etc.), or involvement of a non-motorist, and; (4) towing required or not. A differential probability of selection is assigned to each category so that high severity and rare vehicle type accidents (non-motorist, motorcycle, truck) are oversampled relative to their proportion in the frame. Table 2.1 shows the accident stratification used in NASS. For example an accident involving a light truck or van whose driver was killed and a motorcycle whose driver was uninjuried would be classified as ACCIDENT TYPE E.

Accident Strata Classification

Based on Pedestrian/Vehicle Type Involvemnt and Injury Severity

ACCIDENT TYPE		Most Severe Police Reported Injury			
		K	A	B, C, O or U	
				TRANS-PORTED	NONTRANS-PORTED
Ped or Nonmotorist		A	B	C	D
Motorcycle		E	F	G	H
Medium or Heavy Truck		J	K	L	M
Light Truck or Van	TOWAWAY	N	P	Q	R
	NONTOWAWAY	N	P	Y	Y
Other Motor Vehicle	TOWAWAY	S	T	V	W
	NONTOWAWAY	S	T	Z	Z

TABLE 2.1

Other factors also affect the selection probabilities at this stage. For example, some PSU's may select from only even-numbered cases and some jurisdictions within a PSU are visited on a rotating schedule.

Selection of Accidents for Investigation

Every few days the selected police jurisdictions are contacted and all accidents reported since the previous contact day are listed. The accidents to be investigated by NASS are selected from these lists. Each accident listed is assigned a weight equal to the product of the differential weight for the stratum in which it has been classified and the inverse of the probability of selecting that police jurisdiction. Then, after arraying all accidents by accident stratum and police jurisdiction, a systematic sample of accidents is selected with probability proportional to the assigned weight.

While the more serious types of accidents are sampled every contact day, the small number of minor injury, non-towaway accidents are selected only on periodic contact days, with the period between these contact days fixed for each PSU.

Sampling weights

Because the accidents selected in NASS are a probability sample of all accidents occurring in the survey area, 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 in the same accident stratum and police jurisdiction on the day it was selected (Stage 3) 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. If restricted to an accident stratum, the sum is an estimate of the number of that type of accident which occurred 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 the 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 ratio which adjusts for differences between actual and estimated totals. This ratio is calculated using accident totals for both sampled and nonsampled police jurisdictions. The totals for the sampled jurisdictions come from the Stage 3 frame; the totals for the nonsampled jurisdictions are collected periodically. The PSU's are grouped into predetermined sets. Ratios are formed by dividing the total accidents in each accident strata and in each set of PSU's by the estimated total. These estimated totals are sums of the PSU Inflation Factors for each accident in the accident strata and set of PSU's. In some cases, a small sample in an accident strata may produce an unstable ratio. In these situations accident strata may be combined prior to producing a single ratio.

Estimates of National totals for accident characteristics can be obtained using the Ratio Inflation Factors as they were obtained using the National Inflation Factors. 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 Factors.

SECTION 3

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. Twenty-five 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:

VARIABLE NAME AND LOCATION	DESCRIPTION
PSU INFLATION FACTOR (A77-84)	This eight character numeric value has three implied decimal places. Its purpose and derivation are described in Section 2 of this Manual.
NATIONAL INFLATION FACTOR (A85-92)	This eight character numeric value has three implied decimal places. Its purpose and derivaion are described in Section 2 of this Manual.
RATIO INFLATION FACTOR (A93-100)	This eight character numeric value has three implied decimal places. Its purpose and derivation are described in Section 2 of this Manual.
MAXIMUM TREATMENT (A101)	This single character numeric value indicates the most intensive treatment given to any occupant, pedestrian or other non-motorist in the accident, using the following order of codes: 1 FATAL 3 HOSPITALIZATION 4 TREATED AND RELEASED 5 TREATMENT - OTHER 2 FATAL - RULED DISEASE 9 UNKNOWN 6 NO TREATMENT This variable is derived by scanning the TREATMENT - MORTALITY variable in each occupant record and each pedestrian/non-motorist record in the accident.
MAXIMUM KNOWN A.I.S. (A102)	This single character numeric value indicates the single most severe injury level reported for any occupant, pedestrian or other non-motorist in the accident, using the following order of codes: 6 MAXIMUM (UNTREATABLE) INJURY 5 CRITICAL INJURY 4 SERIOUS INJURY 3 SEVERE INJURY 2 MODERATE INJURY 1 MINOR INJURY 7 INJURY, UNKNOWN SEVERITY 9 UNKNOWN IF INJURED 0 NOT INJURED

VARIABLE NAME AND LOCATION	DESCRIPTION
ALCOHOL INVOLVED (A103)	This single character numeric value indicates if any involved driver, pedestrian or other non-motorist were reported to have had some alcohol involvement at the time of the accident, using the following codes: 1 YES 2 NO 9 UNKNOWN This variable is derived by scanning the POLICE REPORTED ALCOHOL PRESENCE and ALCOHOL TEST RESULTS variables on the driver and pedestrian/non-motorist form and the TRAFFIC VIOLATION CHARGED-DWI on the driver form. The ALCOHOL INVOLVED codes are derived as follows: (YES) 1 - If POLICE REPORTED ALCOHOL PRESENCE equals 1 (YES) or ALCOHOL TEST RESULTS equal 01-94 (positive result) or TRAFFIC VIOLATION CHARGED-DWI equals 1. (NO) 2 - If POLICE REPORTED ALCOHOL PRESENCE equals 0 (NO) and ALCOHOL TEST RESULT equals 00 (NONE) or 96 (NONE GIVEN) and TRAFFIC VIOLATION CHARGED-DWI equals 0. (UNKNOWN) 9 - IF

POLICE REPORTED ALCOHOL PRESENCE EQUALS	AND	ALCOHOL TEST RESULTS EQUALS	AND	TRAFFIC VIOLATION CHARGED - DWI EQUALS
0		95, 97, 99		0, 9
8, 9		00, 95, 96 97, 99		0, 9
0		00, 96		9

VARIABLE NAME AND LOCATION	DESCRIPTION
NUMBER OF SERIOUSLY INJURED PERSONS (A104-105)	This two character numeric value indicates the total number of fatally and other seriously injured individuals involved in the accident. It is derived by totaling the number of pedestrian/non-motorist and occupant records in which either the TREATMENT - MORTALITY value is coded "1" (Fatal) or the A.I.S. SEVERITY value is coded "3-6".
NUMBER OF INJURED PERSONS (A106-107)	This two character numeric value indicates the total number of injured individuals in the accident. It is derived by totaling the number of pedestrian/nonmotorist and occupant records in which either the TREATMENT-MORTALITY value is coded "1" (fatal) or the A.I.S. SEVERITY value is coded "1-7".
DAY OF WEEK (A108-109)	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 08 Unknown
SOURCE DOCUMENTS ONLY (A110)	This one character numeric value indicates whether the case included a full investigation or was restricted to (official) source documents only. SOURCE DOCUMENTS ONLY values are coded as follows: 0 Full Investigation 1 Source Documents Only This variable is derived by scanning a table consisting of PSU and accident case numbers.

VARIABLE NAME AND LOCATION	DESCRIPTION
MAXIMUM KNOWN PEDESTRIAN A.I.S. (P99)	This single character numeric value indicates the single most severe injury level reported for this pedestrian or other non-motorist in the accident. Order of coding is the same as for the accident variable MAXIMUM KNOWN A.I.S. (A102).
PEDESTRIAN I.S.S. (P100-101)	This two character numeric value provides an index score indicating the relative severity of overall injury to the individual pedestrian. It is derived by adding the squares of the highest A.I.S. SEVERITY entries in each of the three most severe injured body regions. For example: A Pedestrian suffered severe 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.
VIN LENGTH (V170-171)	This two character numeric value indicates the number of characters in the Vehicle Identification Number (VIN) as originally recorded. 99 denotes unknown.

VARIABLE NAME AND LOCATION	DESCRIPTION
VEHICLE SHORT FORM (V172)	When no vehicle in an accident has suffered sufficient damage to require towing from the accident scene and there are no serious injuries e.g., accident types 'Y' or 'Z', investigators use an abbreviated version of the data collection form for the Vehicle level records. This one character numeric value indicates the use or nonuse of this "Vehicle Short Form" as follows: 0 NO [full-length form used] 1 YES [Vehicle Short Form used] If the case includes a special study, a full length vehicle form is completed.
NUMBER SERIOUSLY INJURED IN THIS VEHICLE (V173-174)	This two character numeric value indicates the total number of fatally and other seriously injured occupants of the vehicle. It is derived by totaling the number of occupant records for the vehicle in which either the TREATMENT-MORTALITY value is coded "1" (fatal) or the A.I.S. SEVERITY value is coded "3-6".
NUMBER INJURED IN THIS VEHICLE (V175-176)	This two character numeric value indicates the total number of injured occupants of the vehicle. It is derived by totaling the number of occupant records for the vehicle in which either the TREATMENT-MORTALITY value is coded "1" (fatal) or the A.I.S SEVERITY value is coded "1-7".

VARIABLE NAME AND LOCATION	DESCRIPTION
WHEELBASE SHORT (V177-180) WHEELBASE LONG (V181-184)	These four character numeric values with one implied decimal indicate the shortest and longest number of inches between a passenger car's axles for a given make, model and model year. '9999 denotes unknown. These variables are derived from the VIN using the VINA program. NOTE: If a model has only one length value, it will be coded in the WHEELBASE SHORT variable and the WHEELBASE LONG variable will be coded "UNKNOWN".
FRONT/REAR WHEEL DRIVE (V185)	This single character 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 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.
MAXIMUM TREATMENT IN THIS VEHICLE (V186)	This single character numeric value indicates the most intensive treatment given to an occupant in this vehicle. Order of coding is the same as for the accident variable MAXIMUM TREATMENT (A101).

VARIABLE NAME AND LOCATION	DESCRIPTION
WEIGHT OF THE OTHER VEHICLE (V187-189)	This three character numeric value indicates the weight (in pounds) of the other vehicle, if the most severe impact is with another vehicle. Values are coded as follows: 001 LESS THAN 150 POUNDS 002 - 996 150-99,649 POUNDS 997 99,650 OR MORE 998 NOT APPLICABLE (MOST SEVERE IMPACT NOT WITH ANOTHER VEHICLE OR WITH VEHICLE HITTING ITSELF) 999 UNKNOWN This variable is derived from the VEHICLE CURB WEIGHT as coded for the other vehicle.
BODY TYPE OF THE OTHER VEHICLE (V190-191)	This two character numeric value indicates the body type of the other vehicle if the most severe impact is with another vehicle. If not, the value is coded as follows: 98 - NOT APPLICABLE (Most severe impact not with another vehicle or with vehicle hitting itself). This variable is derived from the BODY TYPE as coded for the other vehicle.
MAXIMUM KNOWN A.I.S. in this Vehicle (V192)	This single character numeric value indicates the most severe injury level reported for an occupant in this vehicle. Order of codes is the same as for the accident variable MAXIMUM KNOWN AIS (A102).
MAXIMUM KNOWN OCCUPANT A.I.S. (098)	This single character numeric value indicates the most severe injury level reported for this occupant. Order of codes is the same as for the accident variable MAXIMUM KNOWN A.I.S. (A102).

VARIABLE NAME AND LOCATION	DESCRIPTION
OCCUPANT I.S.S. (C99-100)	This two character numeric value provides an index score indicating the relative severity of overall injury to the individual vehicle occupant. It is derived identically to PEDESTRIAN I.S.S., using data from the Occupant level record.

SECTION 4

SEQUENTIAL ANALYTICAL FILE RECORD LAYOUTS

1 2	PSU NUMBER	IDENTIFICATION
3 4 5 6	CASE NUMBER	
7	RECORD NUMBER	
8	//////////////////////////	
9	VERSION NUMBER	
10	//////////////////////////	
11 12	MONTH OF ACCIDENT	
13 14	////////////////////// //////////////////////	
15 16	YEAR OF ACCIDENT	
17	FINAL STRATIFICATION	
18 19 20 21 22	////////////////////// ////////////////////// ////////////////////// ////////////////////// //////////////////////	
23 24	FIRST HARMFUL EVENT	
25	MANNER OF COLLISION	
26	RELATION TO ROADWAY	
27 28	NUMBER OF VEHICLE FORMS SUBMITTED	
29 30	NO. OF PEDESTRIAN & NON-MOTORIST FORMS SUBMITTED	
31	PAR SEVERITY	
32	HIT AND RUN INVOLVEMENT	
33 34 35 36	TIME OF DAY OF ACCIDENT	AMBIENT CONDITIONS
37	LIGHT CONDITIONS	
38	ATMOSPHERIC CONDITIONS	

39	LAND USE (URBAN/RURAL)	ADMINISTRATIVE ITEMS
40	FEDERAL AID SYSTEM	
41	CLASS TRAFFICWAY	
42	ROADWAY FUNCTION CLASS	
43 44	RELATION TO JUNCTION	
45	SCHOOL BUS RELATED	
46	RIGHT OR LEFT TURN ON RED	
47	NUMBER OF TRAVEL LANES	ENVIRONMENTAL DATA
48	MEDIAN TYPE	
49 50	MEDIAN WIDTH	
51	ACCESS CONTROL	
52	TRAFFICWAY FLOW	
53	INTERCHANGE GEOMETRY	
54	SHOULDER PRESENCE	
55	ROADWAY ALIGNMENT	
56	ROADWAY PROFILE	
57	ROADWAY SURFACE TYPE	
58	ROADWAY SURFACE CONDITION	
59 60	TRAFFIC CONTROL DEVICE	
61	TRAF. CNTL. FUNCTION	
62	SCHOOL ZONE	
63 64	SPEED LIMIT	
65	RESTR. TO ROADWAY AT SCENE	
66	ADDITONAL RESTR. AT SCENE	

67	//////////////////////////	SPECIAL STUDIES
68	POLE SPECIAL STUDY	
69	LONGITUDINAL BARRIER	
70	CRASH CUSHION SPEC. STUDY	
71	//////////////////////////	
72	HONDA SPECIAL STUDY	
73 74 75 76	////////////////////// ////////////////////// ////////////////////// //////////////////////	
77 78 79 80 81 82 83 84	PSU INFLATION FACTOR	INFLATION FACTORS
85 86 87 88 89 90 91 92	NATIONAL INFLATION FACTOR	
93 94 95 96 97 98 99 100	RATIO INFLATION FACTOR	
101	MAXIMUM TREATMENT	DERIVED VARIABLES
102	MAXIMUM KNOWN AIS	
103	ALCOHOL INVOLVEMENT	
104 105	NUMBER OF SERIOUSLY INJURED PERSONS	
106 107	NUMBER OF INJURED PERSON	
108 109	DAY OF WEEK OF ACCIDENT	
110	SOURCE DOCUMENTS ONLY	

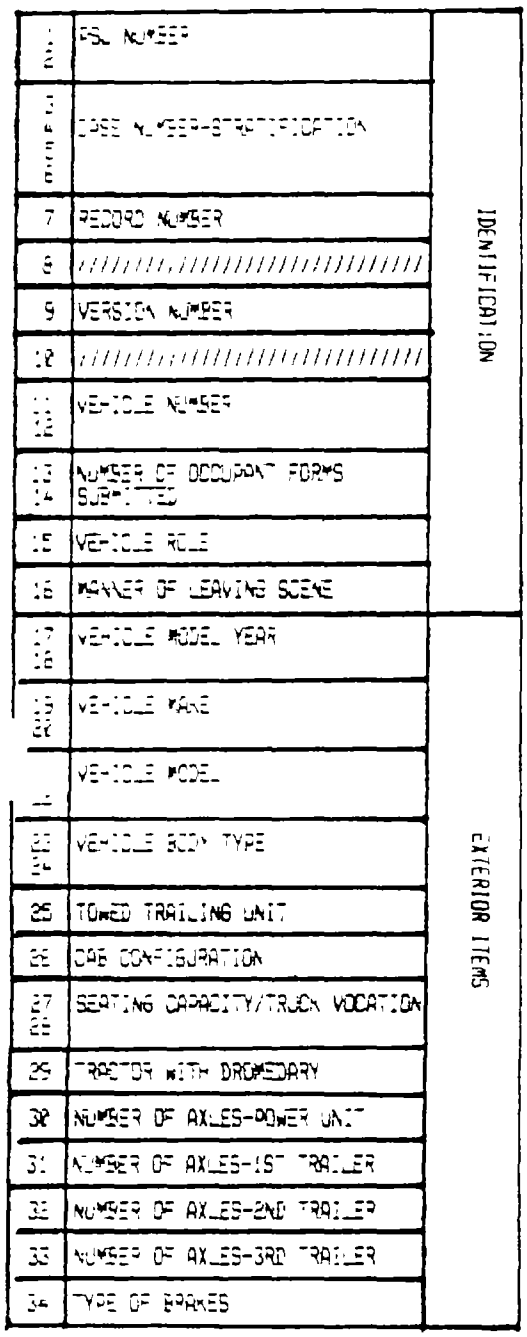
1	SEL NUMBER	IDENTIFICATION
2 3 4 5	CASE NUMBER-STRATIFICATION	
6	RECORD NUMBER	
7	/ /	
8	VERSION NUMBER	
9	/ /	
10 11 12	PEDESTRIAN OR NON*OTOR- IST'S NUMBER	
13	PEDESTRIAN/NON*OTORIST TYPE	
14 15	PEDESTRIAN/NON*OTORIST AGE	INTERVIEW
16	PEDESTRIAN/NON*OTORIST'S SEX	
17 18	PEDESTRIAN/NON*OTORIST'S HEIGHT	
19 20 21	PEDESTRIAN/NON*OTORIST'S WEIGHT	
22 23	MONTHS CYCLING EXPERIENCE	
24 25	PEDESTRIAN/NON*OTORIST'S LOCATION	
26	TREATMENT-MORTALITY	
27 28	HOSPITAL STAY	
29 30	*DRIVING DAYS LOST	
31	RELATION OF INTERVIEWEE	
32	BODY REGION	1ST INJURY
33	ASPECT	
34	LESION	
35	SYSTEM/ORGAN	
36	AIS SEVERITY	
37 38	INJURY SOURCE	
39 40	SOURCE OF DATA	

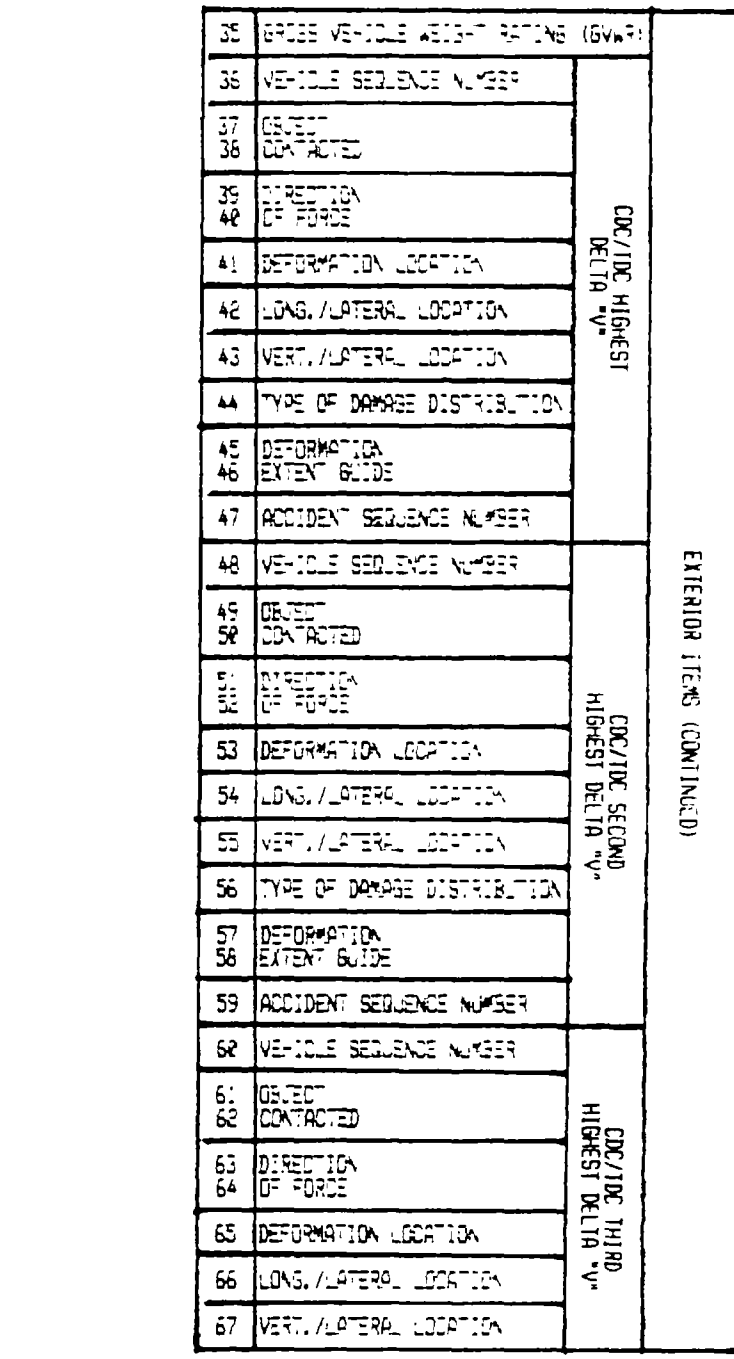
PEDESTRIAN/NON*OTORIST RECORD

41	BODY REGION	2ND INJURY
42	ASPECT	
43	LESION	
44	SYSTEM ORGAN	
45	AIS SEVERITY	
46 47	INJURY SOURCE	
48 49	SOURCE OF DATA	
50	BODY REGION	3RD INJURY
51	ASPECT	
52	LESION	
53	SYSTEM/ORGAN	
54	AIS SEVERITY	
55 56	INJURY SOURCE	
57 58	SOURCE OF DATA	
59	BODY REGION	4TH INJURY
60	ASPECT	
61	LESION	
62	SYSTEM/ORGAN	
63	AIS SEVERITY	
64 65	INJURY SOURCE	
66 67	SOURCE OF DATA	
68	BODY REGION	5TH INJURY
69	ASPECT	
70	LESION	
71	SYSTEM/ORGAN	
72	AIS SEVERITY	
73 74	INJURY SOURCE	
75 76	SOURCE OF DATA	

PEDESTRIAN INJURY CLASSIFICATION (CONTINUED)

77	BODY REGION	6TH INJURY
78	ASPECT	
79	LESION	
80	SYSTEM ORGAN	
81	AIS SEVERITY	
82 83	INJURY SOURCE	
84 85	SOURCE OF DATA	
86	INJURY SEVERITY	PAR
87	TRAFFIC VIOLATION	
88	ALCOHOL PRESENCE	
89 90	ALCOHOL TEST RESULT	OTHER
91 92	TIME OF DEATH	
93 94	FIRST RELATED FACTOR	
95 96	SECOND RELATED FACTOR	
97 98	THIRD RELATED FACTOR	
99	*SEVERITY MAX AIS	DERIVED
100 101	INJURY SEVERITY SCORE	

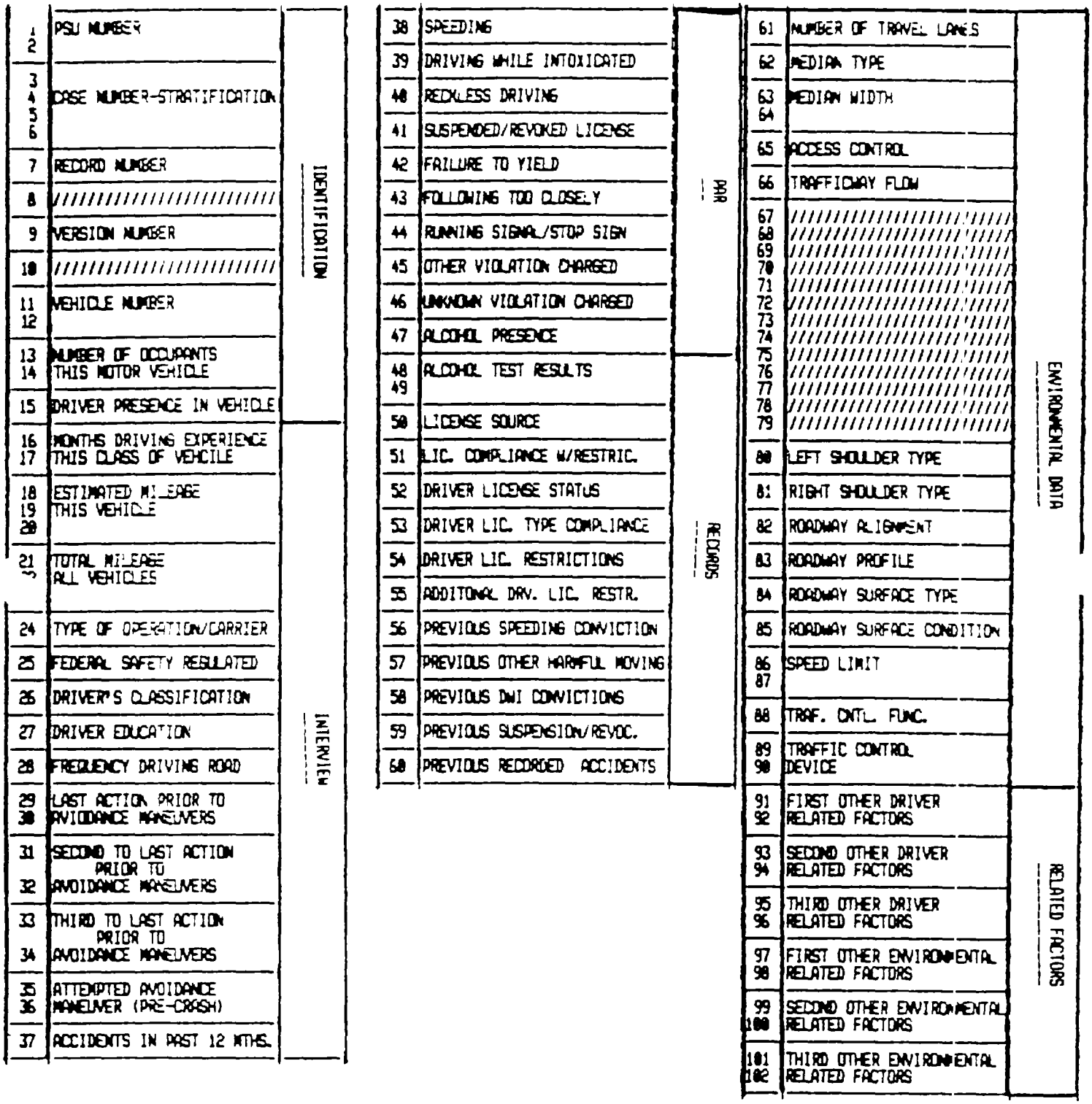

IDENTIFICATION
EXTERIOR ITEMS
PSU NUMBER
CASE NUMBER-STRATIFICATION
RECORD NUMBER
VERSION NUMBER
VEHICLE NUMBER
NUMBER OF OCCUPANT FORMS SUBMITTED
VEHICLE ROLE
MANNER OF LEAVING SCENE
VEHICLE MODEL YEAR
VEHICLE MAKE
VEHICLE MODEL
VEHICLE BODY TYPE
TOWED TRAILING UNIT
CAB CONFIGURATION
SEATING CAPACITY/TRUCK VOCATION
TRACTOR WITH DROMEDARY
NUMBER OF AXLES-POWER UNIT
NUMBER OF AXLES-1ST TRAILER
NUMBER OF AXLES-2ND TRAILER
NUMBER OF AXLES-3RD TRAILER
TYPE OF BRAKES

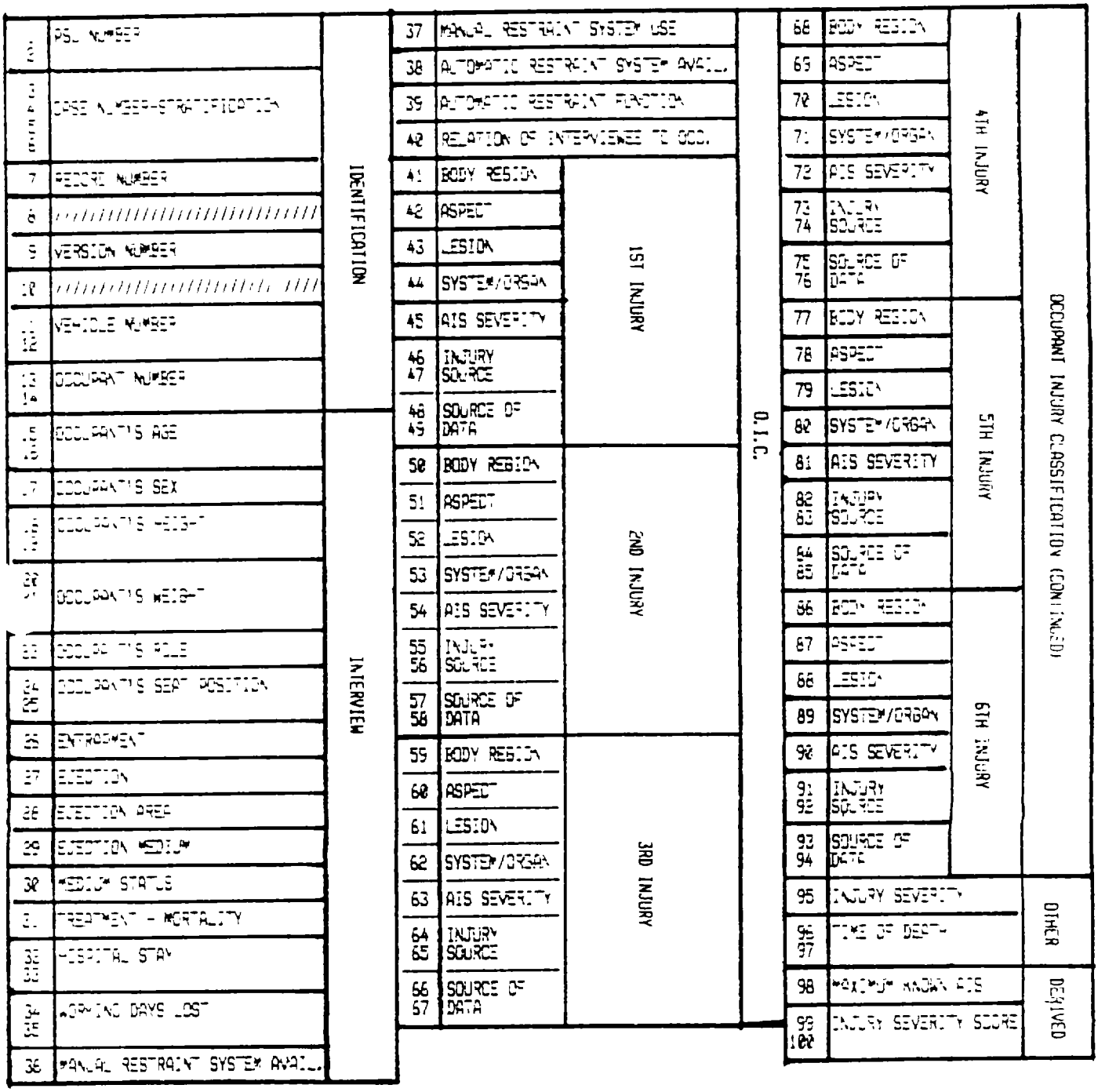

EXTERIOR ITEMS (CONTINUED)
GROSS VEHICLE WEIGHT RATING (GVWR)
CDC/IDC HIGHEST DELTA "V"
VEHICLE SEQUENCE NUMBER
OBJECT CONTACTED
DIRECTION OF FORCE
DEFORMATION LOCATION
LONG./LATERAL LOCATION
VERT./LATERAL LOCATION
TYPE OF DAMAGE DISTRIBUTION
DEFORMATION EXTENT GUIDE
ACCIDENT SEQUENCE NUMBER
CDC/IDC SECOND HIGHEST DELTA "V"
VEHICLE SEQUENCE NUMBER
OBJECT CONTACTED
DIRECTION OF FORCE
DEFORMATION LOCATION
LONG./LATERAL LOCATION
VERT./LATERAL LOCATION
TYPE OF DAMAGE DISTRIBUTION
DEFORMATION EXTENT GUIDE
ACCIDENT SEQUENCE NUMBER
CDC/IDC THIRD HIGHEST DELTA "V"
VEHICLE SEQUENCE NUMBER
OBJECT CONTACTED
DIRECTION OF FORCE
DEFORMATION LOCATION
LONG./LATERAL LOCATION
VERT./LATERAL LOCATION

