



U.S. Department
of Transportation
Federal Highway
Administration



PB95-137508

Publication No. FHWA-RD-92-C99
August 1994

An Analysis of Guardrail and Median Barrier Accidents Using the Longitudinal Barrier Special Studies (LBSS) File

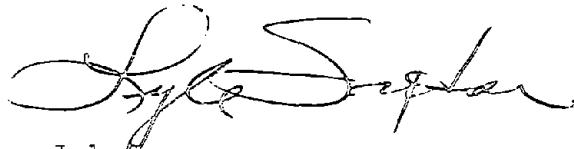
Volume II: Users Guide

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FOREWORD

This report documents a study that examined the effectiveness of guardrails and median barriers on the nation's highways using the Longitudinal Barrier Special Studies (LBSS) crash file. The research included accident reconstruction, and clinical and statistical analysis to investigate such issues as the severity of injury associated with specific barrier types. The data were compared to State accident data to investigate potential bias in terms of crash severity.

This report will be of interest to researchers and agencies involved in roadside safety research as well as practicing engineers with responsibility for managing roadside safety.

A handwritten signature in black ink, appearing to read 'Lyle Saxton', with a stylized, flowing script.

Lyle Saxton
Director, Office of Safety and Traffic
Operations Research and Development

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1. Report No. FHWA-RD-92-099		 PB95-137808		3. Recipient's Catalog No.	
4. Title and Subtitle AN ANALYSIS OF GUARDRAIL AND MEDIAN BARRIER ACCIDENTS USING THE LONGITUDINAL BARRIER SPECIAL STUDIES (LBSS) FILE, Volume II: Users Guide				5. Report Date August 1994	
				6. Performing Organization Code 1362	
7. Author(s) Olugbenga Erinle				8. Performing Organization Report No. UG-1362	
9. Performing Organization Name and Address The Scientex Corporation 1655 North Fort Myer Drive, Suite 400 Arlington, Virginia 22209				10. Work Unit No. (TRIS) 3A5B1132	
				11. Contract or Grant No. DTFH61-89-C-00015	
12. Sponsoring Agency Name and Address Office of Safety and Traffic Operations R&D Federal Highway Administration 6300 Georgetown Pike McLean, VA 22101-2296				13. Type of Report and Period Covered Users Guide Aug. 1989 - Jan. 1993	
				14. Sponsoring Agency Code	
15. Supplementary Notes Contracting Officer's Technical Representative (COTR): Mr. John Viner, HSR-20					
16. Abstract In this study, the Longitudinal Barrier Special Studies (LBSS) file was cleaned up for use in examining the "real-world" performance of longitudinal barriers. The cleanup included some recoding of variable definitions, correction of erroneously coded data, and the addition of missing data, specifically impact speeds. Also, as part of the cleanup, all data elements pertinent to data analyses were extracted and included in the main analysis file. This report is meant to serve as a data element dictionary and a guide to using the LBSS file for analysis purposes. The other volume in this series is: FHWA-RD-92-098 Volume I: Final Report.					
17. Key Words LBSS, data base, file, accident, barrier, driver, occupant, vehicle.			18. Distribution Statement No restrictions. This document is available to the public through the National Technical Information Service, Springfield, Virginia 22161.		
19. Security Classif. (of this report) Unclassified		20. Security Classif. (of this page) Unclassified		21. No. of Pages 134	
				22. Price	

SI* (MODERN METRIC) CONVERSION FACTORS

APPROXIMATE CONVERSIONS TO SI UNITS

Symbol	When You Know	Multiply By	To Find	Symbol
LENGTH				
in	inches	25.4	millimeters	mm
ft	feet	0.305	meters	m
yd	yards	0.914	meters	m
mi	miles	1.61	kilometers	km
AREA				
in ²	square inches	645.2	square millimeters	mm ²
ft ²	square feet	0.093	square meters	m ²
yd ²	square yards	0.836	square meters	m ²
ac	acres	0.405	hectares	ha
mi ²	square miles	2.59	square kilometers	km ²
VOLUME				
fl oz	fluid ounces	29.57	milliliters	mL
gal	gallons	3.785	liters	L
ft ³	cubic feet	0.028	cubic meters	m ³
yd ³	cubic yards	0.765	cubic meters	m ³
NOTE: Volumes greater than 1000 l shall be shown in m ³ .				
MASS				
oz	ounces	28.35	grams	g
lb	pounds	0.454	kilograms	kg
T	short tons (2000 lb)	0.907	megagrams (or "metric ton")	Mg (or "t")
TEMPERATURE (exact)				
°F	Fahrenheit temperature	5(F-32)/9 or (F-32)/1.8	Celcius temperature	°C
ILLUMINATION				
fc	foot-candles	10.76	lux	lx
fl	foot-Lamberts	3.426	candela/m ²	cd/m ²
FORCE and PRESSURE or STRESS				
lbf	poundforce	4.45	newtons	N
lbf/in ²	poundforce per square inch	6.89	kilopascals	kPa

APPROXIMATE CONVERSIONS FROM SI UNITS

Symbol	When You Know	Multiply By	To Find	Symbol
LENGTH				
mm	millimeters	0.039	inches	in
m	meters	3.28	feet	ft
m	meters	1.09	yards	yd
km	kilometers	0.621	miles	mi
AREA				
mm ²	square millimeters	0.0016	square inches	in ²
m ²	square meters	10.764	square feet	ft ²
m ²	square meters	1.195	square yards	yd ²
ha	hectares	2.47	acres	ac
km ²	square kilometers	0.386	square miles	mi ²
VOLUME				
mL	milliliters	0.034	fluid ounces	fl oz
L	liters	0.264	gallons	gal
m ³	cubic meters	35.71	cubic feet	ft ³
m ³	cubic meters	1.307	cubic yards	yd ³
MASS				
g	grams	0.035	ounces	oz
kg	kilograms	2.202	pounds	lb
Mg (or "t")	megagrams (or "metric ton")	1.103	short tons (2000 lb)	T
TEMPERATURE (exact)				
°C	Celcius temperature	1.8C + 32	Fahrenheit temperature	°F
ILLUMINATION				
lx	lux	0.0929	foot-candles	fc
cd/m ²	candela/m ²	0.2919	foot-Lamberts	fl
FORCE and PRESSURE or STRESS				
N	newtons	0.225	poundforce	lbf
kPa	kilopascals	0.145	poundforce per square inch	lbf/in ²

* SI is the symbol for the International System of Units. Appropriate rounding should be made to comply with Section 4 of ASTM E380.

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INTRODUCTION

The Longitudinal Barrier Special Study (LBSS) was developed within the National Accident Sampling System (NASS). NASS is a continuous nationwide accident data collection program sponsored by the National Highway Transportation Safety Administration.

The LBSS data base primarily contains data for accidents involving longitudinal barriers. Accidents meeting a series of eligibility and acceptability criteria were selected from the NASS for inclusion in the LBSS. A total of 1,146 NASS accidents were selected and several data items from these accidents are stored within the LBSS data base. The period of years covered by the accidents is 1982 to 1986.

The LBSS data base is comprised of six separate files. These files are:

- Accident data file.
- Barrier accident (BARRIERL) file.
- Barrier contacts (BARRIERM) file.
- Driver data file.
- Occupant data file.
- Vehicle data file.

These files are computerized copies of the actual LBSS accident forms used by accident investigators during the data collection process. The hardcopies are available from the Federal Highway Administration (FHWA). The computerized files are stored in the Statistical Analysis Software (SAS) system personal computer (PC) file format on PC diskettes.

This users guide contains information on each of the files within the data base. The information includes file formats, variable lists, variable descriptions, and sample computer programs.

The files described in this users guide are a subset of their original forms in the data base. These subsets were created during the course of this study for the purpose of having verified files for data analyses. The data in the subsets are stored on a case-by-case basis over the period of 5 years (1982 to 1986). The subsets can be cross-linked using the variables "YEAR" and "LINKVAR".

In their original forms, each LBSS file had 5 subfiles representing the 5 years of data. For the purpose of analysis and to make the files easier to use, the subfiles were grouped into single files containing data from all 5 years (1982 to 1986). The process of grouping all the years by files uncovered coding inconsistencies in variable definitions that needed to be corrected. To correct this problem, an extensive recoding effort was undertaken. The variables from each file that had codes redefined during the 5-year period were recoded to obtain codes that would be consistent over the 5 years of data. A list of the affected variables by file is shown in table 1.

Table 1. List of recoded variables by file.

<u>BARRIERL</u>	<u>ACCIDENT</u>	<u>DRIVER</u>
B12	ATREAT	AVOIDMAN
B13	HARMEVNT1	DRTRAIN
B15	RELJUNC	ENVRF1
B16		LANDUSE
B18		MEDIANT
B19		PROFILE
B21	<u>VEHICLE</u>	
B22		
B24	DVBASIS	<u>OCCUPANT</u>
B25	OBJCONT1	
B27	OBJCONT2	INJSOU1
B28	OBJCONT3	INJSOU2
	OBJCONT4	INJSOU3
	OTHROLE	INJSOU4
	VTREAT	INJSOU5
<u>BARRIERM</u>		INJSOU6
		TREATMNT
B33		
B49		

The following paragraphs briefly describe each file within the LBSS data base.

The **accident data file** contains basic accident information. This information includes general environmental conditions, injury information, and roadway descriptions at the time of the accident. It contains 31 variables and 1,146 records (accidents).

The **barrier accident file** primarily contains accident information related to longitudinal barriers. It contains the impact sequence for each accident. This includes the different objects contacted and the vehicle number involved in each contact. There are 28 variables and 1,146 records (each representing barrier accidents) in the file.

The **barrier contacts file** contains detailed information on every longitudinal barrier struck in each accident and may contain multiple records for a single accident case number depending on the number of longitudinal barrier contacts within that accident. The data stored includes barrier system type, barrier beam type, curb presence, end treatment presence and type, and impact speed and angle. There are 69 variables and 1,456 records (representing barrier contacts) in the file.

The **driver file** is a vehicle-level file and contains data specific to the driver of each vehicle involved in a collision. This file may contain multiple records for those accidents involving more than one vehicle. Among the data items contained in the file are driver classification and alcohol involvement. There are 33 variables and 1,243 records in the file.

The **vehicle file** contains information on each vehicle involved in an accident. It contains data items such as vehicle make, model, and model year, vehicle damage data, and "delta V" information. There are 61 variables and 1,243 records in the file.

Lastly, the **occupant file** contains data pertaining to each occupant in each of the vehicles involved in the collisions. It contains multiple records for those accidents with more than one vehicle occupant, and/or more than one vehicle involved in the accident. The data contained in the file include injury severity for each occupant and the source of each occupant injury. There are 66 variables and 1,889 records in the file.

When performing analyses using these files, it is often useful to generate cross-tabulations of some data items. A sample cross-tabulation is shown in table 2. The table shows a cross-tabulation of "location of end treatment" (barrier contacts file) by accident year. Samples of SAS computer programs used in generating such tables are provided in appendix A.

In-depth information on the LBSS data base is available in the study's final report, "An Analysis of Guardrail and Median Barrier Accidents Using the Longitudinal Barrier Special Studies (LBSS) File, Volume I: Final Report." This information can be found in a section of the third chapter, "Representativeness of the LBSS File." The file was compared to similar accident data bases from five other States to determine how well it represents accidents actually occurring in the field.

The list of variables, SAS formats, and frequency distributions are presented in the following sections.

Table 2. Tabulation of "end treatment location" by "year".

TABLE OF B40 BY YEAR						
B40 (LOCATION OF END TREATMENT)	YEAR (YEAR OF ACCIDENT)					
Frequency Percent Row Pct Col Pct	82	83	84	85	86	Total
INVALID CODES	0 . . .	1 . . .	0 . . .	0 . . .	0 . . .	
NO IMPACT W/BARR	242 16.63 24.74 64.02	271 18.63 27.71 68.61	174 11.96 17.79 71.90	193 13.26 19.73 66.32	98 6.74 10.02 65.77	978 67.22
UPSTREAM	94 6.46 26.48 24.87	95 6.53 26.76 24.05	51 3.51 14.37 21.07	72 4.95 20.28 24.74	43 2.96 12.11 28.86	355 24.40
DOWNSTREAM	33 2.27 32.04 8.73	22 1.51 21.36 5.57	17 1.17 16.50 7.02	23 1.58 22.33 7.90	8 0.55 7.77 5.37	103 7.08
OTHER	9 0.62 47.37 2.38	7 0.48 36.84 1.77	0 0.00 0.00 0.00	3 0.21 15.79 1.03	0 0.00 0.00 0.00	19 1.31
Total	378 25.98	395 27.15	242 16.63	291 20.00	149 10.24	1455 100.00

Frequency Missing = 1

LIST OF VARIABLES FOR LBSS ACCIDENT (ACCIDENT.SSD) FILE

<u>Variable</u>	<u>Description</u>	<u>Type</u>	<u>SAS Format Page No.</u>
AAIS	MAXIMUM KNOWN AIS IN ACCIDENT	Num	7
ACCSEVP	POLICE-REPORTED ACCIDENT SEVERITY	Num	7
AINJURED	TOTAL NUMBER OF INJURED PERSONS	Num	7
ALCINV	ALCOHOL INVOLVED ACCIDENT	Num	7
ALIGNMNT	ROADWAY ALIGNMENT	Num	7
ATREAT	MAXIMUM TREATMENT IN ACCIDENT	Num	8
CASEID	CASE NUMBER - STRATIFICATION	Char	8
CASENO	SEQUENCE NUMBER	Num	8
CLTWAY	CLASS TRAFFICWAY	Num	8
GEOMETRY	INTERCHANGE GEOMETRY	Num	8
HARMEVNT	FIRST HARMFUL EVENT	Num	9
HITRUN	INVOLVEMENT OF HIT AND RUN IN ACCIDENT	Num	10
LANDUSE	LAND USE	Num	10
LANES	NUMBER OF TRAVEL LANES	Num	10
LGTCOND	LIGHT CONDITIONS	Num	10
LINKVAR	COMPUTED FILE LINKING VARIABLE	Char	10
MANCOLL	MANNER OF COLLISION (BASED ON FIRST HARMFUL EVENT - F.H.E.)	Num	11
PROFIL	ROADWAY PROFILE	Num	11
PSU	PSU NUMBER	Num	11
PSUWGT	PSU INFLATION FACTOR	Num	11
RATWGT	RATIO ADJUSTMENT	Num	11
RELJUNC	RELATION TO JUNCTION	Num	11
RELROAD	RELATION TO ROADWAY (LOCATION OF F.H.E.)	Num	12
ROWADD	ADDITIONAL RDWY RESTRICTIONS AT SCENE	Num	12
SSCC	CRASH CUSHION (SPECIAL STUDY - S.S. INDICATOR)	Num	12
SSLB	LONGITUDINAL BARRIER (S.S. INDICATOR)	Num	12
STRATIF	INITIAL STRATIFICATION	Char	12
TIME	TIME OF ACCIDENT	Num	13
VEHFORMS	NUMBER OF VEHICLE FORMS SUBMITTED	Num	13
WEATHER	ATMOSPHERIC CONDITIONS	Num	13
YEAR	YEAR OF ACCIDENT	Num	13

SAS FORMAT DEFINITIONS FOR VARIABLES IN THE LBSS ACCIDENT FILE

AAIS **MAXIMUM KNOWN ABBREVIATED INJURY SCALE (AIS) IN ACCIDENT** (SAS Format Name - MAISF)

0 = 'NO INJURY'	No injury
1 = 'MINOR INJURY'	Minor injury
2 = 'MODERATE INJR'	Moderate injury
3 = 'SERIOUS INJUR'	Serious injury
4 = 'SEVERE INJURY'	Severe injury
5 = 'CRITICAL INJR'	Critical injury
6 = 'MAX/UNTREATABL'	Maximum/untreatable
7 = 'INJURY/UNK SEV'	Injury/unknown severity
9 = 'UNKNOWN'	Unknown

ACCSEVP **POLICE-REPORTED ACCIDENT SEVERITY** (SAS Format Name - ACCSEVF)

0 = 'NO INJURY'	No injury
1 = 'POSSIBLE INJURY'	Possible injury
2 = 'NONINCAP INJURY'	Nonincapacitating injury
3 = 'INCAPACIT INJURY'	Incapacitating injury
4 = 'KILLED'	Killed
5 = 'INJ/SEV UNKNOWN'	Injury/severity unknown
6 = 'DIED BEFORE ACC'	Died before accident
9 = 'UNKNOWN'	Unknown

Note: Data for 1985 and 1986 were obtained from data on the INJSEV variable stored in the occupant file.

AINJURED **TOTAL NUMBER OF INJURED PERSONS** (SAS Format Name - None)

ACTUAL NUMBER OF INJURED PERSONS

ALCINV **ALCOHOL-INVOLVED ACCIDENT** (SAS Format Name - None)

U	Unknown
1	Alcohol involved
2	No alcohol involvement

ALIGNMNT **ROADWAY ALIGNMENT** (SAS Format Name - ALIGNMF)

1 = 'STRAIGHT'	Straight
2 = 'CURVE RGHT'	Curved to the right
3 = 'CURVE LFT'	Curved to the left
9 = 'UNKNOWN'	Unknown

ATREAT	MAXIMUM TREATMENT IN ACCIDENT	(SAS Format Name - MORTF)
---------------	--------------------------------------	----------------------------------

0 = 'TREAT LATER'	Treatment later
1 = 'FATAL'	Fatal
2 = 'FATAL-DISEASE'	Fatal - ruled disease

Nonfatal

3 = 'NFAT-HOSPITAL'	Hospitalization
4 = 'NFAT-TREAT/REL'	Transported and released
5 = 'NFAT-TREAT/OTH'	Treatment - other
6 = 'NFAT-NO TREATMNT'	No treatment
8 = 'TREATMNT AT SCN'	Treatment at scene
9 = 'UNKNOWN'	Unknown

CASEID	CASE NUMBER - STRATIFICATION	(SAS FORMAT NAME - NONE)
---------------	-------------------------------------	---------------------------------

4-CHARACTER CASE NUMBER (INCLUDES STRATIFICATION CODE)

CASENO	SEQUENCE NUMBER	(SAS FORMAT NAME - NONE)
---------------	------------------------	---------------------------------

3-CHARACTER SEQUENCE NUMBER (SAME AS CASEID WITHOUT STRATIFICATION CODE)

CLTWAY	CLASS TRAFFICWAY	(SAS FORMAT NAME - TRFWAYF)
---------------	-------------------------	------------------------------------

1 = 'INTERSTATE'	Interstate
2 = 'OTHER US ROUTE'	Other U.S. Route
3 = 'OTHER STATE RTE'	Other State Route
4 = 'COUNTY ROAD'	County road
5 = 'LOCAL STREET'	Local street
6 = 'MUNICIPALITY'	Municipality
8 = 'OTHER'	Other
9 = 'UNKNOWN'	Unknown

Note: Data for 1985 and 1986 were previously stored in the driver file, but were merged into the accident file for analysis.

GEOMETRY	INTERCHANGE GEOMETRY	(SAS FORMAT NAME - GEOMETRF)
-----------------	-----------------------------	-------------------------------------

0 = 'NO INTERCHANGE'	No interchange
1 = 'FULL DIAMOND'	Full diamond
2 = 'PARTIAL DIAMND'	Partial diamond
3 = 'FULL CLOVERLFT'	Full cloverleaf
4 = 'PART CLOVERLFT'	Partial cloverleaf
5 = 'TRUMPET'	Trumpet
6 = 'DIRECTIONAL'	Directional
8 = 'OTHER'	Other
9 = 'UNKNOWN'	Unknown

HARMEVNT FIRST HARMFUL EVENT

(SAS FORMAT NAME - HARMEVNF)

Noncollision

01 = 'NC-OVERTURN'	Overturn
02 = 'NC-FIRE/EXPLOSON'	Fire or explosion
03 = 'NC-IMMERSION'	Immersion
04 = 'NC-GAS INHALATN '	Gas inhalation
05 = 'NC-FELL FRM VEH '	Fell from vehicle
06 = 'NC-INJ IN VEHICL'	Injured in vehicle
07 = 'NC-OTH NON-COLLI'	Other noncollision

Collision

08 = 'CL-PEDESTRIAN'	Pedestrian
09 = 'CL-PEDALCYCLIST'	Pedalcyclist
10 = 'CL-RAILWAY TRAIN'	Railway train
11 = 'CL-ANIMAL'	Animal
12 = 'CL-MV TRNS SM RD'	Motor vehicle in transport - same roadway
13 = 'CL-MV TRNS OT RD'	Motor vehicle in transport - other roadway
14 = 'CL-PRK MOTOR VEH'	Parked motor vehicle
15 = 'CL-OT NONMOTORIS'	Other type nonmotorist
16 = 'CL-THRWN FAL/OBJ'	Thrown or falling object
17 = 'CL-BOULDER'	Boulder
18 = 'CL-OTHER OBJ/NF'	Other object (not fixed)

Collision with Fixed Object

19 = 'CLO-BUILDING'	Building
20 = 'CLO-IMPCT ATTEN'	Impact attenuator
21 = 'CLO-BRDGE PIER'	Bridge pier or abutment
22 = 'CLO-BRDGE PARAPT'	Bridge parapet end
23 = 'CLO-BRDGE RAIL'	Bridge rail
24 = 'CLO-GUARDRIL'	Guardrail
25 = 'CLO-CNT TRF BAR'	Concrete traffic barrier
26 = 'CLO-OTH LON BAR'	Other longitudinal barrier
27 = 'CLO-HWY TRF SGN'	Highway/traffic sign post
28 = 'CLO-OVHD SGN SUP'	Overhead sign support
29 = 'CLO-LGHT SUPPRT'	Luminaire/light support
30 = 'CLO-UTILITY POLE'	Utility pole
31 = 'CLO-OTH POST'	Other post, pole, or support
32 = 'CLO-CULVERT'	Culvert
33 = 'CLO-CURB'	Curb
34 = 'CLO-DITCH'	Ditch
35 = 'CLO-EMBNK EARTH'	Embankment - earth
36 = 'CLO-EMBNK ROCK'	Embankment - rock
38 = 'CLO-FENCE'	Fence (wooden, wire, ...)
39 = 'CLO-WALL'	Wall (stone, rock, metal, ...)
40 = 'CLO-FIRE HYDRANT'	Fire hydrant

HARMEVNT	FIRST HARMFUL EVENT (Continued)	(SAS FORMAT NAME - HARMEVNF)
	41 = 'CLO-SHRUBBERY'	Shrubbery
	42 = 'CLO-TREE'	Tree
	43 = 'CLO-OTHER'	Other
	44 = 'CLO-POTHOLE'	Pavement surface irregularity (pothole, grates, grooved)
	99 = 'CLO-UNKNOWN'	Unknown
	OTHER = 'ERROR CODE'	Coded in error
HITRUN	INVOLVEMENT OF HIT AND RUN IN ACCIDENT	(SAS FORMAT NAME - HITRUNF)
	0 = 'NO HIT/RUN'	No hit/run
	1 = 'HIT MV IN TRNS'	Hit motor vehicle in transport
	2 = 'HIT PED/NON MOT'	Hit pedestrian/nonmotorist
	3 = 'HIT PRK VEH OBJ'	Hit parked vehicle object
	Note: Data for 1985 and 1986 were previously stored in the vehicle file, but were merged into the accident file for analysis.	
LANDUSE	LAND USE	(SAS FORMAT NAME - LANDUSF)
	1 = 'URBAN'	Urban
	2 = 'RURAL'	Rural
	9 = 'UNKNOWN'	Unknown
LANES	NUMBER OF TRAVEL LANES	(SAS FORMAT NAME - NONE)
	1-6 = NUMBER OF TRAVEL LANES	Number of travel lanes
	7 = 'SEVEN OR MORE TRAVEL LANES'	Seven or more travel lanes
	9 = 'UNKNOWN'	Unknown
	Note: Data for 1985 and 1986 were obtained from similar data stored in the driver file.	
LGTCND	LIGHT CONDITIONS	(SAS FORMAT NAME - LGTCONF)
	1 = 'DAYLIGHT'	Daylight
	2 = 'DARK'	Dark
	3 = 'DARK, BUT LIGHTD'	Dark, but lighted
	4 = 'DAWN'	Dawn
	5 = 'DUSK'	Dusk
	9 = 'UNKNOWN'	Unknown
LINKVAR	COMPUTER FILE LINKING VARIABLE	(SAS FORMAT NAME - NONE)
	UNIQUE 6-CHARACTER ID FOR EACH ACCIDENT	

MANCOLL	MANNER OF COLLISION (BASED ON F.H.E.)	(SAS FORMAT NAME - MANCOLF)
	0 = 'NOT COLLISION'	Not collision with moving veh.
	1 = 'REAR-END'	Rear-end
	2 = 'HEAD-ON'	Head-on
	3 = 'REAR-TO-REAR'	Rear-to-rear
	4 = 'ANGLE'	Angle
	5 = 'SDSWPE S/DIR'	Sideswipe, same direction
	6 = 'SDSWPE O/DIR'	Sideswipe, other direction
	9 = 'UNKNOWN'	Unknown
PROFIL	ROADWAY PROFILE	(SAS FORMAT NAME - RDWDPRF)
	1 = 'LEVEL/(< 2%)'	Level or gradient less than 2 percent
	2 = 'POS GRADE'	Positive gradient
	3 = 'NEG GRADE'	Negative gradient
	4 = 'HILLCREST'	Hillcrest
	5 = 'SAG'	Sag
	6 = '+ OR - GRADE'	Positive or negative gradient
	9 = 'UNKNOWN'	Unknown
Note: Data for 1985 and 1986 was obtained from similar data stored in the driver file. Variable name was changed from GRADE.		
PSU	PRIMARY SAMPLING UNIT NUMBER	(SAS FORMAT NAME - NONE)
	2-CHARACTER NUMBER REPRESENTING PSU	
PSUWGT	PSU INFLATION FACTOR	(SAS FORMAT NAME - NONE)
	ACTUAL INFLATION FACTOR	
RATWGT	RATIO ADJUSTMENT	(SAS FORMAT NAME - NONE)
	ACTUAL RATIO ADJUSTMENT	
RELJUNC	RELATION TO JUNCTION	(SAS FORMAT NAME - RELJUNCF)
	01 = 'NON-JUNCTION'	Non junction
	02 = 'THREE LEG INTER'	Three leg intersection
	03 = 'FOUR LEG INTER'	Four leg intersection
	04 = '4+ LEG INTER'	More than four leg intersection
	05 = 'ROTARY/TRAF CIRC'	Rotary or traffic circle
	06 = 'INTERSEC RELATED'	Intersection-related
	07 = 'CHANNEL'	Channel
	08 = 'MERGE/DIVERGENCE'	Area of merge/divergence-related
	09 = 'ENTRANC/EXIT RMP'	Entrance/exit ramp
	10 = 'INTERCHANGE AREA'	Interchange area
	11 = 'DRVWY/ALLEY ACCESS'	Driveway, alley access-related
	12 = 'RAILROAD GRDE CROS'	Railroad grade crossing-related
	13 = 'CROSSROAD RELATED'	Crossroad-related
	99 = 'UNKNOWN'	Unknown

RELROAD	RELATION TO ROADWAY (LOCATION OF F.H.E.)	(SAS FORMAT NAME - RELROADF)
	1 = 'ON ROADWAY'	On roadway
	2 = 'ON SHOULDER'	On shoulder
	3 = 'IN MEDIAN'	In median
	4 = 'ON ROADSIDE'	On roadside
	5 = 'OUTSIDE R-OF-WAY'	Outside right-of-way
	6 = 'OFF RDWY-LOC UNK'	Off roadway - location unknown
	7 = 'IN PARK LANE'	In parking lane
	8 = 'GORE'	Gore or channel island
	9 = 'UNKNOWN'	Unknown

ROWADD	ADDITIONAL ROADWAY RESTRICTIONS AT SCENE	(SAS FORMAT NAME - NONE)
	0 = 'NONE'	None
	2 = 'PREV ACC RDWY'	Previous accident on roadway
	3 = 'MAINT REPAIR'	Maintenance repair
	4 = 'STANDING WATER'	Standing water
	5 = 'MORE THAN 2 REST'	More than two restrictions
	8 = 'OTHER RDWY REST'	Other roadway restrictions
	9 = 'UNKNOWN'	Unknown

Note: Data for 1985 and 1986 were obtained from similar data stored in the driver file.

SSCC	CRASH CUSHION (S.S. INDICATOR)	(SAS FORMAT NAME - NONE)
	. = 'NOT IN EFFECT'	Not in effect
	0 = 'NO'	No
	1 = 'YES'	Yes

SSLB	LONGITUDINAL BARRIER (S.S. INDICATOR)	(SAS FORMAT NAME - NONE)
	. = 'NOT IN EFFECT'	Not in effect
	0 = 'NO'	No
	1 = 'YES'	Yes

STRATIF	INITIAL STRATIFICATION	(SAS FORMAT NAME - NONE)
	STRATIFICATION CODE (A-Z, EXCEPT I, O, U, X)	

TIME	TIME OF ACCIDENT	(SAS FORMAT NAME - NONE)
	MILITARY TIME OF ACCIDENT	

VEHFORMS	NUMBER OF VEHICLE FORMS SUBMITTED	(SAS FORMAT NAME - NONE)
	ACTUAL NUMBER OF VEHICLE FORMS SUBMITTED	

WEATHER	ATMOSPHERIC CONDITIONS	(SAS FORMAT NAME - WEATHF)
	1 = 'NO ADVERSE CONDIT'	No adverse conditions
	2 = 'RAIN'	Rain
	3 = 'SLEET'	Sleet
	4 = 'SNOW'	Snow
	5 = 'FOG'	Fog
	6 = 'RAIN AND FOG'	Rain and fog
	7 = 'SLEET AND FOG'	Sleet and fog
	8 = 'OTHER'	Other
	9 = 'UNKNOWN'	Unknown
YEAR	YEAR OF ACCIDENT	(SAS FORMAT NAME - NONE)
	2-DIGIT NUMBER REPRESENTING THE LAST TWO DIGITS OF THE ACCIDENT YEAR	

LIST OF VARIABLES FOR LBSS BARRIER ACCIDENT (BARRIERL.SSD) FILE

<u>Variable</u>	<u>Description</u>	<u>Type</u>	<u>SAS Format Page No.</u>
B12	VEHICLE NUMBER - FIRST IMPACT	Num	17
B13	OBJECT CONTACTED - FIRST IMPACT	Char	17
B14	LATERAL OFFSET - FIRST IMPACT	Num	18
B15	VEHICLE NUMBER - SECOND IMPACT	Num	18
B16	OBJECT CONTACTED - SECOND IMPACT	Char	19
B17	LATERAL OFFSET - SECOND IMPACT	Num	19
B18	VEHICLE NUMBER - THIRD IMPACT	Num	19
B19	OBJECT CONTACTED - THIRD IMPACT	Char	19
B20	LATERAL OFFSET - THIRD IMPACT	Num	19
B21	VEHICLE NUMBER - FOURTH IMPACT	Num	19
B22	OBJECT CONTACTED - FOURTH IMPACT	Char	19
B23	LATERAL OFFSET - FOURTH IMPACT	Num	19
B24	VEHICLE NUMBER - FIFTH IMPACT	Num	20
B25	OBJECT CONTACTED - FIFTH IMPACT	Char	20
B26	LATERAL OFFSET - FIFTH IMPACT	Num	20
B27	VEHICLE NUMBER - SIXTH IMPACT	Num	20
B28	OBJECT CONTACTED - SIXTH IMPACT	Char	20
B29	LATERAL OFFSET - SIXTH IMPACT	Num	20
B30	TOTAL NUMBER OF IMPACTS IN ACCIDENT	Num	21
B31	TOTAL NUMBER OF LONG BARRIER IMPACTS	Num	21
CASEID	CASE NUMBER	Char	21
CASENO	SEQUENCE NUMBER	Num	21
LINKVAR	COMPUTED FILE LINKING VARIABLE	Char	21
PSU	PSU NUMBER	Num	21
SSLB	LONGITUDINAL BARRIER (S.S. INDICATOR)	Num	21
STRATIF	STRATIFICATION	Char	21
YEAR	YEAR OF ACCIDENT	Num	22
ZC	ZONE CENTER	Char	22

SAS FORMAT DEFINITIONS FOR VARIABLES IN THE LBSS BARRIERL FILE

B12	VEHICLE NUMBER - FIRST IMPACT	(SAS FORMAT NAME - NONE)
	2-DIGIT NUMBER FOR VEHICLE NUMBER	
B13	OBJECT CONTACTED - FIRST IMPACT	(SAS FORMAT NAME - \$COLLF)
	'0 '00,' 0' = 'NONCOLLISON'	Noncollison
	A1 = 'CS-GRDRAIL'	Guardrail
	A2 = 'CS-GRDRL N/MED'	Guardrail (non-median) for 1982 to 1984
	A3 = 'CS-CON BAR N/MED'	Concrete barrier (non-median)
	A4 = 'CS-OT L/BAR N/MD'	Other longitudinal barrier (non-median)
	A5 = 'CS-GRDRL/P N/MED'	Guardrail (non-median) for 1985 and 1986
	A6 = 'CS-GRDRL EN N/MED'	Guardrail end (non median)
	A7 = 'CS-GUARDRAIL MED'	Guardrail (median) for 1982 to 1984
	A8 = 'CS-MEDIAN BARRIER'	Median barrier
	A9 = 'CS-CONC BAR MED'	Concrete barrier (median)
	1A = 'CS-OTH MED BAR'	Other median barrier
	1B = 'CS-GRDRL PR MED'	Guardrail (median) for 1985 and 1986
	1C = 'CS-GRDRL END MED'	Guardrail end median
	1D = 'CS-BRD/BRDG TRANSI'	Guardrail/bridge-rail transition
	31 = 'CS-MVH N/TRANSPRT'	Motor vehicle not in transport
	32 = 'CS-TREE < 6" DIAM'	Tree - < 6 in (152.4 mm) in diameter
	33 = 'CS-TREE > 6" DIAM'	Tree - > 6 in (152.4 mm) in diameter
	34 = 'CS-LUMINAIR BRKWY'	Luminaire - breakaway
	35 = 'CS-LUMINA N/BRKWY'	Luminaire - nonbreakaway
	36 = 'CS-LRG SIGN BRKWY'	Large sign - breakaway
	37 = 'CS-LRG SGN N/BRWY'	Large sign - nonbreakaway
	38 = 'CS-SM SGN BRKWY'	Small sign - breakaway
	39 = 'CS-SM SGN N/BRKWY'	Small sign - nonbreakaway
	40 = 'CS-UTILITY POLE'	Utility pole
	41 = 'CS-FENCE'	Fence
	42 = 'CS-OTHER PST/POLE'	Other post/pole
	43 = 'CS-MAIL BOX'	Mail box
	44 = 'CS-DELINEATOR'	Delincator
	45 = 'CS-TRAF SGNL POLE'	Traffic signal pole
	46 = 'CS-OTHER MOV OBJ'	Other movable object
	47 = 'CS-CULVERT'	Culvert
	48 = 'CS-RAILROAD TRKS'	Railroad tracks
	49 = 'CS-CURB'	Curb
	50 = 'CS-ABUTMENT'	Abutment
	51 = 'CS-WALL(STN/RCK)'	Wall (stone/rock)
	52 = 'CS-EMBANKMT EART'	Embankment earth
	53 = 'CS-EMBNK RCK/STN'	Embankment (rock/stone)
	54 = 'CS-BUILDING RIGID'	Building rigid
	55 = 'CS-BLDG N/RIGID'	Building nonrigid
	56 = 'CS-BRIDGE SUPPRT'	Bridge support
	57 = 'CS-BRDG RAIL'	Bridge rail
	58 = 'CS-BRDG PARPAP,END'	Bridge parapet end
	59 = 'CS-CRSH CUSHION'	Crash cushion
	60 = 'CS-GROUND'	Ground
	62 = 'CS-TRAIN'	Train

B13	OBJECT CONTACTED - FIRST IMPACT (Continued)	(SAS FORMAT NAME - \$COLLF)
	63 = 'CS-DITCH'	Ditch
	64 = 'CS-OTHER STAT OBJ'	Other stationary object
	65 = 'CNS-ANIMAL'	Animal
	66 = 'CNS-TRL DISCONEC'	Trailer disconnected
	67 = 'CNS-TRAIN'	Train
	68 = 'CNS-OTH N/ST OBJ'	Other nonstationary objects
	96 = 'CNS-VEH OCCUPNT'	Vehicle occupant
	97 = 'CNS-OTH OCCUPNT'	Other occupant
	98 = 'CNS-NOT APPLICBL'	Not applicable
	' U', ' ' = 'CNS-UNKNOWN'	Unknown
B14	LATERAL OFFSET - FIRST IMPACT	(SAS FORMAT NAME - LATDSTF)
	0 = '0'	
	1-10 = '1 - 10 FT'	
	11-20 = '11 - 20'	
	21-30 = '21 - 30'	
	31-40 = '31 - 40'	
	41-50 = '41 - 50'	
	51-60 = '51 - 60'	
	61-70 = '61 - 70'	
	71-80 = '71 - 80'	
	81-90 = '81 - 90'	
	91-96 = '91 - 96'	
	97 = '97 + FT'	
	98 = 'NOT APPLICABLE'	Not applicable
	. = 'NOT CODED'	Not coded
	99 = 'UNKNOWN'	Unknown

- B15** **VEHICLE NUMBER - SECOND IMPACT** (SAS FORMAT NAME - NONE)
(SEE FORMAT AND CODES UNDER B12)
NOTE: This data only exists for accidents involving two or more vehicle impacts.
- B16** **OBJECT CONTACTED - SECOND** (SAS FORMAT NAME - \$COLLF)
IMPACT
(SEE FORMAT AND CODES UNDER B13)
NOTE: This data only exists for accidents involving two or more vehicle impacts.
- B17** **LATERAL OFFSET - SECOND IMPACT** (SAS FORMAT NAME - LATDSTF)
(SEE FORMAT AND CODES UNDER B14)
NOTE: This data only exists for accidents involving two or more vehicle impacts.
- B18** **VEHICLE NUMBER - THIRD IMPACT** (SAS FORMAT NAME - NONE)
(SEE FORMAT AND CODES UNDER B12)
NOTE: This data only exists for accidents involving three or more vehicle impacts.
- B19** **OBJECT CONTACTED - THIRD IMPACT** (SAS FORMAT NAME - \$COLLF)
(SEE FORMAT AND CODES UNDER B13)
NOTE: This data only exists for accidents involving three or more vehicle impacts.
- B20** **LATERAL OFFSET - THIRD IMPACT** (SAS FORMAT NAME - LATDSTF)
(SEE FORMAT AND CODES UNDER B14)
NOTE: This data only exists for accidents involving three or more vehicle impacts.
- B21** **VEHICLE NUMBER - FOURTH IMPACT** (SAS FORMAT NAME - NONE)
(SEE FORMAT AND CODES UNDER B12)
NOTE: This data only exists for accidents involving four or more vehicle impacts.
- B22** **OBJECT CONTACTED - FOURTH** (SAS FORMAT NAME - \$COLLF)
IMPACT
(SEE FORMAT AND CODES UNDER B13)
NOTE: This data only exists for accidents involving four or more vehicle impacts.