68	TYPE OF DAMAGE DISTRIBUTION	CDC/IDC FOURTH HIGHEST DELTA "V"	EXTERIOR ITEMS CONT.
69 70	DEFORMATION EXTENT GUIDE		
71	ACCIDENT SEQUENCE NUMBER		
72	VEHICLE SEQUENCE NUMBER		
73 74	OBJECT CONTACTED		
75 76	DIRECTION OF FORCE		
77	DEFORMATION LOCATION		
78	LONG./LATERAL LOCATION		
79	VERT./LATERAL LOCATION		
80	TYPE OF DAMAGE DISTRIBUTION		
81 82	DEFORMATION EXTENT GUIDE		
83	ACCIDENT SEQUENCE NUMBER		
84 85 86 87	VEHICLE IDENTIFICATION NUMBER		INTERIOR ITEMS
88 89 90 91 92 93 94 95 96 97 98 99 100	//////////////////////////////////////		
101	REGISTRATION OF VEHICLE		
102	VEHICLE SPECIAL USE		
103 104 105	ODOMETER READING		
106	PASSENGER COMPARTMENT INTEGRITY		
107	PASSENGER COMPARTMENT INTRUSION		

108	MAGNITUDE OF INTRUSION	SUPPLEMENTAL ITEMS
109	FIRE OCCURRENCE	
110	MOST SEVERE IMPACT ROLL	
111	ROLL OF OTHER CONTACTED UNITS	
112	ROLLOVER	
113	JACKKNIFE	
114	SAFETY PROG. BULLETIN SUBMITTED	
115	HAZARDOUS CARGO	
116 117 118	VEHICLE CURB WEIGHT	
119 120 121	VEHICLE CARGO WEIGHT	
122	CARGO WEIGHT INFO SOURCE	
123	BASIS FOR TOTAL DELTA "V"	CRASH PROGRAM
124 125	TOTAL DELTA "V"	
126 127 128	LONGITUDINAL COMPONENT OF DELTA "V"	
129 130 131	LATERAL COMPONENT OF DELTA "V"	
132 133 134 135	ENERGY ABSORPTION	
136 137 138 139	CRASH DAMAGE DATA FOR HIGHEST DELTA "V" - 1	
140 141 142	CRASH DAMAGE DATA FOR HIGHEST DELTA "V" - C1	
143 144 145	CRASH DAMAGE DATA FOR HIGHEST DELTA "V" - C2	
146 147 148	CRASH DAMAGE DATA FOR HIGHEST DELTA "V" - C3	

149 150 151	CRASH DAMAGE DATA FOR HIGHEST DELTA "V" - D4	CRASH PROGRAM (CONTINUED)
152 153 154	CRASH DAMAGE DATA FOR HIGHEST DELTA "V" - D5	
155 156 157	CRASH DAMAGE DATA FOR HIGHEST DELTA "V" - D6	
158 159 160 161	CRASH DAMAGE DATA FOR HIGHEST DELTA "V" - D	
162 163	TRAVEL SPEED	PAR
164 165	FIRST VEHICLE RELATED FACTOR	
166 167	SECOND VEHICLE RELATED FACTOR	
168 169	THIRD VEHICLE RELATED FACTOR	
170 171	VIN LENGTH	DERIVED
2	VEHICLE SHOT FOR	
173 174	NUMBER OF SERIOUSLY INJURED IN THIS VEHICLE	
175 176	NUMBER INJURED IN THIS VEHICLE	
177 178 179 180	WHEEL BASE - SHORT	
181 182 183 184	WHEEL BASE - LONG	
185	FRONT/REAR WHEEL DRIVE	
186	MAXIMUM TREATMENT	
187 188 189	WEIGHT OF THE OTHER VEHICLE	
190 191	BODY TYPE OF THE OTHER VEHICLE	
192	MAXIMUM KNOWN AIS	


1 2 PSU NUMBER
3 4 5 6 CASE NUMBER-STRATIFICATION
7 RECORD NUMBER
8 ////////////////////////
9 VERSION NUMBER
10 ////////////////////////
11 12 VEHICLE NUMBER
13 14 NUMBER OF OCCUPANTS THIS MOTOR VEHICLE
15 DRIVER PRESENCE IN VEHICLE
16 17 MONTHS DRIVING EXPERIENCE THIS CLASS OF VEHICLE
18 19 20 ESTIMATED MILEAGE THIS VEHICLE
21 22 23 TOTAL MILEAGE ALL VEHICLES
24 TYPE OF OPERATION/CARRIER
25 FEDERAL SAFETY REGULATED
26 DRIVER'S CLASSIFICATION
27 DRIVER EDUCATION
28 FREQUENCY DRIVING ROAD
29 30 LAST ACTION PRIOR TO AVOIDANCE MANEUVERS
31 32 SECOND TO LAST ACTION PRIOR TO AVOIDANCE MANEUVERS
33 34 THIRD TO LAST ACTION PRIOR TO AVOIDANCE MANEUVERS
35 36 ATTEMPTED AVOIDANCE MANEUVER (PRE-CRASH)
37 ACCIDENTS IN PAST 12 MTHS.
IDENTIFICATION
INTERVIEW
38 SPEEDING
39 DRIVING WHILE INTOXICATED
40 RECKLESS DRIVING
41 SUSPENDED/REVOKED LICENSE
42 FAILURE TO YIELD
43 FOLLOWING TOO CLOSELY
44 RUNNING SIGNAL/STOP SIGN
45 OTHER VIOLATION CHARGED
46 UNKNOWN VIOLATION CHARGED
47 ALCOHOL PRESENCE
48 49 ALCOHOL TEST RESULTS
50 LICENSE SOURCE
51 LIC. COMPLIANCE W/RESTRIC.
52 DRIVER LICENSE STATUS
53 DRIVER LIC. TYPE COMPLIANCE
54 DRIVER LIC. RESTRICTIONS
55 ADDITONAL DRV. LIC. RESTR.
56 PREVIOUS SPEEDING CONVICTION
57 PREVIOUS OTHER HARMFUL MOVING
58 PREVIOUS DWI CONVICTIONS
59 PREVIOUS SUSPENSION/REVOC.
60 PREVIOUS RECORDED ACCIDENTS
BAR
RECORDS
61 NUMBER OF TRAVEL LANES
62 MEDIAN TYPE
63 64 MEDIAN WIDTH
65 ACCESS CONTROL
66 TRAFFICWAY FLOW
67 68 69 70 71 72 73 74 75 76 77 78 79 ////////////////////////
80 LEFT SHOULDER TYPE
81 RIGHT SHOULDER TYPE
82 ROADWAY ALIGNMENT
83 ROADWAY PROFILE
84 ROADWAY SURFACE TYPE
85 ROADWAY SURFACE CONDITION
86 87 SPEED LIMIT
88 TRAF. CNTL. FUNC.
89 90 TRAFFIC CONTROL DEVICE
91 92 FIRST OTHER DRIVER RELATED FACTORS
93 94 SECOND OTHER DRIVER RELATED FACTORS
95 96 THIRD OTHER DRIVER RELATED FACTORS
97 98 FIRST OTHER ENVIRONMENTAL RELATED FACTORS
99 100 SECOND OTHER ENVIRONMENTAL RELATED FACTORS
101 102 THIRD OTHER ENVIRONMENTAL RELATED FACTORS
ENVIRONMENTAL DATA
RELATED FACTORS


IDENTIFICATION
PSU NUMBER
CASE NUMBER-STRATIFICATION
RECORD NUMBER
VERSION NUMBER
VEHICLE NUMBER
OCCUPANT NUMBER
OCCUPANT'S AGE
OCCUPANT'S SEX
OCCUPANT'S HEIGHT
OCCUPANT'S WEIGHT
OCCUPANT'S ROLE
OCCUPANT'S SEAT POSITION
ENVIRONMENT
EJECTION
EJECTION AREA
EJECTION MEDIUM
MEDICAL STATUS
TREATMENT - MORTALITY
HOSPITAL STAY
WORKING DAYS LOST
MANUAL RESTRAINT SYSTEM AVAIL.
INTERVIEW
MANUAL RESTRAINT SYSTEM USE
AUTOMATIC RESTRAINT SYSTEM AVAIL.
AUTOMATIC RESTRAINT FUNCTION
RELATION OF INTERVIEWEE TO OCC.
1ST INJURY
BODY REGION
ASPECT
LESION
SYSTEM/ORGAN
AIS SEVERITY
INJURY SOURCE
SOURCE OF DATA
2ND INJURY
3RD INJURY
O.I.C.
OCCUPANT INJURY CLASSIFICATION (CONTINUED)
4TH INJURY
5TH INJURY
6TH INJURY
OTHER
DERIVED
INJURY SEVERITY
TIME OF DEATH
MAXIMUM MAIM AIS
INJURY SEVERITY SCORE

SECTION 5

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-hierarchial data base. The SAS data base for NASS consists of five individual data sets, one for each of the five NASS record levels, i.e. Accident, Pedestrian, Vehicle, Driver, and Occupant. Using modified relational database concepts, SAS allows the natural hierarchial 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 driver levels--through use of an appropriate set of SAS commands within the DATA step.

SAS Data Base Contents

The variable names in the NASS/SAS data base are from the data collection forms 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");

- The value of 95 ("test refused") for Pedestrian/non-motorists and Driver Alcohol Test Results (ALCTEST) has been recoded to .B; the value of 96 ("not given") has been recoded .C; the value of 97 ("performed, results unknown") has been recoded .D; and the value 99 ("unknown") has been recoded .U;

- Missing data for numeric values are recoded as "." in SAS and are not included in percentage tabulations;

- Numeric variables not present on the short vehicle form for nontowaway accidents have been recoded to .N (Not Collected);

- Hour of Day (Time) is stored as a SAS time value, and has an output format of HHMM5.

PSU NUMBER (PSU), CASE NUMBER-STRATIFICATION (CASEID) and 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 Vehicle, Driver, and Occupant 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 1983 NASS. 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 DATA SET CASESIN.ACCIDENT

ALPHABETIC LIST OF VARIABLES

#	VARIABLE	TYPE	LENGTH	POSITION	FORMAT	INFORMAT	LABEL
53	AAIS	NUM	2	111			MAXIMUM KNOWN AIS IN ACCIDENT
30	ACCESS	NUM	2	65			ACCESS CONTROL
15	ACCSEVP	NUM	2	33			POLICE REPORTED ACCIDENT SEVERITY
51	AINJSER	NUM	2	107			NUMBER OF SERIOUSLY INJURED PERSONS
50	AINJURED	NUM	2	105			TOTAL NUMBER OF INJURED PERSONS
52	ALCINV	NUM	2	109			ALCOHOL INVOLVED ACCIDENT
34	ALIGNMNT	NUM	2	73			ROADWAY ALIGNMENT
54	ATREAT	NUM	2	113			MAXIMUM TREATMENT IN ACCIDENT
2	CASEID	CHAR	4	6			CASE NUMBER - STRATIFICATION
3	CASENO	NUM	3	10			SEQUENCE NUMBER
22	CLTWAY	NUM	2	49			CLASS TRAFFICWAY
48	DAYWEEK	NUM	2	101			DAY OF WEEK
21	FEDAID	NUM	2	47			ROAD TA-1 CLASSIFICATION
9	FINSTRT	CHAR	1	22			FINAL STRATIFICATION
32	GEOMETRY	NUM	2	69			INTERCHANGE GEOMETRY
35	GRADE	NUM	2	75			ROADWAY PROFILE
10	HARMEV1	NUM	2	23			FIRST HARMFUL EVENT
16	HITRUN	NUM	2	35			INVOLVEMENT OF HIT & RUN IN ACCIDENT
20	LANDUSE	NUM	2	45			LAND USE
27	LANES	NUM	2	59			NUMBER OF TRAVEL LANES
18	LGTCOND	NUM	2	41			LIGHT CONDITIONS
11	MANCOLL	NUM	2	25			MANNER OF COLLISION (BASED ON F.H.E.)
28	MEDIANT	NUM	2	61			MEDIAN TYPE
29	MEDIANW	NUM	2	63			MEDIAN WIDTH
7	MONTH	NUM	2	18			MONTH OF ACCIDENT
56	NATWGT	NUM	4	119	9.3		NATIONAL INFLATION FACTOR
14	PEDFORMS	NUM	2	31			NUMBER OF PED/NONMOTOR FORMS SUBMITTED
1	PSU	NUM	2	4			PSU NUMBER
55	PSUWGT	NUM	4	115	9.3		PSU INFLATION FACTOR
57	RATWGT	NUM	4	123	9.3		RATIO ADJUSTMENT
5	RECNO	NUM	2	14			RECORD NUMBER
24	RELJUNC	NUM	2	53			RELATION TO JUNCTION
12	RELROAD	NUM	2	27			RELATION TO ROADWAY (LOCATION OF F.H.E.)
23	ROADFUNC	NUM	2	51			ROADWAY FUNCTION CLASS
43	ROWADD	NUM	2	91			ADDITIONAL RDWY RESTRICTIONS AT SCENE
42	ROWPRI	NUM	2	89			RESTRICTION OF ROADWAY AT SCENE
25	SCHBUS	NUM	2	55			SCHOOL BUS-RELATED
40	SCHZONE	NUM	2	85			ACCIDENT OCCURRENCE IN SCHOOL ZONE
49	SDO	NUM	2	103			SOURCE DOCUMENT ONLY
33	SHOULDER	NUM	2	71			SHOULDER PRESENCE
41	SPLIMIT	NUM	2	87			SPEED LIMIT
46	SSCC	NUM	2	97			CRASH CUSHION (S.S. INDICATOR)
47	SSHONDA	NUM	2	99			HONDA (S.S. INDICATOR)
45	SSLB	NUM	2	95			LONGITUDINAL BARRIER (S.S. INDICATOR)
44	SSPOLE	NUM	2	93			POLE (S.S. INDICATOR)
4	STRATIF	CHAR	1	13			INITIAL STRATIFICATION
37	SURCOND	NUM	2	79			ROADWAY SURFACE CONDITION
36	SURTYPE	NUM	2	77			ROADWAY SURFACE TYPE

17	TIME	NUM	4	37	HHMM5.	TIME OF ACCIDENT
38	TRAFCONT	NUM	2	81		TRAFFIC CONTROLS
31	TRAFFLOW	NUM	2	67		TRAFFICWAY FLOW
39	TRCTLFCT	NUM	2	83		TRAFFIC CONTROL DEVICE FUNCTIONING
26	TURNRED	NUM	2	57		RIGHT OR LEFT TURN ON RED RELATED
13	VEHFORMS	NUM	2	29		NUMBER OF VEHICLE FORMS SUBMITTED
6	VERSION	NUM	2	16		VERSION NUMBER
19	WEATHER	NUM	2	43		ATMOSPHERIC CONDITIONS
8	YEAR	NUM	2	20		YEAR OF ACCIDENT

CONTENTS OF SAS DATA SET CASESIN.PEDES

ALPHABETIC LIST OF VARIABLES

#	VARIABLE	TYPE	LENGTH	POSITION	FORMAT	INFORMAT	LABEL
9	AGE	NUM	2	22			AGE OF PERSON
43	AIS1	NUM	2	68			AIS SEVERITY (FIRST)
44	AIS2	NUM	2	70			AIS SEVERITY (SECOND)
45	AIS3	NUM	2	72			AIS SEVERITY (THIRD)
46	AIS4	NUM	2	74			AIS SEVERITY (FOURTH)
47	AIS5	NUM	2	76			AIS SEVERITY (FIFTH)
48	AIS6	NUM	2	78			AIS SEVERITY (SIXTH)
64	ALCTEST	NUM	2	110			MEASURED BLOOD ALCOHOL LEVEL
25	ASPECT1	CHAR	1	50			ASPECT (FIRST)
26	ASPECT2	CHAR	1	51			ASPECT (SECOND)
27	ASPECT3	CHAR	1	52			ASPECT (THIRD)
28	ASPECT4	CHAR	1	53			ASPECT (FOURTH)
29	ASPECT5	CHAR	1	54			ASPECT (FIFTH)
30	ASPECT6	CHAR	1	55			ASPECT (SIXTH)
19	BODYREG1	CHAR	1	43			OIC BODY REGION (FIRST)
20	BODYREG2	CHAR	1	44			OIC BODY REGION (SECOND)
21	BODYREG3	CHAR	1	45			OIC BODY REGION (THIRD)
22	BODYREG4	CHAR	2	46			OIC BODY REGION (FOURTH)
23	BODYREG5	CHAR	1	48			OIC BODY REGION (FIFTH)
24	BODYREG6	CHAR	1	49			OIC BODY REGION (SIXTH)
2	CASEID	CHAR	4	6			CASE NUMBER - STRATIFICATION
3	CASENO	NUM	3	10			SEQUENCE NUMBER
13	CYCLEEX	NUM	2	31			MONTHS CYCLING EXPERIENCE
65	DEATHDT	NUM	2	112			TIME OF DEATH
63	DRINKING	NUM	2	108			ALCOHOL PRESENCE
11	HEIGHT	NUM	2	26			HEIGHT OF PERSON
16	HOSPSTAY	NUM	2	37			HOSPITAL STAY
61	INJSEV	NUM	2	104			INJURY SEVERITY (POLICE RATING)
49	INJSOU1	NUM	2	80			INJURY SOURCE (FIRST)
50	INJSOU2	NUM	2	82			INJURY SOURCE (SECOND)
51	INJSOU3	NUM	2	84			INJURY SOURCE (THIRD)
52	INJSOU4	NUM	2	86			INJURY SOURCE (FOURTH)
53	INJSOU5	NUM	2	88			INJURY SOURCE (FIFTH)
54	INJSOU6	NUM	2	90			INJURY SOURCE (SIXTH)
18	INTREL	NUM	2	41			RELATION OF INTERVIEWEE TO OCC/PED/NM
69	ISS	NUM	2	120			ISS
31	LESION1	CHAR	1	56			LESION (FIRST)
32	LESION2	CHAR	1	57			LESION (SECOND)
33	LESION3	CHAR	1	58			LESION (THIRD)
34	LESION4	CHAR	1	59			LESION (FOURTH)
35	LESION5	CHAR	1	60			LESION (FIFTH)
36	LESION6	CHAR	1	61			LESION (SIXTH)
70	MAIS	NUM	2	122			MAXIMUM KNOWN OCC/PED/NM AIS
72	NATWGT	NUM	4	128	9.3		NATIONAL INFLATION FACTOR
14	PEDLOC	NUM	2	33			LOCATION
66	PEDRF1	NUM	2	114			1ST OTHER PED/NM RELATED FACTOR
67	PEDRF2	NUM	2	116			2ND OTHER PED/NM RELATED FACTOR
68	PEDRF3	NUM	2	118			3RD OTHER PED/NM RELATED FACTOR

7	PERNO	NUM	2	18		PEDESTRIAN/NONMOTORIST'S NUMBER
8	PERTYPE	NUM	2	20		PEDESTRIAN/NONMOTORIST'S TYPE
1	PSU	NUM	2	4		PSU NUMBER
71	PSUWGT	NUM	4	124	9.3	PSU INFLATION FACTOR
73	RATWGT	NUM	4	132	9.3	RATIO ADJUSTMENT
5	RECNO	NUM	2	14		RECORD NUMBER
10	SEX	NUM	2	24		SEX OF PERSON
55	SOUDAT1	NUM	2	92		SOURCE OF DATA (FIRST)
56	SOUDAT2	NUM	2	94		SOURCE OF DATA (SECOND)
57	SOUDAT3	NUM	2	96		SOURCE OF DATA (THIRD)
58	SOUDAT4	NUM	2	98		SOURCE OF DATA (FOURTH)
59	SOUDAT5	NUM	2	100		SOURCE OF DATA (FIFTH)
60	SOUDAT6	NUM	2	102		SOURCE OF DATA (SIXTH)
4	STRATIF	CHAR	1	13		INITIAL STRATIFICATION
37	SYSORG1	CHAR	1	62		SYSTEM/ORGAN (FIRST)
38	SYSORG2	CHAR	1	63		SYSTEM/ORGAN (SECOND)
39	SYSORG3	CHAR	1	64		SYSTEM/ORGAN (THIRD)
40	SYSORG4	CHAR	1	65		SYSTEM/ORGAN (FOURTH)
41	SYSORG5	CHAR	1	66		SYSTEM/ORGAN (FIFTH)
42	SYSORG6	CHAR	1	67		SYSTEM/ORGAN (SIXTH)
15	TREATMNT	NUM	2	35		TREATMENT - MORTALITY
6	VERSION	NUM	2	16		VERSION NUMBER
62	VIOLCHG	NUM	2	106		TRAFFIC VIOLATION CHARGED - PED/NONMOTOR
12	WEIGHT	NUM	3	28		WEIGHT OF PERSON
17	WORKDAYS	NUM	2	39		WORKING DAYS LOST

CONTENTS OF SAS DATA SET CASESIN.VEHICLE

ALPHABETIC LIST OF VARIABLES

#	VARIABLE	TYPE	LENGTH	POSITION	FORMAT	INFORMAT	LABEL
57	ACCSEQ1	NUM	2	102			1ST SEQUENCE NUMBER OF EVENT(THIS ACC)
58	ACCSEQ2	NUM	2	104			2ND SEQUENCE NUMBER OF EVENT(THIS ACC)
59	ACCSEQ3	NUM	2	106			3RD SEQUENCE NUMBER OF EVENT(THIS ACC)
60	ACCSEQ4	NUM	2	108			4TH SEQUENCE NUMBER OF EVENT(THIS ACC)
19	AXLESP	NUM	2	42			NUMBER OF AXLES (POWER UNIT)
20	AXLEST1	NUM	2	44			NUMBER OF AXLES (1ST TRAILER)
21	AXLEST2	NUM	2	46			NUMBER OF AXLES(2ND TRAILER)
22	AXLEST3	NUM	2	48			NUMBER OF AXLES(3RD TRAILER)
14	BODYTYPE	NUM	2	32			BODY TYPE
23	BRAKETY	NUM	2	50			TYPE OF BRAKES
16	CABCONF	NUM	2	36			CAB CONFIGURATION
76	CARGOWGT	NUM	3	150			VEHICLE CARGO WEIGHT
2	CASEID	CHAR	4	6			CASE NUMBER - STRATIFICATION
3	CASENO	NUM	3	10			SEQUENCE NUMBER
75	CURBWGT	NUM	3	147			VEHICLE CURB WEIGHT
33	DOF1	NUM	2	70			DIRECTION OF FORCE (HIGHEST)
34	DOF2	NUM	2	72			DIRECTION OF FORCE(2ND HIGHEST)
35	DOF3	NUM	2	74			DIRECTION OF FORCE(3RD HIGHEST)
36	DOF4	NUM	2	76			DIRECTION OF FORCE(4TH HIGHEST)
95	DRIVE	NUM	2	198			FRONT/REAR WHEEL DRIVE
18	DROMEDRY	NUM	2	40			TRACTOR/DROMEDARY
78	DVBASIS	NUM	2	155			BASIS FOR TOTAL DELTA V (HIGHEST)
84	DVC1	NUM	3	169			'CRASH' DAMAGE DATA MAX DELTA V - C1
85	DVC2	NUM	3	172			'CRASH' DAMAGE DATA MAX DELTA V - C2
86	DVC3	NUM	3	175			'CRASH' DAMAGE DATA MAX DELTA V - C3
87	DVC4	NUM	3	178			'CRASH' DAMAGE DATA MAX DELTA V - C4
88	DVC5	NUM	3	181			'CRASH' DAMAGE DATA MAX DELTA V - C5
89	DVC6	NUM	3	184			'CRASH' DAMAGE DATA MAX DELTA V - C6
90	DVD	NUM	3	187			'CRASH' DAMAGE DATA MAX DELTA V - D
83	DVL	NUM	3	166			'CRASH' DAMAGE DATA MAX DELTA V - L
81	DVLAT	NUM	2	161			LATERAL COMPONENT OF DELTA V
80	DVLONG	NUM	2	159			LONGITUDINAL COMPONENT OF DELTA V
79	DVTOTAL	NUM	2	157			TOTAL DELTA V
82	ENERGY	NUM	3	163			ENERGY ABSORPTION
53	EXTENT1	CHAR	2	94			DEFORMATION EXTENT GUIDE (HIGHEST)
54	EXTENT2	CHAR	2	96			DEFORMATION EXTENT GUIDE(2ND HIGHEST)
55	EXTENT3	CHAR	2	98			DEFORMATION EXTENT GUIDE(3RD HIGHEST)
56	EXTENT4	CHAR	2	100			DEFORMATION EXTENT GUIDE(4TH HIGHEST)
68	FIRE	NUM	2	133			FIRE OCCURRENCE
37	GAD1	CHAR	1	78			DEFORMATION LOCATION (HIGHEST)
38	GAD2	CHAR	1	79			DEFORMATION LOCATION(2ND HIGHEST)
39	GAD3	CHAR	1	80			DEFORMATION LOCATION(3RD HIGHEST)
40	GAD4	CHAR	1	81			DEFORMATION LOCATION(4TH HIGHEST)
24	GVWR	NUM	2	52			GROSS VEHICLE WEIGHT RATING
74	HAZCARGO	NUM	2	145			HAZARDOUS CARGO
69	IMPTYPE	NUM	2	135			TYPE OF MOST SEVERE IMPACT
72	JACKNIFE	NUM	2	141			JACKKNIFE INVOLVEMENT
67	MAGINTRU	NUM	2	131			MAGNITUDE OF INTRUSION

12	MAKE	NUM	2	28		VEHICLE MAKE
13	MODEL	NUM	2	30		VEHICLE MODEL
11	MODELYR	NUM	2	26		VEHICLE MODEL YEAR
105	NATWGT	NUM	4	221	9.3	NATIONAL INFLATION FACTOR
29	OBJCONT1	NUM	2	62		OBJECT CONTACTED (HIGHEST)
30	OBJCONT2	NUM	2	64		OBJECT CONTACTED(2ND HIGHEST)
31	OBJCONT3	NUM	2	66		OBJECT CONTACTED(3RD HIGHEST)
32	OBJCONT4	NUM	2	68		OBJECT CONTACTED(4TH HIGHEST)
8	OCCFORMS	NUM	2	20		NUMBER OF OCCUPANT FORMS SUBMITTED
64	ODOMETER	NUM	3	124		ODOMETER READING
98	OTBDYTYP	NUM	2	205		BODY TYPE OF THE OTHER VEHICLE
70	OTHROLE	NUM	2	137		ROLE OF OTHER CONTACTED VEH. OBJ, PER
97	OTVEHWGT	NUM	3	202		WEIGHT OF THE OTHER VEHICLE
65	PCINTEG	NUM	2	127		PASSENGER COMPARTMENT INTEGRITY
66	PCINTRU	NUM	2	129		PASSENGER COMPARTMENT INTRUSION
1	PSU	NUM	2	4		PSU NUMBER
104	PSUWGT	NUM	4	217	9.3	PSU INFLATION FACTOR
106	RATWGT	NUM	4	225	9.3	RATIO ADJUSTMENT
5	RECNO	NUM	2	14		RECORD NUMBER
62	REGISTRA	NUM	2	120		REGISTRATION OF VEHICLE
71	ROLLOVER	NUM	2	139		ROLLOVER INVOLVEMENT
73	SAFETYB	NUM	2	143		SUBMISSION OF POT. SAFETY PROB. BULLETIN
17	SEATCAP	NUM	2	38		SEATING CAPACITY/TRUCK VOCATION
41	SHL1	CHAR	1	82		SPECIFIC HORZONTAL LOCATION (HIGHEST)
42	SHL2	CHAR	1	83		SPECIFIC HORZONTAL LOCATION(2ND HIGHEST)
43	SHL3	CHAR	1	84		SPECIFIC HORZONTAL LOCATION(3RD HIGHEST)
44	SHL4	CHAR	1	85		SPECIFIC HORZONTAL LOCATION(4TH HIGHEST)
99	SHORT	NUM	2	207		VEHICLE SHORT FORM
77	SOURCWGT	NUM	2	153		REPORTED SOURCE OF CARGO WEIGHT
63	SPECUSE	NUM	2	122		VEHICLE SPECIAL USE (THIS TRIP)
4	STRATIF	CHAR	1	13		INITIAL STRATIFICATION
45	SVL1	CHAR	1	86		SPECIFIC VERTICAL LOCATION (HIGHEST)
46	SVL2	CHAR	1	87		SPECIFIC VERTICAL LOCATION(2ND HIGHEST)
47	SVL3	CHAR	1	88		SPECIFIC VERTICAL LOCATION(3RD HIGHEST)
48	SVL4	CHAR	1	89		SPECIFIC VERTICAL LOCATION(4TH HIGHEST)
49	TDD1	CHAR	1	90		TYPE OF DAMAGE DISTRIBUTION (HIGHEST)
50	TDD2	CHAR	1	91		TYPE OF DAMAGE DISTRIBUTION(2ND HIGHEST)
51	TDD3	CHAR	1	92		TYPE OF DAMAGE DISTRIBUTION(3RD HIGHEST)
52	TDD4	CHAR	1	93		TYPE OF DAMAGE DISTRIBUTION(4TH HIGHEST)
10	TOWAWAY	NUM	2	24		POLICE INDICATED MANNER OF LEAVING SCENE
15	TOWHITCH	NUM	2	34		TOWED TRAILING UNIT
91	TRAVELSP	NUM	2	190		TRAVEL SPEED
96	VAIS	NUM	2	200		MAXIMUM KNOWN AIS IN THIS VEHICLE
7	VEHNO	NUM	2	18		VEHICLE NUMBER
92	VEHRF1	NUM	2	192		1ST OTHER VEHICLE RELATED FACTOR
93	VEHRF2	NUM	2	194		2ND OTHER VEHICLE RELATED FACTOR
94	VEHRF3	NUM	2	196		3RD OTHER VEHICLE RELATED FACTOR
9	VEHROLE	NUM	2	22		VEHICLE ROLE
25	VEHSEQ1	NUM	2	54		1ST SEQUENCE NUMBER OF EVENT(THIS VEH)
26	VEHSEQ2	NUM	2	56		2ND SEQUENCE NUMBER OF EVENT(THIS VEH)
27	VEHSEQ3	NUM	2	58		3RD SEQUENCE NUMBER OF EVENT(THIS VEH)
28	VEHSEQ4	NUM	2	60		4TH SEQUENCE NUMBER OF EVENT(THIS VEH)
6	VERSION	NUM	2	16		VERSION NUMBER
61	VIN	CHAR	10	110		VEHICLE IDENTIFICATION NUMBER
100	VINJSER	NUM	2	209		NUMBER OF SERIOUS INJ THIS VEHICLE
101	VINJURED	NUM	2	211		TOTAL NUMBER INJURIES THIS VEHICLE

102	VINLNGTH	NUM	2	213		VIN LENGTH
103	VTREAT	NUM	2	215		MAXIMUM TREATMENT(THIS VEH)
108	WHEELLNG	NUM	8	237	5.2	WHEELBASE LONG
107	WHEELSHT	NUM	8	229	5.2	WHEELBASE SHORT