B23	LATERAL OFFSET - FOURTH IMPACT	(SAS FORMAT NAME - LATDSTF)
	(SEE FORMAT AND CODES UNDER B14)	
	NOTE: This data only exists for accidents involving four or more vehicle impacts.	
B24	VEHICLE NUMBER - FIFTH IMPACT	(SAS FORMAT NAME - NONE)
	(SEE FORMAT AND CODES UNDER B12)	
	NOTE: This data only exists for accidents involving five or more vehicle impacts.	
B25	OBJECT CONTACTED - FIFTH IMPACT	(SAS FORMAT NAME - \$COLLF)
	(SEE FORMAT AND CODES UNDER B13)	
	NOTE: This data only exists for accidents involving five or more vehicle impacts.	
B26	LATERAL OFFSET - FIFTH IMPACT	(SAS FORMAT NAME - LATDSTF)
	(SEE FORMAT AND CODES UNDER B14)	
	NOTE: This data only exists for accidents involving five or more vehicle impacts.	
B27	VEHICLE NUMBER - SIXTH IMPACT	(SAS FORMAT NAME - NONE)
	(SEE FORMAT AND CODES UNDER B12)	
	NOTE: This data only exists for accidents involving six or more vehicle impacts.	
B28	OBJECT CONTACTED - SIXTH IMPACT	(SAS FORMAT NAME - \$COLLF)
	(SEE FORMAT AND CODES UNDER B13)	
	NOTE: This data only exists for accidents involving six or more vehicle impacts.	
B29	LATERAL OFFSET - SIXTH IMPACT	(SAS FORMAT NAME - LATDSTF)
	(SEE FORMAT AND CODES UNDER B14)	
	NOTE: This data only exists for accidents involving six or more vehicle impacts.	
B30	TOTAL NUMBER OF IMPACTS IN ACCIDENT	(SAS FORMAT NAME - TOTIMPF)
	1 = '1'	
	2 = '2'	
	3 = '3'	
	4 = '4'	
	5 = '5'	
	6 = '6'	
	7 = '7+ IMPACTS'	Seven or more impacts
	. = 'NOT CODED'	Not coded
	9 = 'UNKNOWN'	Unknown

B31	TOTAL NUMBER OF LONGITUDINAL BARRIER IMPACTS	(SAS FORMAT NAME - TOTBARMF)
	1 = '1'	
	2 = '2'	
	3 = '3'	
	4 = '4'	
	5 = '5'	
	6 = '6'	
	7 = '7+ IMPACTS'	Seven or more impacts
	. = 'NOT CODED'	Not coded
	9 = 'UNKNOWN'	Unknown
CASEID	CASE NUMBER - STRATIFICATION	(SAS FORMAT NAME - NONE)
	4-CHARACTER CASE NUMBER (INCLUDES STRATIFICATION CODE)	
CASENO	SEQUENCE NUMBER	(SAS FORMAT NAME - NONE)
	3-CHARACTER SEQUENCE NUMBER (SAME AS CASEID WITHOUT STRATIFICATION CODE)	
LINKVAR	COMPUTER FILE LINKING VARIABLE	(SAS FORMAT NAME - NONE)
	UNIQUE 6-CHARACTER ID FOR EACH ACCIDENT	
PSU	PRIMARY SAMPLING UNIT NUMBER	(SAS FORMAT NAME - NONE)
	2-CHARACTER NUMBER REPRESENTING PSU	
SSLB	LONGITUDINAL BARRIER (S.S. INDICATOR)	(SAS FORMAT NAME - NONE)
	. = 'NOT IN EFFECT'	Not in effect
	0 = 'NO'	No
	1 = 'YES'	Yes
STRATIF	INITIAL STRATIFICATION	(SAS FORMAT NAME - NONE)
	STRATIFICATION CODE (A-Z, EXCEPT I, O, U, X)	
YEAR	YEAR OF ACCIDENT	(SAS FORMAT NAME - NONE)
	2-DIGIT NUMBER REPRESENTING THE LAST TWO DIGITS OF THE ACCIDENT YEAR	
ZC	ZONE CENTER	(SAS FORMAT NAME - NONE)
	ZONE CENTER CODE (A-D)	

LIST OF VARIABLES FOR LBSS BARRIER CONTACT (BARRIERM.SSD) FILE

<u>Variable</u>	<u>Description</u>	<u>Type</u>	<u>SAS Format Page No.</u>
B31	TOTAL NUMBER OF LONG BARRIER IMPACTS	Num	25
B32	SEQUENCE NUMBER OF IMPACT (ACCIDENT)	Num	25
B33	LONGITUDINAL BARRIER TYPE	Num	25
B34	BARRIER BEAM TYPE	Num	26
B35	BLOCKED-OUT PRESENCE	Num	26
B36	TYPE OF POST MATERIAL	Num	26
B37	TYPE OF POST - SHAPE	Num	27
B38	POST SPACING (CENTER TO CENTER)	Num	27
B39	END TREATMENT TYPE	Num	27
B40	LOCATION OF END TREATMENT	Num	27
B41	DISTANCE FROM END OF BARRIER TO POI	Num	28
B42	LENGTH OF FLARE	Num	28
B43	FLARE OFFSET	Num	28
B44	LENGTH OF LONGITUDINAL BARRIER SECTION	Num	28
B45	LONGITUDINAL BARRIER HEIGHT	Num	28
B46	LOCATION OF BARRIER	Num	29
B47	CURB TYPE/PRESENCE	Num	29
B48	CURB HEIGHT	Num	29
B49	PERPENDICULAR DIST FROM CURB TO BARRIER	Num	29
B50	ROADSIDE SLOPE	Num	29
B51	HORIZONTAL DISTANCE - FIRST SLOPE	Num	30
B52	RATE OF SLOPE - FIRST SLOPE	Num	30
B53	HORIZONTAL DISTANCE - SECOND SLOPE	Num	30
B54	RATE OF SLOPE - SECOND SLOPE	Num	30
B55	HORIZONTAL DISTANCE - THIRD SLOPE	Num	30
B56	RATE OF SLOPE - THIRD SLOPE	Num	30
B57	TOTAL HORIZONTAL DISTANCE	Num	31
B58	TOTAL CHANGE IN ELEVATION	Num	31
B59	EFFECTIVE HEIGHT OF BARRIER	Num	31
B60	LENGTH OF DIRECT CONTACT/DAMAGE	Num	31
B61	MAXIMUM DEPTH OF BARRIER DEFORMATION	Num	32
B62	IMPACT ANGLE	Num	32
B63	VEHICLE YAWING ANGLE AT IMPACT	Num	32
B64	IMPACT SPEED	Num	33
B65	SEPARATION ANGLE	Num	34
B66	BARRIER PERFORMANCE	Num	34
B67	POST-IMPACT TRAJECTORY	Num	34
B68	SUBSEQUENT IMPACT	Num	35
B69	ROLLOVER	Num	35
B71	CONFIDENCE OF IMPACT ANGLE	Num	36
B72	CONFIDENCE OF YAWING ANGLE AT IMPACT	Num	36
B73	CONFIDENCE OF SEPARATION ANGLE	Num	36
B74	CONFIDENCE OF FINAL REST DISTANCE (D3)	Num	36
B83	CRUSH PROFILE - L	Num	36
B85	CRUSH PROFILE - D	Num	36

LIST OF VARIABLES FOR LBSS BARRIER CONTACT (BARRIERM.SSD) FILE (Cont.)

<u>Variable</u>	<u>Description</u>	<u>Type</u>	<u>SAS Format Page No.</u>
B70A	CONCRETE BARRIER A DIMENSION	Num	35
B70B	CONCRETE BARRIER B DIMENSION	Num	35
B84_C1	CRUSH PROFILE - C1	Num	36
B84_C2	CRUSH PROFILE - C2	Num	36
B84_C3	CRUSH PROFILE - C3	Num	36
B84_C4	CRUSH PROFILE - C4	Num	37
B84_C5	CRUSH PROFILE - C5	Num	37
B84_C6	CRUSH PROFILE - C6	Num	37
CASEID	CASE NUMBER	Char	37
CASENO	SEQUENCE NUMBER	Num	37
C_DIM1	DEPTH OF CRUSH (INCHES) AT C1	Num	37
C_DIM2	DEPTH OF CRUSH (INCHES) AT C2	Num	37
C_DIM3	DEPTH OF CRUSH (INCHES) AT C3	Num	37
C_DIM4	DEPTH OF CRUSH (INCHES) AT C4	Num	37
C_DIM5	DEPTH OF CRUSH (INCHES) AT C5	Num	37
C_DIM6	DEPTH OF CRUSH (INCHES) AT C6	Num	37
D_DIM	DAMAGE OFFSET (INCHES)	Num	37
LINKVAR	COMPUTED FILE LINKING VARIABLE	Char	37
L_DIM	LENGTH OF CRUSH (INCHES)	Num	37
PSU	PSU NUMBER	Num	38
SSLB	LONGITUDINAL BARRIER (S.S. INDICATOR)	Num	38
STRATIF	STRATIFICATION	Char	38
YEAR	YEAR OF ACCIDENT	Num	38
ZC	ZONE CENTER	Char	38

SAS FORMAT DEFINITIONS FOR VARIABLES IN THE LBSS BARRIERM FILE

B31 **TOTAL NUMBER OF LONGITUDINAL BARRIER IMPACTS** **(SAS FORMAT NAME - TOTBARMF)**

1-6 = ACTUAL NUMBER OF IMPACTS
7 = '7+ IMPACTS' Seven impacts or greater
. = 'NOT CODED' Missing/not coded
9 = 'UNKNOWN' Unknown

B32 **SEQUENCE NUMBER OF IMPACT (ACCIDENT)** **(SAS FORMAT NAME - NONE)**

1-6 = ACTUAL NUMBER OF IMPACTS
7 = '7+ IMPACTS' Seven impacts or greater
. = 'NOT CODED' Missing/not coded
9 = 'UNKNOWN' Unknown

B33 **LONGITUDINAL BARRIER TYPE** **(SAS FORMAT NAME - B33F)**

Guardrail Types

01 = 'G1 CABLE GRDRAIL'	Cable guardrail, G1, GR1
02 = 'G2 W BEAM'	W-beam (steel weak post), G2
03 = 'G3 BOX BEAM'	Box beam, G3
04 = 'G4(1W) BO 8X8 WD'	Blocked-out W-beam [wood post 8 in x 8 in (20.3 cm x 20.3 cm)], G4(1W)
05 = 'G4(2W) BO 6X8 WD'	Blocked-out W-beam [wood post 6 in x 8 in (15.2 cm x 20.3 cm)], G4(2W)
06 = 'G4(1S) BO STEEL'	Blocked-out W-beam (steel post), G4(1S)
07 = 'G4(2S) BO ST PST'	Blocked-out W-beam (steel C post), G4(2S)
08 = 'G9 BO THRIE ST'	Blocked-out thrie beam (steel post), G9
09 = 'GR W BEAM STR'	W-beam (strong post)
10 = 'GR BLK/O W STR'	Blocked-out W-beam (strong post)
11 = 'GR CRTE SFT SHAPE'	Concrete safety shape
12 = 'GR OTHER'	Other guardrail type

Median Barrier Types

13 = 'MB1 CABLE'	Cable, MB1
14 = 'MB2 WST WEAK'	W-section (steel weak post), MB2
15 = 'MB3 BOX BEAM'	Box beam, MB3
16 = 'MB4 W BO W WOOD'	Blocked-out W-beam (wood posts), MB4W
17 = 'MB4 S BO W STEL'	Blocked-out W-beam (steel post), MB4S
18 = 'MB5 C M B'	Concrete median barrier, MB5
19 = 'MB7 AL STR BEAM'	Aluminum strong beam, MB7
20 = 'MB8 AL BAL BEAM'	Aluminum balanced beam, MB8
21 = 'MB9 BO THRIE STL'	Blocked-out thrie beam (steel post), MB9

B33	LONGITUDINAL BARRIER TYPE (Continued)	(SAS FORMAT NAME - B33F)
	22 = 'MB10 MBGF STB/A'	Metal beam guard fence (steel breakaway posts), MB10
	23 = 'MB OTHER'	Other median barrier type
	99 = 'UNKNOWN'	Unknown
	. = 'NOT CODED'	Missing/not coded
	OTHER = 'INVALID CODES'	Invalid codes
B34	BARRIER BEAM TYPE	(SAS FORMAT NAME - B34F)
	0 = 'N/A-NO BEAM'	No beam
	1 = 'CABLE'	Cable
	2 = 'W BEAM'	W-beam
	3 = 'BOX BEAM'	Box beam
	4 = 'ALUMN EXTRUSION'	Aluminum extrusion
	5 = 'THRIE BEAM'	Thrie beam
	8 = 'OTHER'	Other
	9 = 'UNKNOWN'	Unknown
	. = 'NOT CODED'	Missing/not coded
	OTHER = 'INVALID CODES'	Invalid codes
B35	BLOCKED OUT PRESENCE	(SAS FORMAT NAME - B35F)
	0 = 'N/A - NO BEAM'	No beam
	1 = 'BLOCKED OUT'	Blocked-out
	2 = 'NOT BLOCKED OUT'	Not blocked-out
	9 = 'UNKNOWN'	Unknown
	. = 'NOT CODED'	Not coded
	OTHER = 'INVALID CODES'	Invalid codes
B36	TYPE OF POST MATERIAL	(SAS FORMAT NAME - B36F)
	0 = 'N/A - NO POSTS'	No posts
	1 = 'STEEL'	Steel
	2 = 'ALUMINUM'	Aluminum
	3 = 'WOOD'	Wood
	4 = 'CONCRETE'	Concrete
	8 = 'OTHER'	Other
	9 = 'UNKNOWN'	Unknown
	. = 'NOT CODED'	Missing/not coded
	OTHER = 'INVALID CODES'	Invalid Codes

B37	TYPE OF POST SHAPE	(SAS FORMAT NAME - B37F)
	0 = 'N/A - NO POSTS'	No posts
	1 = 'CIRCULAR'	Circular
	2 = 'SQUARE'	Square
	3 = 'RECTANGLE'	Rectangle
	4 = 'I-BEAM'	I-beam
	5 = 'C-CHANNEL'	C-channel
	8 = 'OTHER'	Other
	9 = 'UNKNOWN'	Unknown
	. = 'NOT CODED'	Missing/not coded
	OTHER = 'INVALID CODES'	Invalid codes
B38	POST SPACING (CENTER TO CENTER)	(SAS FORMAT NAME - B38F)
	0.0 = 'N/A - NO POSTS'	No posts
	0.1-99.6 = ACTUAL DISTANCE FROM CENTER TO CENTER OF POSTS	
	99.7 = '99.7 +'	99.7 ft (30.4 m) or greater
	. = 'NOT CODED'	Missing/not coded
	99.9 = 'UNKNOWN'	Unknown
B39	END TREATMENT TYPE	(SAS FORMAT NAME - B39F)
	0 = 'NO IMPACT W/BAR'	Impact not with barrier end
	1 = 'BLUNT'	Blunt
	2 = 'N/BRKAWY CBL TRM'	Nonbreakaway cable terminal
	3 = 'TURNDOWN'	Turndown
	4 = 'BRKAWAY CBL TERM'	Breakaway cable terminal (BCT)
	5 = 'ANCHORN TO BCKSL'	Anchoring to backslope
	6 = 'ATTACH TO PARAPT'	Attached to parapet/wall/bridge rail/abutment
	7 = 'IMPACT ATTENUATR'	Impact attenuator/crash cushion
	8 = 'OTHER'	Other
	9 = 'UNKNOWN'	Unknown
	. = 'NOT CODED'	Missing/not coded
	OTHER = 'INVALID CODES'	Invalid codes
B40	LOCATION OF END TREATMENT	(SAS FORMAT NAME - B40F)
	0 = 'NO IMPACT W/BARR'	Impact not with barrier end
	1 = 'UPSTREAM'	Upstream
	2 = 'DOWNSTREAM'	Downstream
	8 = 'OTHER'	Other
	9 = 'UNKNOWN'	Unknown
	. = 'NOT CODED'	Missing/not coded
	OTHER = 'INVALID CODES'	Invalid codes

B41	DISTANCE FROM END OF BARRIER TO INITIAL POINT OF IMPACT	(SAS FORMAT NAME - B41F)
	00 = 'NO IMPT W/BAR END'	Impact not with barrier end
	01 = 'IMPT 1FT END BARR'	Impact at, or within a foot of, barrier end
	2 - 96 = ACTUAL DISTANCE	Code actual distance to the nearest foot
	97 = '97+ FT'	97 ft (29.6 m) or greater
	. = 'NOT CODED'	Missing/not coded
	99 = 'UNKNOWN'	Unknown
B42	LENGTH OF FLARE	(SAS FORMAT NAME - B42F)
	00 = 'NO IMPACT W/BAR'	Impact not with barrier end
	1-10 = '10 FT OR LESS'	10 ft (3.1 m) or shorter
	11-96 = ACTUAL LENGTH OF FLARE	Code actual length of flare to the nearest foot
	97 = '97 + FT'	97 ft (29.6 m) or longer
	98 = 'IMPT B/END N/FLAR'	Impact with barrier end but no flare
	. = 'NOT CODED'	Missing/not coded
	99 = 'UNKNOWN'	Unknown
B43	FLARE OFFSET	(SAS FORMAT NAME - B43F)
	00 = 'NO IMPACT W/BAR'	Impact not with barrier end
	1-10 = '10 FT OR LESS'	10 ft (3.1 m) or less
	11-96 = ACTUAL FLARE OFFSET	Code actual flare offset to the nearest foot
	97 = '97+ FT'	97 ft (29.6 m) or greater
	98 = 'IMPT B/END N/FLAR'	Impact with barrier end, but no flare
	. = 'NOT CODED'	Missing/not coded
	99 = 'UNKNOWN'	Unknown
B44	LENGTH OF LONGITUDINAL BARRIER SECTION	(SAS FORMAT NAME - B44F)
	010 = '10 FT OR LESS'	10 ft (3.1 m) or shorter
	11-500 = ACTUAL BARRIER LENGTH	
	501-997 = '501+ FT'	501 ft (152.8 m) or greater
	998 = 'N/A - MEDIAN BARRIER'	Median barrier - n/a
	. = 'NOT CODED'	Missing/not coded
	999 = 'UNKNOWN'	Unknown
B45	LONGITUDINAL BARRIER HEIGHT	(SAS FORMAT NAME - B45F)
	05 = '5 INCHES OR LESS'	5 in (127 mm) or less
	6-49 = ACTUAL BARRIER HEIGHT	
	50 = '50+ INCHES'	50 in (1,270 mm) or greater
	. = 'NOT CODED'	Missing/not coded
	99 = 'UNKNOWN'	Unknown

B46	LOCATION OF BARRIER	(SAS FORMAT NAME - B46F)
	0 = 'IMPT COND N/A'	Impact conditions not applicable
	1 = 'OF LFT SIDE RDWY'	Off left side of roadway
	2 = 'OF RGT SIDE RDWY'	Off right side of roadway
	8 = 'OTHER'	Other
	. = 'NOT CODED'	Missing/not coded
	9 = 'UNKNOWN'	Unknown
	OTHER = 'INVALID CODES'	Invalid codes
B47	CURB TYPE/PRESENCE	(SAS FORMAT NAME - B47F)
	0 = 'NO CURB PRESENT'	No curb present
	1 = 'BARRIER CURB'	Barrier curb
	2 = 'MOUNTABLE CURB'	Mountable curb
	8 = 'OTHER'	Other
	9 = 'UNKNOWN'	Unknown
	. = 'NOT CODED'	Missing/not coded
	OTHER = 'INVALID CODES'	Invalid codes
B48	CURB HEIGHT	(SAS FORMAT NAME - B48F)
	0 = 'NO CURB PRESENT'	No curb present
	1-5 = ACTUAL CURB HEIGHT	
	19-98 = '19+ INCHES'	19 in (482.6 mm) or greater
	. = 'NOT CODED'	Missing/not coded
	99 = 'UNKNOWN'	Unknown
B49	PERPENDICULAR DISTANCE FROM CURB TO STRUCK BARRIER	(SAS FORMAT NAME - B49F)
	00 = 'NO CURB PRESENT'	No curb present
	01 = '1 FT OR LESS'	1 ft (0.3 m) or less
	02-96 = ACTUAL DISTANCE	
	97 = '97+ FT'	97 ft (29.6 m) or greater
	. = 'NOT CODED'	Missing/not coded
	99 = 'UNKNOWN'	Unknown
B50	ROADSIDE SLOPE	(SAS FORMAT NAME - B50F)
	0 = 'NOT APPLICABLE'	Not applicable
	1 = 'ONE SLOPE'	One slope
	2 = 'TWO SLOPES'	Two slopes
	3 = 'THREE SLOPES'	Three slopes
	8 = 'OTHER'	Other
	9 = 'UNKNOWN'	Unknown
	. = 'NOT CODED'	Missing/not coded
	OTHER = 'INVALID CODES'	Invalid codes

B51	HORIZONTAL DISTANCE - FIRST SLOPE	(SAS FORMAT NAME - B51F)
	00 = 'NOT APPLICABLE'	Not applicable
	01 = 'ONE FT OR LESS'	1 ft (0.3 m) or less
	02-12 = ACTUAL DISTANCE	
	13-96 = '13+ ft'	
	. = 'NOT CODED'	Missing/not coded
	97-98 = '97+ FT'	97 ft (29.6 m) or greater
	99 = 'UNKNOWN'	Unknown
B52	RATE OF SLOPE - FIRST SLOPE	(SAS FORMAT NAME - B52F)
	-0.99 - -0.01 = 'NEGATIVE'	Negative
	0.01-0.98 = 'POSITIVE'	Positive
	0.99 = 'UNKNOWN'	Unknown
	OTHER = 'ERROR CODES'	Coded in error
B53	HORIZONTAL DISTANCE - SECOND SLOPE	(SAS FORMAT NAME - B53F)
	00 = 'NOT APPLICABLE'	Not applicable
	01 = 'ONE FT OR LESS'	1 ft (0.3 m) or less
	02-12 = ACTUAL DISTANCE	
	13-96 = '13+ ft'	
	. = 'NOT CODED'	Missing/not coded
	97-98 = '97+ FT'	97 ft (29.6 m) or greater
	99 = 'UNKNOWN'	Unknown
B54	RATE OF SLOPE - SECOND SLOPE	(SAS FORMAT NAME - B54F)
	-0.99 - -0.01 = 'NEGATIVE'	Negative
	0.01-0.98 = 'POSITIVE'	Positive
	0.99 = 'UNKNOWN'	Unknown
	OTHER = 'ERROR CODES'	Coded in error
B55	HORIZONTAL DISTANCE - THIRD SLOPE	(SAS FORMAT NAME - B55F)
	00 = 'NOT APPLICABLE'	Not applicable
	01 = 'ONE FT OR LESS'	1 ft (0.3 m) or less
	02-12 = ACTUAL DISTANCE	
	13-96 = '13+ ft'	
	. = 'NOT CODED'	Missing/not coded
	97-98 = '97+ FT'	97 ft (29.6 m) or greater
	99 = 'UNKNOWN'	Unknown
B56	RATE OF SLOPE - THIRD SLOPE	(SAS FORMAT NAME - B56F)
	-0.99 - -0.01 = 'NEGATIVE'	Negative
	0.01-0.98 = 'POSITIVE'	Positive
	0.99 = 'UNKNOWN'	Unknown
	OTHER = 'ERROR CODES'	Coded in error

B57	TOTAL HORIZONTAL DISTANCE	(SAS FORMAT NAME - B57F)
	00 = 'BARRIER AT EDGE'	Barrier located at roadway edge
	01-04 = '1 - 4 FT'	1 - 4 ft (0.3 - 1.2 m)
	05-08 = '5 - 8 FT'	5 - 8 ft (1.5 - 2.4 m)
	09-12 = '9 - 12 FT'	9 - 12 ft (2.7 - 3.6 m)
	13-97 = '13+ FT'	13 ft (3.9 m) or greater
	. = 'INVALID DATA'	Invalid data
	99 = 'UNKNOWN'	Unknown
B58	TOTAL CHANGE IN ELEVATION	(SAS FORMAT NAME - B58F)
	00 = 'NO CHANGE IN ELEV'	No change in elevation
	-12 - -1 = '-1 - -12" '	-12 to -1 in (-30.5 to -2.54 cm)
	-24 - -13 = '-13 - -24" '	
	-36 - -25 = '-25 - -36" '	
	-84 - -37 = '-37 - -84" '	
	-96 - -85 = '-96 - -85" '	
	-98 - -97 = '-97" OR GREATER'	
	1 - 12 = '1 - 12" '	
	13 - 24 = '13 - 24" '	
	25 - 36 = '25 - 36" '	
	99 = 'UNKNOWN'	Unknown
	OTHER = 'ERROR CODES'	Coded in error
B59	EFFECTIVE HEIGHT OF BARRIER	(SAS FORMAT NAME - B59F)
	-53 - -01 = '-53 - -01'	
	0 = '0 '	
	1-10 = '1 - 10'	1 - 10 in (2.54 - 25.4 cm)
	11-20 = '11 - 20'	
	21-30 = '21 - 30'	
	31-40 = '31 - 40'	
	41-50 = '41 - 50'	
	51-60 = '51 - 60'	
	61-70 = '61 - 70'	
	71-80 = '71 - 80'	
	81-90 = '81 - 90'	
	91-96 = '91 - 96'	
	97 = '97+ '	97 in (246.4 cm) or higher
	99 = 'UNKNOWN'	Unknown
B60	LENGTH OF DIRECT CONTACT DAMAGE	(SAS FORMAT NAME - B60F)
	1-20 = '1 - 20 FT'	1 - 20 ft (0.3 - 6 m)
	21-50 = '21 - 50 FT'	
	51-70 = '51 - 70 FT'	
	71-80 = '71 - 80 FT'	
	81-100 = '81 - 100 FT'	
	101-120 = '101 - 120 FT'	
	121-140 = '121 - 140 FT'	
	141-160 = '141 - 160 FT'	

B60	LENGTH OF DIRECT CONTACT DAMAGE (Continued)	(SAS FORMAT NAME - B60F)
	161-180 = '161 - 180 FT' 181-200 = '181 - 200 FT' 201 = '201 + FT' . = 'NOT CODED' 999 = 'UNKNOWN'	201 ft (61.3 m) or more Missing/not coded Unknown
B61	MAXIMUM DEPTH OF BARRIER DEFORMATION	(SAS FORMAT NAME - B61F)
	00 = 'NO DEFORMATION' 1-20 = '1 - 20 INCH' 21-50 = '21 - 50 INCH' 51-70 = '51 - 70 INCH' 71-96 = '71 - 96 INCH' . = 'NOT CODED' 97 = '97+ INCHES' OTHER = 'INVALID CODES' 99 = 'UNKNOWN'	No deformation 1 - 20 in (2.54 - 50.8 cm) deformation Missing/not coded 97 in (246.4 cm) or greater Invalid codes Unknown
B62	IMPACT ANGLE	(SAS FORMAT NAME - B62F)
	00-08 = '0 - 8 DEGS' 09-12 = '9 - 12 DEGS' 13-17 = '13 - 17 DEGS' 18-22 = '18 - 22 DEGS' 23-27 = '23 - 27 DEGS' 28-32 = '28 - 32 DEGS' 33-40 = '33 - 40 DEGS' 41-55 = '41 - 55 DEGS' 56-75 = '56 - 75 DEGS' 76-98 = '76 - 98 DEGS' 100-199 = '100+ DEGS' 99 = 'UNKNOWN' OTHER = 'ERROR CODES' . = 'NOT CODED'	0 - 8 degrees Over 100 degrees Unknown Coded in error Missing/not coded
B63	VEHICLE YAWING ANGLE AT IMPACT	(SAS FORMAT NAME - B63F)
	00-08 = '0 - 8 DEGS' 09-12 = '9 - 12 DEGS' 13-17 = '13 - 17 DEGS' 18-22 = '18 - 22 DEGS' 23-27 = '23 - 27 DEGS' 28-32 = '28 - 32 DEGS' 33-40 = '33 - 40 DEGS' 41-55 = '41 - 55 DEGS'	0 - 8 degrees

(SAS FORMAT NAME - B63F)

100 degrees or greater
Unknown
Missing/not coded
Coded in error

(SAS FORMAT NAME - B64F)

1 - 10 mi/h (1.6 - 16.1 km/h)

97 mi/h (156 km/h) or greater
Unknown
Less than 10 mi/h (16.1 km/h)

Less than 10 mi/h (16.1 km/h)

Low speed

Greater than 5 mi/h (8 km/h)

High speed

Missing/not coded

33

B65	SEPARATION ANGLE	(SAS FORMAT NAME - B65F)
	00-08 = '0 - 8 DEGS'	0 - 8 degrees
	09-12 = '9 - 12 DEGS'	
	13-17 = '13 - 17 DEGS'	
	18-22 = '18 - 22 DEGS'	
	23-27 = '23 - 27 DEGS'	
	28-32 = '28 - 32 DEGS'	
	33-40 = '33 - 40 DEGS'	
	41-55 = '41 - 55 DEGS'	
	56-75 = '56 - 75 DEGS'	
	76-98 = '76 - 98 DEGS'	
	100-199 = '100+ DEGS'	
	99 = 'UNKNOWN'	Unknown
	. = 'NOT CODED'	Missing/not coded
	OTHER = 'ERROR CODES'	Coded in error
B66	BARRIER PERFORMANCE	(SAS FORMAT NAME - B66F)
	1 = 'VH REDIREC BY BAR'	Vehicle redirected by barrier
	2 = 'VH SNAGGED BY BAR'	Vehicle snagged by barrier
	3 = 'VH OVERRODE BAR'	Vehicle overrode barrier
	4 = 'VH VAULTED BAR'	Vehicle vaulted barrier
	5 = 'VH PENETRATED BAR'	Vehicle penetrated barrier
	8 = 'OTHER'	Other
	9 = 'UNKNOWN'	Unknown
	. = 'NOT CODED'	Missing/not coded
	OTHER = 'INVALID CODES'	Invalid codes
B67	POST-IMPACT TRAJECTORY	(SAS FORMAT NAME - B67F)
	. = 'NOT CODED'	Missing/not coded
	1 = 'VH REMN IN RDSID'	Vehicle remained on roadside
	2 = 'VH RETRN TO RDWY'	Vehicle returned to roadway
	3 = 'VH CRS RDWY OPSD'	Vehicle crossed roadway and ran off opposite side
	4 = 'VH CRS MED TRWAY'	Vehicle crossed median to another roadway/travelway
	5 = 'VH TOP/OVER/THRU'	Vehicle remained on top of, went over, or through barrier
	8 = 'OTHER'	Other
	9 = 'UNKNOWN'	Unknown
	OTHER = 'INVALID CODES'	Invalid codes

B68	SUBSEQUENT IMPACT	(SAS FORMAT NAME - B68F)
	0 = 'NONE'	None
	1 = 'ANOTHER VEHICLE'	Another vehicle
	2 = 'ANOTHR RDSID OBJ'	Another roadside object
	3 = 'SAME LONGIT BARR'	Same longitudinal barrier
	4 = 'ANOTHER LOG BARR'	Another longitudinal barrier
	5 = 'BRIDGE RAIL/END'	Bridge rail/end
	6 = 'ROLLOVER'	Rollover
	8 = 'OTHER'	Other
	9 = 'UNKNOWN'	Unknown
	. = 'NOT CODED'	Missing/not coded
	OTHER = 'INVALID DATA'	Invalid data
B69	ROLLOVER	(SAS FORMAT NAME - B69)
	0 = 'NO ROLLOVER'	No rollover
	1 = 'ROLL 1 QTR TURN'	Rollover, 1 quarter turn
	2 = 'ROLL 2 QTR TURN'	Rollover, 2 quarter turns
	3 = 'ROLL 3 QTR TURN'	Rollover, 3 quarter turns
	4 = 'ROLL 4+ QTR TURN'	Rollover, 4 or more quarter turns
	5 = 'ROLL W/VAULT PICH'	Rollover primarily about lateral axis
	6 = 'OVRTRN DETAIL UNK'	Rollover, details unknown
B70A	CONCRETE BARRIER A DIMENSION	(SAS FORMAT NAME - B70AF)
	0.0 = 'NO CONCRETE BARR'	No concrete barrier
	1.0-1.4 = '1.0 - 1.4'	1 - 1.4 in (2.54 - 3.6 cm)
	1.5-2.4 = '1.5 - 2.4'	Vertical rise from pavement
	2.5-3.4 = '2.5 - 3.4'	
	3.5-4.4 = '3.5 - 4.4'	
	4.5-5.4 = '4.5 - 5.4'	
	5.5-6.4 = '5.5 - 6.4'	
	6.5-7.4 = '6.5 - 7.4'	
	7.5-8.4 = '7.5 - 8.4'	
	8.5-9.0 = '8.5 IN OR OVER'	8.5 in (21.6 cm) or over
	. = 'NOT CODED'	Missing/not coded
	99.9 = 'UNKNOWN'	Unknown
B70B	CONCRETE BARRIER B DIMENSION	(SAS FORMAT NAME - B70BF)
	0.0 = 'NO CONCRETE BARR'	No concrete barrier
	10.0-11.9 = '10.0 - 11.9'	10 - 11.9 in (25.4 - 30.2 cm)
	12.0-13.9 = '12.0 - 13.9'	Lower slope
	14.0-15.9 = '14.0 - 15.9'	
	16.0-17.9 = '16.0 - 17.9'	
	18.0-19.9 = '18.0 - 19.9'	
	20.0-21.9 = '20.0 - 21.9'	
	22.0-23.9 = '20.0 - 23.9'	
	24.0-25.0 = '24 INCH & OVER'	24 in (70 cm) and over
	. = 'NOT CODED'	Missing/not coded
	99.9 = 'UNKNOWN'	Unknown

B71	CONFIDENCE OF IMPACT ANGLE	(SAS FORMAT NAME - B71F)
	0 = 'LIMITED CONFIDENCE'	Limited confidence
	1 = '+-(10) DEG CONFIDE'	± 10 degrees confidence
	2 = '+-(05) DEG CONFIDE'	± 5 degrees confidence
	. = 'NOT CODED'	Not coded
	9 = 'UNKNOWN'	Unknown
B72	CONFIDENCE OF YAWING ANGLE AT IMPACT	(SAS FORMAT NAME - B72F)
	0 = 'LIMITED CONFIDENCE'	Limited confidence
	1 = '+-(10) DEG CONFIDE'	± 10 degrees confidence
	2 = '+-(05) DEG CONFIDE'	± 5 degrees confidence
	. = 'NOT CODED'	Not coded
	9 = 'UNKNOWN'	Unknown
B73	CONFIDENCE OF SEPARATION ANGLE	(SAS FORMAT NAME - B73F)
	0 = 'LIMITED CONFIDENCE'	Limited confidence
	1 = '+-(10) DEG CONFIDE'	± 10 degrees confidence
	2 = '+-(05) DEG CONFIDE'	± 5 degrees confidence
	. = 'NOT CODED'	Not coded
	9 = 'UNKNOWN'	Unknown
B74	CONFIDENCE OF FINAL REST DISTANCE	(SAS FORMAT NAME - B74F)
	0 = 'LIMITED CONFIDENCE'	Limited confidence
	1 = '+-(10) DEG CONFIDE'	± 10 degrees confidence
	2 = '+-(05) DEG CONFIDE'	± 5 degrees confidence
	. = 'NOT CODED'	Not coded
	9 = 'UNKNOWN'	Unknown
B83	CRUSH PROFILE - L	(SAS FORMAT NAME - NONE)
	ACTUAL CRUSH IN INCHES	
B85	CRUSH PROFILE - D	(SAS FORMAT NAME - NONE)
	ACTUAL CRUSH IN INCHES	
B84_C1	CRUSH PROFILE - C1	(SAS FORMAT NAME - NONE)
	ACTUAL CRUSH IN INCHES	
B84_C2	CRUSH PROFILE - C2	(SAS FORMAT NAME - NONE)
	ACTUAL CRUSH IN INCHES	
B84_C3	CRUSH PROFILE - C3	(SAS FORMAT NAME - NONE)
	ACTUAL CRUSH IN INCHES	

B84_C4	CRUSH PROFILE - C4	(SAS FORMAT NAME - NONE)
	ACTUAL CRUSH IN INCHES	
B84_C5	CRUSH PROFILE - C5	(SAS FORMAT NAME - NONE)
	ACTUAL CRUSH IN INCHES	
B84_C6	CRUSH PROFILE - C6	(SAS FORMAT NAME - NONE)
	ACTUAL CRUSH IN INCHES	
CASEID	CASE NUMBER	(SAS FORMAT NAME - NONE)
	4-CHARACTER CASE NUMBER	
CASENO	SEQUENCE NUMBER	(SAS FORMAT NAME - NONE)
	3-CHARACTER SEQUENCE NUMBER	
C_DIM1	DEPTH OF CRUSH (INCHES) AT C1	(SAS FORMAT NAME - NONE)
	ACTUAL CRUSH IN INCHES	
C_DIM2	DEPTH OF CRUSH (INCHES) AT C2	(SAS FORMAT NAME - NONE)
	ACTUAL CRUSH IN INCHES	
C_DIM3	DEPTH OF CRUSH (INCHES) AT C3	(SAS FORMAT NAME - NONE)
	ACTUAL CRUSH IN INCHES	
C_DIM4	DEPTH OF CRUSH (INCHES) AT C4	(SAS FORMAT NAME - NONE)
	ACTUAL CRUSH IN INCHES	
C_DIM5	DEPTH OF CRUSH (INCHES) AT C5	(SAS FORMAT NAME - NONE)
	ACTUAL CRUSH IN INCHES	
C_DIM6	DEPTH OF CRUSH (INCHES) AT C6	(SAS FORMAT NAME - NONE)
	ACTUAL CRUSH IN INCHES	
D_DIM	DAMAGE OFFSET (INCHES)	(SAS FORMAT NAME - NONE)
	ACTUAL OFFSET IN INCHES	
LINKVAR	COMPUTED FILE LINKING VARIABLE	(SAS FORMAT NAME - NONE)
	UNIQUE 6-CHARACTER ID FOR EACH ACCIDENT	

L_DIM	LENGTH OF CRUSH (INCHES)	(SAS FORMAT NAME - NONE)
	ACTUAL CRUSH IN INCHES	
PSU	PSU NUMBER	(SAS FORMAT NAME - NONE)
	2-CHARACTER NUMBER REPRESENTING PSU	
SSLB	LONGITUDINAL BARRIER (S.S. INDICATOR)	(SAS FORMAT NAME - NONE)
	. = 'NOT IN EFFECT'	Not in effect
	0 = 'NO'	No
	1 = 'YES'	Yes
STRATIF	STRATIFICATION	(SAS FORMAT NAME - NONE)
	STRATIFICATION CODE (A-Z, EXCEPT I, O, U, X)	
YEAR	YEAR OF ACCIDENT	(SAS FORMAT NAME - NONE)
	2-DIGIT NUMBER REPRESENTING THE LAST TWO DIGITS OF THE ACCIDENT YEAR	
ZC	ZONE CENTER	(SAS FORMAT NAME - NONE)
	ZONE CENTER CODE (A-D)	

LIST OF VARIABLES FOR LBSS DRIVER (DRIVER.SSD) FILE

<u>Variable</u>	<u>Description</u>	<u>Type</u>	<u>SAS Format Page No.</u>
ACCESS	ACCESS CONTROL	Num	41
ALIGNMNT	ROADWAY ALIGNMENT	Num	41
AVOIDMAN	ATTEMPTED AVOIDANCE MANEUVER	Num	41
CASEID	CASE NUMBER - STRATIFICATION	Char	41
CASENO	SEQUENCE NUMBER	Num	41
CLTWAY	CLASS TRAFFICWAY	Num	41
DRCLASS	DRIVER'S CLASSIFICATION	Num	42
DRINKING	ALCOHOL INVOLVEMENT	Num	42
DRTRAIN	DRIVER EDUCATION	Num	42
ENVRF	FIRST OTHER ENVIRONMENT-RELATED FACTOR	Num	42
FREQDRIV	FREQUENCY DRIVING ROAD	Num	43
GRADE	GRADE MEASUREMENT	Num	43
HPMS	HPMS SAMPLE NUMBER	Char	43
LANDUSE	LAND USE	Num	44
LANES	NUMBER OF TRAVEL LANES	Num	44
LINKVAR	COMPUTED FILE LINKING VARIABLE	Char	44
MEDIANT	MEDIAN TYPE	Num	44
MEDIANW	MEDIAN WIDTH	Num	44
OCUPANTS	NUMBER OF OCCUPANTS THIS MOTOR VEHICLE	Num	45
PROFIL	ROADWAY PROFILE	Num	45
PSU	PSU NUMBER	Num	45
PSUWGT	PSU INFLATION FACTOR	Num	45
RATWGT	RATIO ADJUSTMENT	Num	45
ROADFUNC	ROADWAY FUNCTION CLASS	Num	45
SHOULDLT	LEFT SHOULDER TYPE	Num	46
SHOULDRT	RIGHT SHOULDER TYPE	Num	46
SPLIMIT	SPEED LIMIT	Num	46
SSLB	LONGITUDINAL BARRIER (S.S. INDICATOR)	Num	46
STRATIF	INITIAL STRATIFICATION	Char	46
SURCOND	ROADWAY SURFACE CONDITION	Num	47
SURTYPE	ROADWAY SURFACE TYPE	Num	47
VEHNO	VEHICLE NUMBER	Num	47
YEAR	YEAR OF ACCIDENT	Num	47

SAS FORMAT DEFINITIONS FOR VARIABLES IN THE LBSS DRIVER FILE

ACCESS	ACCESS CONTROL	(SAS FORMAT NAME - ACCCNTLF)
	1 = 'FULL'	Full
	2 = 'PARTIAL'	Partial
	3 = 'UNCONTROLLED'	Uncontrolled
	9 = 'UNKNOWN'	Unknown
ALIGNMNT	ROADWAY ALIGNMENT	(SAS FORMANT NAME - ALIGNMF)
	1 = 'STRAIGHT'	Straight
	2 = 'CURVE RIGHT'	Curve right
	3 = 'CURVE LEFT'	Curve left
	9 = 'UNKNOWN'	Unknown
AVOIDMAN	ATTEMPTED AVOIDANCE MANEUVER	(SAS FORMAT NAME - MANEUF)
	. = 'NO DRIVER'	No driver
	00 = 'NO AVOIDANCE AC'	No avoidance actions
	01 = 'BRAKING N/LOCK'	Braking (no lockup)
	02 = 'BRAKING LOCKUP'	Braking (lockup)
	03 = 'PUMPING BRAKS'	Pumping brakes
	04 = 'RELEASING BRKS'	Releasing brakes
	05 = 'STEERING LEFT'	Steering left
	06 = 'STEERING RIGHT'	Steering right
	07 = 'BRK/STR LEFT'	Braking and steering left
	08 = 'BRK/STR RIGHT'	Braking and steering right
	09 = 'ACCELERATING'	Accelerating
	10 = 'ACCEL/STR LEFT'	Accelerating and steering left
	11 = 'ACCEL/STR RIGHT'	Accelerating and steering right
	85 = 'BRK LCKUP UNK'	Braking (lockup unknown)
	86 = 'NO IMPACT'	No impact
	98 = 'OTHER ACTION'	Other action
	99 = 'UNKNOWN'	Unknown
CASEID	CASE NUMBER - STRATIFICATION	(SAS FORMAT NAME - NONE)
	4-CHARACTER CASE NUMBER (INCLUDES STRATIFICATION CODE)	
CASENO	SEQUENCE NUMBER	(SAS FORMAT NAME - NONE)
	3-CHARACTER SEQUENCE NUMBER (SAME AS CASEID WITHOUT STRATIFICATION CODE)	

CLTWAY	CLASS TRAFFICWAY	(SAS FORMAT NAME - NONE)
1 =	'INTERSTATE'	Interstate
2 =	'U.S. HIGHWAY'	U.S. highway
3 =	'STATE HIGHWAY'	State highway
4 =	'COUNTY ROAD'	County road
5 =	'TOWNSHIP'	Township
6 =	'MUNICIPALITY'	Municipality
8 =	'OTHER'	Other
9 =	'UNKNOWN'	Unknown

Note: Data for this variable is only available for the years 1985 and 1986. The cells are empty for 1982 through 1984 as this data was not collected. Similar data for 1982 through 1984 is available in the ACCIDENT file.