CONTENTS OF SAS DATA SET CASESIN.DRIVER

ALPHABETIC LIST OF VARIABLES

#	VARIABLE	TYPE	LENGTH	POSITION	FORMAT	INFORMAT	LABEL
48	ACCESS	NUM	2	102			ACCESS CONTROL
22	ACC12MO	NUM	2	50			HOW MANY ACCIDENTS WITHIN PAST 12 MONTHS
33	ALCTEST	NUM	2	72			MEASURED BLOOD ALCOHOL LEVEL
52	ALIGNMNT	NUM	2	110			ROADWAY ALIGNMENT
21	AVOIDMAN	NUM	2	48			ATTEMPTED AVOIDANCE MANEUVER
14	BMCSREG	NUM	2	34			BUREAU OF MOTOR CARRIER SAFETY REGULATED
2	CASEID	CHAR	4	6			CASE NUMBER - STRATIFICATION
3	CASENO	NUM	3	10			SEQUENCE NUMBER
15	DRCLASS	NUM	2	36			DRIVER'S CLASSIFICATION
32	DRINKING	NUM	2	70			ALCOHOL PRESENCE
59	DRIRF1	NUM	2	124			1ST OTHER DRIVER RELATED FACTOR
60	DRIRF2	NUM	2	126			2ND OTHER DRIVER RELATED FACTOR
61	DRIRF3	NUM	2	128			3RD OTHER DRIVER RELATED FACTOR
9	DRPRES	NUM	2	22			DRIVER PRESENCE IN VEHICLE
16	DRTRAIN	NUM	2	38			DRIVER EDUCATION
62	ENVRF1	NUM	2	130			1ST OTHER ENVIRONMENTAL RELATED FACTOR
63	ENVRF2	NUM	2	132			2ND OTHER ENVIRONMENTAL RELATED FACTOR
64	ENVRF3	NUM	2	134			3RD OTHER ENVIRONMENTAL RELATED FACTOR
17	FREQDRIV	NUM	2	40			FREQUENCY DRIVING ROAD
53	GRADE	NUM	2	112			ROADWAY PROFILE
45	LANES	NUM	2	96			NUMBER OF TRAVEL LANES
35	LCOMPL	NUM	2	76			COMPLIANCE WITH LICENSE RESTRICTIONS
38	LREST	NUM	2	82			LICENSE RESTRICTION
39	LRESTADD	NUM	2	84			ADDITIONAL LICENSE RESTRICTION
34	LSOURCE	NUM	2	74			LICENSE SOURCE
36	LSTATUS	NUM	2	78			LICENSE STATUS THIS CLASS OF VEHICLE
37	LTYPCOMP	NUM	2	80			DRIVER LICENSE TYPE COMPLIANCE
46	MEDIANT	NUM	2	98			MEDIAN TYPE
47	MEDIANW	NUM	2	100			MEDIAN WIDTH
12	MILETOT	NUM	3	29			TOTAL MILAGE ALL VEHICLES
11	MILEVEH	NUM	3	26			ESTIMATED MILEVEH THIS VEHICLE
10	MONDRIVE	NUM	2	24			MONTHS DRIVING EXP. THIS CLASS VEHICLE
66	NATWGT	NUM	4	140	9.3		NATIONAL INFLATION FACTOR
8	OCUPANTS	NUM	2	20			NUMBER OF OCCUPANTS THIS MOTOR VEHICLE
44	PREVACC	NUM	2	94			PREVIOUS ACCIDENTS
42	PREVDWI	NUM	2	90			PREVIOUS D.W.I. CONVICTIONS
41	PREVOTH	NUM	2	88			PREVIOUS MOVING VIOLATIONS CONVICTIONS
40	PREVSPD	NUM	2	86			PREVIOUS SPEEDING CONVICTIONS
43	PREVSUS	NUM	2	92			PREVIOUS SUSPENSIONS AND REVOCATIONS
20	PRIOREAR	NUM	2	46			3RD TO LAST ACTION PRIOR TO AVOID. MAN.
18	PRIORLAT	NUM	2	42			LAST ACTION PRIOR TO AVOIDANCE MANEUVERS
19	PRIORMID	NUM	2	44			2ND TO LAST ACTION PRIOR TO AVOID. MAN.
1	PSU	NUM	2	4			PSU NUMBER
65	PSUWGT	NUM	4	136	9.3		PSU INFLATION FACTOR
67	RATWGT	NUM	4	144	9.3		RATIO ADJUSTMENT
5	RECNO	NUM	2	14			RECORD NUMBER
50	SHOULDLT	NUM	2	106			LEFT SHOULDER TYPE
51	SHOULDRT	NUM	2	108			RIGHT SHOULDER TYPE

58	SPLIMIT	NUM	2	122	SPEED LIMIT
4	STRATIF	CHAR	1	13	INITIAL STRATIFICATION
55	SURCOND	NUM	2	116	ROADWAY SURFACE CONDITION
54	SURTYPE	NUM	2	114	ROADWAY SURFACE TYPE
56	TRAFCONT	NUM	2	118	TRAFFIC CONTROLS
49	TRAFFLOW	NUM	2	104	TRAFFICWAY FLOW
57	TRCTLFCT	NUM	2	120	TRAFFIC CONTROL DEVICE FUNCTIONING
13	TYPEOP	NUM	2	32	TYPE OF OPERATION OR CARRIER
7	VEHNO	NUM	2	18	VEHICLE NUMBER
6	VERSION	NUM	2	16	VERSION NUMBER
28	VIOLCLOS	NUM	2	62	FOLLOWING TOO CLOSELY VIOLATION
24	VIOLDWI	NUM	2	54	D.W.I. VIOLATION CHARGED
30	VIOLOTH	NUM	2	66	OTHER VIOLATION CHARGED
25	VIOLRECK	NUM	2	56	RECKLESS DRIVING VIOLATION CHARGED
27	VIOLROW	NUM	2	60	FAILURE TO YIELD R-O-W VIOLATION
29	VIOLSIGN	NUM	2	64	RUNNING TRAFFIC SIG./STOP SIGN VIOLATION
23	VIOLSP	NUM	2	52	SPEEDING VIOLATION CHARGED
26	VIOLSUSP	NUM	2	58	DRIVING W/SUSP./REV. LICENSE CHARGED
31	VIOLUNK	NUM	2	68	UNKNOWN VIOLATION CHARGED

CONTENTS OF SAS DATA SET CASESIN.OCCUPANT

ALPHABETIC LIST OF VARIABLES

#	VARIABLE	TYPE	LENGTH	POSITION	FORMAT	INFORMAT	LABEL
9	AGE	NUM	2	22			AGE OF PERSON
52	AIS1	NUM	2	86			AIS SEVERITY (FIRST)
53	AIS2	NUM	2	88			AIS SEVERITY (SECOND)
54	AIS3	NUM	2	90			AIS SEVERITY (THIRD)
55	AIS4	NUM	2	92			AIS SEVERITY (FOURTH)
56	AIS5	NUM	2	94			AIS SEVERITY (FIFTH)
57	AIS6	NUM	2	96			AIS SEVERITY (SIXTH)
34	ASPECT1	CHAR	1	68			ASPECT (FIRST)
35	ASPECT2	CHAR	1	69			ASPECT (SECOND)
36	ASPECT3	CHAR	1	70			ASPECT (THIRD)
37	ASPECT4	CHAR	1	71			ASPECT (FOURTH)
38	ASPECT5	CHAR	1	72			ASPECT (FIFTH)
39	ASPECT6	CHAR	1	73			ASPECT (SIXTH)
25	AUTAVAIL	NUM	2	55			PASSIVE RESTRAINT SYSTEM - AVAILABILITY
26	AUTFNCT	NUM	2	57			PASSIVE RESTRAINT SYSTEM - FUNCTION
28	BODYREG1	CHAR	1	61			OIC BODY REGION (FIRST)
29	BODYREG2	CHAR	1	62			OIC BODY REGION (SECOND)
30	BODYREG3	CHAR	1	63			OIC BODY REGION (THIRD)
31	BODYREG4	CHAR	2	64			OIC BODY REGION (FOURTH)
32	BODYREG5	CHAR	1	66			OIC BODY REGION (FIFTH)
33	BODYREG6	CHAR	1	67			OIC BODY REGION (SIXTH)
2	CASEID	CHAR	4	6			CASE NUMBER - STRATIFICATION
3	CASENO	NUM	3	10			SEQUENCE NUMBER
71	DEATHDT	NUM	2	124			TIME OF DEATH
17	EJCTAREA	NUM	2	39			EJECTION AREA
18	EJCTMED	NUM	2	41			EJECTION MEDIUM
16	EJECTION	NUM	2	37			EJECTION
15	ENTRAP	NUM	2	35			ENTRAPMENT
11	HEIGHT	NUM	2	26			HEIGHT OF PERSON
21	HOSPSTAY	NUM	2	47			HOSPITAL STAY
70	INJSEV	NUM	2	122			INJURY SEVERITY (POLICE RATING)
58	INJSOU1	NUM	2	98			INJURY SOURCE (FIRST)
59	INJSOU2	NUM	2	100			INJURY SOURCE (SECOND)
60	INJSOU3	NUM	2	102			INJURY SOURCE (THIRD)
61	INJSOU4	NUM	2	104			INJURY SOURCE (FOURTH)
62	INJSOU5	NUM	2	106			INJURY SOURCE (FIFTH)
63	INJSOU6	NUM	2	108			INJURY SOURCE (SIXTH)
27	INTREL	NUM	2	59			RELATION OF INTERVIEWEE TO OCC/PED/NM
72	ISS	NUM	2	126			ISS
40	LESION1	CHAR	1	74			LESION (FIRST)
41	LESION2	CHAR	1	75			LESION (SECOND)
42	LESION3	CHAR	1	76			LESION (THIRD)
43	LESION4	CHAR	1	77			LESION (FOURTH)
44	LESION5	CHAR	1	78			LESION (FIFTH)
45	LESION6	CHAR	1	79			LESION (SIXTH)
73	MAIS	NUM	2	128			MAXIMUM KNOWN OCC/PED/NM AIS
23	MANAVAIL	NUM	2	51			ACTIVE RESTRAINT SYSTEM - AVAILABILITY
24	MANUSE	NUM	2	53			ACTIVE RESTRAINT SYSTEM - USE

19	MEDSTA	NUM	2	43		MEDIUM STATUS
75	NATWGT	NUM	4	134	9.3	NATIONAL INFLATION FACTOR
8	OCCNO	NUM	2	20		OCCUPANT NUMBER
1	PSU	NUM	2	4		PSU NUMBER
74	PSUWGT	NUM	4	130	9.3	PSU INFLATION FACTOR
76	RATWGT	NUM	4	138	9.3	RATIO ADJUSTMENT
5	RECNO	NUM	2	14		RECORD NUMBER
13	ROLE	NUM	2	31		OCCUPANT'S ROLE
14	SEATPOS	NUM	2	33		OCCUPANT'S SEAT POSITION
10	SEX	NUM	2	24		SEX OF PERSON
64	SOUDAT1	NUM	2	110		SOURCE OF DATA (FIRST)
65	SOUDAT2	NUM	2	112		SOURCE OF DATA (SECOND)
66	SOUDAT3	NUM	2	114		SOURCE OF DATA (THIRD)
67	SOUDAT4	NUM	2	116		SOURCE OF DATA (FOURTH)
68	SOUDAT5	NUM	2	118		SOURCE OF DATA (FIFTH)
69	SOUDAT6	NUM	2	120		SOURCE OF DATA (SIXTH)
4	STRATIF	CHAR	1	13		INITIAL STRATIFICATION
46	SYSORG1	CHAR	1	80		SYSTEM/ORGAN (FIRST)
47	SYSORG2	CHAR	1	81		SYSTEM/ORGAN (SECOND)
48	SYSORG3	CHAR	1	82		SYSTEM/ORGAN (THIRD)
49	SYSORG4	CHAR	1	83		SYSTEM/ORGAN (FOURTH)
50	SYSORG5	CHAR	1	84		SYSTEM/ORGAN (FIFTH)
51	SYSORG6	CHAR	1	85		SYSTEM/ORGAN (SIXTH)
20	TREATMNT	NUM	2	45		TREATMENT - MORTALITY
7	VEHNO	NUM	2	18		VEHICLE NUMBER
6	VERSION	NUM	2	16		VERSION NUMBER
12	WEIGHT	NUM	3	28		WEIGHT OF PERSON
22	WORKDAYS	NUM	2	49		WORKING DAYS LOST

APPENDIX A

DATA COLLECTION FORMS

1 Primary Sampling Unit Number — 1 2

2 Case Number – Stratification — 3 4 5 6

3 Record Number: 1 — 7

4 Transaction Code — 8

5 Version Number: 6 — 9

6 Investigator I.D Number — 10

IDENTIFICATION

7 Date (Month, Day, Year)

__ __/__ __/8 3
11 12 13 14 15 16

8 Final Stratification
Mark the box which indicates this accident's final stratum.
Code the box's letter in the space provided.

ACCIDENT TYPE		Most Severe Police Reported Injury			
		K	A	B, C, O or U	
				TRANSPORTED	NONTRANSPORTED
Ped or Nonmotorist		A	B	C	D
Motorcycle		E	F	G	H
Medium or Heavy Truck		J	K	L	M
Light Truck or Van	TOWAWAY	N	P	Q	R
	NONTOWAWAY	N	P	Y	Y
Other Motor Vehicle	TOWAWAY	S	T	V	W
	NONTOWAWAY	S	T	Z	Z

9 Sampling Interval — 17
(NOTE Code the result from the computer sampling program.)

__ __ __.__ __
18 19 20 21 22

10 First Harmful Event

Non-Collision
___(01) Overturn
___(02) Fire or explosion
___(03) Immersion
___(04) Gas inhalation
___(05) Fell from vehicle
___(06) Injured in vehicle
___(07) Other non-collision

Collision With
___(08) Pedestrian
___(09) Pedalcyclist
___(10) Railway train
___(11) Animal
___(12) Motor vehicle in transport (same roadway)
___(13) Motor vehicle in transport (other roadway)
___(14) Parked motor vehicle
___(15) Other type nonmotorist
___(16) Thrown or falling object
___(17) Boulder
___(18) Other object (not fixed)

Collision with Fixed Object
___(19) Building
___(20) Impact attenuator/Crash Cushion
___(21) Bridge pier or abutment
___(22) Bridge parapet end
___(23) Bridge rail
___(24) Guardrail
___(25) Concrete traffic barrier
___(26) Other longitudinal barrier
___(27) Highway/Traffic sign post
___(28) Overhead sign support
___(29) Luminaire/Light support
___(30) Utility pole
___(31) Other post, pole, or support
___(32) Culvert
___(33) Curb
___(34) Ditch
___(35) Embankment – earth
___(36) Embankment – rock, stone or concrete
*___(38) Fence (wooden, wire, chain link, etc.)
___(39) Wall (stone, rock, metal, etc.)
___(40) Fire hydrant
___(41) Shrubbery
___(42) Tree
___(43) Other fixed object
___(44) Pavement surface irregularity (pothole, grooved, grates)
___(99) Unknown

23

*Code 37 is omitted to maintain consistency with the Fatal Accident Reporting System (FARS)

11. Manner of Collision (Based on First Harmful Event)
___(0) Not collision with vehicle in transport
___(1) Rear-end
___(2) Head-on
___(3) Rear-to-rear
___(4) Angle
___(5) Sideswipe, same direction
___(6) Sideswipe, opposite direction
___(9) Unknown

25

12. Relation to Roadway (location of first harmful event)

___(1) On roadway
___(2) On shoulder
___(3) In median
___(4) On roadside
___(5) Outside right-of-way
___(6) Off roadway – location unknown
___(7) In parking lane
___(8) Gore
___(9) Unknown

26

13. Number of Vehicle Forms Submitted

_____ Code only the number of motor vehicles in transport for which a VEHICLE FORM was submitted.

27 28

14 Number of Pedestrian & Nonmotorist Forms Submitted

_____ Code only the number of pedestrians and/or nonmotorists for which a PEDESTRIAN & NONMOTORIST FORM was submitted.

29 30

15 Police Reported Accident Severity

___(0) No injury (0)
___(1) Possible injury (C)
___(2) Nonincapacitating injury (B)
___(3) Incapacitating injury (A)
___(4) Killed (K)
___(5) Injury, severity unknown
___(6) Died prior to accident
___(9) Unknown

31

16 Hit and Run

___(0) No hit-and-run
___(1) Hit motor vehicle (in transport)
___(2) Hit pedestrian or nonmotorist
___(3) Hit parked vehicle or object

32

AMBIENT CONDITIONS

17. Time

___:___Code reported military time of accident.
(NOTE. midnight = 2400)
___(9999) Unknown

33 34 35 36

18. Light conditions

___(1) Daylight
___(2) Dark
___(3) Dark, but lighted
___(4) Dawn
___(5) Dusk
___(9) Unknown

37

19. Atmospheric Conditions

___(1) No adverse atmospheric related driving conditions
___(2) Rain
___(3) Sleet
___(4) Snow
___(5) Fog
___(6) Rain and fog
___(7) Sleet and fog
___(8) Other (e.g., smog, smoke, blowing sand or dust, etc.): _____
___(9) Unknown

38

ADMINISTRATIVE ITEMS

20. Land Use
(NOTE Use FHWA required individual state defintions for the roadway segment on which the accident occurred.)
___(1) Urban
___(2) Rural
___(9) Unknown

39

21. Federal Aid System

___(1) Interstate
___(2) Other federal aid primary
___(3) Federal aid secondary
___(4) Federal aid urban arterial
___(5) Federal aid urban collector
___(6) Nonfederal aid arterial
___(7) Nonfederal aid collector
___(8) Nonfederal aid local
___(9) Unknown

40

22. Class Trafficway

___(1) Interstate
___(2) Other U.S. Route
___(3) Other State Route
___(4) County Road
___(5) Local Street
___(8) Other _____
___(9) Unknown

41

23 Roadway Function Class

___ (1) Principal arterial-interstate
___ (2) Principal arterial-other urban freeway or expressway
___ (3) Principal arterial-other
___ (4) Minor arterial
___ (5) Urban Collector
___ (6) Major rural collector
___ (7) Minor rural collector
___ (8) Local road or street
___ (9) Unknown

42

24 Relation to Junction

___ (01) Non-junction
___ (02) Three leg intersection
___ (03) Four leg intersection
___ (04) More than four leg intersection
___ (05) Rotary or traffic circle
___ (06) Intersection related
___ (07) Channel
___ (08) Area of mergence/divergence related
___ (09) Entrance or exit ramp
___ (10) Interchange area
___ (11) Driveway alley access related
___ (12) Railroad grade crossing
___ (13) Crossover related
___ (99) Unknown

43 44

25 School Bus Related

___ (0) No
___ (1) Yes

45

26 Right or Left Turn on Red Related

___ (0) No

Right turn related
___ (1) Yes – turn permitted
___ (2) Yes – turn prohibited

Left turn related
___ (3) Yes – turn permitted
___ (4) Yes – turn prohibited
___ (9) Unknown

46

ENVIRONMENTAL DATA

27 Number of Travel Lanes

___ (1) One
___ (2) Two
___ (3) Three
___ (4) Four
___ (5) Five
___ (6) Six
___ (7) Seven or more
___ (9) Unknown

47

28 Median Type

___ (0) No Median
___ (1) Curbed
___ (2) Positive Barrier
___ (3) Unprotected
___ (9) Unknown

48

29 Median Width

___ (00) No median
_____ Code actual measured value up to 96 feet
___ (97) 97 feet and above
___ (99) Unknown

49 50

30. Access Control

___ (1) Full
___ (2) Partial
___ (3) Uncontrolled
___ (9) Unknown

51

31. Trafficway Flow

___ (0) Not physically divided (two way traffic)
___ (1) Divided trafficway – median strip without traffic barrier
___ (2) Divided trafficway – median strip with traffic barrier
___ (3) One way trafficway
___ (9) Unknown

52

32. Interchange Geometry

___ (0) No interchange
___ (1) Full diamond
___ (2) Partial diamond
___ (3) Full cloverleaf
___ (4) Partial cloverleaf
___ (5) Trumpet
___ (6) Directional
___ (8) Other: _____.
___ (9) Unknown

53

33. Shoulder Presence

___ (0) No shoulder
___ (1) One shoulder
___ (2) Two shoulders
___ (9) Unknown

54

34 Roadway Alignment

___ (1) Straight
___ (2) Curve
___ (9) Unknown

55

35 Roadway Profile

___ (1) Level
___ (2) Grade (≥ 2%)
___ (3) Hillcrest
___ (4) Sag
___ (9) Unknown

slope measurement

(v = _____) (h = _____)

56

36 Roadway Surface Type

___(1) Concrete
___(2) Bituminous
___(3) Brick or block
___(4) Slag, gravel or stone
___(5) Dirt
___(8) Other. _____
___(9) Unknown

57

37 Roadway Surface Condition

___(1) Dry
___(2) Wet
___(3) Snow or slush
___(4) Ice
___(5) Sand, dirt or oil
___(8) Other _____
___(9) Unknown

58

38. Traffic Control Device

___(00) No controls

Not at railroad grade crossing

Highway traffic signals
___(01) Traffic control signal (on colors) without pedestrian signal
___(02) Traffic control signal (on colors) with pedestrian signal
___(03) Traffic control signal (on colors) not known whether or not pedestrian signal
___(04) Flashing traffic control signal
___(05) Flashing beacon
___(06) Flashing highway traffic signal, type unknown or other than traffic control or beacon
___(07) Lane use control signal
___(08) Other highway traffic signal
___(09) Unknown highway traffic signal

Regulatory signs
___(20) Stop sign
___(21) Yield sign
___(28) Other regulatory sign
___(29) Unknown type regulatory sign

School Zone Signs
___(30) School speed limit sign
___(31) School advance or crossing sign
___(38) Other school related sign
___(39) Unknown type school zone sign

Warning Signs
___(40) Warning sign

Miscellaneous Controls
___(50) Officer, crossing guard, flagman, etc.

At railroad grade crossing

Active Devices
___(60) Gates
___(61) Flashing lights
___(62) Traffic control signal
___(63) Wigwags
___(64) Bells
___(68) Other train activated device
___(69) Active device, type unknown

Passive Devices
___(70) Crossbucks
___(71) Stop sign
___(72) Other railroad crossing sign
___(73) Special warning device – watchman, flagged by crew.
___(78) Other passive device
___(79) Passive device, type unknown

Miscellaneous Controls
___(80) Grade crossing controlled type unknown

Whether or not at railroad grade crossing

___(98) Other
___(99) Unknown

59 60

39. Traffic Control Device Functioning

___(0) No traffic Control
___(1) Traffic control not functioning
___(2) Traffic control functioning – functioning improperly
___(3) Traffic control functioning properly
___(9) Unknown

61

40. Accident Occurrence in School Zone

___(0) No
___(1) Yes
___(9) Unknown

62

41. Speed Limit

___(00) No statutory limit
_____m.p.h – Code actual posted or statutory speed limit.
___(99) Unknown

63 64

42. Restriction of Roadway at Scene (NOTE: The Restriction must have existed prior to this accident.)

___(0) No restrictions
___(1) Narrow bridge (as defined)
___(2) Previous accident on roadway
___(3) Maintenance, repair or construction activity on roadway.
___(4) Roadway immersion (e.g., standing water)
___(8) Other roadway obstruction.

_____

___(9) Unknown

65

(NOTE. If more than one restriction exists they should be coded in the order in which they are numbered.)

LOG RESPONSES

KEY TO SLIDE(S) QUALITY CONTROL CHECKS

SUBJECT QUALITY – EXTERIOR SLIDES

(1) Good – Slide coverage is complete in that it includes all areas of all vehicles (whether or not damaged), it is possible to generate an accurate CDC and check damage measurements if applicable

(2) Fair – Slide coverage is only broad enough (for at least one vehicle) to include the areas which were reportedly damaged (areas which are reportedly undamaged are not shown), it is possible to generate a reasonable CDC and check damage measurements if applicable.

(3) Poor – Slide coverage excludes one or more areas of reported damage (for at least one vehicle), it is difficult to generate an accurate CDC and check damage measurements if applicable.

(0) No Slides

NOTE The location of the vehicles is considered at the time the slides were taken. If another vehicle or object obscured the damaged area so it could not be photographed, then that vehicle(s) should be categorized (1) or (2) based on the slides taken. If a damaged area could have been photographed but was not, then that vehicle(s) should be categroized (3).

SUBJECT QUALITY – INTERIOR SLIDES

(1) Good – Slides show all areas of contact, probable contact and/or possible occupant contact areas; all intrusion, probable intrusion and/or possible intrusion areas; vehicle interior components (instrument panel, headers, roof areas, seat belts, etc) and all occupant seated positions.

(2) Fair – Slides show only contact and intrusion areas or an overall view of the vehicle interior, probable areas of contact and/or intrusion, relevant vehicle interior components and relevant occupant seated positions are omitted for at least one vehicle.

(3) Poor – Obvious and/or probable contact and intrusion areas are not photographed for at least one vehicle

(0) No Slides

SUBJECT QUALITY – SCENE SLIDES

(1) Good – Slides show all necessary roadways and physical evidence including all objects contacted.

(2) Fair – Slides show general area of accident site and objects contacted; additional pictures would have been helpful.

(3) Poor – Slides do not adequately show area of impact or path of travel off-road, or at least one object definitely contacted was omitted.

(0) No Slides

SLIDE QUALITY – FOR ALL PICTURES

(1) Good – All areas in the vast majority of all of the slides are clearly defined; the subject has proper framing and exposure.

(2) Fair – All areas in most of the slides are distinguishable but some camera adjustment could have been made
For example.
(a) underexposed (too dark)
(b) overexposed (too light)
(c) out of focus (usable slide)

(3) Poor – The area photographed in many of the slides cannot be seen. Examples of some failures are
(a) underexposed (too dark)
(b) overexposed (too light)
(c) out of focus (usable slide)
(d) flash not used
(e) flash reflection
(f) distance

(0) No Slides

43 Additional Restriction of Roadway at Scene
(NOTE See question 42 note above)

___ (0) No additional Restrictions
___ (2) Previous accident on roadway
___ (3) Maintenance, repair or construction activity on roadway
___ (4) Roadway immersion (e g , standing water)
___ (5) More than two restrictions
___ (8) Other roadway restriction
___ (9) Unknown

66

SPECIAL STUDIES - INDICATORS

Information Collected From This Accident As A Part of the Special Studies Subsystem

◯ NO – Code 0 for each of questions 44 through 53

If YES – Check (✓) each of the studies from the list to the right that were indicated, code 1 for the checked studies and 0 for the studies not checked.

44. ___ SS6-Emergency Medical Service 67
45. ___ SS7-Pole 68
46. ___ SS8-Longitudinal Barrier 69
47. ___ SS9-Crash Cushion 70
48. ___ SS10-Pedestrian Typing 71
49. ___ SS11-Honda Civic 72
50 ___ SS12 73
51. ___ SS13 74
52. ___ SS14 75
53. ___ SS15 76

NOTE: **Leave blank any special studies which are not in effect for this PSU at the time this case is sampled.**

FORMS: For Team Use

Police ____	Accident	Collision Diagram	Pedestrian & Nonmotorist	Vehicle	Driver	Occupant	Medical	CRASH Summary	Slides (Number)
Required	1								
Include									

COMPLETED BY TEAM

1 Primary Sampling Unit Number — (1) (2)

2 Case Number – Stratification — (3) (4) (5) (6)

3 Record Number — 1 (7)

4 Transaction Code — (8)

5 Version Number — 6 (9)

6 Investigator I D Number — (10)

7 Date of Accident — (11) (12) (13) (14) 8 (15) 3 (16)

8 Date Sampled (listed) — (17) (18) (19) (20) 8 (21) 3 (22)

9 Date Scene Field Work Completed — (23) (24) (25) (26) 8 (27) 3 (28)

10 Completing Person — (29)

11. Status of Accident Diagram

___(1) Scene not located Reason _____

___(2) Scene located and roadway data mapped on sketch but insufficient data even to produce a scaled diagram of the collision events.

___(3) Diagram completed — (30)

12 Date Case Released to Zone Center — (31) (32) (33) (34) 8 (35) 3 (36)

13 Case Status

___(1) Case Complete – No Updates Required
___(2) Case to be Updated
___(3) Case Dropped Reason _____ — (37)

14 Are Special Studies Applicable (If No code "0" If Yes code "1")

SS6	SS7	SS8	SS9	SS10	SS11	SS12	SS13	SS14	SS15
(38)	(39)	(40)	(41)	(42)	(43)	(44)	(45)	(46)	(47)

COMPLETED BY ZONE CENTER

15 Date Hardcopy Received at Zone Center — (48) (49) (50) (51) 8 (52) 3 (53)

16 Type of Review

___(1) All variables (or reviewed)

___(2) Key variables (or not reviewed) — (54)

17 Date Review Completed — (55) (56) (57) (58) 8 (59) 3 (60)

18 Reviewed By — (61) (62)

19 Case Status

___(1) Complete ___(2) Not complete — (63)

20 Date Case released to Master File — (64) (65) (66) (67) 8 (68) 3 (69)

(See back of page 4 for responses to questions 21-26)

21 Subject Quality - Scene Slides — (70)

22. Slide Quality - Scene Slides — (71)

23. Subject Quality - Vehicle Interior Slides — (72)

24 Slide Quality - Vehicle Interior Slides — (73)

25. Subject Quality - Vehicle Exterior Slides — (74)

26. Slide Quality - Vehicle Exterior Slides — (75)

27 Physical Evidence Documentation

___(0) No physical evidence present at scene

Yes–physical evidence visible in slides or noted by investigator

___(1) Complete – all physical evidence (skidmarks, gouges, fluid spills, contacted objects, etc.) is documented using standard investigator techniques

___(2) Partial – Documentation is adequate, however, certain physical evidence is incorrectly noted or overlooked

___(3) Incomplete – Documentation is poor Physical evidence is generally missed or incorrectly documented and contacted objects are overlooked

___(4) None – no documentation of physical evidence — (76)

28 Vehicle Dynamics

___(1) Complete – Vehicle dynamics represent point of impact, headings and locations and final rest of vehicle(s)

___(2) Partial – Vehicle dynamics only represents an overview of the accident configuration Vehicle input is missing or improbable for at least one vehicle

___(3) Incomplete – Vehicle dynamics are incorrect, improbable or missing

___(4) Vehicle dynamics are approximated (or Y or Z Strata) — (77)

29 Roadway Measurement/Furniture Documentation

___(1) Complete – All necessary roadway measurements and roadside furniture are documented

___(2) Partial – Only basic measurements and furniture are documented More information would have been helpful

___(3) Incomplete – Necessary measurements and or roadside furnitures are not documented — (78)

Accident Collision Diagram

Primary Sampling Unit Number ___ ___

Case Number ___ ___ ___ ___

Reference Point _____

_____

Reference Line _____

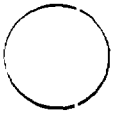
_____

Item	Distance and Direction from Reference Point	Distance and Direction from Reference Line

HS-431A (Rev 12/82)

A C C I D E N T C O L L I S I O N D I A G R A M

Indicate



North

US Department of Transportation
National Highway Traffic Safety Administration

Form Approved
O M B No 2127-0021

Driver Data

NATIONAL ACCIDENT SAMPLING SYSTEM
CONTINUOUS SAMPLING SUBSYSTEM

1 Primary Sampling Unit Number — 1 2

2 Case Number — Stratification — 3 4 5 6

3 Record Number — 4 / 7

4 Transaction Code — 8

5 Version Number — 6 / 9

6 Investigator I D Number — 10

IDENTIFICATION

7 Vehicle Number — 11 12

8 Number of Occupants This Motor Vehicle

_____ occupant(s) — Code the actual number of persons (including the driver if present) that were occupants of this vehicle The number of OCCUPANT FORMS does not have to equal this value
_ (97) 97 or more
_ (99) Unknown — 13 14

9 Driver Presence In Vehicle

_ (1) Driver Present
_ (2) Driver Not Present — 15

(NOTE. If *no* driver was present *in* this vehicle, indicate and subsequently leave blank the remaining non-environmental questions on this form Do code the environmental elements No OCCUPANT FORM for the driver is required Remember, if the person who had been driving this motor vehicle prior to the accident was injured outside of this vehicle, that person is handled on the PEDESTRIAN & NONMOTORIST FORM.)