DRCLASS	DRIVER'S CLASSIFICATION	(SAS FORMAT NAME - DRVCLSF)
0 =	'NONCOMMERCIAL'	Noncommmercial
1 =	'FULL TIME EMPL'	Full-time emple
2 =	'PART TIME EMPL'	Part-time emple
3 =	'OWNER OPERATOR'	Owner operator
4 =	'LEASE/LABOR CONT'	Lease/labor continued
8 =	'OTHER'	Other
9 =	'UNKNOWN'	Unknown

DRINKING	ALCOHOL INVOLVEMENT	(SAS FORMAT NAME - ALCOHF)
.	'NO DRIVER'	No driver
0 =	'NO (ALCOHOL NOT PRESENT)'	No (alcohol not present)
1 =	'YES (ALCOHOL PRESENT)'	Yes (alcohol present)
8 =	'NOT REPORTED'	Not reported
9 =	'UNKNOWN'	Unknown

DRTRAIN	DRIVER EDUCATION	(SAS FORMAT NAME - DRVEDUF)
0 =	'NO FORMAL TRAIN'	No formal driver training
1 =	'TRAIN TIME OF ACC'	Training at time of accident
2 =	'HS DRV TRAIN'	High school driver training
3 =	'COMM DRV TRAIN'	Commercial driver training
4 =	'TRK DRV TRAIN SCH'	Truck driver training school
5 =	'MOTOR CAR PGM'	Motor carrier program
6 =	'MTCYC DRV TRAIN'	Motorcycle driver training
7 =	'VOC TRAIN PGM'	Vocational training program
8 =	'OTH FORM TRAIN'	Other formal training
9 =	'UNKNOWN'	Unknown

ENVRF	FIRST OTHER ENVIRONMENT-RELATED FACTOR	(SAS FORMAT NAME - ENVRF)
	00 = 'NO OTHER FACTORS'	No other factors
	01 = 'VO-RAIN/SNOW/FOG'	Rain/snow/fog
	02 = 'VO-GLARE/SUNLIGH'	Glare/sunlight
	03 = 'VO-CURVE, HIL ETC'	Curve, hill, etc.
	04 = 'VO-BUILDING ETC'	Building, etc.
	05 = 'VO-TREES, CROPS'	Trees, crops
	06 = 'VO-MOVN VEH'	Moving vehicle
	07 = 'VO-SPLASH/SPRAY'	Splash/spray
	08 = 'VO-PRKED VEH'	Parked vehicle
	09 = 'VO-OTH OBJ N/CLS'	Other object not classifiable
	20 = 'LC-SEVERE CRSWND'	Severe crosswind
	21 = 'LC-WND FRM TRCK'	Wind from truck
	22 = 'LC-SLIPPERY SURF'	Slippery surface
	23 = 'LC-AVOID OBJ'	Avoid object
	24 = 'LC-RUTS, HOLES'	Ruts, holes
	25 = 'LC-AVOID ANIMAL'	Avoid animal
	26 = 'LC-AVOID VEH RDWY'	Avoid vehicle in roadway
	27 = 'LC-AVOID PEDESTRN'	Avoid pedestrian
	28 = 'LC-AVOID WTR, SNOW'	Avoid water, snow
	30 = 'RF-INADQ WRN, EXIT'	Inadequate warning, exit
	31 = 'RF-PAVMNT MRK'	Pavement marking
	32 = 'RF-SURF WSH OUT'	Surface washed out
	33 = 'RF-SHLD LOW/HIGH'	Shoulder too low/high
	34 = 'RF-INADQ CONSTR'	Inadequate construction
	35 = 'RF-VEH UNATTNED'	Vehicle unattended
	98 = 'OTHER'	Other
	99 = 'UNKNOWN'	Unknown
FREQDRIV	FREQUENCY DRIVING ROAD	(SAS FORMAT NAME - DRVFREQF)
	1 = 'DAILY'	Daily
	2 = 'WEEKLY'	Weekly
	3 = 'MONTHLY'	Monthly
	4 = '< ONCE A MNTH'	Less than once a month
	5 = 'FIRST TIME'	First time
	9 = 'UNKNOWN'	Unknown
GRADE	GRADE MEASUREMENT	(SAS FORMAT NAME - MEASURF)
	000 = 'NO GRADE'	No grade
	-15 - -11 = '-15- -11'	
	-10 - -6 = '-10- -6'	
	-5 - -1 = '-5 - -1'	
	1 - 5 = '1 - 5'	
	6 - 10 = '6 - 10'	
	11 - 15 = '11 - 15'	
	16 - 20 = '16 - 20'	
	99 = 'UNKNOWN'	Unknown

Note: Collection of this data item began in 1985. As a result the cells for 1982 to 1984 are empty.

HPMS	HPMS SAMPLE NUMBER	(SAS FORMAT NAME - NONE)
	THIRTEEN COLUMN ALPHANUMERIC SAMPLE NUMBER	
LANDUSE	LAND USE	(SAS FORMAT NAME - NONE)
	1 = 'URBAN'	Urban
	2 = 'RURAL'	Rural
	9 = 'UNKNOWN'	Unknown
	. = 'NOT CODED'	Missing/not coded
LANES	NUMBER OF TRAVEL LANES	(SAS FORMAT NAME - LANESF)
	1 = 'ONE'	One
	2 = 'TWO'	Two
	3 = 'THREE'	Three
	4 = 'FOUR'	Four
	5 = 'FIVE'	Five
	6 = 'SIX'	Six
	7 = 'SEVEN'	Seven
	8 = 'UNKNOWN'	Unknown
LINKVAR	COMPUTED FILE LINKING VARIABLE	(SAS FORMAT NAME - NONE)
	UNIQUE 6-CHARCTER ID FOR EACH ACCIDENT	
MEDIANT	MEDIAN TYPE	(SAS FORMAT NAME - MEDTYPEF)
	0 = 'NO MEDIAN'	No median
	1 = 'CURBED'	Curbed
	2 = 'POSITIVE BARRIER'	Positive barrier
	3 = 'UNPROTECTED'	Unprotected
	8 = 'CURBED W/POS BARR'	Curbed with positive barrier
	9 = 'UNKNOWN'	Unknown
MEDIANW	MEDIAN WIDTH	(SAS FORMAT NAME - MEDIANF)
	00 = 'NO MEDIAN'	No median
	1-10 = '1 - 10 FT'	
	11-20 = '11 - 20 FT'	
	21-30 = '21 - 30 FT'	
	31-40 = '31 - 40 FT'	
	41-50 = '41 - 50 FT'	
	51-60 = '51 - 60 FT'	
	61-70 = '61 - 70 FT'	
	71-80 = '71 - 80 FT'	
	81-96 = '81 - 96 FT'	
	97 = '97+ FEET'	97 ft (29.6 m) or more
	99 = 'UNKNOWN'	Unknown

OCCUPANTS	NUMBER OF OCCUPANTS THIS MOTOR VEHICLE	(SAS FORMAT NAME - NBROCCF)
	1-2 = '1 TO 2'	
	3-4 = '3 TO 4'	
	5-6 = '5 TO 6'	
	7-8 = '7 TO 8'	
	9-10 = '9 TO 10'	
PROFIL	ROADWAY PROFILE	(SAS FORMAT NAME - RDPROFILF)
	1 = 'LEVEL < 2% GRDE'	Level < 2 percent grade
	2 = 'POSITIVE GRADE'	Positive grade
	3 = 'NEGATIVE GRADE'	Negative grade
	4 = 'HILLCREST'	Hillcrest
	5 = 'SAG'	Sag
	9 = 'UNKNOWN'	Unknown
Note: Variable name for the years 1982 to 1984 was GRADE. Change was made in 1985.		
PSU	PSU NUMBER	(SAS FORMAT NAME - NONE)
	2-CHARACTER NUMBER REPRESENTING PSU	
PSUWGT	PSU INFLATION FACTOR	(SAS FORMAT NAME - NONE)
	ACTUAL INFLATION FACTOR	
RATWGT	RATIO ADJUSTMENT	(SAS FORMAT NAME - NONE)
	ACTUAL RATIO ADJUSTMENT	
ROADFUNC	ROADWAY FUNCTION CLASS	(SAS FORMAT NAME - NONE)
		<u>Rural</u>
	1	Principal arterial - Interstate
	2	Principal arterial - other
	3	Minor arterial
	4	Major arterial
	5	Minor collector
	6	Local road or street
	9	Unknown rural
		<u>Urban</u>
	11	Principal arterial - Interstate
	12	Principal arterial - other freeways or expressways
	13	Other principal arterial

ROADFUNC	ROADWAY FUNCTION CLASS (Continued)	(SAS FORMAT NAME - NONE)
14	Minor arterial	
15	Collector	
16	Local road or street	
19	Unknown urban	
99	Unknown	
.	Missing/not coded	

Note: Data for this variable is only available for the years 1985 and 1986. The cells are empty for 1982 through 1984 as this data was not collected.

SHOULDLT	LEFT SHOULDER TYPE	(SAS FORMAT NAME - SHLDTYPEF)
0 = 'NO SHOULDER'	No shoulder	
1 = 'SURFACED 2-6 FT'	Surfaced 2 to 6 ft (0.6 to 1.8 m)	
2 = 'SURFACED > 6 FT'	Surfaced > 6 ft (1.8 m)	
3 = 'GRAV/OTH 2-6 FT'	Gravel/other 2 to 6 ft (0.6 to 1.8 m)	
4 = 'GRAV/OTH > 6 FT'	Gravel/other > 6 ft (1.8 m)	
5 = 'NAT EARTH 2-6 FT'	Natural earth 2 to 6 ft (0.6 to 1.8 m)	
6 = 'NAT EARTH > 6 FT'	Natural earth > 6 ft (1.8 m)	
9 = 'UNKNOWN'	Unknown	

SHOULDRT	RIGHT SHOULDER TYPE	(SAS FORMAT NAME - SHLDTYPEF)
	(SEE CODES FOR SHOULDLT)	

SPLIMIT	SPEED LIMIT	(SAS FORMAT NAME - SPEEDF)
00 = 'NO STATUTORY LIMIT'	No statutory limit	
01-25 = '1 TO 25 MPH'	1 to 25 mi/h (1.6 to 81 km/h)	
26-35 = '26 TO 35 MPH'		
36-45 = '36 TO 45 MPH'		
46-55 = '46 TO 55 MPH'		
56-65 = '55 TO 65 MPH'		
66-75 = '66 TO 75 MPH'		
76-85 = '76 TO 85 MPH'		
86-98 = '86 TO 98 MPH'		
99 = 'UNKNOWN'	Unknown	

SSLB	LONGITUDINAL BARRIER (S.S. INDICATOR)	(SAS FORMAT NAME - NONE)
.	'NOT IN EFFECT'	Not in effect
0 = 'NO'		No
1 = 'YES'		Yes

STRATIF	INITIAL STRATIFICATION	(SAS FORMAT NAME - NONE)
	STRATIFICATION CODE (A-Z, EXCEPT I, O, U, X)	

SURCOND	ROADWAY SURFACE CONDITION	(SAS FORMAT NAME - CONDITF)
	1 = 'DRY'	Dry
	2 = 'WET'	Wet
	3 = 'SNOW/SLUSH'	Snow or slush
	4 = 'ICE'	Ice
	5 = 'SAND, DIRT/OIL'	Sand, dirt, or oil
	8 = 'OTHER'	Other
	9 = 'UNKNOWN'	Unknown
SURTYPE	ROADWAY SURFACE TYPE	(SAS FORMAT NAME - SURFTYPE)
	1 = 'CONCRETE'	Concrete
	2 = 'BITUM ASPHALT'	Bituminous asphalt
	3 = 'BRICK OR BLOCK'	Brick or block
	4 = 'SLAG, GRAVEL'	Slag or gravel
	5 = 'DIRT'	Dirt
	8 = 'OTHER'	Other
	9 = 'UNKNOWN'	Unknown
VEHNO	VEHICLE NUMBER	(SAS FORMAT NAME - NONE)
	ACTUAL VEHICLE NUMBER	
YEAR	YEAR OF ACCIDENT	(SAS FORMAT NAME - NONE)
	2-DIGIT NUMBER REPRESENTING THE LAST TWO DIGITS OF THE ACCIDENT YEAR	

LIST OF VARIABLES FOR LBSS OCCUPANT (OCCUPANT.SSD) FILE

<u>Variable</u>	<u>Description</u>	<u>Type</u>	<u>SAS Format Page No.</u>
AGE	AGE OF PERSON	Num	51
AIS1	AIS SEVERITY (FIRST)	Num	51
AIS2	AIS SEVERITY (SECOND)	Num	51
AIS3	AIS SEVERITY (THIRD)	Num	51
AIS4	AIS SEVERITY (FOURTH)	Num	51
AIS5	AIS SEVERITY (FIFTH)	Num	51
AIS6	AIS SEVERITY (SIXTH)	Num	52
ASPECT1	ASPECT (FIRST)	Char	52
ASPECT2	ASPECT (SECOND)	Char	52
ASPECT3	ASPECT (THIRD)	Char	52
ASPECT4	ASPECT (FOURTH)	Char	52
ASPECT5	ASPECT (FIFTH)	Char	52
ASPECT6	ASPECT (SIXTH)	Char	52
AUTAVAIL	PASSIVE RESTRAINT SYSTEM - AVAILABILITY	Num	52
AUTFNCT	PASSIVE RESTRAINT SYSTEM - FUNCTION	Num	53
BODYREG1	OIC BODY REGION (FIRST)	Char	53
BODYREG2	OIC BODY REGION (SECOND)	Char	53
BODYREG3	OIC BODY REGION (THIRD)	Char	53
BODYREG4	OIC BODY REGION (FOURTH)	Char	53
BODYREG5	OIC BODY REGION (FIFTH)	Char	53
BODYREG6	OIC BODY REGION (SIXTH)	Char	54
CASEID	CASE NUMBER - STRATIFICATION	Char	54
CASENO	SEQUENCE NUMBER	Num	54
EJECTION	EJECTION	Num	54
HOSPSTAY	HOSPITAL STAY	Num	54
INJSEV	INJURY SEVERITY (POLICE RATING)	Num	54
INJSOU1	INJURY SOURCE (FIRST)	Num	54
INJSOU2	INJURY SOURCE (SECOND)	Num	56
INJSOU3	INJURY SOURCE (THIRD)	Num	56
INJSOU4	INJURY SOURCE (FOURTH)	Num	56
INJSOU5	INJURY SOURCE (FIFTH)	Num	56
INJSOU6	INJURY SOURCE (SIXTH)	Num	56
ISS	ISS	Num	56
LESION1	LESION (FIRST)	Char	57
LESION2	LESION (SECOND)	Char	57
LESION3	LESION (THIRD)	Char	57
LESION4	LESION (FOURTH)	Char	57
LESION5	LESION (FIFTH)	Char	57
LESION6	LESION (SIXTH)	Char	57
LINKVAR	COMPUTED FILE LINKING VARIABLE	Char	57
MAIS	MAXIMUM KNOWN OCC/PED/NM AIS	Num	57
MANAVAIL	ACTIVE RESTRAINT SYSTEM - AVAILABILITY	Num	58
MANUSE	ACTIVE RESTRAINT SYSTEM - USE	Num	58
OCCNO	OCCUPANT NUMBER	Num	58
PSU	PSU NUMBER	Num	58

LIST OF VARIABLES FOR LBSS OCCUPANT (OCCUPANT.SSD) FILE (Continued)

<u>Variable</u>	<u>Description</u>	<u>Type</u>	<u>SAS Format Page No.</u>
RATWGT	RATIO ADJUSTMENT	Num	58
ROLE	OCCUPANT'S ROLE	Num	58
SEATPOS	OCCUPANT'S SEAT POSITION	Num	58
SEX	SEX OF PERSON	Num	59
SOUDAT1	SOURCE OF DATA (FIRST)	Num	59
SOUDAT2	SOURCE OF DATA (SECOND)	Num	59
SOUDAT3	SOURCE OF DATA (THIRD)	Num	59
SOUDAT4	SOURCE OF DATA (FOURTH)	Num	59
SOUDAT5	SOURCE OF DATA (FIFTH)	Num	59
SOUDAT6	SOURCE OF DATA (SIXTH)	Num	59
SSLB	LONGITUDINAL BARRIER (S.S. INDICATOR)	Num	60
STRATIF	INITIAL STRATIFICATION	Char	60
SYSORG1	SYSTEM/ORGAN (FIRST)	Char	60
SYSORG2	SYSTEM/ORGAN (SECOND)	Char	60
SYSORG3	SYSTEM/ORGAN (THIRD)	Char	60
SYSORG4	SYSTEM/ORGAN (FOURTH)	Char	60
SYSORG5	SYSTEM/ORGAN (FIFTH)	Char	60
SYSORG6	SYSTEM/ORGAN (SIXTH)	Char	61
TREATMNT	TREATMENT - MORTALITY	Num	61
VEHNO	VEHICLE NUMBER	Num	61
YEAR	YEAR OF ACCIDENT	Num	61

SAS FORMAT DEFINITIONS FOR VARIABLES IN THE LBSS OCCUPANT FILE

AGE	AGE OF OCCUPANT	(SAS FORMAT NAME - AGEF)
	00 = '< THAN ONE YEAR'	Less than one year
	1-5 = '1 TO 5 YRS OLD'	
	6-10 = '6 TO 10 YRS OLD'	
	11-15 = '11 TO 15 YRS OLD'	
	16-20 = '16 TO 20 YRS OLD'	
	21-30 = '21 TO 30 YRS OLD'	
	31-40 = '31 TO 40 YRS OLD'	
	41-50 = '41 TO 50 YRS OLD'	
	51-60 = '51 TO 60 YRS OLD'	
	61-70 = '61 TO 70 YRS OLD'	
	71-80 = '71 TO 80 YRS OLD'	
	81-90 = '81 TO 90 YRS OLD'	
	91-96 = '91 TO 96 YRS OLD'	
	97 = '97+ YEARS OLD'	97 years and older
	99 = 'UNKNOWN'	Unknown
AIS1	AIS SEVERITY (FIRST)	(SAS FORMAT NAME - MAISF)
	0 = 'NO INJURY'	No injury
	1 = 'MINOR INJURY'	Minor injury
	2 = 'MODERATE INJR'	Moderate injury
	3 = 'SERIOUS INJUR'	Serious injury
	4 = 'SEVERE INJURY'	Severe injury
	5 = 'CRITICAL INJR'	Critical injury
	6 = 'MAX/UNTREATABL'	Maximum/untreatable
	7 = 'INJURY/UNK SEV'	Injury/unknown severity
	9 = 'UNKNOWN'	Unknown
AIS2	AIS SEVERITY (SECOND)	(SAS FORMAT NAME - MAISF)
	(SEE FORMAT AND CODES UNDER AIS1)	
AIS3	AIS SEVERITY (THIRD)	(SAS FORMAT NAME - MAISF)
	(SEE FORMAT AND CODES UNDER AIS1)	
AIS4	AIS SEVERITY (FOURTH)	(SAS FORMAT NAME - MAISF)
	(SEE FORMAT AND CODES UNDER AIS1)	
AIS5	AIS SEVERITY (FIFTH)	(SAS FORMAT NAME - MAISF)
	(SEE FORMAT AND CODES UNDER AIS1)	
AIS6	AIS SEVERITY (SIXTH)	(SAS FORMAT NAME - MAISF)
	(SEE FORMAT AND CODES UNDER AIS1)	

ASPECT1	ASPECT (FIRST)	(SAS FORMAT NAME - \$ASPECF)
	A = 'ANTERIOR-FRONT'	Anterior - front
	B = 'LATERAL'	Lateral
	C = 'CENTRAL'	Central
	I = 'INFERIOR-LOWER'	Inferior - lower
	U = 'INJURED/UNKN'	Injured/unknown
	L = 'LEFT'	Left
	P = 'POSTERIOR BACK'	Posterior back
	R = 'RIGHT'	Right
	S = 'SUPERIOR UPPER'	Superior upper
	W = 'WHOLE REGION'	Whole region
	0 = 'NOT INJURED'	Not injured
	9 = 'UNKN IF INJ'	Unknown if injured
ASPECT2	ASPECT (SECOND)	(SAS FORMAT NAME - \$ASPECF)
	(SEE FORMAT AND CODES UNDER ASPECT1)	
ASPECT3	ASPECT (THIRD)	(SAS FORMAT NAME - \$ASPECF)
	(SEE FORMAT AND CODES UNDER ASPECT1)	
ASPECT4	ASPECT (FOURTH)	(SAS FORMAT NAME - \$ASPECF)
	(SEE FORMAT AND CODES UNDER ASPECT1)	
ASPECT5	ASPECT (FIFTH)	(SAS FORMAT NAME - \$ASPECF)
	(SEE FORMAT AND CODES UNDER ASPECT1)	
ASPECT6	ASPECT (SIXTH)	(SAS FORMAT NAME - \$ASPECF)
	(SEE FORMAT AND CODES UNDER ASPECT1)	
AUTAVAIL	PASSIVE RESTRAINT SYSTEM AVAILABILITY	(SAS FORMAT NAME - RESTAF)
	0 = 'NOT EQUIPPED'	Not equipped
	1 = 'AIRBAG'	Airbag
	2 = 'AIRBAG DISCON'	Airbag disconnected
	3 = 'AIRBAG N/REINST'	Airbag not reinstalled
	4 = '2 PNT AUTO BLT'	2-point automatic belts
	5 = '3 PNT AUTO BLT'	3-point automatic belts
	6 = 'AUTO BLT DESTR'	Automatic belts destroyed
	9 = 'UNKNOWN'	Unknown

AUTFNCT	PASSIVE RESTRAINT SYSTEM FUNCTION	(SAS FORMAT NAME - FUNCF)
	0 = 'NOT EQUIPPED'	Not equipped
	1 = 'AUTO BELT IN USE'	Automatic belt in use
	2 = 'AUTO BELT N/USE'	Automatic belt not in use
	3 = 'DEPLOYED AIRBAG'	Deployed airbag
	4 = 'NONDEPLOYED AIRBG'	Nondeployed airbag
	9 = 'UNKNOWN'	Unknown
BODYREG1	OIC BODY REGION (FIRST)	(SAS FORMAT NAME - \$BODYRGF)
	M = 'ABDOMEN'	Abdomen
	Q = 'ANKLE-FOOT'	Ankle-foot
	A = 'ARM (UPPER)'	Arm (upper)
	B = 'BACK/SPINE'	Back/spine
	C = 'CHEST'	Chest
	E = 'ELBOW'	Elbow
	F = 'FACE'	Face
	R = 'FOREARM'	Forearm
	H = 'HEAD/SKULL'	Head/skull
	U = 'INJ/UNK REGN'	Injured/unknown region
	K = 'KNEE'	Knee
	L = 'LEG (LOWER)'	Leg (lower)
	Y = 'LOWER LIMBS'	Lower limbs
	N = 'NECK'	Neck
	P = 'PELVIS'	Pelvis
	S = 'SHOULDER'	Shoulder
	T = 'THIGH'	Thigh
	X = 'UPPER LIMBS'	Upper limbs
	O = 'WHOLE BODY'	Whole body
	W = 'WRIST'	Wrist
	0 = 'NOT INJURED'	Not injured
	9 = 'UNKNOWN'	Unknown
BODYREG2	OIC BODY REGION (SECOND)	(SAS FORMAT NAME - \$BODYRGF)
	(SEE FORMAT AND CODES UNDER BODYREG1)	
BODYREG3	OIC BODY REGION (THIRD)	(SAS FORMAT NAME - \$BODYRGF)
	(SEE FORMAT AND CODES UNDER BODYREG1)	
BODYREG4	OIC BODY REGION (FOURTH)	(SAS FORMAT NAME - \$BODYRGF)
	(SEE FORMAT AND CODES UNDER BODYREG1)	
BODYREG5	OIC BODY REGION (FIFTH)	(SAS FORMAT NAME - \$BODYRGF)
	(SEE FORMAT AND CODES UNDER BODYREG1)	
BODYREG6	OIC BODY REGION (SIXTH)	(SAS FORMAT NAME - \$BODYRGF)
	(SEE FORMAT AND CODES UNDER BODYREG1)	

CASEID	CASE NUMBER - STRATIFICATION 4-CHARACTER CASE NUMBER (INCLUDES STRATIFICATION CODE)	(SAS FORMAT NAME - NONE)
CASENO	SEQUENCE NUMBER 3-CHARACTER SEQUENCE NUMBER (SAME AS CASEID WITHOUT STRATIFICATION CODE)	(SAS FORMAT NAME - NONE)
EJECTION	EJECTION 0 = 'NONE' 1 = 'COMPLETE EJECT' 2 = 'PARTIAL EJECT' 3 = 'EJECT UNKWN' 9 = 'UNKNOWN'	(SAS FORMAT NAME - EJECTF) None Complete ejection Partial ejection Ejection unknown Unknown
HOSPSTAY	HOSPITAL STAY 00 = 'NOT HOSPITALIZED' 1-10 = '1 TO 10 DAYS' 11-20 = '11 TO 20 DAYS' 21-30 = '21 TO 30 DAYS' 31-40 = '31 TO 40 DAYS' 41-50 = '41 TO 50 DAYS' 51-60 = '51 TO 60 DAYS' 61 = '61+ DAYS' 99 = 'UNKNOWN'	(SAS FORMAT NAME - STAYF) Not hospitalized 61 or more days Unknown
INJSEV	INJURY SEVERITY (POLICE RATING) 0 = 'NO INJURY' 1 = 'POSSIBLE INJ' 2 = 'NONCAP-INJURY' 3 = 'INCAP INJURY' 4 = 'KILLED' 5 = 'INJ SEV UNK' 6 = 'DIED BEFOR ACC' 9 = 'UNKNOWN'	(SAS FORMAT NAME - INJSEVF) No injury Possible injury Nonincapaciting injury Incapaciting injury Killed Injury severity unknown Died before accident Unknown
INJSOU1	INJURY SOURCE (FIRST) 00 = 'NOT INJURED' 01 = 'FR-WNDSHIELD' 02 = 'FR-MIRROW' 03 = 'FR-STEER ASSEMB' 04 = 'FR-ADD-ON EQUIP' 05 = 'FR-INSTR PANEL' 06 = 'FR-SUNVISOR' 09 = 'FR-OTH FRONT OBJ' 11 = 'SD-INTERIOR SURF' 12 = 'SD-HARDWR/ARMRST' 13 = 'SD-A PILLAR' 14 = 'SD-B PILLAR'	(SAS FORMAT NAME - INJOURF) Not injured Front windshield Front mirrow Front steering assemble Front add-on equipment Front - instrument panel Front - sunvisor Front - other front object Side interior surface Side hardware/armrests Side - A pillar Side - B pillar

INJSOU1

INJURY SOURCE (FIRST)
(Continued)

(SAS FORMAT NAME - INJOURF)

15 = 'SD-OTHER PILLAR'	Side - other pillar
16 = 'SD-WNDW GLAS FRM'	Side - window glass frame
19 = 'SD-OTH SIDE OBJ'	Side - other side object
21 = 'INT-SEAT,BCK SUP'	Interior seat, back support
22 = 'INT-BELT RST SYS'	Interior belt restraint system
23 = 'INT-HEAD RESTRAN'	Interior head restraint
24 = 'INT-AIR CUSHION'	Interior air cushion
25 = 'INT-OTH OCCUP'	Interior other occupants
26 = 'INT-INT LOOSE OB'	Interior loose objects
29 = 'INT-OTH INT OBJ'	Other interior objects
31 = 'RF-FRONT HEADER'	Roof - front header
32 = 'RF-REAR HEADER'	Roof - rear header
33 = 'RF-ROOF SDE RAIL'	Roof side rails
34 = 'RF-ROOF/CONV TOP'	Roof/convertible top
41 = 'FL-FLOOR'	Floor
42 = 'FL-CONSOLE MNT'	Floor - console-mounted
43 = 'FL-PARK BRK HNDL'	Floor - parking brake handle
44 = 'FL-FOOT CNTL'	Floor - foot controls
45 = 'RE-REAR WINDOW'	Rear window
46 = 'RE-STORAGE RACK'	Rear - storage rack
49 = 'RE-OTH REAR OBJ'	Other rear object
51 = 'EOV-HOOD'	Exterior of occupant's vehicle - hood
52 = 'EOV-OUTSDE HRDWR'	Exterior of occupant's vehicle - outside hardware
53 = 'EOV-OTH-EXT SURF'	Exterior of occupant's vehicle - other exterior surface
59 = 'EOV-UNK EXT OBJ'	Exterior of occupant's vehicle - unknown exterior objects
61 = 'CYC-HNDL BARS'	Cycle - handle bars
62 = 'CYC-FRAME'	Cycle - frame
63 = 'CYC-SEAT'	Cycle - seat
64 = 'CYC-FOOT PEDAL'	Cycle - foot pedal
65 = 'CYC-WHEEL/TIRE'	Cycle - wheel/tire
66 = 'CYC-ENGINE'	Cycle - engine
67 = 'CYC-GAS TANK'	Cycle - gas tank
69 = 'CYC-OTH CYC PRT'	Cycle - other cycle part
71 = 'EOMV-BUMPER'	Exterior of motor vehicle - front bumper
72 = 'EOMV-HOOD EDGE'	Hood edge
73 = 'EOMV-OTH FRNT VH'	Other front vehicle
74 = 'EOMV-HOOD'	Hood
75 = 'EOMV-HOOD ORNAMT'	Hood ornament
76 = 'EOMV-WINDSHIELD'	Windshield
77 = 'EOMV-SIDE SURF'	Side surface
78 = 'EOMV-SIDE MIRROR'	Side mirror
79 = 'EOMV-OTH SD PROT'	Other side protrusions
80 = 'EOMV-REAR SURF'	Rear surface
81 = 'EOMV-UND-CARRIAGE'	Under - carriage
82 = 'EOMV-TIRES/WHEELS'	Tires/wheels
83 = 'EOMV-OTH EXT MV'	Other exterior motor vehicle
84 = 'EOMV-UNK EXT'	Unknown exterior
86 = 'OVEH-GROUND'	Other vehicle - ground

INJSOU1	INJURY SOURCE (FIRST) (Continued)	(SAS FORMAT NAME - INJOURF)
	87 = 'OVEH-OTH VEH OBJ'	Other vehicle object
	89 = 'OVEH-UNK VEH OBJ'	Unknown vehicle object
	90 = 'NCONT INJ-SOURCE'	Noncontact injury - source
	97 = 'NCONT INJ/N/SOUR'	Noncontact injured - unknown-source
	99 = 'NCONT-UNK IF INJ'	Noncontact unknown if injured
INJSOU2	INJURY SOURCE (SECOND)	(SAS FORMAT NAME - INJOURF)
	(SEE FORMAT AND CODES UNDER INJSOU1)	
INJSOU3	INJURY SOURCE (THIRD)	(SAS FORMAT NAME - INJOURF)
	(SEE FORMAT AND CODES UNDER INJSOU1)	
INJSOU4	INJURY SOURCE (FOURTH)	(SAS FORMAT NAME - INJOURF)
	(SEE FORMAT AND CODES UNDER INJSOU1)	
INJSOU5	INJURY SOURCE (FIFTH)	(SAS FORMAT NAME - INJOURF)
	(SEE FORMAT AND CODES UNDER INJSOU1)	
INJSOU6	INJURY SOURCE (SIXTH)	(SAS FORMAT NAME - INJOURF)
	(SEE FORMAT AND CODES UNDER INJSOU1)	
ISS	I.S.S.	(SAS FORMAT NAME - NONE)
	0 = 'NOT INJURED'	Not injured
	1 = 'HEAD OR NECK'	Head or neck
	2 = 'FACE'	Face
	3 = 'CHEST'	Chest
	4 = 'ABDOMINAL OR PELVIC CONTENTS'	Abdominal or pelvic contents
	5 = 'EXTREMITIES OR PELVIC GIRDLE'	Extremities or pelvic girdle
	6 = 'GENERAL (EXTERNAL)'	General (external)
	9 = 'UNKNOWN'	Unknown
LESION1	LESION (FIRST)	(SAS FORMAT NAME - \$LESIONF)
	A = 'ABRASION'	Abrasion
	M = 'AMPUTATION'	Amputation
	V = 'AVULSION'	Avulsion
	B = 'BURN'	Burn
	K = 'CONCUSSION'	Concussion
	C = 'CONTUSION'	Contusion
	N = 'CRUSH'	Crush

LESION1	LESION (FIRST) (Continued)	(SAS FORMAT NAME - \$LESIONF)
	G = 'DETACHMENT'	Detachment
	D = 'DISLOCATION'	Dislocation
	F = 'FRACTURE'	Fracture
	Z = 'FRACT & DISLOC'	Fracture and dislocation
	U = 'INJ/UNKN LESION'	Injured/unknown lesion
	L = 'LACERATION'	Laceration
	O = 'OTHER'	Other
	P = 'PERFORATION'	Perforation
	R = 'RUPTURE'	Rupture
	S = 'SPRAIN'	Sprain
	T = 'STRAIN'	Strain
	E = 'TOTAL SEVERENCE'	Total severence
	0 = 'NOT INJURED'	Not injured
	9 = 'UNKN IF INJ'	Unknown if injured
LESION2	LESION (SECOND)	(SAS FORMAT NAME - \$LESIONF)
	(SEE FORMAT AND CODES UNDER LESION1)	
LESION3	LESION (THIRD)	(SAS FORMAT NAME - \$LESIONF)
	(SEE FORMAT AND CODES UNDER LESION1)	
LESION4	LESION (FOURTH)	(SAS FORMAT NAME - \$LESIONF)
	(SEE FORMAT AND CODES UNDER LESION1)	
LESION5	LESION (FIFTH)	(SAS FORMAT NAME - \$LESIONF)
	(SEE FORMAT AND CODES UNDER LESION1)	
LESION6	LESION (SIXTH)	(SAS FORMAT NAME - \$LESIONF)
	(SEE FORMAT AND CODES UNDER LESION1)	
LINKVAR	COMPUTED FILE LINKING VARIABLE	(SAS FORMAT NAME - NONE)
	UNIQUE 6-CHARACTER ID FOR EACH ACCIDENT	
MAIS	MAXIMUM KNOWN OCCUPANT PEDESTRIAN/NON-MOTORIST AIS	(SAS FORMAT NAME - MAISF)
	(SEE FORMAT AND CODES UNDER AIS1)	

MANAVAIL	ACTIVE RESTRAINT SYSTEM AVAILABILITY	(SAS FORMAT NAME - RESTF)
	0 = 'NONE'	None
	1 = 'SHOULD BELT'	Shoulder belt
	2 = 'LAP BELT'	Lap belt
	3 = 'LAP & SHLD BELT'	Lap and shoulder belt
	4 = 'MOTORCYCLE HELM'	Motorcycle helmet
	5 = 'CHLD-SF W/O TETH'	Child safety seat without tether
	6 = 'CHLD-SF W/TH PROP'	Child safety seat with tether properly
	7 = 'CHLD-SF W/TH IMPR'	Child safety seat with tether improperly
	8 = 'REST AVA TYP UNK'	Restraint available - type unknown
	9 = 'UNKNOWN'	Unknown
MANUSE	ACTIVE RESTRAINT SYSTEM - USE	(SAS FORMAT NAME - RESTF)
	(SEE FORMAT AND CODES UNDER MANAVAIL)	
OCCNO	OCCUPANT NUMBER	(SAS FORMAT NAME - NONE)
	ACTUAL OCCUPANT NUMBER	
PSU	PSU NUMBER	(SAS FORMAT NAME - NONE)
	2-CHARACTER NUMBER REPRESENTING PSU	
RATWGT	RATIO ADJUSTMENT	(SAS FORMAT NAME - NONE)
	ACTUAL RATIO ADJUSTMENT	
ROLE	OCCUPANT'S ROLE	(SAS FORMAT NAME - OCROLF)
	1 = 'DRIVER'	Driver
	2 = 'PASSENGER'	Passenger
	9 = 'UNKNOWN'	Unknown
SEATPOS	OCCUPANT'S SEAT POSITION	(SAS FORMAT NAME - POSITF)
	01 = 'FRONT LFT SIDE'	Front left side
	02 = 'FRONT MIDDLE'	Front middle
	03 = 'FRONT RGHT SIDE'	Front right side
	04 = 'SCND SEAT LEFT'	Second seat left
	05 = 'SCND SEAT MIDDLE'	Second seat middle
	06 = 'SCND SEAT RIGHT'	Second seat right
	07 = 'THRD SEAT LEFT'	Third seat left
	08 = 'THRD SEAT MIDDLE'	Third seat middle
	09 = 'THRD SEAT RIGHT'	Third seat right
	10 = 'FRNT SEAT ADD PAS'	Front seat additional passenger
	11 = 'SCND SET ADD PAS'	Second seat additional passenger
	12 = 'TRK/TRA SLEP SEC'	Truck-tractor sleeping section
	13 = 'OTHER ENCL AREA'	Other enclosed area
	14 = 'IN UNENCLS AREA'	In unenclosed area
	15 = 'IN TRAIL UNIT'	In trailing unit
	99 = 'UNKNOWN'	Unknown