DRIVER INTERVIEW

10 Months Driving Experience This Class of Vehicle (e g., passenger car, light truck, motorcycle, etc.)

_____ months — Code actual months of previous driving experience up to 60
(NOTE 44 days or less equals 1 month, a month and a half equals 2 months)
_ (61) Greater than five years
_ (99) Unknown — 16 17

11 Estimated Mileage This Vehicle
(Estimated total mileage that driver has driven *in this* specific accident involved vehicle)

_____ miles to the nearest 100
– (001) Less than 150 miles
– (997) 99,650 miles or more
– (999) Unknown — 18 19 20

12. Total Mileage All Vehicles
(Past Twelve Months)

_____ miles to the nearest 100
– (001) Less than 150 miles
– (997) 99,650 miles or more
– (999) Unknown — 21 22 23

13. Type of Operation or Carrier
(vehicle over 10,000 lbs GVWR)
– (0) Noncommercial or not vehicle over 10,000 lbs. GVWR
– (1) For hire / common carrier
– (2) For hire / contract carrier
– (3) Private carrier of property or passengers
– (4) Carrier of ICC exempt commodities
– (5) Foreign carrier
– (6) Carrier of migrant workers
– (7) U.S. mail carrier
– (8) Other: _____
– (9) Unknown — 24

14. Federal Safety Regulated
– (0) Noncommercial or not vehicle over 10,000 lbs. GVWR
– (1) Motor carrier not subject to U.S. DOT (BMCS) regulations
Motor carrier subject to U.S. DOT (BMCS) regulations
– (2) Intercity operations
– (3) Local pickup or delivery
– (9) Unknown — 25

15 Driver's Classification
– (0) Noncommercial or not vehicle over 10,000 lbs. GVWR
– (1) Full time employee
– (2) Part Time employee
– (3) Owner operator
– (4) Leased (from labor contractor)
– (8) Other: _____
– (9) Unknown — 26

HS Form 429 (Rev 12/82)

This report is authorized by P L 89-563 Title I Section 106 108 and 112 While you are not required to respond your cooperation is needed to make the results of this data collection effort comprehensive accurate and timely

ACCIDENT DESCRIPTION INSTRUCTIONS

Do not interrupt person during general description (narrative) unless he she requests your assistance Attempt to summarize the narrative while minimizing any disruptions of the person s internal logic Specific questions may be asked later Write these questions down in the space below or on the other side of the paper, prior to the interview

SPECIFIC QUESTION _____

GENERAL DESCRIPTION OF ACCIDENT SEQUENCE

(This represents a synopsis of an uninterrupted narrative by the driver)

Estimated Travel Speed

(NOTE Record as obtained from interviewee in increments of 5 m p h , note information source e g , speedometer, estimate etc)

___ Stopped ___ Less than 5 m p.h

____ Actual speed (in increments)

___ Not applicable ___ Unknown

Estimated Impact Speed

(NOTE. Record as obtained from interviewee in increments of 5 m p.h , note information source e g , speecometer estimate, etc)

___ Stopped ___ Less than 5 m p h

____ Actual speed (in increments)

___ Not applicable ___ Unknown

INFORMATION SOURCE.

PRE-CRASH

Direction of Travel

__ North
__ East
__ South
__ West
__ Northeast
__ Southeast
__ Northwest
__ Southwest
__ Not applicable
__ Unknown

Travel Lane

(NOTE Lane one is the curb or shoulder lane lane two is the next lane, etc to the median or centerline Opposing lanes are numbered similarly and distinguished by direction of travel)

__ 1st lane
__ 2nd lane
__ 3rd lane
__ 4th lane
__ 5th or additional lane
__ On shoulder
__ On trafficway
__ Off road
__ Outside trafficway
__ Not applicable
__ Unknown

[1] Object Contacted
(✓) Motor vehicle
(0) Guardrail
(1) Ditch
(2) Ground
(3) Tree
(4) Pole
(5) Sign
(6) Pedacyclist
(7) Pedestrian
(8) Other: _____
(9) Unknown

[2] Vehicle Impact Location
(1) Front
(2) Right side
(3) Rear
(4) Left side
(5) Top
(6) Undercarriage
(7) Other: _____
(8) Not applicable
(9) Unknown

[3] Vehicle Orientation
(1) Tracking, no skidding (includes controlled turn)
(2) Tracking, skidding
(3) Rotated clockwise to path of travel
(4) Rotated counterclockwise to path of travel
(5) Rolling over
(6) Jackknifed
(7) Other: _____
(8) Not applicable
(9) Unknown

DRIVER VIEW of TOTAL ACCIDENT CONTACT SEQUENCE

Did More Than Six Impacts Occur? __ Unknown, __ No, __ Yes: code the six severest impacts.

Impact Sequence (Driver)	Final Impact Sequence (Investigator)	Object Contacted[1]	One Vehicle			Other Vehicle—if applicable		
			Vehicle Number	Impact Location[2]	Vehicle Orientation[3]	Vehicle Number	Impact Location[2]	Vehicle Orientation[3]
1	__	__	__	__	__	__	__	__
2	__	__	__	__	__	__	__	__
3	__	__	__	__	__	__	__	__
4	__	__	__	__	__	__	__	__
5	__	__	__	__	__	__	__	__
6	__	__	__	__	__	__	__	__

POST-CRASH

Final Rest Position

__ On roadway
__ On shoulder
__ In parking lane
__ In median
__ Off road (beyond shoulder area)
__ Other
_____
__ Not applicable
__ Unknown

Driver Inputs Between Last Point-of-Impact and Final Rest Position

__ None
__ Steering left
__ Braking and steering left
__ Braking and steering right
__ Acceleration followed by braking
__ Acceleration followed by braking and steering
__ Releasing brake
__ Other
_____
__ Not applicable
__ Braking
__ Steering right
__ Unknown

If multiple impacts occurred, describe driver inputs between initial and last point-of-impact

_____

_____

ACCIDENT DIAGRAM

Draw a rough sketch of the accident sequence as described by the driver. Note impact and final rest positions carefully. If possible, relate these to some identifiable object in the area, and record vehicle and pedestrian or nonmotorist headings relative to an object, as well.

Indicate North

Any luggage or other cargo in vehicle when accident occurred? Estimated Weight: _____ lbs.

Describe. _____

Hazardous cargo in vehicle? ☐ No ☐ Yes If yes, specify _____

Present location of vehicle (if not yet inspected)? _____

Did any of the Following Restrictions of the Road Exist Prior to the Accident

__ None
__ Narrow bridge (as defined)
__ Previous accident
__ Maintenance, repair, or construction activity on roadway
__ Roadway immersion (standing water)
__ Unknown

Road Surface Condition

__ Dry
__ Snow or slush
__ Wet
__ Ice
__ Sand, dirt or oil
__ Unknown

16. Driver Education

Automobile or Light Truck Driver Training
__ (0) No formal driver training
__ (1) In training at time of accident
__ (2) High school driver training
__ (3) Commercial driver training
__ (8) Other formal driver training (e.g., college, military, etc.)
__ (9) Unknown

Motorcycle Driver Training
__ (0) No formal driver training
__ (1) In training at time of accident
__ (6) Motorcycle driver training
__ (9) Unknown

Heavy Vehicle Driver Training (>10,000 lbs. GVWR)
__ (0) No formal driver training
__ (1) In training at time of accident
__ (4) Truck driver training school
__ (5) Motor carrier program – On-the-Job-Training
__ (7) Vocational training (CETA, Job Corp, other government sponsored training, etc.)
__ (8) Other formal driver training (e.g., college, military, etc.)
__ (9) Unknown

27

17. Frequency Driving Road
__ (1) Daily
__ (2) Weekly
__ (3) Monthly
__ (4) Less than once a month
__ (5) First time on road
__ (9) Unknown

28

18 19 20 Actions Prior to Avoidance Maneuvers

(Code what the vehicle was doing prior to accident.)

___ Blank – Driver not present (D09)

Movements essentially straight ahead

___(00) No actions
___(01) Moving straight, details unknown or no maneuvers
___(02) Straight ahead in proper direction, including curves in roadway
___(03) Overtaking other vehicle on left, left of center line
___(04) Overtaking other vehicle on left, right of center line (includes one-way roadways without center lines)
___(05) Overtaking another vehicle on right
___(06) Straight ahead in left turn lane
___(07) Straight ahead in right turn lane
___(08) Changing lanes to left
___(09) Changing lanes to right
___(10) Merging from left (roadway narrows on left)
___(11) Merging from right (roadway narrows on right)
___(12) On wrong side of roadway
___(13) In wrong direction on one-way roadway
___(14) Swerving to left
___(15) Swerving to right
___(16) Slowing or stopping
___(17) Skidding longitudinally
___(18) Skidding laterally
___(19) Spinning or yawing
___(20) Jackknifing
___(21) Stopped in traffic
___(22) Starting from stop
___(23) Increasing speed

Turning Movements

___(30) Turning, details unknown
___(31) Left from left turn bay or special lane
___(32) Left from left (proper) lane
___(33) Left from other lane, legal
___(34) Left from other lane, illegal
___(35) Left from unknown lane
___(36) U-turn
___(37) Right from special lane
___(38) Right from right (proper) lane
___(39) Right from other lane, legal
___(40) Right from other lane, illegal
___(41) Right from unknown lane

Entering Traffic Lane

___(50) Entering traffic lane, details unknown
___(51) From entrance ramp on left
___(52) From entrance ramp on right
___(53) From shoulder on left
___(54) From shoulder on right
___(55) From parking space at left curb
___(56) From parking space at right curb
___(57) From driveway on left
___(58) From driveway on right

Leaving Traffic Lane

___(60) Leaving traffic lane, details unknown
___(61) To exit ramp on left
___(62) To exit ramp on right
___(63) To shoulder on left
___(64) To shoulder on right
___(65) To parking space at left curb
___(66) To parking space at right curb
___(67) To driveway on left
___(68) To driveway on right

Parking On Or Adjacent To Traffic Lane

___(70) Parking, details unknown
___(71) On left shoulder
___(72) On right shoulder
___(73) At left curb
___(74) At right curb
___(75) In traffic lane (on roadway) on left
___(76) In traffic lane (on roadway) on right
___(77) Double parking on left
___(78) Double parking on right

Miscellaneous Movements

___(81) Backing in roadway
___(82) Backing from parking on left
___(83) Backing from parking on right
___(84) Backing across traffic
___(85) Backing on shoulder
___(86) Vehicle pushed by other vehicle
___(87) Vehicle pushed by pedestrian
___(88) Not in motion (parked or standing—driver in vehicle)
___(89) Loss of air pressure in tire (blowout or other)
___(98) Other _____
___(99) Unknown

	Interviewee	Investigator	
(18)	— —	— —	29 30
(19)	— —	— —	31 32
(20)	— —	— —	33 34

Inter-viewee | Investi gator

21 Attempted Avoidance Maneuver (Pre-Crash)

__ (00) No avoidance actions __
__ (01) Braking (no lockup) __
__ (02) Braking (lockup) __
__ (03) Pumping brakes (modulation) __
__ (04) Releasing brakes __
__ (05) Steering left __
__ (06) Steering right __
__ (07) Braking and steering left __
__ (08) Braking and steering right __
__ (09) Accelerating __
__ (10) Accelerating and steering left __
__ (11) Accelerating and steering right __
__ (98) Other action __

____ (99) Unknown __ 35 36

22 How Many Accidents Within Past Twelve Months (as Driver)

____ Code actual value up through 7
__ (8) 8 or more
__ (9) Unknown 37

POLICE REPORT

Traffic Violation Charged Against This Driver

◯ NO – Code 0 for each of questions 23 through 31

If YES – Check (√) each of the violations below that were indicated, code 1 for the checked violations and 0 for the violations not checked.

__ Unknown – Code 9 for each of questions 23 through 31

23 __ Speeding 38

24 __ Driving While Intoxicated (or DUIL) 39

25 __ Reckless Driving 40

26 __ Driving With Suspended or Revoked License 41

27 __ Failure to Yield Right-of-Way 42

28 __ Following too Closely 43

29 __ Running a Traffic Signal or Stop Sign 44

30 __ Other Violation Charged 45

_____

31 __ Unknown Violation Charged 46

32. Police Reported Alcohol Presence

__ (0) No (alcohol not present)
__ (1) Yes (alcohol present)
__ (8) Not reported
__ (9) Unknown 47

POLICE, HOSPITAL/MEDICAL, OR OTHER OFFICIAL

33 Alcohol Test Results

__ Actual value (decimal implied before first digit) (0 xx)
__ (95) Test refused
__ (96) None given
__ (97) AC test performed, results unknown
__ (99) Unknown 48 49

34 License Source

__ (0) No license
__ (1) Domestic
__ (2) Foreign
__ (9) Unknown 50

35. Compliance With License Restrictions

__ (0) No restrictions
__ (1) Restrictions complied with
__ (2) Restrictions not complied with
__ (3) Restrictions, compliance unknown
__ (9) Unknown 51

OFFICIAL RECORDS

36. Driver License Status (For This Vehicle)

__ (0) No license required
__ (1) Not licensed
__ (2) Valid
__ (3) Suspended
__ (4) Revoked
__ (5) Expired
__ (6) Canceled or denied
__ (7) Learner's permit
__ (8) Temporary
__ (9) Unknown 52

37. Driver License Type Compliance

__ (0) No license required
__ (1) No license, license required
__ (2) Valid license (for this class vehicle only)
__ (3) One (single class) valid license (but not for this class vehicle)
__ (4) Multiple class license – valid license for this class vehicle
__ (5) Multiple class license – no valid license for this class vehicle
__ (9) Unknown 53

38 Driver License Restrictions

__ (0) No restrictions
__ (1) Corrective or contact lenses
__ (2) Mechanical aid
__ (3) Limited to daylight only
__ (4) Automatic transmission
__ (5) Outside mirror
__ (6) Prosthetic aid
__ (7) Limited to employment
__ (8) Other restrictions
_____
__ (9) Unknown

54

39 Additional Driver License Restrictions

__ (0) No additional restriction
__ (2) Mechanical aid
__ (3) Limited to daylight only
__ (4) Automatic transmission
__ (5) Outside mirror
__ (6) Prosthetic aid
__ (7) Limited to employment
__ (8) Other restrictions.
_____
__ (9) Unknown

55

Code in the space provided the actual number of recorded convictions/suspensions/accidents that occurred within the last three (3) years (as measured from the date of the accident.) If 8 or more convictions/suspensions or accidents, then code 8 If unknown, code 9

(NOTE The coded value. 8, indicates that the actual recorded value was eight or more; be sure that the actual value is recorded in the space provided near the question number.)

__Unknown–Code 9 for each of questions 40 through 44.

40. __ Previous Speeding Convictions 56

41. __ Previous Other Harmful Moving Violation Convictions 57

42. __ Previous Driving While Intoxicated Convictions (or DUIL) 58

43 __ Previous Recorded Suspensions and Revocations 59

44 __ Previous Recorded Accidents 60

WAS THE DRIVER'S VEHICLE IN A SCHOOL ZONE? (FOR USE IN CODING A40)

Yes _____
No _____

ENVIRONMENTAL DATA

45. Number of Travel Lanes

__ (1) One
__ (2) Two
__ (3) Three
__ (4) Four
__ (5) Five
__ (6) Six
__ (7) Seven or more
__ (9) Unknown

61

46. Median Type

__ (0) No Median
__ (1) Curbed
__ (2) Positive Barrier
__ (3) Unprotected
__ (9) Unknown

62

47. Median Width

__ (00) No median
_____ Code actual measured value up to 96 feet.
__ (97) 97 feet and above
__ (99) Unknown

63 64

48. Access Control

__ (1) Full
__ (2) Partial
__ (3) Uncontrolled
__ (9) Unknown

65

49. Trafficway Flow

__ (0) Not physically divided (two way traffic)
__ (1) Divided trafficway – median strip without traffic barrier
__ (2) Divided trafficway – median strip with traffic barrier
__ (3) One way trafficway
__ (9) Unknown

66

50. Highway Performance Monitoring System (HPMS) Sample Number

Code actual alphanumeric values. The first column identifies the county within the PSU. See coding manual for designated codes.

_____

__ (000000000000) Not in HPMS sample
__ (999999999999) Unknown

67 68 69 70 71 72 73 74 75 76 77 78 79

(If the HPMS data is not available, leave blank)

51 52 Shoulder Type

Left	Right	
___	___	(0) No shoulder
___	___	(1) Surfaced 2-6 ft
___	___	(2) Surfaced > 6 ft
___	___	(3) Gravel or other granular material 2-6 ft
___	___	(4) Gravel or other granular material > 6 ft
___	___	(5) Natural earth, with or without turf 2-6 ft
___	___	(6) Natural earth, with or without turf > 6 ft
___	___	(9) Unknown

L R

80 81

53 Roadway Alignment

___ (1) Straight
___ (2) Curve right
___ (3) Curve left
___ (9) Unknown

82

Length of Chord = ___ ___ ___ ft.

Middle Ordinate = ___ ___ ___ in.

54 Roadway Profile

___ (1) Level (< 2% grade)
___ (2) Positive grade
___ (3) Negative grade
___ (4) Hillcrest
___ (5) Sag
___ (9) Unknown

slope measurement

(v = _____)/(h = _____)

83

55 Roadway Surface Type

___ (1) Concrete
___ (2) Bituminous
___ (3) Brick or block
___ (4) Slag, gravel or stone
___ (5) Dirt
___ (8) Other _____
___ (9) Unknown

84

56 Roadway Surface Condition

___ (1) Dry
___ (2) Wet
___ (3) Snow or slush
___ (4) Ice
___ (5) Sand, dirt or oil
___ (8) Other _____
___ (9) Unknown

85

57 Speed Limit

___ (00) No statutory limit
___ m p h – Code actual posted or statutory speed limit
___ (99) Unknown

86 87

58 Traffic Control Device Functioning

___ (0) No traffic control
___ (1) Traffic control not functioning
___ (2) Traffic control functioning – functioning improperly
___ (3) Traffic control functioning properly
___ (9) Unknown

88

59 Traffic Control Device

___ (00) No controls

Not at railroad grade crossing

Highway traffic signals

___ (01) Traffic control signal (on colors) without pedestrian signal
___ (02) Traffic control signal (on colors) with pedestrian signal
___ (03) Traffic control signal (on colors) not known whether or not pedestrian signal
___ (04) Flashing traffic control signal
___ (05) Flashing beacon
___ (06) Flashing highway traffic signal, type unknown or other than traffic control or beacon
___ (07) Lane use control signal
___ (08) Other highway traffic signal
___ (09) Unknown highway traffic signal

Regulatory signs

___ (20) Stop sign
___ (21) Yield sign
___ (28) Other regulatory sign
___ (29) Unknown type regulatory sign

School Zone Signs

___ (30) School speed limit sign
___ (31) School advance or crossing sign
___ (38) Other school related sign
___ (39) Unknown type school zone sign

Warning Signs

___ (40) Warning sign

Miscellaneous Controls

___ (50) Officer, crossing guard, flagman, etc.

At railroad grade crossing

Active Devices

___ (60) Gates
___ (61) Flashing lights
___ (62) Traffic control signal
___ (63) Wigwags
___ (64) Bells
___ (68) Other train activated device
___ (69) Active device, type unknown

Passive Devices

___ (70) Crossbucks
___ (71) Stop sign
___ (72) Other railroad crossing sign
___ (73) Special warning device – watchman, flagged by crew.
___ (78) Other passive device
___ (79) Passive device, type unknown

Miscellaneous Controls

___ (80) Grade crossing controlled type unknown

Whether or not at railroad grade crossing

___ (98) Other
___ (99) Unknown

89 90

POLICE, HOSPITAL/MEDICAL, OR OTHER OFFICIAL

60. 61. 62. Other Driver Related Factors

___ (00) No other driver related factors

Physical/Mental Condition

___ (01) Nonphysical (i.e., mental or emotional factor)
___ (02) Drowsy, sleepy, asleep, fatigued
___ (03) Depression
___ (04) Illness, disease, blackout

Physical Impairments

___ (05) Deaf
___ (06) Restricted to wheelchair
___ (07) Paraplegic
___ (08) Previous injury
(09) Other physical impairments: _____

Drug Impairments

___ (10) Drugs-medication (prescription, over-the-counter)
___ (11) Other drugs (excludes alcohol, includes illegal substances):_____

Operator Related Factors:

___ (20) Inattention
___ (21) Interference with driver by other passenger
___ (22) Operator inexperience
___ (23) Unfamiliar with roadway
___ (24) Overloading or improper loading of vehicles with passengers or cargo
___ (25) Operating vehicle in erratic, reckless, careless or negligent manner
___ (26) Improper or erratic lane changing
___ (27) Failure to keep in proper lane or running off roadway
___ (28) Making improper entry to or exit from trafficway
___ (29) Failure to obey traffic signs, traffic control devices or traffic officers, failure to observe Safety Zones
___ (30) Failure to signal intentions
___ (31) Giving wrong signal
___ (32) Making right turn from left lane, making left turn from right lane
___ (33) Making other improper turn
___ (34) Driving wrong way on one-way roadway
___ (35) Driving on wrong side of roadway
___ (36) Failure to dim lights or to have lights on when required
___ (37) Operating without required equipment
___ (38) Creating unlawful noise or using equipment prohibited by law
___ (39) Passing where prohibited by posted signs, pavement markings, hill, curve or school bus displaying warning not to pass
___ (40) Passing on wrong side
___ (41) Passing with insufficient distance or inadequate visibility or failing to yield to overtaking vehicle
___ (42) Passing through or around barrier positioned to prohibit or channel traffic
___ (43) Failure to observe warnings or instructions on vehicles displaying them
___ (44) Driving less than posted minimum
___ (45) Operating at erratic or suddenly changing speeds
___ (46) High speed chase with police in pursuit
___ (47) Illegal driving on road shoulder, in ditch, on roadside, or on sidewalk or path
___ (48) Starting or backing improperly
___ (49) Stopping in roadway (vehicle not abandoned)
___ (50) Opening vehicle door into moving traffic or while vehicle is in motion
___ (51) Towing or pushing vehicle improperly

___ (98) Other:_____
___ (99) Unknown

(60) ___ (91) ___ (92)
(61) ___ (93) ___ (94)
(62) ___ (95) ___ (96)

63. 64. 65. Other Environmental Related Factors

___ (00) No other environmental related factors

Vision Obscured By:

___ (01) Rain, snow, fog, smoke, sand, dust
___ (02) Reflected glare, bright sunlight, headlights
___ (03) Curve, hill or other design features (including traffic signs, embankment)
___ (04) Building, billboard, etc.
___ (05) Trees, crops, vegetation
___ (06) Moving vehicle (including load)
___ (07) Parked vehicle
___ (08) Other object not classifiable above

Swerving or Loss of Control Due to:

___ (20) Severe crosswind
___ (21) Wind from passing truck
___ (22) Slippery surface
___ (23) Avoiding debris or objects in roadway
___ (24) Ruts, holes, bumps in roadway
___ (25) Avoiding animals in roadway
___ (26) Avoiding vehicle in roadway
___ (27) Avoiding pedestrian, pedalcyclist, other nonmotorist in roadway
___ (28) Avoiding standing water, snow, oilslick or ice patch on roadway

Roadway Features:

___ (30) Inadequate warning of exits, lanes narrowing, traffic controls, etc.
___ (31) Pavement marking obscured or absent
___ (32) Surface washed out (caved in, road slippage)
___ (33) Shoulder too low or high
___ (34) Inadequate construction or poor design of roadway, bridge, etc.
___ (35) Vehicle unattended in roadway

___ (98) Other:_____
___ (99) Unknown

(63) ___ (97) ___ (98)
(64) ___ (99) ___ (100)
(65) ___ (101) ___ (102)

U.S. Department of Transportation
National Highway Traffic Safety Administration

DRIVER UPDATE RECORD

NATIONAL ACCIDENT SAMPLING SYSTEM
CONTINUOUS SAMPLING SUBSYSTEM

This section must be completed prior to initial case submission

1. Primary Sampling Unit Number — 1 2
2. Case Number–Stratification — 3 4 5 6
3. Record Number — 7: 4
4. Transaction Code — 8: 2
5. Version Number — 9: 6
6. Investigator I.D. Number — 10
7. Vehicle Number — 11 12

DRIVER'S NAME _____

ADDRESS. _____

_____

State Driver License No.: _____

Date of Birth: ___/___/___

(Delete before submission)

Circle the number of each variable to be updated and complete upon receipt of this data
[or reason data not obtained (see response for log variable 14) ___]

33. Alcohol Test Results — 48 49
36. Driver License Status (For this vehicle) — 52
37. Driver License Type Compliance — 53
38. Driver License Restriction — 54
39. Additional Driver License Restriction — 55
40. Previous Speeding Convictions — 56
41. Previous Other Harmful Moving Violations Convictions — 57
42. Previous Driving While Intoxicated Convictions — 58
43. Previous Recorded Suspensions and Revocations — 59
44. Previous Recorded Accidents — 60

SOURCE OF DATA ON WHICH UPDATE IS BASED

_____

ATTACH TO THIS FORM ANY SUPPORTING OFFICIAL RECORDS FOR THIS DRIVER

US Department of Transportation
National Highway Traffic Safety Administration

Form Approved
O M B No 2127-0021

Occupant Data

NATIONAL ACCIDENT SAMPLING SYSTEM
CONTINUOUS SAMPLING SUBSYSTEM

1 Primary Sampling Unit Number — 1 2

2. Case Number–Stratification — 3 4 5 6

3 Record Number — 5 / 7

4. Transaction Code — 8

5 Version Number — 6 / 9

6. Investigator I.D. Number — 10

IDENTIFICATION

7 Vehicle Number — 11 12

8. Occupant Number — 13 14

OCCUPANT INTERVIEW

9 Occupant's Age

_____ year(s) – Code actual age at time of accident
__ (00) Less than one year old
__ (97) 97 years and older
__ (99) Unknown

15 16

10. Occupant's Sex

__ (1) Male
__ (2) Female
__ (9) Unknown

17

11. Occupant's Height

_____ inches – Code actual height to the nearest inch.
__ (99) Unknown

18 19

12. Occupant's Weight

_____ pounds – Code actual weight to the nearest pound.
__ (999) Unknown

20 21 22

13 Occupant's Role

__ (1) Driver
__ (2) Passenger
__ (9) Unknown

23

14. Occupant's Seat Position

__ (01) Front seat-left side
__ (02) Front seat-middle
__ (03) Front seat-right side
__ (04) Second seat-left side
__ (05) Second seat-middle
__ (06) Second seat-right side
__ (07) Third seat-left side
__ (08) Third seat-middle
__ (09) Third seat-right side
__ (10) Front seat-additional passenger
__ (11) Second seat or beyond-additional passenger
__ (12) Truck-tractor sleeping section
__ (13) Other enclosed area: _____
__ (14) In or on unenclosed area
area type: _____
__ (15) In or on trailing unit
unit type: _____
__ (99) Unknown

24 25

(NOTE: INVESTIGATOR as used below refers to the product of individual observation, police reports, and any other sources used that culminated in the assessment which represents the final opinion of the investigator.)

15. Entrapment

(NOTE: Entrapped means that part of the occupant was in the vehicle and mechanically restrained; jammed doors and immobilizing injuries by themselves are not sufficient to constitute entrapment.)