SEX	SEX OF PERSON	(SAS FORMAT NAME - SEXF)
	1 = 'MALE'	Male
	2 = 'FEMALE'	Female
	9 = 'UNKNOWN'	Unknown
SOUDAT1	SOURCE OF DATA (FIRST)	(SAS FORMAT NAME - SOURF)
	01 = 'OF-AUTOPSY RECS'	Official - autopsy records
	02 = 'OF-HOSP MED RECS'	Official - hospital medical records
	03 = 'OF-EMER RM RECS'	Official - emergency room records
	04 = 'OF-PRIV PHYSICAN'	Official - private physican
	05 = 'UNOF-LAY COR RPT'	Unofficial - lay coroner report
	06 = 'UNOF-EMS PERSONL'	Unofficial - emergency medical service personnel
	07 = 'UNOF-INTERVIEWEE'	Unofficial - interviewee
	08 = 'UNOF-OTH SOURCE'	Unofficial - other source
	09 = 'UNOF-POLICE'	Unofficial - police
	99 = 'UNOF-UNK IF INJ'	Unofficial - unknown if injured
	00 = 'UNOF-NOT INJURED'	Unofficial - not injured
SOUDAT2	SOURCE OF DATA (SECOND)	(SAS FORMAT NAME - SOURF)
	(SEE FORMAT AND CODES UNDER SOUDAT1)	
SOUDAT3	SOURCE OF DATA (THIRD)	(SAS FORMAT NAME - SOURF)
	(SEE FORMAT AND CODES UNDER SOUDAT1)	
SOUDAT4	SOURCE OF DATA (FOURTH)	(SAS FORMAT NAME - SOURF)
	(SEE FORMAT AND CODES UNDER SOUDAT1)	
SOUDAT5	SOURCE OF DATA (FIFTH)	(SAS FORMAT NAME - SOURF)
	(SEE FORMAT AND CODES UNDER SOUDAT1)	
SOUDAT6	SOURCE OF DATA (SIXTH)	(SAS FORMAT NAME - SOURF)
	(SEE FORMAT AND CODES UNDER SOUDAT1)	
SSLB	LONGITUDINAL BARRIER (S.S. INDICATOR)	(SAS FORMAT NAME - NONE)
	. = 'NOT IN EFFECT'	Not in effect
	0 = 'NO'	No
	1 = 'YES'	Yes
STRATIF	INITIAL STRATIFICATION	(SAS FORMAT NAME - NONE)
	STRATIFICATION CODE (A-Z, EXCEPT I, O, U, X)	

SYSORG1	SYSTEM/ORGAN (FIRST)	(SAS FORMAT NAME - \$SYSORGF)
	W = 'ALL SYSTM IN REG'	All system in region
	A = 'ARTERIES - VEINS'	Arteries - veins
	B = 'BRAIN'	Brain
	D = 'DIGESTIVE'	Digestive
	E = 'EARS'	Ears
	O = 'EYES'	Eyes
	H = 'HEART'	Heart
	U = 'INJ,UNK SYSTM'	Injured, unknown system
	I = 'INTEGUMENTARY'	Integumentary
	J = 'JOINTS'	Joints
	K = 'KIDNEYS'	Kidneys
	L = 'LIVER'	Liver
	M = 'MUSCLES'	Muscles
	N = 'NERVOUS SYSTEM'	Nervous system
	P = 'PULMONARY-LUNGS'	Pulmonary - lungs
	R = 'RESPIRATORY'	Respiratory
	S = 'SKELETAL'	Skeletal
	C = 'SPINAL CORD'	Spinal cord
	Q = 'SPLEEN'	Spleen
	T = 'THYROID, OTH ENDOC'	Thyroid, other endocrine gland
	G = 'UROGENITAL'	Urogenital
	V = 'VERTEBRAE'	Vertebrae
	0 = 'NOT INJURED'	Not injured
	9 = 'UNK IF INJURED'	Unknown if injured
SYSORG2	SYSTEM/ORGAN (SECOND)	(SAS FORMAT NAME - \$SYSORGF)
	(SEE FORMAT AND CODES UNDER SYSORG1)	
SYSORG3	SYSTEM/ORGAN (THIRD)	(SAS FORMAT NAME - \$SYSORGF)
	(SEE FORMAT AND CODES UNDER SYSORG1)	
SYSORG4	SYSTEM/ORGAN (FOURTH)	(SAS FORMAT NAME - \$SYSORGF)
	(SEE FORMAT AND CODES UNDER SYSORG1)	
SYSORG5	SYSTEM/ORGAN (FIFTH)	(SAS FORMAT NAME - \$SYSORGF)
	(SEE FORMAT AND CODES UNDER SYSORG1)	
SYSORG6	SYSTEM/ORGAN (SIXTH)	(SAS FORMAT NAME - \$SYSORGF)
	(SEE FORMAT AND CODES UNDER SYSORG1)	

TREATMNT	TREATMENT - MORTALITY	(SAS FORMAT NAME - MORTF)
	0 = 'TREAT LATER'	Treatment later
	1 = 'FATAL'	Fatal
	2 = 'FATAL-DISEASE'	Fatal - disease
	3 = 'NFAT-HOSPITAL'	Nonfatal hospitalization
	4 = 'NFAT-TREAT/REL'	Nonfatal - treatment/released
	5 = 'NFAT-TREAT/OTH'	Nonfatal - treatment/other
	6 = 'NFAT-NO TREATMNT'	Nonfatal - no treatment
	8 = 'TREATMNT AT SCN'	Treatment at scene
	9 = 'UNKNOWN'	Unknown
VEHNO	VEHICLE NUMBER	(SAS FORMAT NAME - NONE)
	ACTUAL VEHICLE NUMBER	
YEAR	YEAR OF ACCIDENT	(SAS FORMAT NAME - NONE)
	2-DIGIT NUMBER REPRESENTING THE LAST TWO DIGITS OF THE ACCIDENT YEAR	

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LIST OF VARIABLES FOR LBSS VEHICLE (VEHICLE.SSD) FILE

<u>Variable</u>	<u>Description</u>	<u>Type</u>	<u>SAS Format Page No.</u>
ACCSEQ1	FIRST SEQUENCE NUMBER OF EVENT (THIS ACC)	Num	65
ACCSEQ2	SECOND SEQUENCE NUMBER OF EVENT (THIS ACC)	Num	65
BODYTYPE	BODY TYPE	Num	65
CARGOWGT	VEHICLE CARGO WEIGHT	Num	66
CASEID	CASE NUMBER - STRATIFICATION	Char	66
CASENO	SEQUENCE NUMBER	Num	66
CURBWGT	VEHICLE CURB WEIGHT	Num	66
DOCOMPNT	DRIVER OTHER (INTRUDING COMPONENT)	Num	67
DOF1	DIRECTION OF FORCE (HIGHEST)	Num	67
DOINTRSN	DRIVER OTHER (MAGNITUDE OF INTRUSION)	Num	67
DPCOMPNT	DRIVER PRIMARY (INTRUDING COMPONENT)	Num	67
DPINTRSN	DRIVER PRIMARY (MAGNITUDE OF INTRUSION)	Num	68
DRIVE	FRONT/REAR WHEEL DRIVE	Num	68
DVBASIS	BASIS FOR TOTAL DELTA V (HIGHEST)	Num	68
DVC1	'CRASH' DAMAGE DATA MAX DELTA V - C1	Num	68
DVLAT	LATERAL COMPONENT OF DELTA V	Num	68
DVLONG	LONGITUDINAL COMPONENT OF DELTA V	Num	69
DVTOTAL	TOTAL DELTA V	Num	69
EXTENT1	DEFORMATION EXTENT GUIDE (HIGHEST)	Char	69
GAD1	DEFORMATION LOCATION (HIGHEST)	Char	69
GVWR	GROSS VEHICLE WEIGHT RATING	Num	70
IMPTYPE	TYPE OF MOST SEVERE IMPACT	Num	70
LINKVAR	COMPUTED FILE LINKING VARIABLE	Char	70
MAGINTRU	MAGNITUDE OF INTRUSION	Num	70
MAKE	VEHICLE MAKE	Num	70
MODEL	VEHICLE MODEL	Num	72
MODELVR	VEHICLE MODEL YEAR	Num	72
OBJCONT1	OBJECT CONTACTED 1	Char	72
OBJCONT2	OBJECT CONTACTED 2	Char	72
OBJCONT3	OBJECT CONTACTED 3	Char	72
OBJCONT4	OBJECT CONTACTED 4	Char	72
OCCFORMS	NUMBER OF OCCUPANT FORMS SUBMITTED	Num	72
OTHROLE	ROLE OF OTHER CONTACTED VEH, OBJ, PER	Num	72
OTVEHWGT	WEIGHT OF THE OTHER VEHICLE	Num	73
PCINTEG	PASSENGER COMPARTMENT INTEGRITY	Num	73
PCINTRU	PASSENGER COMPARTMENT INTRUSION	Num	73
POCOMPNT	PASSENGER OTHER (INTRUDING COMPONENT)	Num	73
POINTRSN	PASSENGER OTHER (MAGNITUDE OF INTRUSION)	Num	73
PPCOMPNT	PASSENGER PRIMARY (INTRUDING COMPONENT)	Num	73
PPINTRSN	PASSENGER PRIMARY (MAGNITUDE OF INTRUSION)	Num	73

LIST OF VARIABLES FOR LBSS VEHICLE (VEHICLE.SSD) FILE (Continued)

<u>Variable</u>	<u>Description</u>	<u>Type</u>	<u>SAS Format Page No.</u>
PSU	PSU NUMBER	Num	74
ROLLOVER	ROLLOVER INVOLVEMENT	Num	74
SHL1	SPECIFIC HORIZONTAL LOCATION (HIGHEST)	Char	74
SPECUSE	VEHICLE SPECIAL USE (THIS TRIP)	Num	74
SSLB	LONGITUDINAL BARRIER (S.S. INDICATOR)	Num	74
STRATIF	INITIAL STRATIFICATION	Char	75
SVL1	SPECIFIC VERTICAL LOCATION (HIGHEST)	Char	75
TDD1	TYPE OF DAMAGE DISTRIBUTION (HIGHEST)	Char	75
TDD2	TYPE OF DAMAGE DISTRIBUTION (SECOND HIGHEST)	Char	75
TOWAWAY	POLICE INDICATED MANNER OF LEAVING SCENE	Num	76
TRAVELSP	TRAVEL SPEED	Num	76
VAIS	MAXIMUM KNOWN AIS IN THIS VEHICLE	Num	76
VEHNO	VEHICLE NUMBER	Num	76
VEHROLE	VEHICLE ROLE	Num	76
VEHSEQ1	FIRST SEQUENCE NUMBER OF EVENT (THIS VEH)	Num	76
VEHSEQ2	SECOND SEQUENCE NUMBER OF EVENT (THIS VEH)	Num	76
VINJURED	TOTAL NUMBER INJURIES THIS VEHICLE	Num	77
VTREAT	MAXIMUM TREATMENT (THIS VEH)	Num	77
WHEELNG	WHEELBASE LONG	Num	77
WHEELSHT	WHEELBASE SHORT	Num	77
YEAR	YEAR OF ACCIDENT	Num	77

SAS FORMAT DEFINITIONS FOR VARIABLES IN THE LBSS VEHICLE FILE

ACCSEQ1	FIRST SEQUENCE NUMBER OF EVENT (THIS ACCIDENT)	(SAS FORMAT NAME - NONE)
	ACTUAL SEQUENCE NUMBER	
ACCSEQ2	SECOND SEQUENCE NUMBER OF EVENT (THIS ACCIDENT)	(SAS FORMAT NAME - NONE)
	ACTUAL SEQUENCE NUMBER	
BODYTYPE	BODY TYPE	(SAS FORMAT NAME - BODYTYPEF)
	01 = 'CONVERTIBLE'	Convertible
	02 = '2/DR SEDAN'	2-door sedan
	03 = '3/DR HATCHBACK'	3-door hatchback
	04 = '4/DR SEDAN HT'	4-door sedan hardtop
	05 = '5/DR HATCHBACK'	5-door hatchback
	06 = 'STATION WAGON'	Station wagon
	08 = 'OTH AUTO TYPE'	Other automobile type
	09 = 'UNK AUTO TYPE'	Unknown automobile type
	10 = 'AUTO BASE PICKUP'	Auto base pickup
	11 = 'AUTO BASE PANEL'	Auto base panel
	12 = 'SHRT UTILITY TRK'	Short utility truck
	13 = 'LARGE LIMO'	Large limousine
	20 = 'MOTOCYCLE'	Motorcycle
	21 = 'MOPEDS'	Mopeds
	28 = 'OTH MOTOCYCLE'	Other motorcycle
	29 = 'UNK MOTOCYCLE TYP'	Unknown motorcycle type
	30 = 'SCHOOL BUS'	School bus
	31 = 'CROSS CNTRY'	Cross country
	32 = 'TRANSIT BUS'	Transit bus
	38 = 'OTHER BUS'	Other bus
	39 = 'UNK BUS TYPE'	Unknown bus type
	40 = 'VAN'	Van
	41 = 'VAN COMMERCIAL'	Van - commercial
	42 = 'VAN BASED M/HOME'	Van-based motor/home
	48 = 'OTHER VAN TYPE'	Other van type
	49 = 'UNK VAN TYPE'	Unknown van type
	50 = 'PICKUP O/BOX'	Pickup open/box
	51 = 'PICKUP S/CAMPER'	Pickup slide-in/camper
	52 = 'PCKUP BASED M/HOME'	Pickup-based motor/home
	53 = 'CAB CHASSIS BASED'	Cab chassis-based
	54 = 'TRUCK BASED PANEL'	Truck-based panel
	55 = 'TRUCK BASED STAT'	Truck-based station wagon
	56 = 'TRUCK BASED UTILT'	Truck-based utility
	58 = 'OTH LGHT CON TRK'	Other light conventional truck
	59 = 'UNK LGHT CON TRK'	Unknown light conventional truck
	69 = 'UNK LGHT TRK'	Unknown light truck
	70 = 'STEP VANS'	Step vans
	71 = 'TRK > 10K < 26K'	Truck > 10k < 26k lb (> 4.5k < 11.8k kg)
	72 = 'TRK > 26K LBS'	Truck > 26k lb (11.8k kg)

BODYTYPE	BODY TYPE (Continued)	(SAS FORMAT NAME - BODYTYPEF)
	73 = 'M/HVY TRK M/HOME'	Medium/heavy truck motor/home
	74 = 'TRK-TRAC N/C TRL'	Truck-tractor with no/cargo trailer
	75 = 'TRK-TRAC TRAILER'	Truck-tractor trailer
	77 = 'TRK-TRAC UNK TRL'	Truck-tractor unknown trailer
	78 = 'UNK M/HVY TRK TYP'	Unknown medium/heavy truck type
	79 = 'UNK TRK TYP LGHT'	Unknown truck type light
	80 = 'SNOWMOBILE'	Snowmobile
	81 = 'FAR EQUIP'	Farm equipment
	82 = 'ATV'	ATV
	83 = 'CONSTR EQUIP'	Construction equipment
	88 = 'OTHER'	Other
	89 = 'UNK OTH VEH'	Unknown other vehicle
	99 = 'UNK BODY TYPE'	Unknown body type
CARGOWGT	VEHICLE CARGO WEIGHT	(SAS FORMAT NAME - CRGOWTF)
	000-049 = '< 50 LBS'	< 50 lb (22.7 kg)
	050-100 = '50 TO 100 LBS'	
	101-200 = '101 TO 200 LBS'	
	201-300 = '201 TO 300 LBS'	
	301-400 = '301 TO 400 LBS'	
	401-500 = '401 TO 500 LBS'	
	501-800 = '> 500 LBS'	
	997 = '> 99,650 LBS'	> 99,650 lb (45,241 kg)
	999 = 'UNKNOWN'	Unknown
CASEID	CASE NUMBER - STRATIFICATION	(SAS FORMAT NAME - NONE)
	4-CHARACTER CASE NUMBER (INCLUDES STRATIFICATION CODE)	
CASENO	SEQUENCE NUMBER	(SAS FORMAT NAME - NONE)
	3-CHARACTER SEQUENCE NUMBER (SAME AS CASEID WITHOUT STRATIFICATION CODE)	
CURBWGT	VEHICLE CURB WEIGHT	(SAS FORMAT NAME - CURBWTF)
	000-049 = '< 50 LBS'	Less than 50 lb (22.7 kg)
	050-100 = '50 TO 100 LBS'	
	101-200 = '101 TO 200 LBS'	
	201-300 = '201 TO 300 LBS'	
	301-400 = '301 TO 400 LBS'	
	401-500 = '401 TO 500 LBS'	
	501-600 = '501 TO 600 LBS'	

DOCOMPNT	DRIVER OTHER (INTRUDING COMPONENT)	(SAS FORMAT NAME - COMPNTF)
	00 = 'NO PASS INTRUS'	No passenger intrusion
	01 = 'STEERING COLUM'	Steering column
	02 = 'INSTR PANEL LFT'	Instrument panel left
	03 = 'INSTR PANEL CNT'	Instrument panel center
	04 = 'INSTR PANEL RGHT'	Instrument panel right
	05 = 'A-PILLAR'	A-pillar
	06 = 'B-PILLAR'	B-pillar
	07 = 'DOOR PANEL'	Door panel
	08 = 'ROOF'	Roof
	09 = 'ROOF SIDE RAIL'	Roof side rail
	10 = 'WINDSHIELD HEAD'	Windshield header
	11 = 'N/INTRUS PRIM COM'	No intrusion of primary components
	20 = 'STR COL/INT PN'	Steering column/instrument panel
	21 = 'STR COL A-PILA'	Steering column A-pillar
	22 = 'INST PAN A-PILA'	Instrument panel A-pillar
	23 = 'A-PILLAR & ROOF'	A-pillar and roof
	24 = 'A-PILAR/B-PILAR'	A-pillar/B-pillar
	25 = 'A-PILAR/ROOF'	A-pillar/roof
	26 = 'ROOF & DR PAN'	Roof and door panel
	27 = 'ROOF & WNDSHLD'	Roof and windshield
	97 = 'OTHER COMBINATION'	Other combination
	98 = 'INSTRU N/LIST'	Instrument non/listed components
	99 = 'UNKNOWN'	Unknown
DOF1	DIRECTION OF FORCE (HIGHEST)	(SAS FORMAT NAME - DOF1F)
	0 = '0 DEG'	0 degrees
	1-10 = '1-10 DEG'	
	11-20 = '11-20 DEG'	
	21-30 = '21-30 DEG'	
	31-40 = '31-40 DEG'	
	41-96 = '41+ DEG'	41 or more degrees
DOINTRSN	DRIVER OTHER (MAGNITUDE OF INTRUSION)	(SAS FORMAT NAME - MMAGTUDF)
	0 = 'NO INTRUSION'	No intrusion
	1 = '< 2 INCHES'	Less than 2 in (5.1 cm)
	2 = '≥ 2" BUT < 6"	≥ 2 but < 6 in (≥ 5.1 but < 15.2 cm)
	3 = '≥ 6" BUT < 12"	≥ 6 but < 12 in (≥ 15.2 but < 30.5 cm)
	4 = '≥ 12" '	≥ 12 in (≥ 30.5 cm)
	9 = 'UNKNOWN'	Unknown
DPCOMPNT	DRIVER PRIMARY (INTRUDING COMPONENT)	(SAS FORMAT NAME - COMPNTF)
	(SEE FORMAT AND CODES UNDER DOCOMPNT)	

DPINTRSN	DRIVER PRIMARY (MAGITUDE OF INTRUSION)	(SAS FORMAT NAME - MAGTUDF)
	(SEE FORMAT AND CODES UNDER DOPINTRSN)	
DRIVE	FRONT/REAR WHEEL DRIVE	(SAS FORMAT NAME - DRIVEF)
	1 = 'REAR WHL DRV'	Rear wheel drive
	2 = 'FRNT WHL DRV'	Front wheel drive
	8 = 'NOT PASS CAR'	Not passenger car
	9 = 'UNKNOWN'	Unknown
DVBASIS	BASIS FOR TOTAL DELTA V (HIGHEST)	(SAS FORMAT NAME - DVBASF)
	1 = 'CAL/PGM DAM ONLY'	Calculated crash/program damage only
	2 = 'CAL/PGM DAM/TRAJ'	Calculated crash/program damage/trajectory routine
	3 = 'CAL//MISS VEH ALG'	Calculated/missing vehicle algorithm
	4 = 'CAL/YLD OBJ ALG'	Calculated/yielding object algorithm
	5 = 'CAL/ OTH TECHNIQ'	Calculated/other technique
	6 = 'NCAL/BEYND SCOPE'	Not calculated/beyond scope
	7 = 'NCAL/ALL BYND SCP'	Not calculated/all beyond scope
	8 = 'NCAL/INSUFF DATA'	Not calculated/insufficient data
DVC1	'CRASH' DAMAGE DATA MAX DELTA V - C1	(SAS FORMAT NAME - DVC1F)
	0 = '0'	
	1-10 = '1-10'	1 to 10 cm
	11-20 = '11-20'	
	21-30 = '21-30'	
	31-40 = '31-40'	
	41-999 = '41+'	
DVLAT	LATERAL COMPONENT OF DELTA V	(SAS FORMAT NAME - LDELTVF)
	00 = '> -0.5 KPH < .05'	Greater than 0.5 and less than 0.5 km/h (0.31 mi/h)
	-10 - -1 = '-1 TO -10 KPH'	
	-20 - -11 = '-11 TO -20 KPH'	
	-30 - -21 = '-21 TO -30 KPH'	
	-40 - -31 = '-31 TO -40 KPH'	
	-50 - -41 = '-41 TO -50 KPH'	
	-60 - -51 = '-51 TO -60 KPH'	
	-70 - -61 = '-61 TO -70 KPH'	
	-80 - -71 = '-71 TO -80 KPH'	
	-96 - -81 = '-81 TO -96 KPH'	
	1 - 10 = '1 TO 10 KPH'	
	11 - 20 = '11 TO 20 KPH'	