Interviewee		Investigator
__	(0) Not entrapped	__
__	(1) Entrapped	__
__	(9) Unknown	__
		26

16. Ejection

__	(0) None	__
__	(1) Complete ejection	__
__	(2) Partial ejection	__
__	(3) Ejection, unknown degree	__
__	(9) Unknown	__
		27

V5 (66 67

V5 (68 V6

HS Form 433 (Rev 12/82)

This report is authorized by P L. 89-563, Title 1, Sections 106, 108, and 112. While you are not required to respond, your cooperation is needed to make the results of this data collection effort comprehensive, accurate, and timely

	Interviewee	Investigator	
17 Ejection Area			
	(0) No ejection		
	(1) Windshield		
	(2) Left front		
76	(3) Right front		
	(4) Left rear		
	(5) Right rear		
	(6) Rear		
	(7) Roof		
	(8) Other area (e.g., sidecar, back of pick-up, etc.) _____		
	(9) Unknown		28
18. Ejection Medium			
	(0) No ejection		
	(1) Door		
	(2) Open roof structure		
	(3) Fixed windows		
	Operable windows		
	(4) Roll down type		
6	(5) Hinged type		
	(6) Sliding type		
	(7) Other type: _____		
	(8) Other medium _____		
	(9) Unknown		29

	Interviewee	Investigator	
19 Medium Status			
	(0) No ejection		
	(1) Open		
	(2) Separation		
	(3) Closed, closed when damaged		
	(4) Integral structure ripped open		
	(9) Unknown		30

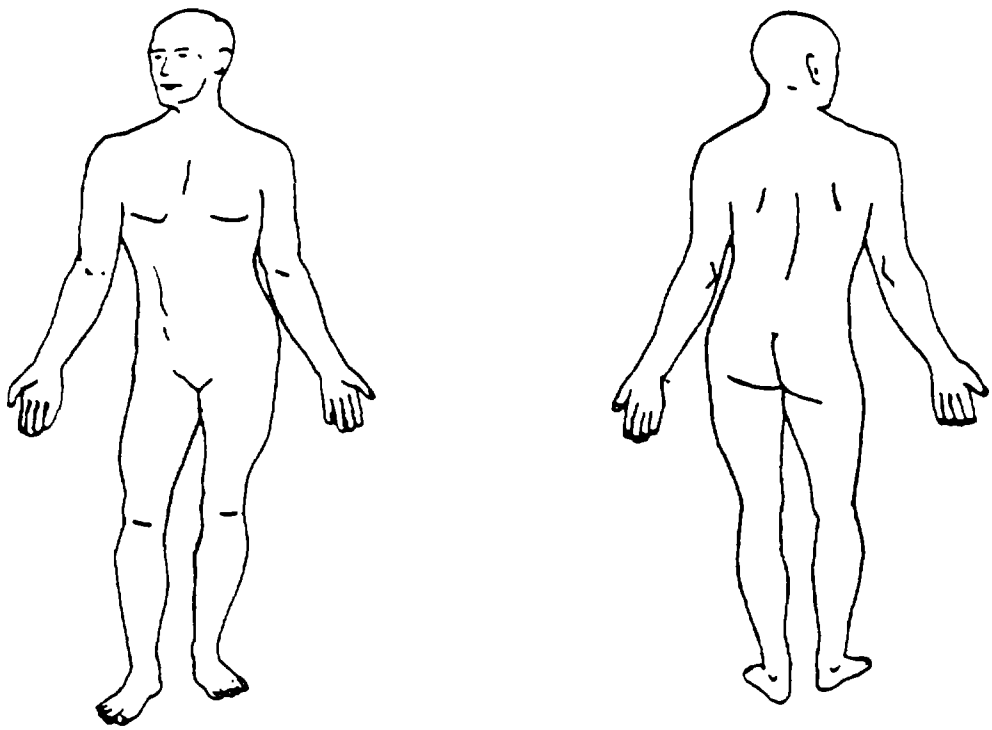
	Interviewee	Official Sources	
20. Treatment – Mortality			
	(1) Fatal		
	(2) Fatal – ruled disease		
	Nonfatal		
	(3) Hospitalization		
	(4) Transported and released		
	(5) Treatment-other _____		
	(6) No treatment		
	(9) Unknown		31

COMMENTS

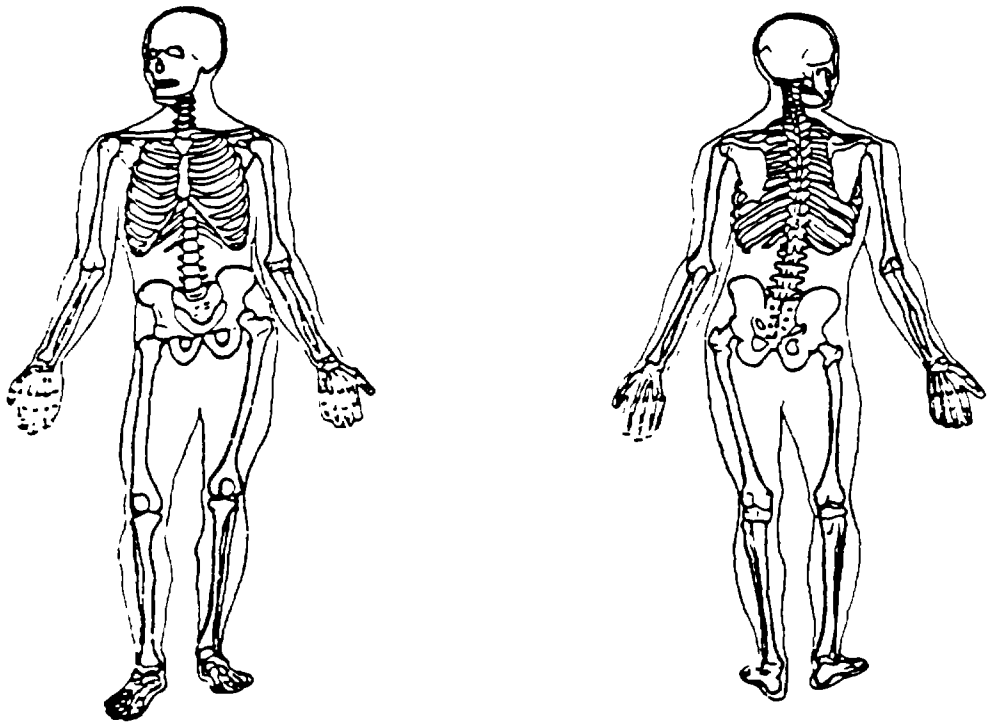
INJURY DATA FROM INTERVIEWEE

Indicate the *Nature*, *Location*, and injury *Source* of all injuries

Soft Tissue Injuries



Skeletal Injuries



	Inter-viewee	Official Sources	
21 Hospital Stay			
___ (00) Not Hospitalized		___	
_____ day(s) – Code the number of days (up through 60) that the occupant stayed in hospital.		___	
___ (61) 61 days or more		___	
___ (99) Unknown		___	
			32 33
22 Working Days Lost			
___ (00) No working days lost			
_____ day(s) – Code the number of days (up through 60) that the occupant lost from work due to the accident			
___ (61) 61 days or more			
___ (62) Fatally Injured			
___ (99) Unknown			
			34 35

	Inter-viewee	Investigator	
23 Manual (Active) Restraint System Availability			
___ (0) None available		___	
___ (1) Shoulder belt		___	
V6 ___ (2) Lap belt		___	
___ (3) Lap and shoulder belt		___	
___ (4) Motorcycle helmet		___	
___ (5) Child safety seat (designed without tether or unknown design)		___	
___ (6) Child safety seat (designed with tether – properly installed)		___	
___ (7) Child safety seat (designed with tether – improperly installed)		___	
___ (8) Restraint available – type unknown or other _____		___	
___ (9) Unknown		___	
			36

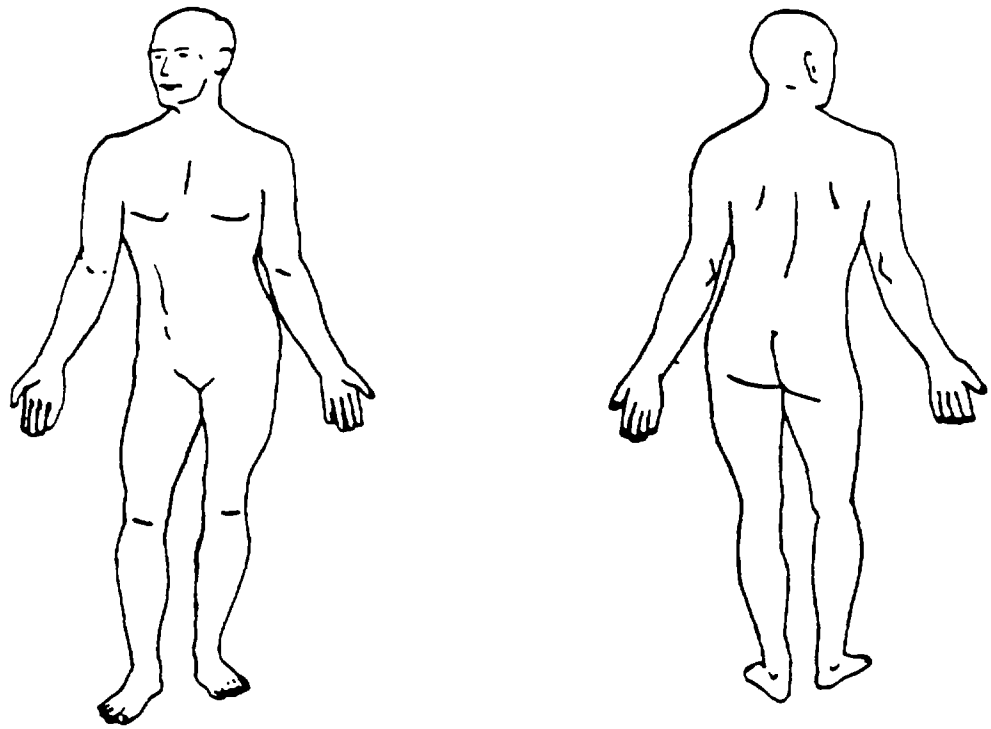
	Inter-viewee	Police	Investigator	
24 Manual (Active) Restraint System Use				
___ (0) None used		___	___	V6
___ (1) Shoulder belt		___	___	
___ (2) Lap belt		___	___	
___ (3) Lap and shoulder belt		___	___	
___ (4) Motorcycle helmet		___	___	
___ (5) Child safety seat – used properly		___	___	
___ (6) Child safety seat – used improperly		___	___	
___ (7) Child safety seat – unknown if used properly		___	___	
___ (8) Restraint used – type unknown or other _____		___	___	
___ (9) Unknown		___	___	
				37
25. Automatic (Passive) Restraint System Availability				
___ (0) Not equipped			___	V6
___ (1) Airbag			___	
___ (2) Airbag disconnected			___	
___ (3) Airbag not reinstalled			___	
___ (4) 2 point automatic belts			___	
___ (5) 3 point automatic belts			___	
___ (6) Automatic belts destroyed			___	
___ (9) Unknown			___	
				38
26. Automatic (Passive) Restraint Function				
___ (0) Not equipped			___	V6
___ (1) Automatic belt in use			___	
___ (2) Automatic belt not in use			___	
___ (3) Deployed airbag			___	
___ (4) Nondeployed airbag			___	
___ (9) Unknown			___	
				39
27 Relation of Interviewee to Occupant				
___ (0) No interview				
___ (1) Same person				
___ (2) Other accident involved person				
_____				
Uninvolved Person				
___ (3) Relative or friend				
___ (4) Other uninvolved person				
_____				
Combination of Persons:				
___ (5) One of which was accident involved				
___ (6) None of which were accident involved				
___ (9) Unknown				
				40

THIS COMPLETES THE INTERVIEW

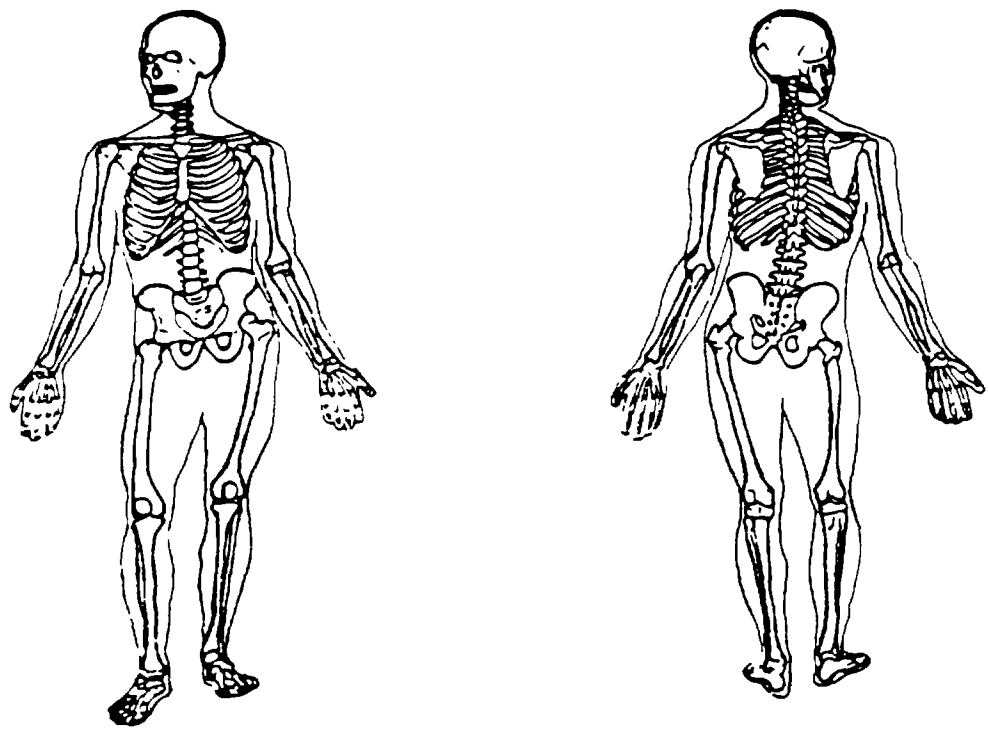
OFFICIAL INJURY DATA

Indicate the *Nature* and *Location* of *All* injuries

Soft Tissue Injuries



Skeletal Injuries



Write additional medical record injury information on reverse of this page.

ADDITIONAL MEDICAL RECORD INJURY DATA USED IN CODING OIC/AIS

National Highway Traffic Safety Administration

Occupant Update Record

NATIONAL ACCIDENT SAMPLING SYSTEM
CONTINUOUS SAMPLING SUBSYSTEM

This section must be completed prior to initial case submission

1 Primary Sampling Unit Number — 1 2
2 Case Number – Stratification — 3 4 5 6
3 Record Number — 7
4 Transaction Code — 8
5 Version Number — 9
6 Investigator I.D. Number — 10
7 Vehicle Number — 11 12
8. Occupant Number — 13 14

OCCUPANT'S NAME.

Address:

(Delete before submission)

9. Age — —
10. Sex —

DATA ON INITIAL SUBMISSION
A08. Final Stratification —

21. Hospital Stay — —
22. Working Days Lost — —
71. Time of Death — —

ENTER RESPONSE FOR EACH VARIABLE WHERE DATA ON INITIAL SUBMISSION WAS UNKNOWN OR IS FELT TO BE IN ERROR, GIVEN RECEIPT OF OFFICIAL MEDICAL RECORD(S)

A08. Final Stratification — 17
9. Occupant's Age — — 15 16
10 Occupant's Sex — 17
20. Treatment – Mortality — 31
21. Hospital Stay — — 32 33
22. Working Days Lost — — 34 35

Complete prior to initial case submission

INJURY DATA CODED ON INITIAL SUBMISSION

28. — 29 — 30 — 31. — 32. — 33. — — 34. — —
35 — 36 — 37 — 38 — 39 — 40 — — 41. — —
42. — 43. — 44. — 45. — 46. — 47. — — 48. — —
49 — 50. — 51. — 52. — 53. — 54 — — 55. — —
56. — 57 — 58. — 59. — 60. — 61. — — 62. — —
63. — 64. — 65. — 66. — 67. — 68. — — 69. — —

UPDATED INJURY DATA BASED ON SUBSEQUENTLY ACQUIRED OFFICIAL MEDICAL DATA
[or reason data not obtained (see response for log variable 15) _____]

1st	—	28.	— 41	29.	— 42	30.	— 43	31.	— 44	32.	— 45	33.	— — 46 47	34.	— — 48 49
2nd	—	35.	— 50	36.	— 51	37	— 52	38.	— 53	39.	— 54	40.	— — 55 56	41.	— — 57 58
3rd	—	42.	— 59	43.	— 60	44.	— 61	45.	— 62	46.	— 63	47.	— — 64 65	48.	— — 66 67
4th	—	49.	— 68	50.	— 69	51.	— 70	52.	— 71	53.	— 72	54.	— — 73 74	55.	— — 75 76
5th	—	56.	— 77	57.	— 78	58.	— 79	59.	— 80	60.	— 81	61.	— — 82 83	62.	— — 84 85
6th	—	63	— 86	64	— 87	65	— 88	66.	— 89	67.	— 90	68.	— — 91 92	69.	— — 93 94

71. Time of Death — — 96 97

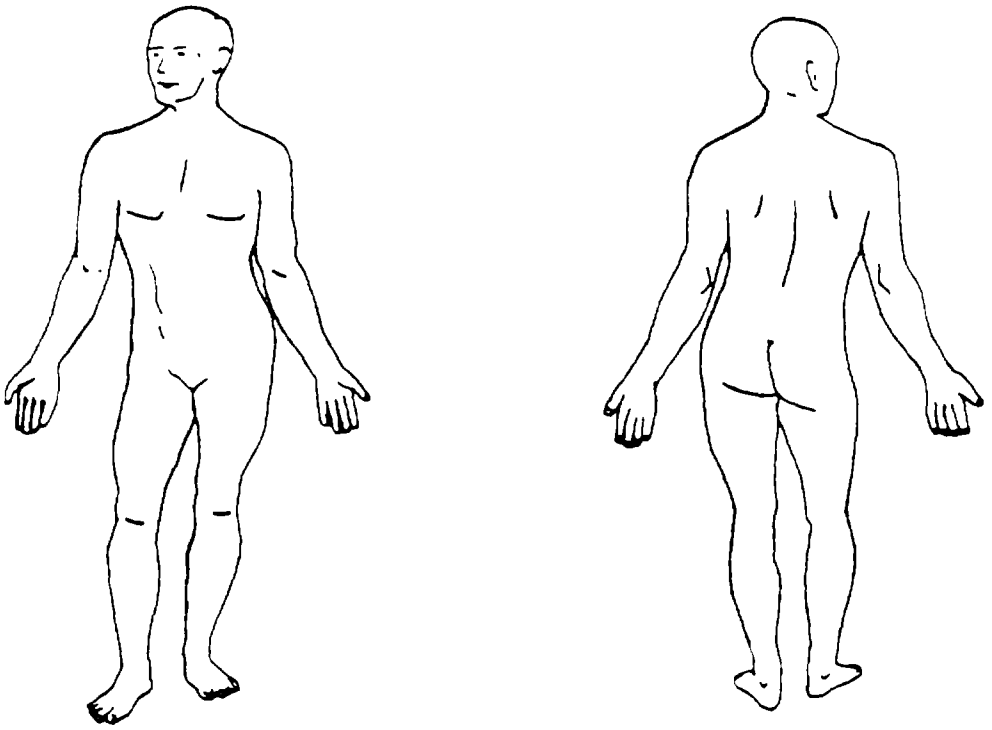
HS Form 433A (Rev. 12/82)

INDICATE THE NATURE AND LOCATION OF ALL INJURIES FROM THE OFFICIAL MEDICAL REPORT(S) ON THE REVERSE SIDE AND ATTACH THE REPORT(S) TO THIS UPDATE

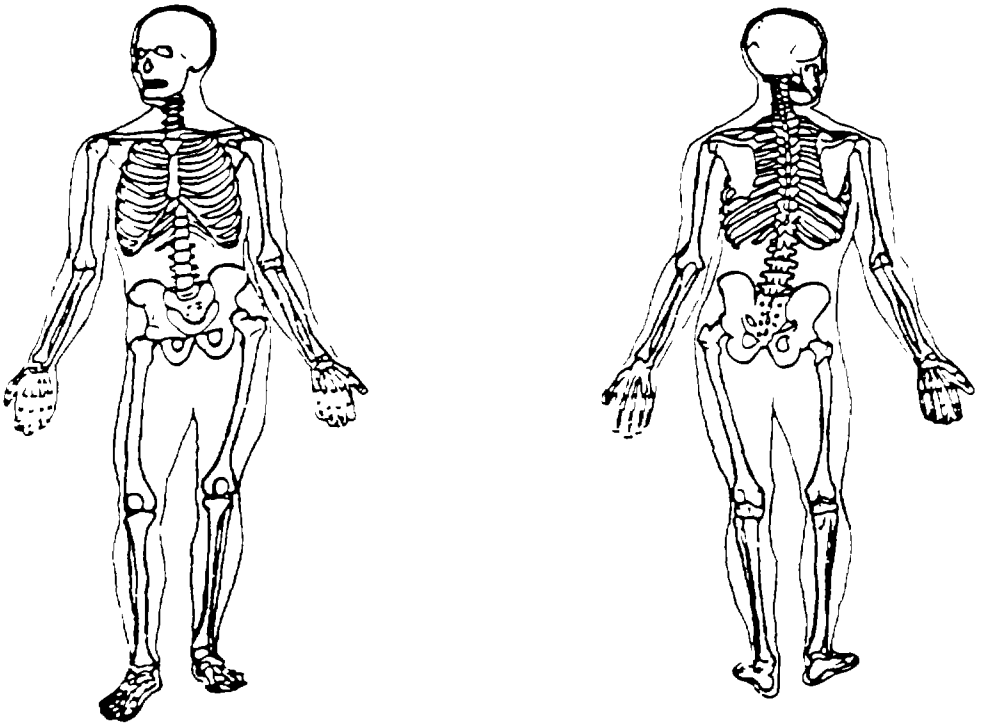
OFFICIAL INJURY DATA

Indicate the *Nature* and *Location* of *All* injuries

Soft Tissue Injuries



Skeletal Injuries



OCCUPANT INJURY CLASSIFICATION

Consider all injuries which are reported from both unofficial and official sources. The information from official sources takes precedence over similar injuries reported by any other source. In other words, do not list the same injury twice; supercede the interview data with official data in the case of similar injuries. List all injuries by official medical sources first. Police reported injuries may be used, but only when no other source of injury information is available.

Were more than ten (10) injuries sustained? ____Unknown, ____No, ____Yes – If more than ten dissimilar injuries were identified during the interview, from collection of official data, and from other unofficial sources (excluding police), list those from the official records first, exhausting that level of data before listing those from the interviewee or other sources.

	I.S.S Body Region	O.I.C. Body Region	Aspect	Lesion	System/ Organ	A.I.S. Severity	Injury Source	Source of Data
1	—	—	—	—	—	—	— —	— —
2	—	—	—	—	—	—	— —	— —
3	—	—	—	—	—	—	— —	— —
4	—	—	—	—	—	—	— —	— —
5	—	—	—	—	—	—	— —	— —
6	—	—	—	—	—	—	— —	— —
7	—	—	—	—	—	—	— —	— —
8	—	—	—	—	—	—	— —	— —
9	—	—	—	—	—	—	— —	— —
10	—	—	—	—	—	—	— —	— —

Source of Data

Official
(01) Autopsy records with or without hospital/medical records
(02) Hospital medical records other than emergency room (e.g., discharge summary)
(03) Emergency room records only (including associated x-rays or other lab reports)
(04) Private physician

Unofficial
(05) Lay coroner report
(06) E.M.S. personnel
(07) Interviewee
(08) Other source: _____

(09) Police
(99) Unknown if injured
(00) Not injured

I.S.S. Body Region

(1) Head or neck
(2) Face
(3) Chest
(4) Abdominal or pelvic contents
(5) Extremities or pelvic girdle
(6) General (external)
(0) Not injured
(9) Unknown

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)
(O) Whole body
(W) Wrist - hand
(0) Not injured
(9) Unknown if injured

Aspect of Injury

(A) Anterior - front
(B) Bilateral
(C) Central
(I) Inferior - lower
(U) Injured, unknown aspect
(L) Left
(P) Posterior - back
(R) Right
(S) Superior - upper
(W) Whole region
(0) Not injured
(9) Unknown if injured

Lesion

(A) Abrasions
(M) Amputation
(V) Avulsion
(B) Burn
(K) Concussion
(C) Contusion
(N) Crushing
(G) Detachment, separation
(D) Dislocations
(F) Fractures
(Z) Fracture and dislocation
(U) Injured unknown lesion
(L) Laceration
(O) Other
(P) Perforation, puncture
(R) Rupture
(S) Sprains
(T) Strain
(E) Total severence, transection
(0) Not injured
(9) Unknown if injured

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
(0) Not injured
(9) Unknown if injured

Abbreviated Injury Scale

(1) Minor injury
(2) Moderate injury
(3) Severe injury
(4) Serious injury
(5) Critical injury
(6) Maximum (untreatable)
(7) Injured, unknown severity
(0) Not injured
(9) Unknown if injured

REDUCTION SECTION

Injury Source

(100) No injury

FRONT
(101) Windshield
(102) Mirror
(103) Steering assembly including transmission selector level when column mounted
(104) Add-on equipment *(e.g. CB, tape deck, air conditioner)*
(105) Instrument panel and below, excluding foot controls and parking brake
(106) Sunvisor
(109) Other front object

SIDE
(111) Side interior surface, excluding hardware or armrests
(112) Side hardware or armrests
(113) A pillar
(114) B pillar
(115) Other pillar
(116) Window glass or frame
(119) Other side object

INTERIOR
(121) Seat, back support
(122) Belt restraint system
(123) Head restraint
(124) Air cushion
(125) Other occupants
(126) Interior loose objects
(129) Other interior object

ROOF
(131) Front header
(132) Rear header
(133) Roof side rails
(134) Roof or convertible top

FLOOR
(141) Floor
(142) Floor or console mounted transmission lever, including console
(143) Parking brake handle
(144) Foot controls including parking brake

REAR
(145) Backlight *(rear window)*
(146) Backlight storage rack, door, etc
(149) Other rear objects

EXTERIOR of NONMOTORIST's VEHICLE
(151) Hood
(152) Outside hardware *(e.g., outside mirror, antenna)*
(153) Other exterior surface or tires
(159) Unknown exterior objects

CYCLE
(161) Handle bars or attachments
(162) Frame or suspension component or fender
(163) Seat
(164) Foot pedal, foot rest, foot pegs
(165) Wheel or tire
(166) Engine or transmission
(167) Gas tank, gas tank filling cap or neck
(169) Other cycle part

EXTERIOR of STRIKING MOTOR VEHICLE
(171) Bumper
(172) Hood edge
(173) Other front of vehicle
(174) Hood
(175) Hood ornament
(176) Windshield, roof rail, A-pillar
(177) Side surface
(178) Side mirrors
(179) Other side protrusions
(180) Rear surface
(181) Undercarriage
(182) Tires and wheels
(183) Other exterior of other motor vehicle
(184) Unknown exterior of other motor vehicle

OTHER VEHICLE or OBJECT in the ENVIRONMENT
(186) Ground
(187) Other vehicle or object
(189) Unknown vehicle or object

NONCONTACT INJURY
(190) Noncontact injury source *(impact force)*
(197) Injured, unknown source
(199) Unknown if injured

OCCUPANT INJURY CLASSIFICATION

If there are six or less injuries listed in the O.I.C. reduction section, code all of the injuries ordered by Source of Data (1st-autopsy, 2nd-hospital/medical, 3rd-emergency room, 4th-private physician, or 5th-unofficial sources) and by A.I.S severity within source.

If there are more than six injuries order the injuries by source and by A.I.S. severity within source. Code this ordering, injury by injury. If a group of ordered injuries has the same source, the same A.I.S., and the group includes at least the sixth and seventh injuries in the ordering, then a choice must be made as to which injury or injuries to code.

Choose the injury or injuries that will enable the maximum number of different I.S.S. body regions to be represented in the coded data. If no new I.S.S. body region can be added, then simply code in accordance with the original ordering.

If the occupant has less than six injuries, then the number of rows required to be completed is equal to the number of injuries plus one (e.g., no injuries requires one row i.e., columns 41 to 49). In the additional row "No injury" will be coded for all variables including A.I.S. severity.

If you cannot increase the number of different ISS body regions or if you can choose between two or more injuries of the same source and AIS severity any of which would constitute an additional ISS region, then choose the injury that has a known injury source.

Update Candidate ◯ *Yes* ◯ *No*

	ISS Body Region		OIC Body Region		Aspect		Lesion		System/ Organ		A.I.S. Severity		Injury Source		Source of Data	
1st		28		29		30		31		32		33.		34		
			41		42		43		44		45		46 47		48 49	
2nd		35		36		37		38		39		40		41		
			50		51		52		53		54		55 56		57 58	
3rd		42		43		44		45		46		47		48		
			59		60		61		62		63		64 65		66 67	
4th		49		50		51		52		53		54		55		
			68		69		70		71		72		73 74		75 76	
5th		56		57		58		59		60		61		62		
			77		78		79		80		81		82 83		84 85	
6th		63		64		65		66		67		68		69		
			86		87		88		89		90		91 92		93 94	

CODING SECTION

COMPLETED BY TEAM

INTERVIEW CONTACT RECORD

Contact Sequence	Month	Day	Year	Time of Contact	Contacting Investigator	Manner	Result
	9		10	11	12.	13	
1st	— —	— —	8 3	— — — —	— — —	—	— —
	14		15.	16.	17	18	
2nd	— —	— —	8 3	— — — —	— — —	—	— —
	19		20.	21	22.	23.	
3rd	— —	— —	8 3	— — — —	— — —	—	— —
	24		25.	26	26.	28.	
4th	— —	— —	8 3	— — — —	— — —	—	— —
	29		30.	31.	32.	33.	
5th	— —	— —	8 3	— — — —	— — —	—	— —
	34.		35.	36.	37.	38.	
6th	— —	— —	8 3	— — — —	— — —	—	— —
	39		40.	41.	42.	43.	
7th	— —	— —	8 3	— — — —	— — —	—	— —
	44		45.	46.	47.	48.	
8th	— —	— —	8 3	— — — —	— — —	—	— —

LOG RESPONSES

Manner
(1) Telephone
(2) Personal visit to home, work, etc.
(3) Letter *(questionnaire)*
(4) Other *(specify)*

_____

Result of Last Contact Attempt
(01) Unable to contact or locate
(02) Hit and run
(03) Fatal–surrogate not available
(04) In intensive care–surrogate not available
(05) Out of State resident
(06) Refused interview for other than on advice of attorney or insurance company *(specify)*

_____

(07) Insurance company refusal
(08) Attorney refusal or litigation
(09) Other *(specify)*

_____

(10) No return of letter questionnaire
(11) Return of letter questionnaire (completed)
(12) Partial or complete interview

_____

Result of Contact Attempt Other than Last Contact Attempt
(13) No answer (to phone call, no one home, etc.)
(14) Other person at home, work, etc.–Interviewee to contact investigator
(15) Other person at home, work, etc.–Investigator to repeat call, visit, leave questionnaire, or try elsewhere.
(16) Must obtain permission of attorney or insurance company
(17) Attorney or insurance company provided permission.
(18) Other (specify)

_____

If any of the coded injury Sources have "other" codes, i.e., 09, 15, 19, 29, 49, 53, 69, 73, 79, 83 or 87, describe the injury source below in the space provided. Clearly indicate each description by numerical value

_____

_____

_____

_____

_____

POLICE REPORT

70. Injury Severity (Police Rating)

___ (0) No injury (O)
___ (1) Possible injury (C)
___ (2) Nonincapacitating injury (B)
___ (3) Incapacitating injury (A)
___ (4) Killed (K)
___ (5) Injury, severity unknown
___ (6) Died prior to accident
___ (9) Unknown 95

POLICE, HOSPITAL/MEDICAL, OR OTHER OFFICIAL

71 Time of Death

____(00) Not fatal
_____ 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)
____(96) Fatal—ruled disease
____(99) Unknown

96 97

COMMENTS:

Attach to This Form ANY Supporting Medical Documentation for This Occupant

COMPLETED BY TEAM

1. Primary Sampling Unit Number — 1 2
2. Case Number–Stratification — 3 4 5 6
3. Record Number — 7
4. Transaction Code — 8
5. Version Number — 9
6. Investigator I.D. Number — 10

OCCUPANT INTERVIEW

7. Vehicle Number — 11 12
8. Occupant Number — 13 14
9. Is This Occupant a Driver
   (0) No
   (1) Yes
   (9) Unknown — 15
10. Manner of Last Contact Attempt
    (1) Telephone
    (2) Personal visit to home, work, etc.
    (3) Letter *(questionnaire)*
    (4) Other *(specify)*
    _____ — 16
11. Result of Last Contact Attempt
    (01) Unable to contact or locate
    (02) Hit and run
    (03) Fatal–surrogate not available
    (04) In intensive care–surrogate not available
    (05) Out of State resident
    (06) Refused interview for other than on advice of attorney or insurance company *(specify)*
    _____
    (07) Insurance company refusal
    (08) Attorney refusal or litigation
    (09) Other *(specify)*
    _____
    (10) No return of letter questionnaire
    (11) Return of letter questionnaire (completed)
    (12) Partial or complete interview — 17 18
12. Date Interview Completed — 19 20 21 22 8 23 3 24
13. Completing Person — 25
14. Source of Interview Data
    (1) No data obtained
    (2) Same person
    (3) Other occupant (or driver)
    (4) Relative or friend
    (5) Eyewitness
    (6) Combination of 3, 4 or 5
    (7) Other *(specify)* — 26
15. Reasons Medical Data Not Obtainable
    (00) Not medically treated
    (01) Record obtained
    (02) No record of treatment at medical facility
    (03) Medical release required–not obtained
    (04) Nonaccident related injury
    (05) Noncooperative hospital
    (06) Hospital out of study area
    (07) Private physician would not release information
    (08) To be updated
    (09) Record not received before file closed
    (10) Unknown if medically treated — 27 28

COMPLETED BY ZONE CENTER

16. Date Medical Record Update Received — 29 30 31 32 8 33 3 34
17. Reviewed By — 35 36
18. Interviewee Injury Documentation
    (1) Complete–Injury descriptions are annotated in sufficient detail to enable independent OIC/AIS coding. The protocol for completing the injury diagram has been used and a contact mechanism or "unknown" is indicated.
    (2) Partial–All coded injuries are described in adequate detail, however, additional annotation helpful for independent OIC/AIS coding. Contact mechanism omitted for some injuries.
    (3) Incomplete–Generally inadequate description of injuries or the coded injury does not correspond to the annotated injury.
    (4) NA–No interviewee reported injuries. — 37
19. Official Injury Documentation
    (1) Complete–All injuries reported in the medical data are annotated with sufficient detail to enable an independent OIC/AIS coding. The protocol for completing the injury diagram has been used.
    (2) Partial–All coded injuries are described in adequate detail, however, additional annotation helpful for indipendent OIC/AIS coding. Some minor injuries described in the medical data may be omitted.
    (3) Incomplete–Generally inadequate or erroneous descriptions of injuries and/or omitted major injuries described in the medical data.
    (4) NA–No official medical data. — 38

US Department of Transportation
National Highway Traffic Safety Administration

Form Approved
O.M.B. No. 2127-0021

PEDESTRIAN AND NONMOTORIST

NATIONAL ACCIDENT SAMPLING SYSTEM
CONTINUOUS SAMPLING SUBSYSTEM

1. Primary Sampling Unit Number — 1 2
2. Case Number – Stratification — 3 4 5 6
3. Record Number — 2 / 7
4. Transaction Code — 8
5. Version Number — 7 / 9
6. Investigator I.D Number — 10

IDENTIFICATION

7. Pedestrian or Nonmotorist's Number — 11 12

8. Pedestrian or Nonmotorist's Type

___(1) Pedestrian
___(2) Bicyclist
___(3) Other cyclist
_____
___(4) Occupant of an animal related nonmotor vehicle transport device
___(5) Occupant of vehicle not in transport
___(8) Other nonmotorist:
_____
_____
___(9) Unknown — 13

PEDESTRIAN OR NONMOTORIST INTERVIEW

9. Pedestrian or Nonmotorist's Age

_____ year(s) – Code actual age at time of accident
___(00) Less than one year old
___(97) 97 years and older
___(99) Unknown — 14 15

10. Pedestrian or Nonmotorist's Sex

___(1) Male
___(2) Female
___(9) Unknown — 16

11. Pedestrian or Nonmotorist's Height

_____ inches – Code actual reported height to the nearest inch.
___(99) Unknown — 17 18

12. Pedestrian or Nonmotorist's Weight

_____ pounds – Code actual reported weight to the nearest pound.
___(999) Unknown — 19 20 21

13. Months Cycling Experience

_____ months – Code actual months of previous cycling experience up to 60.
(NOTE: 44 days or less equals 1 month; a month and a half equals 2 months.)
___(00) Non-cyclist
___(61) Greater than 60 months (5 years)
___(99) Unknown — 22 23

ACCIDENT DESCRIPTION INSTRUCTIONS

Do not interrupt person during general description (narrative), unless he/she requests your assistance. Attempt to summarize the narrative while minimizing any disruptions of the person's internal logic. Specific questions may be asked later. Write these questions down in the space below or on the other side of the page, prior to the interview.

SPECIFIC QUESTION _____

GENERAL DESCRIPTION OF ACCIDENT SEQUENCE

(This represents a synopsis of an uninterrupted narrative by the pedestrian or nonmotorist.)

(70)

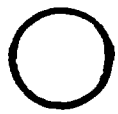
— Delete After Case Review

HS Form 428 This report is authorized by P.L. 89-563, Title 1, Sections 106, 108, and 112. While you are not required to respond your cooperation is [illegible] comprehensive, accurate, and timely.

ACCIDENT DIAGRAM

Draw a rough sketch of the accident sequence as described by the pedestrian or nonmotorist. Note impact and final rest positions carefully. If possible, relate these to some identifiable object in the area, and record vehicle and pedestrian or nonmotorist headings relative to an object, as well.

Indicate North



14. Pedestrian or Nonmotorist's Location

___(01) Intersection related - in crosswalk
___(02) Intersection related - on roadway, not in crosswalk
___(03) Intersection related - on roadway, crosswalk not available
___(04) Intersection related - on roadway, crosswalk availability unknown
___(05) Intersection related - not on roadway
___(09) Intersection related - unknown
___(10) Nonintersection – in crosswalk
___(11) Nonintersection – on roadway, not in crosswalk
___(12) Nonintersection – on roadway, crosswalk not available
___(13) Nonintersection – on roadway, crosswalk availability unknown
___(14) Nonintersection – in parking lane
___(15) Nonintersection – on road shoulder
___(16) Nonintersection – bike path
___(17) Nonintersection – outside trafficway
___(18) Nonintersection – other, not on roadway_____
___(19) Nonintersection – unknown
___(99) Unknown

24 25

15 19. Blank (These variables are left blank so that numbering consistency can be maintained with compatible variables on the Occupant Data form.)

20. Treatment – Mortality

Interviewee	Official Sources
___(1) Fatal	_____
___(2) Fatal – ruled disease	_____
Nonfatal	
___(3) Hospitalization	_____
___(4) Transported and released	_____
___(5) Treatment – other: _____	_____
___(6) No treatment	_____
___(9) Unknown	_____

26

21. Hospital Stay

___(00) Not hospitalized
___day(s) Code the number of days (*up through 60*) that the pedestrian or nonmotorist stayed in hospital _____
___(61) 61 days or more _____
___(99) Unknown _____

27 28

22. Working Days Lost

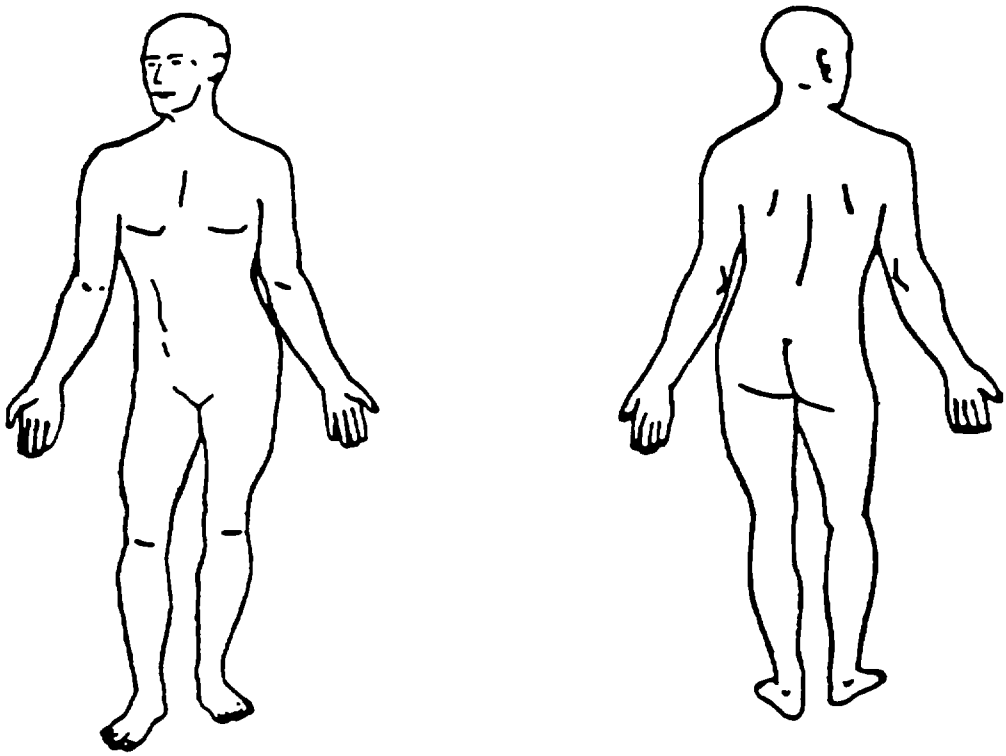
___(00) No working days lost
___day(s) Code the number of days (*up through 60*) that the pedestrian or nonmotorist lost from work due to the accident
___(61) 61 days or more
___(62) Fatally injured
___(99) Unknown

29 30

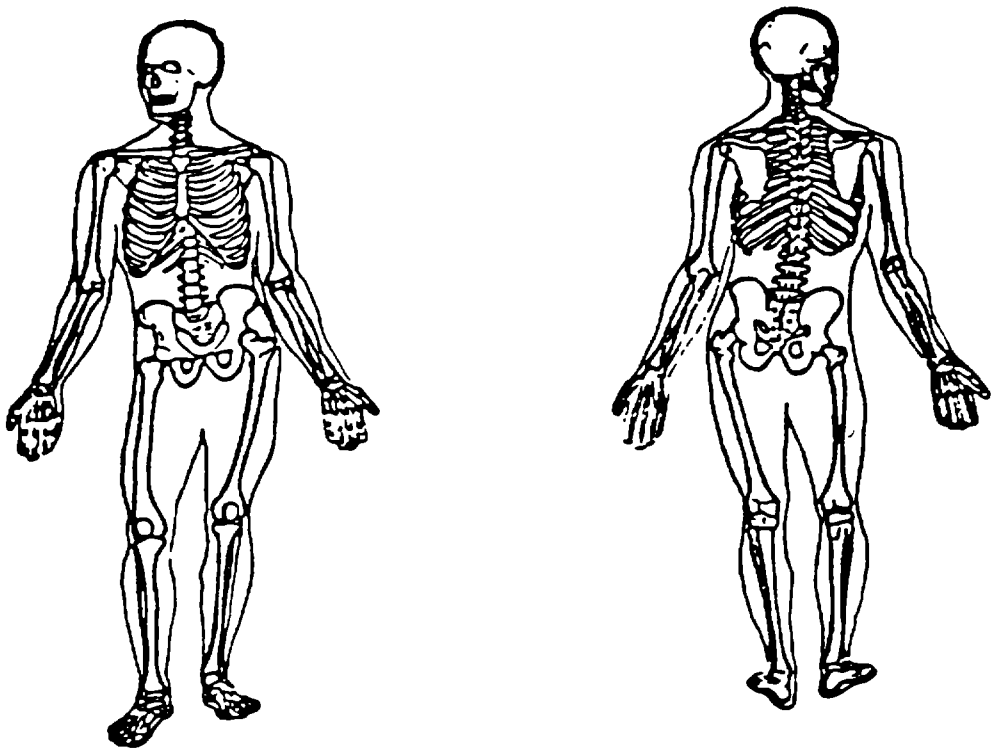
INJURY DATA FROM INTERVIEWEE

Indicate the *Nature*, *Location*, and injury *Source* of all injuries.

Soft Tissue Injuries



Skeletal Injuries



23. – 26. Blank (These variables are left blank so that numbering consistency can be maintained with compatible variables on the Occupant Data form.)

27. Relation of Interviewee to Pedestrian or Nonmotorist

___(0) No interview
___(1) Same person
___(2) Other accident involved person.

_____

Uninvolved Person
___(3) Relative or friend
___(4) Other uninvolved person

_____

Combination of Persons
___(5) One of which was accident involved
___(6) None of which were accident involved
___(9) Unknown

31

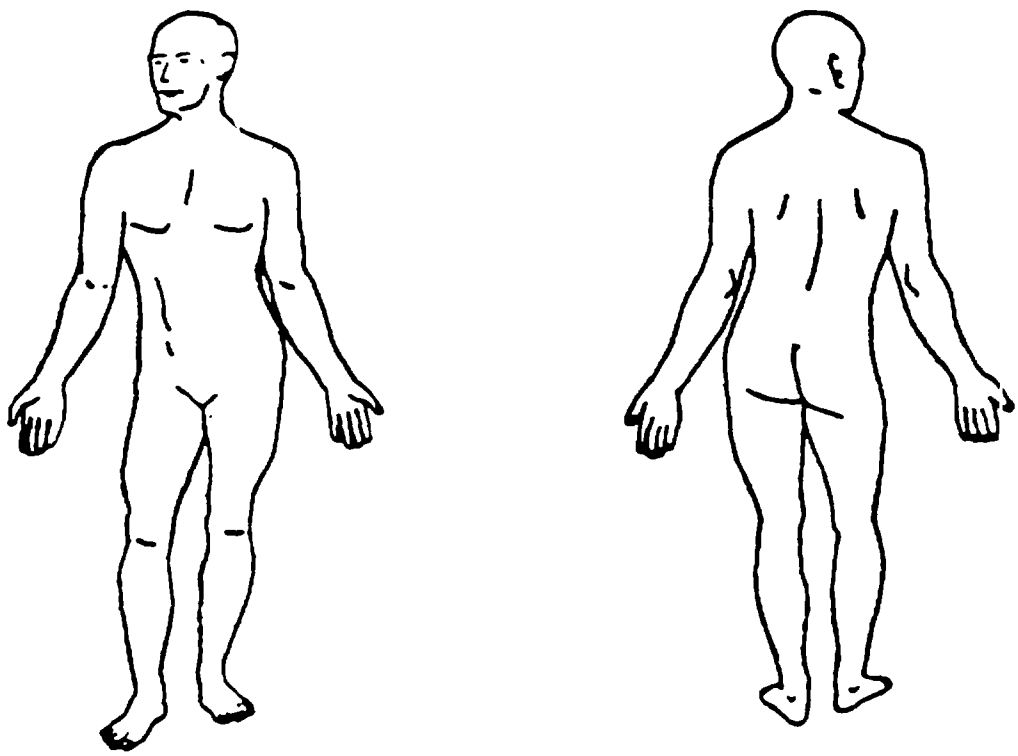
THIS COMPLETES THE INTERVIEW

COMMENTS

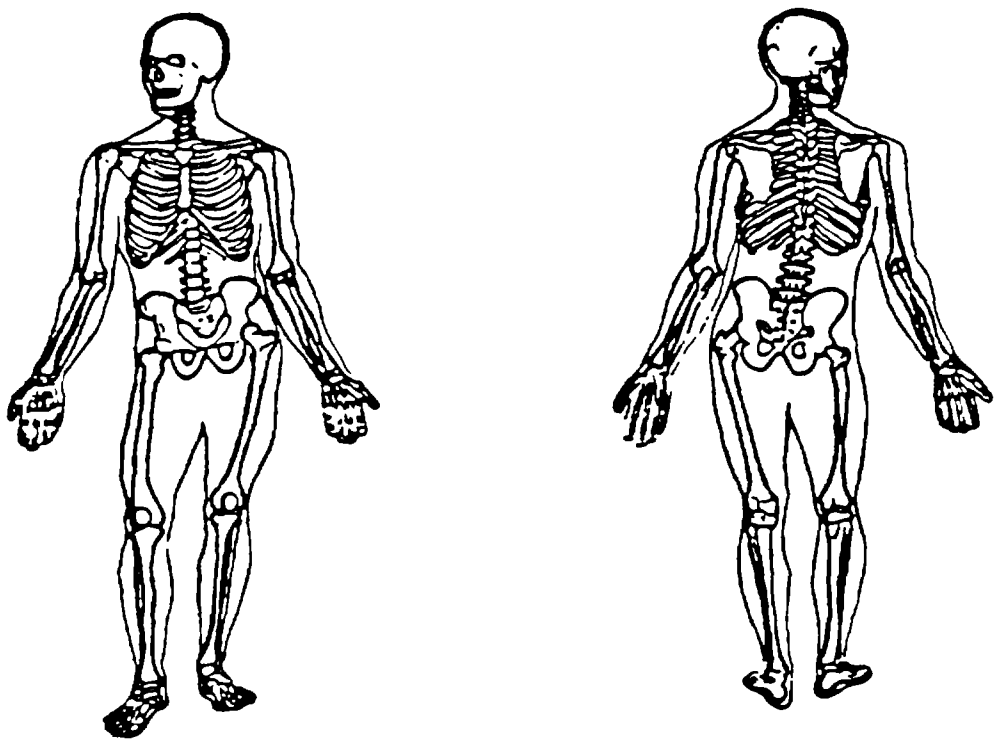
OFFICIAL INJURY DATA

Injuries: Source and Location of All Injuries

Soft Tissue Injuries



Skeletal Injuries



Write additional medical record injury information on reverse of this page.

OCCUPANT INJURY CLASSIFICATION
(FOR PEDESTRIAN AND NONMOTORIST)

...of injuries which are reported from both *unofficial* and *official* sources. The information from official sources takes precedence over similar ... reported by any other source. In other words, do not list the same injury twice; supersede the interview data with official data in the case of ... injuries. List all injuries by official medical sources first. Police reported injuries may be used, but only when no other source of injury information is available.

... more than ten (10) injuries sustained? ____ Unknown. ____ No. ____ Yes – If more than ten dissimilar injuries were identified during the ... from collection of official data, and from other unofficial sources (*excluding police*), list those from the official records first, exhausting ... of data before listing those from the interviewee or other sources.

	I.S.S. Body Region	O.I.C. Body Region	Aspect	Lesion	System/ Organ	A.I.S. Severity	Injury Source	Source of Data
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								

Source of Data

Official
- (01) Autopsy records with or without hospital/medical records
- (02) Hospital medical records other than emergency room (e.g., discharge summary)
- (03) Emergency room records only (including associated x-rays or other lab reports)
- (04) Private physician, walk-in or emergency clinic

Unofficial
- (05) Lay coroner report
- (06) E.M.S. personnel
- (07) Interviewee
- (08) Other source: _____
- (09) Police
- (99) Unknown if injured
- (00) Not injured

I.S.S. Body Region
- (1) Head or neck
- (2) Face
- (3) Chest
- (4) Abdominal or pelvic contents
- (5) Extremities or pelvic girdle
- (6) General (*external*)
- (0) Not injured
- (9) Unknown

O.I.C. Body Region
- (M) Abdomen
- (O) Ankle-foot
- (A) Arm (upper)
- (R) 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)
- (O) Whole body
- (W) Wrist – hand
- (0) Not injured
- (9) Unknown if injured

Aspect of Injury
- (A) Anterior – front
- (C) Central
- (I) Inferior – lower
- (U) Injured, unknown aspect
- (L) Left
- (P) Posterior – back
- (R) Right
- (S) Superior – upper
- (W) Whole region
- (0) Not injured
- (9) Unknown if injured

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 severence, transection
- (0) Not injured
- (9) Unknown if injured

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
- (0) Not injured
- (9) Unknown if injured

Abbreviated Injury Scale
- (1) Minor injury
- (2) Moderate injury
- (3) Severe injury
- (4) Serious injury
- (5) Critical injury
- (6) Maximum (*untreatable*)
- (7) Injured, unknown severity
- (0) Not injured
- (9) Unknown if injured

Injury Source

(00) No injury

FRONT

(01) Windshield
(02) Mirror
(03) Steering assembly, including transmission selector lever when column mounted
(04) Add-on equipment (*e.g. CB, tape deck, air conditioner*)
(05) Instrument panel and below, excluding foot controls and parking brake
(06) Sunvisor
(09) Other front object

SIDE

(11) Side interior surface, excluding hardware or armrests
(12) Side hardware or armrests
(13) A pillar
(14) B pillar
(15) Other pillar
(16) Window glass or frame
(19) Other side object

INTERIOR

(21) Seat, back support
(22) Belt restraint system
(23) Head restraint
(24) Air cushion
(25) Other occupants
(26) Interior kiosk objects
(29) Other interior object

ROOF

(31) Front header
(32) Rear header
(33) Roof side rails
(34) Roof or convertible top

FLOOR

(41) Floor
(42) Floor or console mounted transmission lever, including console
(43) Parking brake handle
(44) Foot controls including parking brake

REAR

(45) Backlight (*rear window*)
(46) Backlight storage rack, door, etc.
(49) Other rear objects

EXTERIOR of NONMOTORIST'S VEHICLE

(51) Hood
(52) Outside hardware (*e.g., outside mirror, antenna*)
(53) Other exterior surface or tires
(59) Unknown exterior objects

CYCLE

(61) thru (69) Do Not Use.

(These code numbers are left blank so that numbering consistency can be maintained with compatible variables on the Occupant Data form.)

EXTERIOR of STRIKING MOTOR VEHICLE

(71) Front bumper
(72) Hood edge
(73) Other front of vehicle
(74) Hood
(75) Hood ornament
(76) Windshield, roof rail, A-pillar
(77) Side surface
(78) Side mirrors
(79) Other side protrusion
(80) Rear surface
(81) Undercarriage
(82) Tires and wheels
(83) Other exterior of striking motor vehicle
(84) Unknown exterior of striking motor vehicle

OTHER VEHICLE or OBJECT in the ENVIRONMENT

(86) Ground
(87) Other vehicle or object
(89) Unknown vehicle or object

NONCONTACT INJURY

(90) Noncontact injury source (*impact force*)
(97) Injured, unknown source
(99) Unknown if injured

OCCUPANT INJURY CLASSIFICATION

(FOR PEDESTRIAN AND NONMOTORIST)

If there are six or less injuries listed in the O.I.C. reduction section, code all of the injuries ordered by Source of Data (1st-autopsy, 2nd-hospital medical, 3rd-emergency room, 4th-private physician, or 5th-unofficial sources) and by A.I.S. severity within source.

If there are more than six injuries order the injuries by source and by A.I.S. severity within source. Code this ordering, injury by injury. If a group of ordered injuries has the same source, the same A.I.S., and the group includes at least the sixth and seventh injuries in the ordering, then a choice must be made as to which injury or injuries to code.

Choose the injury or injuries that will enable the maximum number of different I.S.S. body regions to be represented in the coded data. If no new I.S.S. body region can be added, then simply code in accordance with the original ordering.

If the pedestrian or nonmotorist has less than six injuries, then the number of rows required to be completed is equal to the number of injuries plus one (*e.g., no injuries requires one row, i.e., columns 32 to 40*). In the additional row "no injury" will be coded for all variables including A.I.S. severity.

If you cannot increase the number of different ISS body regions or if you can choose between two or more injuries of the same source and AIS severity any of which would constitute an additional ISS region, then choose the injury that has a known injury source.

Update Candidate: ◯ *Yes* ◯ *No*

	I.S.S. Body Region	O.I.C. Body Region	Aspect	Lesion	System/ Organ	A.I.S. Severity	Injury Source	Source of Data
1ST	___	28. ___ (32)	29. ___ (33)	30. ___ (34)	31. ___ (35)	32. ___ (36)	33. ___ ___ (37) (38)	34. ___ ___ (39) (40)
2ND	___	35. ___ (41)	36. ___ (42)	37. ___ (43)	38. ___ (44)	39. ___ (45)	40. ___ ___ (46) (47)	41 ___ ___ (48) (49)
3RD	___	42. ___ (50)	43. ___ (51)	44 ___ (52)	45. ___ (53)	46 ___ (54)	47. ___ ___ (55) (56)	48 ___ ___ (57) (58)
4TH	___	49. ___ (59)	50 ___ (60)	51. ___ (61)	52. ___ (62)	53. ___ (63)	54. ___ ___ (64) (65)	55 ___ ___ (66) (67)
5TH	___	56. ___ (68)	57. ___ (69)	58 ___ (70)	59. ___ (71)	60. ___ (72)	61. ___ ___ (73) (74)	62 ___ ___ (75) (76)
6TH	___	63. ___ (77)	64. ___ (78)	65 ___ (79)	66. ___ (80)	67. ___ (81)	68. ___ ___ (82) (83)	69 ___ ___ (84) (85)

COMPLETED BY TEAM

INTERVIEW CONTACT RECORD

Contact Sequence	Month	Day	Year	Time of Contact	Contacting Investigator	Manner	Result
	9.		10.		11.	12.	13.
1st	— —	— —	8 —	— — — —	— — —	—	— —
	14.		15.		16.	17.	18.
2nd	— —	— —	8 —	— — — —	— — —	—	— —
	19.		20.		21.	22.	23.
3rd	— —	— —	8 —	— — — —	— — —	—	— —
	24.		25.		26.	26.	28.
4th	— —	— —	3 —	— — — —	— — —	—	— —
	29.		30.		31.	32.	33.
5th	— —	— —	8 —	— — — —	— — —	—	— —
	34.		35		36.	37.	38.
6th	— —	— —	8 —	— — — —	— — —	—	— —
	39.		40.		41.	42.	43.
7th	— —	— —	8 —	— — — —	— — —	—	— —
	44.		45.		46.	47.	48.
8th	— —	— —	8 —	— — — —	— — —	—	— —

LOG RESPONSES

Manner
(1) Telephone
(2) Personal visit to home, work, etc.
(3) Letter *(questionnaire)*
(4) Other *(specify)*

_____

Result of Last Contact Attempt
(01) Unable to contact or locate
(02) Hit and run
(03) Fatal—surrogate not available
(04) In intensive care—surrogate not available
(05) Out of State resident
(06) Refused interview for other than on advice of attorney or insurance company *(specify)*

_____

(07) Insurance company refusal
(08) Attorney refusal or litigation
(09) Other *(specify)*

_____

(10) No return of letter questionnaire
(11) Return of letter questionnaire (completed)
(12) Partial or complete interview

_____

Result of Contact Attempt Other than Last Contact Attempt
(13) No answer (to phone call, no one home, etc.)
(14) Other person at home, work, etc.—Interviewee to contact investigator
(15) Other person at home, work, etc.—Investigator to repeat call, visit, leave questionnaire, or try elsewhere.
(16) Must obtain permission of attorney or insurance company.
(17) Attorney or insurance company provided permission.
(18) Other (specify)

_____

If any of the coded injury Sources have "other" codes, i.e., 09, 15, 19, 29, 49, 53, 69, 73, 79, 83 or 87; describe the injury source below in the space provided. Clearly indicate each description by numerical value.

_____

_____

_____

_____

_____

POLICE REPORT

70. Injury Severity (*Police Rating*)

___(0) No injury (O)
___(1) Possible injury (C)
___(2) Nonincapacitating injury (B)
___(3) Incapacitating injury (A)
___(4) Killed (K)
___(5) Injury, severity unknown
___(6) Died prior to accident
___(9) Unknown 86

71. Traffic Violation Charged Against This Pedestrian or Nonmotorist

___(0) No
___(1) Yes (*specify*) _____
___(9) Unknown 87

72. Police Reported Alcohol Presence

___(0) No (alcohol not present)
___(1) Yes (alcohol present)
___(8) Not reported
___(9) Unknown 88

POLICE, HOSPITAL/MEDICAL, OR OTHER OFFICIAL

73. Alcohol Test Result

_____ Actual value (*decimal implied before first digit*) (0.xx)
___(95) Test refused
___(96) None given
___(97) AC test performed, results unknown
___(99) Unknown 89 90

74. Time of Death

___(00) Not fatal
_____ 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)
___(96) Fatal–ruled disease 91 92
___(99) Unknown

75. 76. 77. Other Pedestrian/Nonmotorist Related Factors

___(00) No other pedestrian/nonmotorist related factors

Physical/Mental Condition
___(01) Non-physical (i.e., mental or emotional factor)

Physical Impairments
___(02) Blind
___(03) Restricted sight
___(04) Walking cane/crutches required
___(05) Deaf
___(06) Restricted to wheelchair
___(07) Paraplegic
___(08) Previous injury
___(09) Other physical impairments _____
_____

Drug Impairments
___(10) Drugs-medication (prescription, over-the-counter)
___(11) Other drugs (excludes alcohol, includes uncontrolled substances) _____

Operator Related Factors.

Pedalcyclist Related (Includes Animal Related)
___(20) Inattention
___(21) Interference with operator by other passenger
___(22) Operator inexperience
___(23) Unfamiliar with roadway
___(24) Overloading or improper loading of vehicles with passengers or cargo
___(25) Operating vehicle in erratic, reckless, careless or negligent manner
___(26) Improper or erratic lane changing
___(27) Failure to keep in proper lane or running off roadway
___(28) Making improper entry to or exit from trafficway
___(29) Failure to yield right-of-way
___(30) Failure to obey traffic signs, traffic control devices or traffic officers, failure to observe Safety Zones
___(31) Failure to signal intentions
___(32) Giving wrong signal
___(33) Making right turn from left lane, making left turn from right lane
___(34) Making other improper turn
___(35) Driving wrong way on one-way roadway
___(36) Driving on wrong side of roadway
___(37) Failure to have lights on when required

Pedestrian Related (Includes Other Nonmotorist)
___(38) Not seen by driver
___(39) Darting or running into roadway
___(40) Improper crossing of roadway or intersection
___(41) Walking with or against traffic, playing, working, sitting, lying, standing, etc. in roadway
___(42) Holding onto vehicle

___(98) Other _____ (75) 93
___(99) Unknown

(76) 95 96

(77) 97 98

ATTACH TO THIS FORM ANY SUPPORTING MEDICAL DOCUMENTATION FOR THIS PEDESTRIAN OR NONMOTORIST

COMPLETED BY TEAM

1. Primary Sampling Unit Number — 1 2
2. Case Number - Stratification — 3 4 5 6
3. Record Number — 2 7
4. Transaction Code — 8
5. Version Number — 7 9
6. Investigator I.D. Number — 10

PEDESTRIAN OR NONMOTORIST INTERVIEW

7. Pedestrian or Nonmotorist's Number — 11 12
8. Manner of Last Contact Attempt
   (1) Telephone
   (2) Personal visit to home, work, etc.
   (3) Letter *(questionnaire)*
   (4) Other *(specify)* _____ — 13
9. Result of Last Contact Attempt
   (01) Unable to contact or locate
   (02) Hit and run
   (03) Fatal–surrogate not available
   (04) In intensive care–surrogate not available
   (05) Out of State resident
   (06) Refused interview for other than on advice of attorney or insurance company *(specify)* _____
   (07) Insurance company refusal
   (08) Attorney refusal or litigation
   (09) Other *(specify)* _____
   (10) No return of letter questionnaire
   (11) Return of letter questionnaire (completed)
   (12) Partial or complete interview — 14 15
10. Date Interview Completed — 16 17 18 19 8 20 21
11. Completing Person — 22
12. Source of Interview Data
   (1) No data obtained
   (2) Same person
   (3) Other accident involved person
   (4) Relative or friend
   (5) Eyewitness
   (6) Combination of 3, 4 or 5
   (7) Other *(specify)* _____ — 23
13. Reasons Medical Data Not Obtainable
   (00) Not medically treated
   (01) Record obtained
   (02) No record of treatment at medical facility
   (03) Medical release required–not obtained
   (04) Nonaccident related injury
   (05) Noncooperative hospital
   (06) Hospital out of study area
   (07) Private physician would not release information
   (08) To be updated
   (09) Record not received before file closed
   (10) Unknown if medically treated — 24 25

COMPLETED BY ZONE CENTER

14. Date Medical Record Update Received — 26 27 28 29 8 30 31
15. Reviewed By — 32 33
16. Interviewee Injury Documentation
   (1) Complete–Injury descriptions are annotated in sufficient detail to enable independent OIC/AIS coding. The protocol for completing the injury diagram has been used and a contact mechanism or "unknown" is indicated.
   (2) Partial– All coded injuries are described in adequate detail, however, additional annotation helpful for independent OIC/AIS coding. Contact mechanism omitted for some injuries.
   (3) Incomplete–Generally inadequate description of injuries or the coded injury does not correspond to the annotated injury.
   (4) NA–No interviewee reported injuries. — 34
17. Official Injury Documentation
   (1) Complete–All injuries reported in the medical data are annotated with sufficient detail to enable an independent OIC/AIS coding. The protocol for completing the injury diagram has been used.
   (2) Partial–All coded injuries are described in adequate detail, however, additional annotation helpful for independent OIC/AIS coding. Some minor injuries described in the medical data may be omitted.
   (3) Incomplete–Generally inadequate or erroneous descriptions of injuries and/or omitted major injuries described in the medical data.
   (4) NA–No official medical data — 35

US Department of Transportation
National Highway Traffic Safety Administration

NATIONAL ACCIDENT SAMPLING SYSTEM
CONTINUOUS SAMPLING SUBSYSTEM

PEDESTRIAN AND NONMOTORIST FORM UPDATE RECORD

This section must be completed prior to initial case submission

1 Primary Sampling Unit Number — 1 2
2 Case Number–Stratification — 3 4 5 6
3. Record Number — 7
4 Transaction Code — 8
5. Version Number — 9
6. Investigator I.D. Number — 10
7. Pedestrian or Nonmotorist's Number — 11 12

PEDESTRIAN or NONMOTORIST'S NAME

Address _____
(Delete before submission)

9 Age
10 Sex

DATA ON INITIAL SUBMISSION

A08. Final Stratification
20. Treatment–Mortality
21. Hospital Stay
22. Working Days Lost
74. Time of Death

ENTER RESPONSE FOR EACH VARIABLE WHERE DATA ON INITIAL SUBMISSION WAS UNKNOWN OR IS FELT TO BE IN ERROR, GIVEN RECEIPT OF OFFICIAL MEDICAL RECORD(S)

A08. Final Stratification — 17
9 Pedestrian or Nonmotorist's Age — 14 15
10 Pedestrian or Nonmotorist's Sex — 16
20 Treatment–Mortality — 26
21 Hospital Stay — 27 28
22. Working Days Lost — 29 30

COMPLETE PRIOR TO INITIAL CASE SUBMISSION

INJURY DATA CODED ON INITIAL SUBMISSION

28 ___ 29 ___ 30 ___ 31. ___ 32. ___ 33 ___. ___ 34 ___ ___
35. ___ 36. ___ 37. ___ 38. ___ 39. ___ 40. ___. ___ 41. ___
42 ___ 43 ___ 44 ___ 45 ___ 46 ___ 47 ___. ___ 48 ___ ___
49. ___ 50. ___ 51. ___ 52. ___ 53. ___ 54 ___. ___ 55 ___ ___
56. ___ 57. ___ 58. ___ 59. ___ 60. ___ 61 ___. ___ 62. ___ ___
63 ___ 64. ___ 65. ___ 66. ___ 67. ___ 68. ___. ___ 69. ___ ___

UPDATED INJURY DATA BASED ON SUBSEQUENTLY ACQUIRED OFFICIAL MEDICAL DATA
[or reason data not obtained (see response for log variable 13)____]

1st ___	28 — 32	29. — 33	30. — 34	31 — 35	32. — 36	33. — 37 38	34. — 39 40
2nd ___	35 — 41	36 — 42	37. — 43	38 — 44	39. — 45	40. — 46 47	41. — 48 49
3rd ___	42. — 50	43. — 51	44. — 52	45. — 53	46. — 54	47. — 55 56	48 — 57 58
4th ___	49 — 59	50 — 60	51. — 61	52. — 62	53. — 63	54 — 64 65	55. — 66 67
5th ___	56 — 68	57 — 69	58. — 70	59 — 71	60. — 72	61. — 73 74	62 — 75 76
6th ___	63 — 77	64 — 78	65. — 79	66 — 80	67. — 81	68. — 82 83	69 — 84 85

73. Alcohol Test Results — 89 90
74 Time of Death — 91 92

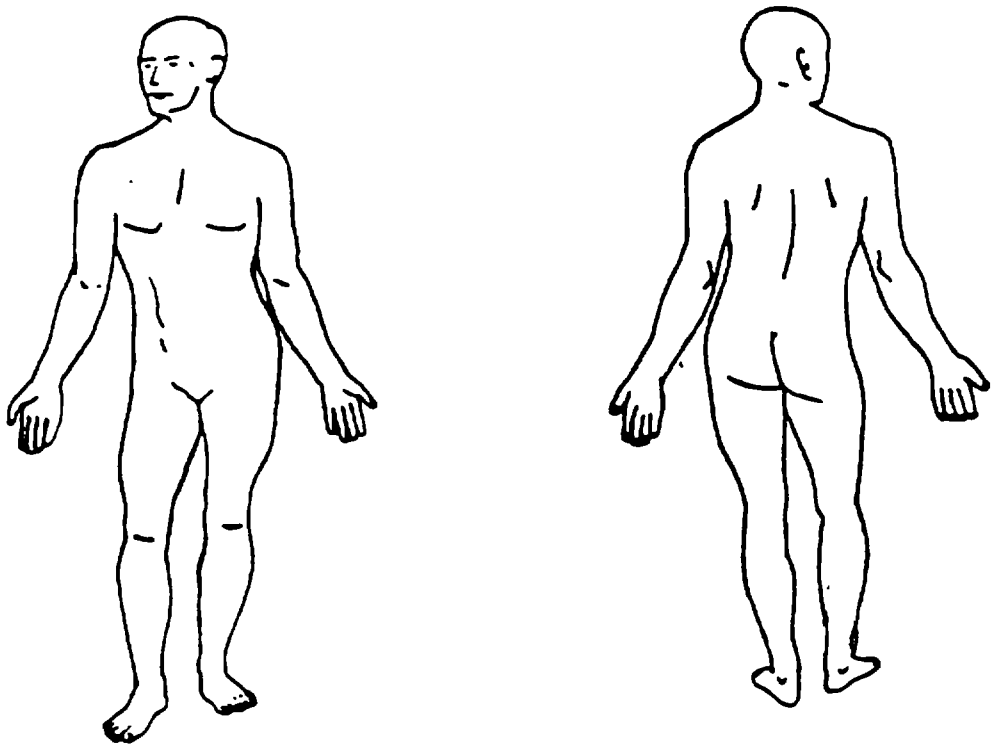
INDICATE THE NATURE AND LOCATION OF ALL INJURIES FROM THE OFFICIAL MEDICAL REPORT(S) ON THE REVERSE SIDE AND ATTACH THE REPORT(S) TO THIS UPDATE

HS Form 428A (Rev 1/84)

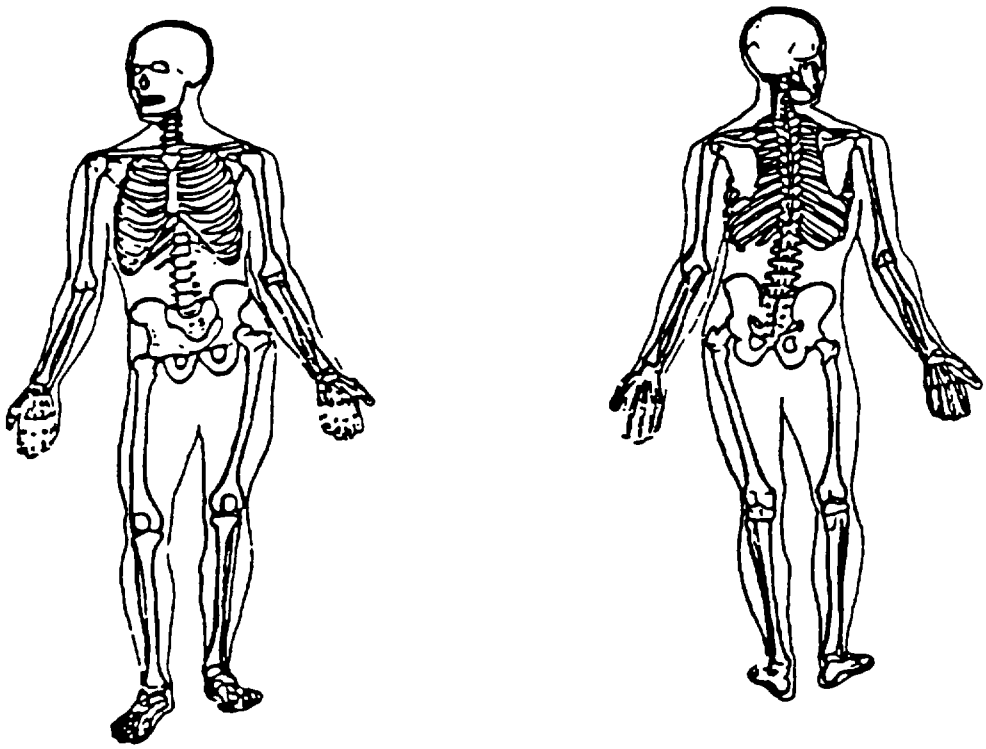
OFFICIAL INJURY DATA

Indicate the *Nature* and *Location* of *All* injuries.

Soft Tissue Injuries



Skeletal Injuries



National Highway Traffic Safety Administration

Vehicle Data

NATIONAL ACCIDENT SAMPLING SYSTEM
CONTINUOUS SAMPLING SUBSYSTEM

1 Primary Sampling Unit Number — 1 2

2 Case Number Stratification — 3 4 5 6

3 Record Number — 3 — 7

4 Transaction Code — 8

5 Version Number — 6 — 9

6 Investigator I D Number — 10

IDENTIFICATION

7 Vehicle Number — 11 12

8 Number of Occupant Forms Submitted

___ Code only the number of occupants in this vehicle for which an OCCUPANT FORM was submitted
___(97) 97 or more — 13 14

9 Vehicle Role
___(0) Noncollision
___(1) Striking unit
___(2) Struck unit
___(3) Both striking and struck
___(9) Unknown — 15

10 Manner of Leaving Scene (Determined by Investigator)

___(1) Driven
___(2) Towed – due to vehicle damage
___(3) Towed – not due to vehicle damage
___(4) Abandoned
___(9) Unknown — 16

EXTERIOR ITEMS

11 Vehicle Model Year

_____Code the last two digits of the model year
___(99) Unknown — 17 18

12 Vehicle Make

_____
Applicable codes are found in your NASS Data Collection, Coding and Editing Manual
___(99) Unknown — 19 20

13 Vehicle Model

_____
Applicable codes are found in your NASS Data Collection, Coding and Editing Manual
___(00) Unknown
___(69) Unknown (motorcycle)
___(79) Unknown (light truck)
___(89) Unknown (truck)
___(99) Unknown (automobile) — 21 22

14 Body Type

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
___(09) Unknown automobile type

Automobile Derivatives and Short Utility Vehicles
___(10) Auto based pickup (includes El Camino Caballero Ranchero Brat)
___(11) Auto based panel (cargo station wagon includes auto based ambulance hearse)
___(12) Short utility – not truck based (includes Jeep CJ-5, Jeep CJ-7, Renegade, Landrover, Pre-'78 Bronco Landcruiser, Thing)
___(13) Large limousine – more than four side doors or stretched chassis

Motorcycles
___(20) Motorcycle
___(21) Mopeds (motorized bicycles)
___(28) Other motorcycle (minibikes, motorscooters)
_____
___(29) Unknown motorcycle type

Bus (excludes van based)
___(30) School bus (designed to carry students, not cross country or transit)
___(31) Cross country/intercity (designed for long distance)
___(32) Transit bus (includes short ride city bus and medium range suburban bus)
___(38) Other bus (e.g., bus based motorhome)
_____
___(39) Unknown bus type

Van Based Light Truck (≤ 10,000 lbs GVWR)
___(40) Van (includes VW bus, Vanagon, Kombi, Beauville, Chateau, Club Wagon, Sportsman, excludes moving van)
___(41) Van-commercial cutaway (includes box van, multi-stop parcel, van pickups)
___(42) Van based motorhome
___(48) Other van type
___(49) Unknown van type

Light Conventional Truck (Pickup style cab ≤ 10,000 lbs GVWR)
___(50) Pickup (includes open box and caps)
___(51) Pickup with slide-in camper
___(52) Pickup based motorhome (chassis mounted)
___(53) Cab chassis based (includes rescue vehicles Light stake, dump, and tow trucks)
___(54) Truck based panel
___(55) Truck based station wagon (4-door, includes Suburban Travelall, Wagoneer)
___(56) Truck based utility (2-door includes Blazer, Bronco – 78 on Jimmy, Ramcharger, Cherokee Trailduster, Scout)
___(58) Other light conventional truck (e.g. stretched Suburban limousine)
___(59) Unknown light conventional truck
___(69) Unknown light truck (van or pickup)

Medium/Heavy Truck (> 10,000 lbs GVWR)
___(70) Step vans
___(71) Single unit straight truck (10,000 lbs < GVWR ≤ 26,000 lbs.)
___(72) Single unit straight truck (> 26,000 lbs GVWR)
___(73) Medium heavy truck based motorhome

___(74) Truck-tractor with no cargo trailer
___(75) Truck-tractor pulling one or more trailers
___(77) Truck-tractor (unknown if pulling trailer)
___(78) Unknown medium/heavy truck type
___(79) Unknown truck type (light/medium/heavy)

Other Vehicles
___(80) Snowmobile
___(81) Farm equipment other than trucks
___(82) ATV, all terrain vehicle (e.g., dune/swamp buggy)
___(83) Construction equipment other than trucks (e.g. grader, off road)
___(88) Other (e.g., go cart, fork lift city street sweeper)
___(89) Unknown other vehicle
_____
___(99) Unknown body type — 23 24

15 Towed Trailing Unit (V14≠75,77)

___ (00) No towed unit (or V14=75,77)
Yes
towed trailing unit hitch type
___ (1) Clamp on (temporary)
___ (2) Bumper hitch (bolted)
___ (3) Frame
___ (4) Fifth wheel
___ (5) Other _____
___ (6) Unknown hitch type

25

16 Cab Configuration

___ (0) Not a truck (e.g. automobile, motorcycle)

Cab Over Engine (COE)
___ (1) COE, high entry
___ (2) COE, low entry
___ (3) COE, unknown entry

Conventional (CBE Cab Behind Engine)
___ (4) 2-door (standard)
___ (5) 2-door extended cab/4-door crew cab
___ (6) Unknown number of doors
___ (7) Cab alongside engine (CAE)

___ (8) Other _____
___ (9) Unknown

26

17 Seating Capacity/Truck Vocation

Passenger Vehicles by Designated Seating Capacity

Motorcycle, Automobile/Van/Bus (exclude pickups)
___ (01) One seat position
___ (02) Two seat positions
___ (03) Three seat positions
___ (04) Four seat positions
___ (05) Five seat positions
___ (06) Six seat positions
___ (07) Seven seat positions
___ (08) Eight seat positions
___ (09) Nine seat positions
___ (10) 10 to 19 seat positions
___ (11) 20 to 49 seat positions
___ (12) 50 or more seat positions
___ (13) Motorhome (any light or medium truck based)
___ (14) Ambulance, EMS (any auto or truck based)
___ (19) Unknown passenger vehicle seating capacity

Cargo Vehicle by Vocation (Cargo Configuration)

Platform
___ (20) Platform, flat bed
___ (21) Platform with device (e.g. self-loader, spreader)
___ (22) Stake
___ (23) Drop frame, low bed, lowboy
___ (24) Livestock Carrier
___ (28) Other platform _____

Open
___ (30) Pickup box (non-dump, includes open box and caps)
___ (31) Pickup with slide-in camper
___ (32) Dump (any light, medium, or heavy truck based)
___ (33) Dump with blade (front or undercarriage)
___ (34) Hopper (grain)
___ (35) Auto carrier transport (includes boat)
___ (36) Van-open top
___ (38) Other open _____

Closed
___ (40) Van-closed top (any light, medium or heavy truck based, e.g., multi-stop)
___ (41) Low bed van (e.g., moving van)
___ (42) Refrigerated or insulated
___ (43) Mobile home
___ (44) Beverage, bottler
___ (45) Container (e.g., piggy back)
___ (46) Tank-liquid and gaseous
___ (47) Tank-dry bulk
___ (48) Other closed _____

Service/Utility
___ (50) Garbage, refuse (including dumpster)
___ (51) Fire apparatus
___ (52) Concrete mixer
___ (53) Wrecker, tow
___ (54) Crane, aerial basket
___ (55) Service, mobile repair (e.g., phone line truck)
___ (56) Pole (e.g., pipe or log)
___ (57) Armored truck
___ (58) Other service/utility _____

___ (71) Truck-tractor – no trailer
___ (72) Chassis, incomplete vehicle
___ (88) Other cargo vehicle _____
___ (97) Other nontruck (e.g., construction paver, farm tractor)

___ (98) Unknown cargo configuration
___ (99) Unknown if passenger or cargo vehicle

27 28

HEAVY TRUCK DATA (TRUCKS OVER 10,000 LBS GVWR – V14=70–78)

18 Tractor with Dromedary
___ (0) Not truck over 10,000 lbs GVWR (V14 ≠ 70–78)
___ (1) No
___ (2) Yes
___ (9) Unknown

29

19 20. 21. 22. Number of Axles

Power Unit	Trailer 1st	2nd	3rd	
___	___	___	___	(0) Not truck over 10,000 lbs GVWR (V14≠ 70–78)
___	___	___	___	(1) One
___	___	___	___	(2) Two
___	___	___	___	(3) Three
___	___	___	___	(4) Four
___	___	___	___	(5) Five
___	___	___	___	(6) Six
___	___	___	___	(7) Seven or more
___	___	___	___	(8) No trailer
___	___	___	___	(9) Unknown

P 1 2 3

30 31 32 33

23 Type of Brakes
___ (0) Not truck over 10,000 lbs GVWR (V14≠ 70–78)
___ (1) Air
___ (2) Hydraulic
___ (3) Electric
___ (4) Other _____
___ (9) Unknown

34

24. Gross Vehicle Weight Rating (GVWR)
___ (0) Not truck over 10,000 lbs. GVWR (V14≠70–78)
___ (1) 10,001-14,000 lbs.
___ (2) 14,001-16,000 lbs
___ (3) 16,001-19,500 lbs
___ (4) 19,501-26,000 lbs
___ (5) 26,001-33,000 lbs
___ (6) 33,001 lbs. and above
___ (9) Unknown

35

National Accident Sampling System – Continuous Sampling Subsystem Vehicle Data

FIELD MEASUREMENTS

Complete When Applicable	
End Damage	**Side Damage**
Undeformed end width _____	Bowing B1 _____ X1 _____
Corner shift A1 _____	B2 _____ X2 _____
A2 _____	Bowing constant
End shift at frame (CDC) (check one)	$\frac{X1 + X2}{2}$ = _____
< 4 inches _____	
≥ 4 inches _____	

Note Measure C1 to C6 from Driver to Passenger side in Front or Rear impacts– Rear to Front in Side impacts

Specific Impact Number	Plane* of C-Measurements	Direct Damage		Field L**	C_1	C_2	C_3	C_4	C_5	C_6	±D
		Width** (CDC)	Max*** Crush								

*Identify the plane at which the C-measurements are taken (e.g., at bumper, above bumper, at sill, above sill at beltline, etc.) or label adjustments (e.g., free space).

Free space value is defined as the distance between the baseline and the original body contour taken at the individual C locations. This may include the following: bumper lead, bumper taper, side protrusion, side taper, etc. Record the value for each C-measurement and maximum crush.

**Measure and document on the vehicle diagram the beginning or end of the direct damage width and field L (e.g., side damage with respect to undamaged axle).

***Measure and document on the vehicle diagram the location of the maximum crush.

Note: Use as many lines/columns as necessary to describe each damage profile.

DAMAGE DESCRIPTION

Tire—Wheel Damage

a Rotation physically restricted

RF_____
LF_____
RR_____
LR_____

b Tire deflated

RF_____
LF_____
RR_____
LR_____

(1) Yes, (2) No, (8) NA, (9) Unk

TYPE OF TRANSMISSION

___Manual ___Automatic

Average Track _____
Maximum Width _____
Curb Weight _____
Overall Length _____
Engine Size cyl _____
displ. _____

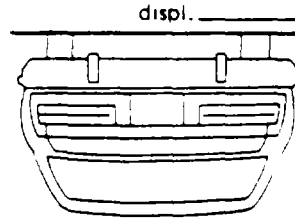
WHEEL STEER ANGLES

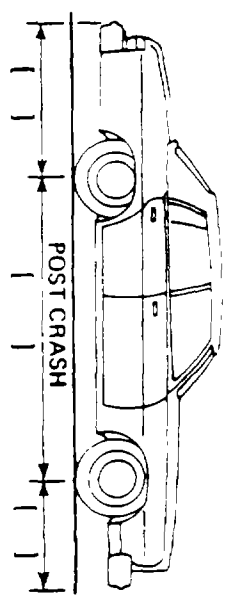
(For locked front wheels or displaced rear axles only)

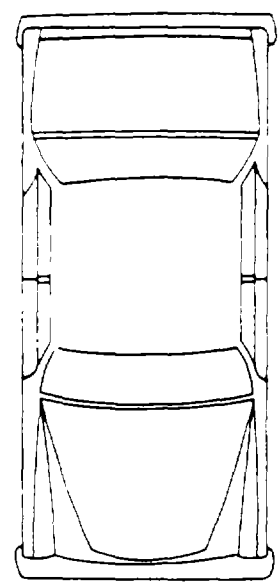
RF ± ___ ___°
LF ± ___ ___°
RR ± ___ ___°
LR ± ___ ___°

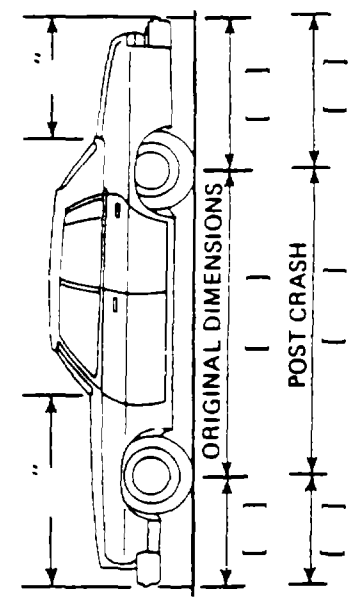
Within ± 5 degrees

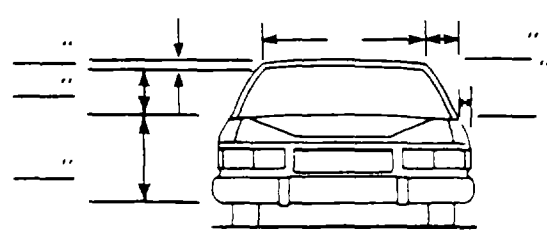
Vehicle No _____







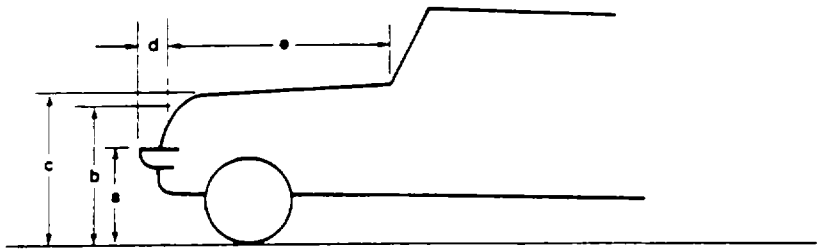




Note Sketch new perimeter and cross hatch direct damage and single hatch induced damage on all views. Annotate observations which might be useful in reconstructing the accident (e.g., grass in tire bead, direction of striations, scuff on sidewall, etc.)

If pulling trailer sketch type of trailer and damage received on reverse side

Annotate any damage caused by extrication such as component removal by torching, prying or hydraulic shears



_____ a. Bumper Height

_____ b. Contact Height - to end of Vertical

_____ c. Hood Height - to Horizontal

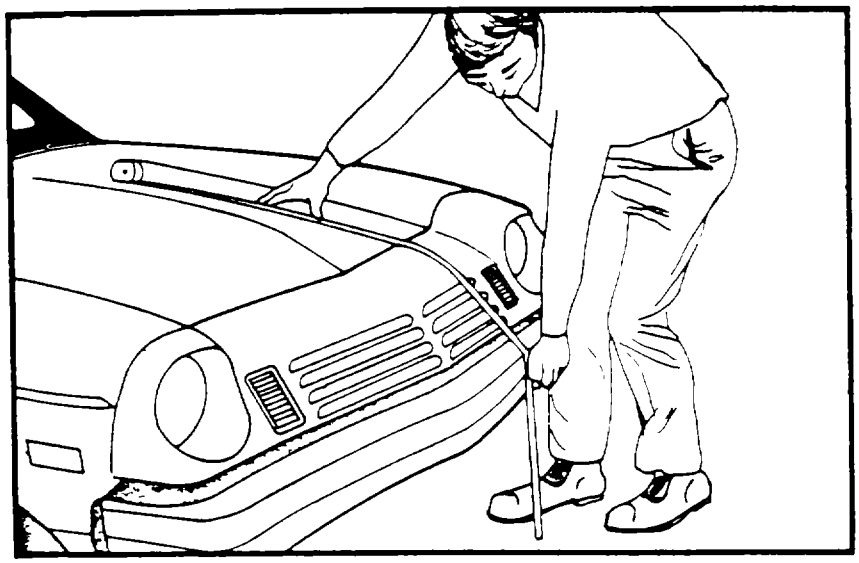
_____ d Bumper Lead

_____ e Hood Length

_____ f Wrap Distance(s)

_____

_____



WRAP DISTANCE MEASUREMENT

DEFORMATION CLASSIFICATION by IMPACT NUMBER

Sequence Number of Impact (this vehicle)	Object Contacted	Direction of Force (degrees)	Incremental Value of Shift	(3) Deformation Location	(4) Specific Longitudinal or Lateral Location	(5) Specific Vertical or Lateral Location	(6) Type of Damage Distribution	(7) Deformation Extent Guide	Sequence Number of Impact (in accident)
1	— —	— — —	— —	—	—	—	—	— —	—
2	— —	— — —	— —	—	—	—	—	— —	—
3	— —	— — —	— —	—	—	—	—	— —	—
4	— —	— — —	— —	—	—	—	—	— —	—

OBJECT CONTACTED

(00) Noncollision

(01) through (30)

If the object contacted by the vehicle under consideration was a motor vehicle in transport, code the Vehicle Number assigned to that vehicle

Collision with *Stationary Object*

(31) Motor vehicle not in transport*
(32) Tree (≤ 6 inches in diameter)
(33) Tree (> 6 inches in diameter)

Highway/Traffic Supports

(34) Luminaire–breakaway
(35) Luminaire–nonbreakaway
(36) Large sign–breakaway
(37) Large sign–nonbreakaway
(38) Small sign–breakaway
(39) Small sign–nonbreakaway
(40) Utility pole
(41) Other post, pole, or support

(42) Traffic signal pole

(43) Fence
(44) Mail box
(45) Delineator
(46) Other movable object

(47) Culvert
(48) Railroad tracks
(49) Curb
(50) Abutment
(51) Wall (stone, rock, metal, etc.)
(52) Embankment–earth
(53) Embankment–rock, stone or concrete
(54) Building, rigid
(55) Building, nonrigid
(56) Bridge pier or abutment
(57) Bridge rail
(58) Bridge parapet end
(59) Guardrail (non-median)
(60) Guardrail (median)
(61) Concrete barrier (non-median)
(62) Concrete barrier (median)
(63) Other median barrier
(64) Other longitudinal barrier (non-median)

(65) Impact attenuator/Crash cushion
(66) Ground
(67) Train
(68) Ditch
(69) Other stationary/fixed object

Collision with *Nonstationary Objects*

(70) Animal
(71) Trailer, disconnected in transport
(72) Train
(73) Other nonstationary objects

(81) through (95)

If the object contacted by the vehicle under consideration was pedestrian or nonmotorist, add eighty (80) to the assigned Pedestrian & Nonmotorist Number, and code the resultant sum

(96) Vehicle occupant
(97) Other object
(99) Unknown

NOTE For coding of CDC or TDC investigators must refer to appropriate reference documents for accurate coding.
*If this vehicle impacted a vehicle not in transport, fill in the information for that vehicle at the end of the CRASH Program Summary

DEFORMATION CLASSIFICATION

HIGHEST DELTA "V"

Sequence Number of Impact (this vehicle)	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 Guide	Sequence Number of Impact (in accident)
First: 25 — (36)	26 — (37) (38)	27 — — (39) (40)	28 — (41)	29 — (42)	30 — (43)	31 — (44)	32 — — (45) (46)	33 — (47)
Second: 34 — (48)	35 — (49) (50)	36. — — (51) (52)	37 — (53)	38. — (54)	39 — (55)	40 — (56)	41 — — (57) (58)	42. — (59)
Third: 43 — (60)	44 — (61) (62)	45 — — (63) (64)	46 — (65)	47 — (66)	48 — (67)	49 — (68)	50 — — (69) (70)	51 — (71)
Fourth: 52 — (72)	53 — (73) (74)	54 — — (75) (76)	55 — (77)	56 — (78)	57 — (79)	58. — (80)	59 — — (81) (82)	60 — (83)

Reduction Section

Coding Section

INTERIOR ITEMS

61 Vehicle Identification Number
___ No VIN: Code all Zeros
___ Unknown: Code all nines
Left justify
Slash zeros: Ø

84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

62 Registration of Vehicle

___ (0) Not registered
___ (1) In state (at least)
___ (2) Out-of-state (only)
___ (8) Other registration (e.g., federal, foreign, military)
___ (9) Unknown

101

63 Vehicle Special Use (this trip)

___ (0) No special use
___ (1) Taxi
___ (2) Vehicle used as school bus
___ (3) Vehicle used as other bus
___ (4) Military
___ (5) Police
___ (6) Ambulance
___ (7) Fire
___ (9) Unknown

102

64 Odometer Reading

_____ miles. Code mileage to the nearest 1,000 miles
___ (000) No odometer
___ (001) Less than 1,500 miles
___ (997) 996,500 miles or more
___ (999) Unknown

103 104 105

65 Passenger Compartment Integrity

___ (0) No passenger compartment
___ (1) No integrity loss
Yes, integrity was lost through
___ (2) Windshield
___ (3) Door (side)
___ (4) Door (rear)
___ (5) Roof
___ (6) Windshield and door (side)
___ (7) Other combination of above

_____

___ (9) Unknown

106

66 Passenger Compartment Intrusion (NOTE: Code the area in terms of the most severe intrusion.)

___ (0) No passenger compartment
___ (1) No intrusion
___ (2) Front (i.e., steering column, dash)
___ (3) Right side (i.e., door[s] with or without sill override)
___ (4) Left side (i.e., door[s] with or without sill override)
___ (5) Rear (i.e., trunk, rear seat intruded upon)
___ (6) Bottom (i.e., floor)
___ (7) Top (i.e., windshield, "A", "B", "C" or "D" pillar[s], roof)
___ (8) Two or more areas
___ (9) Unknown

107

67 Magnitude of Intrusion

___ (0) No intrusion
___ (1) Less than five centimeters
___ (2) Between five and fifteen centimeters
___ (3) Greater than fifteen centimeters
___ (9) Unknown

108

68. Fire Occurrence

___ (0) No fire
Yes, fire occurred
___ (1) Started in vehicle, minor
___ (2) Started in vehicle, major
___ (3) Started external to vehicle, minor
___ (4) Started external to vehicle, major
___ (5) Origin unknown
___ (9) Unknown

109

RESTRAINT SYSTEM		Front Seat Left	Front Seat Middle	Front Seat Right	Second Seat Left	Second Seat Middle	Second Seat Right	Third Seat Left	Third Seat Middle	Third Seat Right	Other Position or Unit*
MANUAL	Availability	___	___	___	___	___	___	___	___	___	___
	Indication of Usage	___	___	___	___	___	___	___	___	___	___
AUTOMATIC	Availability	___	___	___	___	___	___	___	___	___	___
	Function	___	___	___	___	___	___	___	___	___	___

Manual Restraint System –Availability–
___ (0) None available
___ (1) Shoulder belt
___ (2) Lap belt
___ (3) Lap and shoulder belt
___ (4) Motorcycle helmet
___ (5) Child safety seat (designed without tether or unknown design)
___ (6) Child safety seat (designed with tether – properly installed)
___ (7) Child safety seat (designed with tether – improperly installed)
___ (8) Restraint available type unknown or other
___ (9) Unknown

Manual Restraint System –Indication of Usage
___ (0) None used
___ (1) Shoulder belt
___ (2) Lap belt
___ (3) Lap and shoulder belt
___ (4) Motorcycle helmet
___ (5) Child safety seat – used properly
___ (6) Child safety seat – used improperly
___ (7) Child safety seat – unknown if used properly
___ (8) Restraint used-type unknown or other
___ (9) Unknown

Automatic (Passive) Restraint System –Availability–
___ (0) Not equipped
___ (1) Airbag
___ (2) Airbag disconnected
___ (3) Airbag not reinstalled
___ (4) Two point automatic belts
___ (5) Three point automatic belts
___ (6) Automatic belts destroyed
___ (9) Unknown

Automatic (Passive) Restraint System –Function–
___ (0) Not equipped
___ (1) Automatic belt in use
___ (2) Automatic belt not in use
___ (3) Deployed airbag
___ (4) Non-deployed airbag
___ (9) Unknown

*Specify the Other Position or Unit referenced _____

INDICATIONS of EJECTION

___ No ejection

If ejection is suspected or reported, indicate the avenue, for multiple avenues number them and utilize the same numbers consistently throughout.

Ejection Area
___ Windshield
___ Left front
___ Right front
___ Left rear
___ Right rear
___ Rear
___ Roof
___ Other area (e.g., sidecar, back of pickup, etc.)
___ Unknown

Ejection Medium
___ Door (side)
___ Door (rear)
___ Open roof structure
___ Fixed windows
___ Other medium type
___ Unknown

Medium Status
___ Open
___ Separation
___ Closed, closed when damaged
___ Integral structure ripped opened
___ Status unknown

Operable windows
___ Roll down type
___ Hinged typed
___ Sliding type
___ Other type window

CHECK ALL AREAS of SUSPECTED OCCUPANT CONTACT

FRONT
___ Windshield
___ Mirror
___ Steering assembly, including transmission selector level when column mounted
___ Add-on equipment (e.g., CB, tape deck, air conditioner)
___ Instrument panel and below, excluding foot controls and parking brake
___ Sunvisor
___ Other front object

SIDE
___ Side interior surface, excluding hardware or armrests
___ Side hardware or armrests
___ A pillar
___ B pillar
___ Other pillar
___ Window glass or frame
___ Other side object

INTERIOR
___ Seat, back support
___ Belt restraint system
___ Head restraint
___ Air cushion
___ Other occupants
___ Interior loose objects
___ Other interior object

ROOF
___ Front header
___ Rear header
___ Roof side rails
___ Roof or convertible top

FLOOR
___ Floor
___ Floor or console mounted transmission lever, including console
___ Parking brake handle
___ Foot controls including parking brake

REAR
___ Backlight (rear window)
___ Backlight storage rack, door, etc.
___ Other rear objects

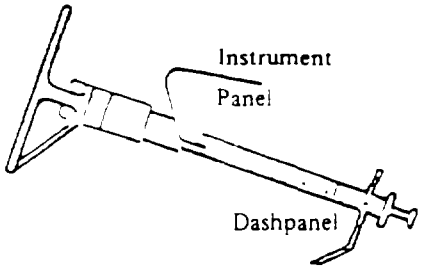
EXTERIOR of OCCUPANT'S VEHICLE
___ Hood
___ Outside hardware (e.g., outside mirror, antenna)
___ Other exterior surface or tires
___ Unknown exterior objects

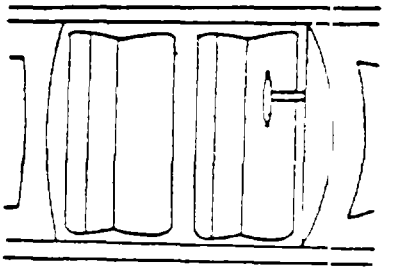
VEHICLE INTERIOR

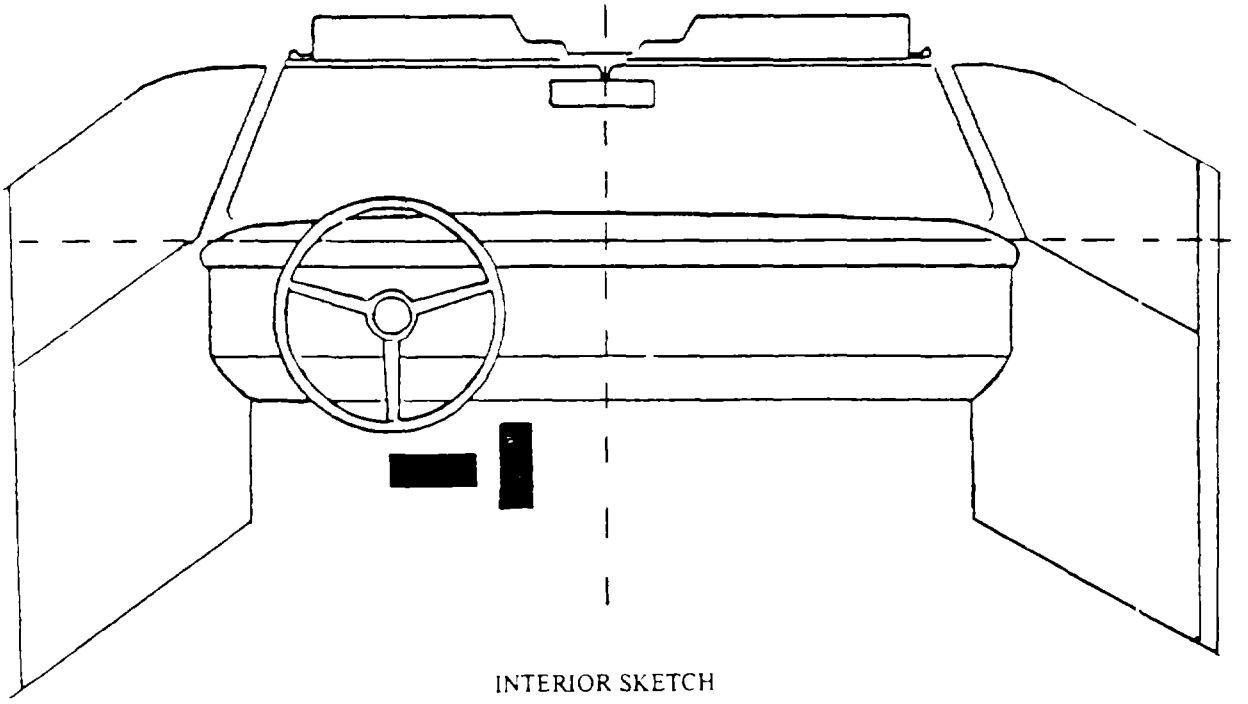
POINTS OF OCCUPANT CONTACT

CONTACT	INTERIOR PART CONTACTED	SUPPORTIVE PHYSICAL EVIDENCE	Confidence Level of Contact Point
A			1 2
B			1 2
C			1 2
D			1 2
E			1 2
F			1 2
G			1 2
H			1 2

If Additional Contact Points, Continue on Reverse Side







INTERIOR SKETCH

Sketch controls in appropriate positions, if contacted. Sketch and describe all occupant contact points (i.e. dents, skin transfer, etc.) and code on preceding page. Dash lines indicate center of instrument panel-windshield area and top of panel for reference purposes.

Codes for Confidence Level of Contact Point are: Certain - 1, and possible - 2

SUPPLEMENTAL ITEMS

69 Type of Most Severe Impact This Vehicle
This Vehicle s role

__(0) Nonimpact
__(1) Front of this vehicle
__(2) Left side of this vehicle
__(3) Right side of this vehicle
__(4) Rear of this vehicle
__(5) Other impact location
__(9) Unknown impact type

110

70 Role of Other Contacted Vehicle, Object or Person (for same impact as above)

__ (0) Nonimpact
__ (1) Front of other vehicle
__ (2) Side of other vehicle
__ (3) Rear of other vehicle
__ (4) Intraunit damage
__ (5) Other location on other vehicle
__ (6) Object (stationary and non stationary)
__ (7) Pedestrian or nonmotorist
__ (8) Motorcycle or moped
__ (9) Unknown impact type

111

71 Rollover

__ (0) No rollover
__ (1) Rollover, less than 4 quarter turns
__ (2) Rollover, 4 or more quarter turns
__ (3) Rollover, details unknown

112

72. Jackknife

__ (0) Not an articulated vehicle
__ (1) No
__ (2) Yes

113

73 Submission of Potential Safety Problem Bulletin

__(0) No
__(1) Yes

114

74 Hazardous Cargo

__(0) No hazardous cargo
__(1) Load of hazardous materials only
__(2) Load of hazardous and nonhazardous materials
__(9) Unknown

115

NOTE (See coding manual for definition and examples of hazardous materials)

VEHICLE WEIGHT ITEMS

75. Vehicle Curb Weight

_____pounds – Code weight to nearest 100 pounds.
__(001) Less than 150 pounds.
__(997) 99,650 lbs or more
__(999) Unknown

116 117 118

Source _____

76. Vehicle Cargo Weight

_____pounds – Code weight to nearest 100 pounds
__(000) Less than 50 pounds
__(997) 99,650 lbs or more
__(999) Unknown

119 120 121

77 Investigator Reported Source of Cargo Weight

__ (0) No cargo
__ (1) Measured
__ (2) Estimated
__ (3) Rated capacity
__ (9) Unknown source or weight

122

COMMENTS

LOG RESPONSES

Key to Vehicle Documentation

17 Damage Measurements

(1) Complete — All applicable field measurements (post-crash measurements direct and induced damage, C-measurements, maximum crush, shifting, bowing, intrusion damage description, wheel steer angles, etc.) are documented using standard investigative techniques

(2) Partial — Only relevant field measurements are documented, measurements are incomplete or incorrect

(3) Incomplete — Vehicle documentation is poor. Field measurements are obviously incorrect and/or incomplete

(4) Vehicle not inspected or catastrophic conditions.

(5) Not required

18 Original Dimensions

(1) Complete — All original dimensions (overall length, maximum width, wheelbase measurements, front and rear overhangs undeformed end width, etc.) are documented

(2) Partial — Only relevant dimensions are documented, measurements are incomplete or incorrect

(3) Incomplete — The majority of relevant dimensions are excluded

(4) Vehicle not inspected

(5) Not available/unable to obtain

19 Areas of Contact

(1) Complete — All damaged areas are documented and annotated (i.e., all impact-related damage, previous damage, damage from towtruck, Jaws of Life, etc

(2) Partial — Only relevant impact areas are documented Previous or unexplained damage not annotated

(3) Incomplete — Obvious impact-related damage overlooked or incomplete documentation of damage

(4) Vehicle not inspected or catastrophic conditions

20 Occupant Contacts

(0) No evidence of occupant contact

(1) Complete — All occupant contacts and/or suspected contact points are sketched and described

(2) Partial — Only obvious contact points are documented, suspected contact points are not noted

(3) Incomplete — Obvious occupant contact points are not documented

(4) Vehicle not inspected.

(5) Vehicle interior not inspected

NOTE Access to vehicle interior should be taken into consideration.

CRASH PROGRAM

78 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
___(4) Yielding object algorithm
___(5) Other technique used

Delta V not calculated
___(6) At least one vehicle (which may include this vehicle) is beyond the scope of an acceptable reconstruction program regardless of collision conditions.
___(7) 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 technique regardless of adequacy of damage data
___(8) All vehicles and collision conditions are within scope of one of the acceptable reconstruction programs, but there is insufficient data available

123

	HIGHEST	Secondary	HIGHEST
79	Total Delta V		
	_____ nearest k.p.h (NOTE. 00 means less than 0.5 k.p.h.)	_____	
	___ (97) 97 k.p.h and above		
	___ (99) Unknown		
		124	125
80.	Longitudinal Component of Delta V		
	_____ nearest k.p.h (NOTE 00 means greater than -0.5 and less than 0.5 k.p.h.)	_____	
	___ (97) 97 k.p.h. and above		
	___ (99) Unknown		
		± 126	127 128
81.	Lateral Component of Delta V		
	_____ nearest k.p.h. (NOTE 00 means greater than -0.5 and less than 0.5 k.p.h.)	_____	
	___ (97) 97 k.p.h. and above		
	___ (99) Unknown		
		± 129	130 131
82	Energy Absorption		
	_____ nearest 100 newton•meters (joules) (NOTE 0000 means less than 50 newton•meters)	_____	
	___ (9997) 999,650 Newton•meters or more		
	___ (9999) Unknown		
		132 133	134 135

CRASH Damage Data for Highest Delta V (metric values)

83 L

136 137 138 139

84 (C-measurements)

C1: 140 141 142 C2: 143 144 145 C3: 146 147 148

C4: 149 150 151 C5: 152 153 154 C6: 155 156 157

85. +D

± 158 159 160 161

(metric values – centimeters)

POLICE REPORT

86. Travel Speed

_____ Nearest m.p.h. (Note. 00 means less than 0.5 m.p.h.)
___ (97) 97 m.p.h. and above
___ (99) Unknown

162 163

87 88 89. Other Vehicle Related Factors

___ (00) No other vehicle related factors

Defective
___ (01) Tires
___ (02) Wheels
___ (03) Brake system
___ (04) Steering system
___ (05) Suspension
___ (06) Power train
___ (07) Exhaust system
___ (08) Headlights
___ (09) Signal lights
___ (10) Other lights. _____
___ (11) Horn
___ (12) Mirrors
___ (13) Wipers
___ (14) Body, doors
___ (15) Driver seating and control
___ (16) Trailer hitch

___ (98) Other. _____
___ (99) Unknown

(87) 164 165

(88) 166 167

(89) 168 169

COMPLETED BY TEAM

1 Primary Sampling Unit Number — 1 2

2 Case Number – Stratification — 3 4 5 6

3 Record Number — 7 (3)

4 Transaction Code — 8

5 Version Number — 9 (6)

6 Investigator I.D. Number — 10

VEHICLE INSPECTION

7 Vehicle Number — 11 12

8 Reason Vehicle Registration Records are not obtainable
(0) Not required–vehicle inspected
(1) Records obtained
(2) Hit & Run vehicle–no information
(3) Records not found
(4) Vehicle not registered
(5) Registration number incorrect
(6) No information on vehicle
(7) Out of state or foreign registration
(8) To be updated
(9) Record not received before file closed — 13

9 Date vehicle inspected and field data elements obtained — 14 15 16 17 18 (8) 19 (3)

10 Completing Person — 20

11 Reason Vehicle Inspection Not Completed
(00) Not required
(01) Inspection completed
(02) Vehicle can not be located
(03) Vehicle repaired or destroyed
(04) Vehicle outside of study area
(05) Vehicle impounded
(06) Vehicle sold
(07) Hit and run vehicle
(08) Owner could not be located
(09) Owner refusal
(10) Insurance company refusal
(11) Attorney refusal or litigation
(12) Repair or tow facility refusal
(13) Stolen
(14) Wrong name and address on PAR
(15) Interstate truck
(16) Commercial vehicle unavailable
(17) Other _____ — 21 22

12 Reason Highest Total Delta V Unknown
(1) Highest total delta V known–based on damage data only
(2) Highest total delta V known–based on damage and trajectory data
(3) Rollover
(4) Other nonhorizontal force (e.g., vaulting)
(5) Sideswipe type damage/severe overrides
(6) Vehicle out of scope/pedestrian
(7) Yielding object
(8) Other (e.g., animal) _____
(9) Insufficient data — 23

13 Confidence in CRASH Results (for Highest Delta V)
(0) No CRASH
(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 — 24

14 CRASH Output on Other than Highest Delta V
(0) No–CRASH output for highest delta V or no CRASH run
(1) Yes–CRASH run on a secondary CDC — 25

15 DATA OBTAINED FOR THIS VEHICLE'S MOST SEVERE IMPACT REGARDLESS OF USAGE
(00) No data obtained
(01) CDC only
(02) TDC only
(03) Crush profile* only (outside scope of CDC/TDC)
(04) Trajectory data only
(05) CDC and crush profile only
(06) TDC and crush profile only
(07) CDC and trajectory
(08) TDC and trajectory
(09) Crush profile* (outside scope of CDC/TDC) and trajectory
(10) CDC, crush profile and trajectory
(11) TDC, crush profile and trajectory — 26 27

*For vehicles outside the scope of CDC/TDC, crush profile means damage sketch and applicable measurements.

COMPLETED BY ZONE CENTER

(See back of page 8 for responses to questions 17-20)

16 Were Measuring Stands Used
(1) No–stands omitted or incorrectly placed
(2) Yes–stands correctly used
(3) Vehicle not inspected or catastrophic conditions
(4) Stands not required — 28

17 Damage Measurements
(1) Complete
(2) Partial
(3) Incomplete
(4) Vehicle not inspected or catastrophic conditions
(5) Not required — 29

18 Original Dimensions
(1) Complete
(2) Partial
(3) Incomplete
(4) Vehicle not inspected
(5) Not available/unable to obtain — 30

19 Areas of Contact
(1) Complete
(2) Partial
(3) Incomplete
(4) Vehicle not inspected or catastrophic conditions — 31

20 Occupants Contacts
(0) No evidence of occupant contact
(1) Complete
(2) Partial
(3) Incomplete
(4) Vehicle not inspected
(5) Vehicle interior not inspected — 32

21 Date Official Record Update Received — 33 34 35 36 37 (8) 38 (3)

22 Reviewed By — 39 40

US Department of Transportation
National Highway Traffic Safety Administration

VEHICLE FOR NON–TOWAWAY ACCIDENT

NATIONAL ACCIDENT SAMPLING SYSTEM
CONTINUOUS SAMPLING SUBSYSTEM

1 Primary Sampling Unit Number — 1 2

2 Case Number – Stratification — 3 4 5 6

3 Record Number — 3 — 7

4 Transaction Code — 8

5 Version Number — 6 — 9

6 Investigator I.D Number — 10

IDENTIFICATION

7 Vehicle Number — 11 12

8 Number of Occupant Forms Submitted

___ Code only the number of occupants in this vehicle for which an OCCUPANT FORM was submitted
___(97) 97 or more — 13 14

9 Vehicle Role

___(0) Noncollision
___(1) Striking unit
___(2) Struck unit
___(3) Both striking and struck
___(9) Unknown — 15

10 Manner of Leaving Scene (Determined by Investigator)

___(1) Driven
___(2) Towed – due to vehicle damage
___(3) Towed – not due to vehicle damage
___(4) Abandoned
___(9) Unknown — 16

EXTERIOR ITEMS

11 Vehicle Model Year

_____Code the last two digits of the model year
___(99) Unknown — 17 18

12 Vehicle Make

_____
Applicable codes are found in your NASS Data Collection, Coding and Editing Manual
___(99) Unknown — 19 20

13 Vehicle Model

_____
Applicable codes are found in your NASS Data Collection, Coding and Editing Manual
___(00) Unknown
___(69) Unknown (motorcycle)
___(79) Unknown (light truck)
___(89) Unknown (truck)
___(99) Unknown (automobile) — 21 22

14 Body Type

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
___(09) Unknown automobile type

Automobile Derivatives and Short Utility Vehicles
___(10) Auto based pickup (includes El Camino, Caballero, Ranchero, Brat)
___(11) Auto based panel (cargo station wagon, includes auto based ambulance/hearse)
___(12) Short utility – not truck based (includes Jeep CJ-5, Jeep CJ-7, Renegade, Landrover, Pre-78 Bronco, Landcruiser, Thing)
___(13) Large limousine – more than four side doors or stretched chassis

Motorcycles
___(20) Motorcycle
___(21) Mopeds (motorized bicycles)
___(28) Other motorcycle (minibikes, motorscooters)
_____
___(29) Unknown motorcycle type

Bus (excludes van based)
___(30) School bus (designed to carry students, not cross country or transit)
___(31) Cross country/intercity (designed for long distance)
___(32) Transit bus (includes short ride city bus and medium range suburban bus)
___(38) Other bus (e.g., bus based motorhome)
_____
___(39) Unknown bus type

Van Based Light Truck (≤ 10,000 lbs GVWR)
___(40) Van (includes VW bus, Vanagon, Kombi, Beauville, Chateau, Club Wagon, Sportsman, excludes moving van)
___(41) Van-commercial cutaway (includes box van, multi-stop, parcel, van pickups)
___(42) Van based motorhome
___(48) Other van type
___(49) Unknown van type

Light Conventional Truck (Pickup style cab, ≤ 10,000 lbs. GVWR)
___(50) Pickup (includes open box and caps)
___(51) Pickup with slide-in camper
___(52) Pickup based motorhome (chassis mounted)
___(53) Cab chassis based (includes rescue vehicles, light stake, dump, and tow trucks)
___(54) Truck based panel
___(55) Truck based station wagon (4-door, includes Suburban, Travelall, Wagoneer)
___(56) Truck based utility (2-door, includes Blazer, Bronco – 78 on, Jimmy, Ramcharger, Cherokee, Trailduster, Scout)
___(58) Other light conventional truck (e.g., stretched Suburban limousine)
___(59) Unknown light conventional truck
___(69) Unknown light truck (van or pickup)

Medium/Heavy Truck (> 10,000 lbs GVWR)
___(70) Step vans
___(71) Single unit straight truck (10,000 lbs < GVWR ≤ 26,000 lbs.)
___(72) Single unit straight truck (> 26,000 lbs. GVWR)
___(73) Medium/heavy truck based motorhome)

___(74) Truck-tractor with no cargo trailer
___(75) Truck-tractor pulling one or more trailers
___(77) Truck-tractor (unknown if pulling trailer)
___(78) Unknown medium/heavy truck type
___(79) Unknown truck type (light/medium/heavy)

Other Vehicles
___(80) Snowmobile
___(81) Farm equipment other than trucks
___(82) ATV all terrain vehicle (e.g., dune/swamp buggy)
___(83) Construction equipment other than trucks (e.g., grader, off road)
___(88) Other (e.g., go cart, fork lift, city street sweeper)
___(89) Unknown other vehicle
_____
___(99) Unknown body type — 23 24

NON-TOWAWAY VEHICLE LOG

COMPLETED BY TEAM

1 Primary Sampling Unit Number ___ (1-2)

2. Case Number – Stratification ___ ___ ___ ___ (3-6)

3 Record Number 3 (7)

4 Transaction Code ___ (8)

5 Version Number 6 (9)

6. Investigator I.D. Number ___ (10)

VEHICLE INSPECTION

7 Vehicle Number ___ ___ (11-12)

8. Reason Vehicle Registration Records are not obtainable
(0) Not required–vehicle inspected
(1) Records obtained
(2) Hit & Run vehicle–no information
(3) Records not found
(4) Vehicle not registered
(5) Registration number incorrect
(6) No information on vehicle
(7) Out of state or foreign registration
(8) To be updated
(9) Record not received before file closed ___ (13)

9 Date vehicle inspected and field data elements obtained 0 0 0 0 8 3 (14-19)

10 Completing Person 0 (20)

11 Reason Vehicle Inspection Not Completed
(00) Not required
(01) Inspection completed
(02) Vehicle can not be located
(03) Vehicle repaired or destroyed
(04) Vehicle outside of study area
(05) Vehicle impounded
(06) Vehicle sold
(07) Hit and run vehicle
(08) Owner could not be located
(09) Owner refusal
(10) Insurance company refusal
(11) Attorney refusal or litigation
(12) Repair or tow facility refusal
(13) Stolen
(14) Wrong name and address on PAR
(15) Interstate truck
(16) Commercial vehicle unavailable
(17) Other: _____ 0 0 (21-22)

COMPLETED BY ZONE CENTER

21. Date Official Record Update Received ___ ___ ___ ___ 8 3 (33-38)

22. Reviewed By ___ ___ (39-40)

–STOP FORM COMPLETE–

This vehicle is from an accident sampled in the Nontowaway strata "Y" or "Z"

Neither the inspection nor photographs of this vehicle are required.

US Department of Transportation
National Highway Traffic Safety Administration

VEHICLE UPDATE RECORD

NATIONAL ACCIDENT SAMPLING SYSTEM
CONTINUOUS SAMPLING SUBSYSTEM

This section must be completed prior to initial case submission

1. Primary Sampling Unit Number — 1 2
2. Case Number–Stratification — 3 4 5 6
3. Record Number — 7
4. Transaction Code — 8
5. Version Number — 9
6. Investigator I.D. Number — 10

VEHICLE NUMBER. _____

SOURCE OF DATA ON WHICH UPDATE IS BASED

_____

VEHICLE DATA CODED ON INITIAL SUBMISSION

	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	116	117	118
A08 Final Stratification																		17			
11. Vehicle Model Year																17	18				
12 Vehicle Make																19	20				
13 Vehicle Model																21	22				
14 Body Type																23	24				
61 Vehicle I.D. No.																	100				
62. Registration of Vehicle																		101			
75. Vehicle Curb Weight																			116	117	118

UPDATED VEHICLE DATA BASED ON SUBSEQUENTLY ACQUIRED VEHICLE REGISTRATION DATA

[or reason data not obtained (see response for log variable 8)_____]

	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	116	117	118
A08 Final Stratification																		17			
11 Vehicle Model Year																17	18				
12. Vehicle Make																19	20				
13 Vehicle Model																21	22				
14 Body Type																23	24				
61 Vehicle I.D No																	100				
62 Registration of Vehicle																		101			
75 Vehicle Curb Weight																			116	117	118

ATTACH TO THIS FORM ANY SUPPORTING OFFICIAL RECORDS FOR THIS VEHICLE

NON-TOWAWAY VEHICLE LOG

COMPLETED BY TEAM

1. Primary Sampling Unit Number — (1) (2)
2. Case Number – Stratification — (3) (4) (5) (6)
3. Record Number — 3 (7)
4. Transaction Code — (8)
5. Version Number — 6 (9)
6. Investigator I.D. Number — (10)

VEHICLE INSPECTION

7. Vehicle Number — (11) (12)
8. Reason Vehicle Registration Records are not obtainable
   - (0) Not required–vehicle inspected
   - (1) Records obtained
   - (2) Hit & Run vehicle–no information
   - (3) Records not found
   - (4) Vehicle not registered
   - (5) Registration number incorrect
   - (6) No information on vehicle
   - (7) Out of state or foreign registration
   - (8) To be updated
   - (9) Record not received before file closed

   — (13)
9. Date vehicle inspected and field data elements obtained — 0 (14) 0 (15) 0 (16) 0 (17) 8 (18) 3 (19)
10. Completing Person — 0 (20)
11. Reason Vehicle Inspection Not Completed
    - (00) Not required
    - (01) Inspection completed
    - (02) Vehicle can not be located
    - (03) Vehicle repaired or destroyed
    - (04) Vehicle outside of study area
    - (05) Vehicle impounded
    - (06) Vehicle sold
    - (07) Hit and run vehicle
    - (08) Owner could not be located
    - (09) Owner refusal
    - (10) Insurance company refusal
    - (11) Attorney refusal or litigation
    - (12) Repair or tow facility refusal
    - (13) Stolen
    - (14) Wrong name and address on PAR
    - (15) Interstate truck
    - (16) Commercial vehicle unavailable
    - (17) Other _____

    0 (21) 0 (22)

COMPLETED BY ZONE CENTER

21. Date Official Record Update Received — (33) (34) (35) (36) 8 (37) 3 (38)
22. Reviewed By — (39) (40)

–STOP FORM COMPLETE–

This vehicle is from an accident sampled in the Nontowaway strata "Y" or "Z".

Neither the inspection nor photographs of this vehicle are required.

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, interviewees and vehicle registration.

If the make of the vehicle is known, but if it is not known whether or not the vehicle was a passenger car, a truck, or motorcycle, then Vehicle Model is coded as "00" (Unknown).

If the make of the vehicle is not known (e.g., a hit-and-run vehicle), then Vehicle Make is "99" (Unknown), and Vehicle Model is coded "00" (Unknown). However, if the make of the vehicle is not known but the vehicle is known to be an automobile (e.g., from police report or interviewees), Vehicle Model is coded "99" (Unknown (automobile)).

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

01-28, 99 - domestic passenger car (automobile)
31-58, 99 - foreign passenger car (automobile)
60-69 - motored cycles (including motorcycles, mini-bikes motor scooters, dirt bikes, and mo-peds)
70-79 - light trucks (including truck based utility vehicles, light duty pickup trucks, standard pickup trucks, vans, van based station wagons, van based buses, van derivatives, and truck based station wagons)
80-90 - trucks and buses [includes all trucks over 10,000 lbs. GVWR except those pickup type trucks mentioned under Body Type (V14) code "50" (Pickup), and all buses except those that are van based]

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, trucks/buses, other and unknown have specific definition. These definitions are:

Motored Cycle

61 0-50cc
62 51-124cc
63 125-349cc
64 350-449cc
65 450-749cc
66 750cc or over
69 Unknown cc

APPENDIX C

FILE ADJUSTMENTS

Source Documents Only (SDO):

Occasionally accident investigation teams at some primary sampling units (PSU'S) had to be reformulated. This process interrupted normal data collection. Since better national estimates can be obtained from uninterrupted data, data was sought even for nonfunctioning teams. During reformulation, official records, also called source documents, were permitted to be the only data source. Thus either Zone Center staff on temporary assignment or less trained personnel could encode these cases. The SDO derived variable designates them.

Although interviews, scene inspections (after the fact), and vehicle inspections were not required, they were not forbidden. Also some teams were disrupted less than others. Consequently, the extent of these investigations differed from accident to accident. Some data sources such as police reports, driver records, and vehicle registrations were as available for these cases as for any others.

The PSU's where SDO cases were coded are tabulated below. Since police reports for some accidents are not filed immediately, sampling dates for 1983 cases continue into 1984. If not explicitly mentioned, dates are in 1983.

PSU	NUMBER OF CASES	SAMPLING DATES
1	82	8/29-12/9
2	12	9/12-9/29
3	15	7/4-7/22
4	10	7/5-7/21
5	16	7/7- 8/4
13	31	5/16-7/29
27	5	12/12
28	12	9/12-10/3
29	6	7/11-7/28
31	24	9/13-10/14
32	15	9/12-10/3
51	18	9/15-9/29
54	12	7/5-7/21
56	4	1/19/84
59	16	9/6-9/30
76	17	7/28-8/15 and 10/24-11/3
77	3	1/19/84
78	10	7/4-7/14
79	64	7/5-9/29
80	15	7/5-7/21
84	20	11/21-1/19/84
TOTAL	407	

Fatals for PSU 31:

Accidents involving a fatality were excluded from the sample at PSU 31 because of local restrictions. Since the Fatal Accident Reporting System (FARS) included fatalities in this geographic area, an adjustment was needed. Six FARS cases from this area were selected by simple random sampling. They were added to the NASS file as SDO cases bringing the total number of SDO cases to 413. Their case numbers are 601-606.

APPENDIX D

CDC/TDC

This section gives an overview of the Collision Deformation Classification (C.D.C.) for cars, vans, and light trucks, and the Truck Deformation Classification (T.D.C.) for heavy trucks, as implemented in the 1983 NASS. The C.D.C. and T.D.C. take the form of an eight character code in the following order (NOTE: If there is no C.D.C./T.D.C., the eight character code is left blank):

Direction of Force (2-character numerical). Sum of Clock Direction and Incremental Value of Shift if both are known. An unknown value for Direction of force is coded "99".

Clock Direction (C.D.C. or T.D.C.) is coded as follows:

00	Non-horizontal force	08	8 o'clock
01	1 o'clock	09	9 o'clock
02	2 o'clock	10	10 o'clock
03	3 o'clock	11	11 o'clock
04	4 o'clock	12	12 o'clock
05	5 o'clock	13	intra-unit force (T.D.C. only)
06	6 o'clock		
07	7 o'clock	99	UNKNOWN

Incremental Value of Shift (C.D.C. only) 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:

C.D.C

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

T.D.C.

F	Front
R	Right side
L	Left side
B	Back of unit with cargo area, rear of trailer or straight truck
D	Back (rear of tractor)
C	Rear of cab
V	Front of cargo area
T	Top
U	Undercarriage
9	Unknown

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

C.D.C.		T.D.C	
D	Distributed--side or end	D	Distributed--side or end
L	Left--front or rear	L	Left--front or rear
C	Center--front or rear	C	Center--front or rear
R	Right--front or rear	R	Right--front or rear
F	Side front--left or right	F	Side front (forward of windshield)
P	Side center section--L or R	P	Side cab
B	Side rear--left or right	W	Side rear of cab to rear of tractor
Y	Side (F + P) or end (L + C)	K	Side (P + W)
Z	Side (P + B) or end (C + R)	S	Side (F + P + W)
9	Unknown	B	Side rear of cab to rear of trailer or cargo area
		T	Side trailer (rear of tractor to rear of trailer)
		Y	Side (F + P) or end (L + C)
		Z	Side (B + P) or end (R + C)
		9	Unknown

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

C.D.C. (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

T.D.C. (Vertical - Front, Rear, or Side Impacts)

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

C.D.C. or T.D.C. (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
N Narrow impact area
S Sideswipe
O Rollover (including side)
A Overhanging structure
9 Unknown
E Corner
K Conversion in impact type (C.D.C. only)
U No residual deformation
R Override (T.D.C. only)

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

01	One	08	Eight
02	Two	09	Nine
03	Three	0A	(T.D.C. only) - minor
04	Four	0B	(T.D.C. only) - moderate
05	Five	0C	(T.D.C. only) - severe
06	Six	0D	(T.D.C. only) - extremely severe
07	Seven	0X	(T.D.C. only) - cargo/ intraunit impacts
		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:

$$\text{DELTA-V} = V_{\text{separation}} - V_{\text{approach}}$$

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 axis of that vehicle.

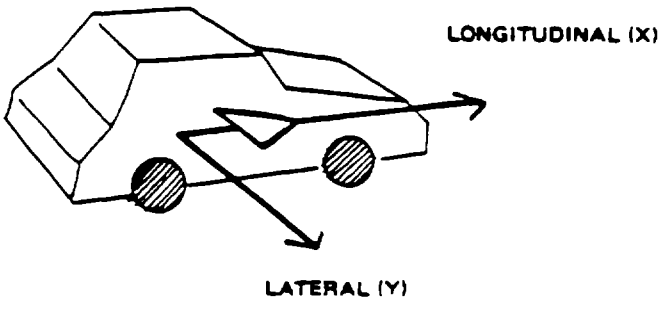


Figure E-1

Figure E-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 - 10,996
- Total Number of Pedestrian Records - 1,208
- Total Number of Vehicle Records - 17,652
- Total Number of Driver Records - 17,652
- Total Number of Occupant Records - 26,332
- Total Number of Accident Records with neither Occupants nor Pedestrians - 12
- Total Number of Accident Records with at least One Pedestr
  but no Occupants - 1
- Total Number of Vehicle Records with at least One Occupant but no Driver (i.e., driver not present in vehicle - 6
- Total Number of Vehicle records with no Occupant Records - 136