DVLAT	LATERAL COMPONENT OF DELTA V (Continued)	(SAS FORMAT NAME - LDELTVF)
	21 - 30 = '21 TO 30 KPH'	
	31 - 40 = '31 TO 40 KPH'	
	97 = '97+ KPH'	97 km/h (60.2 mi/h) or more
	99 = 'UNKNOWN'	Unknown
DVLONG	LONGITUDINAL COMPONENT OF DELTA V	(SAS FORMAT NAME - LDELTVF)
	(SEE FORMAT AND CODES UNDER DVLAT)	
DVTOTAL	TOTAL DELTA V	(SAS FORMAT NAME - TDELTVF)
	00 = '< 0.5 KPH'	Less than 0.5 km/h (0.31 mi/h)
	1-10 = '1 TO 10 KPH'	
	11-20 = '11 TO 20 KPH'	
	21-30 = '21 TO 30 KPH'	
	31-40 = '31 TO 40 KPH'	
	41-50 = '41 TO 50 KPH'	
	51-60 = '51 TO 60 KPH'	
	61-70 = '61 TO 70 KPH'	
	71-80 = '71 TO 80 KPH'	
	81-96 = '81 TO 96 KPH'	
	97 = '97+ KPH'	97 km/h (60.2 mi/h) or more
	99 = 'UNKNOWN'	Unknown
EXTENT1	DEFORMATION EXTENT GUIDE (HIGHEST)	(SAS FORMAT NAME - NONE)
	BLANK = NO C.D.C./T.D.C.	No C.D.C./T.D.C.
	'01' = 'ONE'	One
	'02' = 'TWO'	Two
	'03' = 'THREE'	Three
	'04' = 'FOUR'	Four
	'05' = 'FIVE'	Five
	'06' = 'SIX'	Six
	'07' = 'SEVEN'	Seven
	'08' = 'EIGHT'	Eight
	'09' = 'NINE'	Nine
	'OA' = '(T.D.C. ONLY)'	(T.D.C. only)
	'OB' = '(T.D.C. ONLY)'	(T.D.C. only)
	'OC' = '(T.D.C. ONLY)'	(T.D.C. only)
	'OD' = '(T.D.C. ONLY)'	(T.D.C. only)
	'OX' = '(T.D.C. ONLY)'	(T.D.C. only)
	'99' = 'UNKNOWN'	Unknown

GAD1	DEFORMATION LOCATION (HIGHEST)	(SAS FORMAT NAME - \$GAD1F)
	'B' = 'BOTTOM'	Bottom
	'F' = 'FRONT'	Front
	'L' = 'LEFT'	Left
	'R' = 'RIGHT'	Right
	'T' = 'TOP'	Top
GVWR	GROSS VEHICLE WEIGHT RATING	(SAS FORMAT NAME - VEHWTF)
	0 = 'NOT A TRUCK'	Not a truck
	1 = '10,000 TO 14,000'	10k to 14k lb (4.5k to 6.4k kg)
	2 = '14,001 TO 16,000'	
	3 = '16,001 TO 19,500'	
	4 = '19,501 TO 26,000'	
	5 = '26,001 TO 33,000'	
	6 = '33,001+'	
	9 = 'UNKNOWN'	Unknown
IMPTYPE	TYPE OF MOST SEVERE IMPACT	(SAS FORMAT NAME - IMPTYPEF)
	0 = 'NOIMPACT'	No impact
	1 = 'FRONT'	Front
	2 = 'LEFT SIDE'	Left side
	3 = 'RIGHT SIDE'	Right side
	4 = 'REAR'	Rear
	5 = 'OTHER IMPACT'	Other impact
	9 = 'UNKN IMPCT TYPE'	Unknown impact type
LINKVAR	COMPUTED FILE LINKING VARIABLE	(SAS FORMAT NAME - NONE)
	UNIQUE 6-CHARACTER ID FOR EACH ACCIDENT	
MAGINTRU	MAGNITUDE OF INTRUSION	(SAS FORMAT NAME - MAGTUDF)
	0 = 'NO INTRUSION'	
	1 = '< 5 CENTIMETERS'	< 5 cm (1.97 in)
	2 = '5-15 CENTIMETERS'	
	3 = '> 15 CENTIMETERS'	
	9 = 'UNKNOWN'	Unknown
	NOTE: This variable was dropped after 1984.	
MAKE	VEHICLE MAKE	(SAS FORMAT NAME - MAKEF)
	01 = 'AMERICAN MOTORS'	American Motors
	02 = 'JEEP'	Jeep
	03 = 'AM GENERAL'	AM General
	06 = 'CHRYSLER'	Chrysler
	07 = 'DODGE'	Dodge
	08 = 'IMPERIAL'	Imperial
	09 = 'PLYMOUTH'	Plymouth
	12 = 'FORD'	Ford
	13 = 'LINCOLN'	Lincoln

MAKE

VEHICLE MAKE

(SAS FORMAT NAME - MAKEF)

(Continued)

14 = 'MERCURY'	Mercury
18 = 'BUICK'	Buick
19 = 'CADILLAC'	Cadillac
20 = 'CHEVROLET'	Chevrolet
21 = 'OLDSMOBILE'	Oldsmobile
22 = 'PONTIAC'	Pontiac
23 = 'GMC'	GMC
29 = 'OTHER DOMESTIC'	Other domestic
30 = 'VOLKSWAGEN'	Volkswagen
31 = 'ALFA ROMEO'	Alfa Romeo
32 = 'AUDI'	Audi
33 = 'AUSTIN'	Austin
34 = 'BMW'	BMW
35 = 'DATSUN/NISSAN'	Datsun/nissan
36 = 'FIAT'	Fiat
37 = 'HONDA'	Honda
38 = 'ISUZU'	Isuzu
39 = 'JAGUAR'	Jaguar
40 = 'LANCIA'	Lancia
41 = 'MAZDA'	Mazda
42 = 'MERCEDES BENZ'	Mercedes Benz
43 = 'MG'	MG
44 = 'PEUGEOT'	Peugeot
45 = 'PORSCHE'	Porsche
46 = 'RENAULT'	Renault
47 = 'SAAB'	Saab
48 = 'SUBARU'	Subaru
49 = 'TOYOTA'	Toyota
50 = 'TRIUMPH'	Triumph
51 = 'VOLVO'	Volvo
52 = 'MITSUBISHI'	Mitsubishi
53 = 'SUZUKI'	Suzuki
58 = 'OTH FOR/MORGAN'	Other foreign/Morgan
59 = 'OTHER IMPORT'	Other import
60 = 'MTCYC-BSA'	Motorcycle - BSA
61 = 'MTCYC-DUCATI'	Motorcycle - Ducati
62 = 'MTCYC-HAR DAV'	Motorcycle - Harley Davidson
63 = 'MTCYC-KAWASAKI'	Motorcycle - Kawasaki
64 = 'MTCYC-MOTO-GUZ'	Motorcycle - Moto-Guzzi
65 = 'MTCYC-NORTON'	Motorcycle - Norton
67 = 'MTCYC-YAMAHA'	Motorcycle - Yamaha
69 = 'MTCYC-OTHER'	Motorcycle - other
70 = 'MO-PED'	Moped
80 = 'TRK/BROCKWAY'	Truck/Brockway
81 = 'TRK/DIAMOND'	Truck/Diamond
82 = 'TRK/FREIGHTLINER'	Truck/Freightliner
83 = 'TRK/FWD'	Truck/FWD
84 = 'TRK/INTER HARVET'	Truck/International Harvester
85 = 'TRK/KENWORTH'	Truck/Kenworth
86 = 'TRK/MACK'	Truck/Mack
87 = 'TRK/PETERBILT'	Truck/Peterbilt

MAKE	VEHICLE MAKE (Continued)	(SAS FORMAT NAME - MAKEF)
	88 = 'TRK/OTHER'	Truck/other
	95 = 'TRK/BUS OTHER'	Truck/bus other
	97 = 'SNWMOBILE/GO-CRT'	Snowmobile/go-cart
	98 = 'OTHER MAKE'	Other make
	99 = 'UNKNOWN'	Unknown
MODEL	VEHICLE MODEL	(SAS FORMAT NAME - NONE)
	2-DIGIT CODE FOR VEHICLE MODEL. (An extensive list of all models is available from the NASS coding and editing manual.)	
MODELyr	VEHICLE MODEL YEAR	(SAS FORMAT NAME - MODELyRF)
	51-70 = '51 - 70'	1951 to 1970
	71-75 = '71 - 75'	
	76-80 = '76 - 80'	
	81-85 = '81 - 85'	
	86-87 = '86 - 87'	
OBJCONT1	OBJECT CONTACTED 1 (Object - highest Delta-V)	(SAS FORMAT NAME - \$COLLF)
	(SEE FORMAT AND CODES UNDER B13 IN THE "BARRIERL" FILE)	
OBJCONT2	OBJECT CONTACTED 2 (Object - second highest Delta-V)	(SAS FORMAT NAME - \$COLLF)
	(SEE FORMAT AND CODES UNDER B13 IN THE "BARRIERL" FILE)	
OBJCONT3	OBJECT CONTACTED 3 (Object - third highest Delta-V)	(SAS FORMAT NAME - \$COLLF)
	(SEE FORMAT AND CODES UNDER B13 IN THE "BARRIERL" FILE)	
OBJCONT4	OBJECT CONTACTED 4 (Object - fourth highest Delta-V)	(SAS FORMAT NAME - \$COLLF)
	(SEE FORMAT AND CODES UNDER B13 IN THE "BARRIERL" FILE)	
OCCFORMS	NUMBER OF OCCUPANT FORMS	(SAS FORMAT NAME - NONE)
	ACTUAL NUMBER OF OCCUPANT FORMS SUBMITTED	
OTHROLE	ROLE OF OTHER CONTACTED VEHICLE, OBJECT, PERSON	(SAS FORMAT NAME - OTHERF)
	0 = 'NOIMPACT'	No impact
	1 = 'FRONT OF OTH VEH'	Front of other vehicle
	2 = 'SIDE OF OTH VEH'	Side of other vehicle
	3 = 'REAR OF OTH VEH'	Rear of other vehicle
	4 = 'INTRAUNIT DAMAGE'	Intraunit damage
	5 = 'OTH LOC ON OTH VEH'	Other location on other vehicle

OTHROLE	ROLE OF OTHER CONTACTED VEHICLE, OBJECT, PERSON (Continued)	(SAS FORMAT NAME - OTHERF)
	6 = 'OBJ STAT/NONSTAT'	Object stationary/ nonstationary
	7 = 'PED/NONMOTORIST'	Pedestrian or nonmotorist
	8 = 'MOTORCYCLE/MOPED'	Motorcycle/moped
	9 = 'UNK IMPACT TYPE'	Unknown impact type
	10 = 'SD/END SWP OTH VH'	Side/end swiped other vehicle
OTVEHWGT	WEIGHT OF THE OTHER VEHICLE	(SAS FORMAT NAME - OTHWHF)
	001 = '< 150 LBS'	<150 lb (68.1 kg)
	002-996 = '150-99,649 LBS'	
	997 = '99,650+'	
	998 = 'NOT APPLIC'	Not applicable
	999 = 'UNKNOWN'	Unknown
PCINTEG	PASSENGER COMPARTMENT INTEGRITY	(SAS FORMAT NAME - INTEGF)
	0 = 'NO PASS COMPT'	No passenger compartment
	1 = 'NO INTREG LOSS'	No integrity loss
	2 = 'YES, WINDSHIELD'	Yes, windshield
	3 = 'YES, DOOR/SIDE'	Yes, door/side
	4 = 'YES, DOOR/REAR'	Yes, door/rear
	5 = 'YES, ROOF'	Yes, roof
	6 = 'YES, WNDSHLD/DOOR'	Yes, windshield/door
	7 = 'YES, OTHER COMBIN'	Yes, other combination of above
	8 = 'YES, SDE/REAR WIND'	Yes, side or rear window
	9 = 'UNKNOWN'	Unknown
PCINTRU	PASSENGER COMPARTMENT	(SAS FORMAT NAME - INTRUF)
	0 = 'NO PAS COMPT'	No passenger compartment
	1 = 'NO INTRUSION'	No intrusion
	2 = 'FRONT'	Front
	3 = 'RIGHT SIDE'	Right side
	4 = 'LEFT SIDE'	Left side
	5 = 'REAR'	Rear
	6 = 'BOTTOM'	Bottom
	7 = 'TOP'	Top
	8 = 'TWO/MORE AREAS'	Two or more areas
	9 = 'UNKNOWN'	Unknown
POCOMPNT	PASSENGER OTHER (INTRUDING COMPONENT)	(SAS FORMAT NAME - COMPNTF)
	(SEE FORMAT AND CODES UNDER DOCOMPNT)	
POINTRSN	PASSENGER OTHER (MAGNITUDE OF INTRUSION)	(SAS FORMAT NAME - MMAGTUDF)
	(SEE FORMAT AND CODES UNDER DOINTRSN)	

PPCOMPNT	PASSENGER PRIMARY (INTRUDING COMPONENT)	(SAS FORMAT NAME - COMPNTF)
	(SEE FORMAT AND CODES UNDER DOCOMPNT)	
PPINTRSN	PASSENGER PRIMARY (MAGNITUDE OF INTRUSION)	(SAS FORMAT NAME - MMAGTUDF)
	(SEE FORMAT AND CODES UNDER DOINTRSN)	
PSU	PSU NUMBER	(SAS FORMAT NAME - NONE)
	2-CHARACTER NUMBER REPRESENTING PSU	
ROLLOVER	ROLLOVER INVOLVEMENT	(SAS FORMAT NAME - ROLLF)
	0 = 'NO ROLLOVER'	No rollover
	1 = 'ROLVR < 4 QT TRN'	Rollover < 4 quarter turns
	2 = 'ROLVR 4+ QT TRN'	Rollover 4 or more quarter turns
	3 = 'ROLVR DETAIL UNK'	Rollover details unknown
	5 = 'ROLVR/LAT AXIS '	Rollover/lateral axis
SHL1	SPECIFIC HORIZONTAL LOCATION (HIGHEST)	(SAS FORMAT NAME - NONE)
	Blank	No C.D.C/T.D.C
	'B'	Side rear - left or right
	'C'	Center - front or rear
	'D'	Distributed - side or end
	'F'	Side front - left or right
	'K'	Side (P + W)
	'L'	Left - front or rear
	'P'	Side center section - left or right
	'R'	Right - front or rear
	'T'	Side trailer (rear of tractor to rear of trailer)
	'W'	Side rear of cab to rear of tractor
	'Y'	Side (F + P) or end (L + C)
	'Z'	Side (B + P) or end (R + C)
	'9'	Unknown
SPECUSE	VEHICLE SPECIAL USE (THIS TRIP)	(SAS FORMAT NAME - SPECVEHF)
	0 = 'NO SPECIAL USE'	No special use
	1 = 'TAXI'	Taxi
	2 = 'VEH AS SCH BUS'	Vehicle as school bus
	3 = 'VEH AS OTH BUS'	Vehicle as other bus
	4 = 'MILITARY'	Military
	5 = 'POLICE'	Police
	6 = 'AMBULANCE'	Ambulance
	7 = 'FIRE'	Fire
	9 = 'UNKNOWN'	Unknown

SSLB	LONGITUDINAL BARRIER (S.S. INDICATOR)	(SAS FORMAT NAME - NONE)
	. = 'NOT IN EFFECT'	Not in effect
	0 = 'NO'	No
	1 = 'YES'	Yes
STRATIF	INITIAL STRATIFICATION	(SAS FORMAT NAME - NONE)
	STRATIFICATION CODE (A-Z, EXCEPT I, O, U, X)	
SVL1	SPECIFIC VERTICAL LOCATION (HIGHEST)	(SAS FORMAT NAME - NONE)
	Blank	No C.D.C/T.D.C
	'A'	Top of vehicle to bottom of vehicle exclusive of wheels
	'C'	Center
	'D'	Distributed
	'E'	Everything below belt line
	'G'	Everything above belt line
	'H'	Top of frame to top of vehicle
	'L'	low - top of frame, frame, and bottom of frame (including undercarriage)
	'M'	Middle - top of frame to belt line or hood
	'R'	Right
	'T'	Everything above cab
	'W'	Below undercarriage level (wheel and tires only)
	'Y'	Left and center (L + C)
	'Z'	Right and center (R + C)
	'9'	Unknown
TDD1	TYPE OF DAMAGE DISTRIBUTION (HIGHEST)	(SAS FORMAT NAME - \$DAMDISTF)
	'W' = 'WIDE IMPACT AREA'	Wide impact area
	'N' = 'NARROW IMPT AREA'	Narrow impact area
	'S' = 'SIDESWIPE'	Sideswipe
	'O' = 'ROLLOVER'	Rollover
	'A' = 'OVERHNG STRUCT'	Overhanging structure
	'E' = 'CORNER'	Corner
	'K' = 'CONVER IN IMPCT'	Conversion in impact
	'U' = 'NO RESID DEFORM'	No residual deformation
	'R' = 'OVERRIDE'	Override
	'9' = 'UNKNOWN'	Unknown
TDD2	TYPE OF DAMAGE DISTRIBUTION (SECOND HIGHEST)	(SAS FORMAT NAME - \$DAMDISTF)
	(SEE FORMAT AND CODES UNDER TDD1)	

TOWAWAY	POLICE INDICATED MANNER OF LEAVING SCENE	(SAS FORMAT NAME - TOWAWAYF)
	1 = 'DRIVEN'	Driven
	2 = 'TOWED-VEH/DAM'	Towed-vehicle/damage
	3 = 'TOWED-VEH N/DAM'	Towed-vehicle not/damage
	4 = 'ABANDONED'	Abandoned
	5 = 'TOWED DETAILS UNK'	Towed details unknown
	9 = 'UNKNOWN'	Unknown
TRAVELSP	TRAVEL SPEED	(SAS FORMAT NAME - SPEEDF)
	00 = 'STOPPED'	Stopped
	01-20 = ' 1 TO 20 MP'	1 to 20 mi/h (1.6 to 32.2 km/h)
	21-30 = '21 TO 30 MP'	
	31-40 = '31 TO 40 MP'	
	41-50 = '41 TO 50 MP'	
	51-60 = '51 TO 60 MP'	
	61-70 = '61 TO 70 MP'	
	71-80 = '71 TO 80 MP'	
	81-90 = '81 TO 90 MP'	
	91-96 = '91 TO 96 MP'	
	97 = '97+ MP'	97 mi/h (156.2 km/h) or more
	99 = 'UNKNOWN'	Unknown
VAIS	MAXIMUM KNOWN AIS IN THIS VEHICLE	(SAS FORMAT NAME - MAISF)
	(SEE FORMAT AND CODES UNDER AAIS IN ACCIDENT FILE)	
VEHNO	VEHICLE NUMBER	(SAS FORMAT NAME - NONE)
	ACTUAL VEHICLE NUMBER	
VEHROLE	VEHICLE ROLE	(SAS FORMAT NAME - VEHROLF)
	0 = 'NONCOLLISION'	Noncollision
	1 = 'STRIKING UNIT'	Striking unit
	2 = 'STRUCK UNIT'	Struck unit
	3 = 'BOTH STRI/STRU'	Both striking and struck
	9 = 'UNKNOWN'	Unknown
VEHSEQ1	FIRST SEQUENCE NUMBER OF THIS EVENT (THIS VEHICLE)	(SAS FORMAT NAME - NONE)
	ACTUAL SEQUENCE NUMBER	
VEHSEQ2	SECOND SEQUENCE NUMBER OF THIS EVENT (THIS VEHICLE)	(SAS FORMAT NAME - NONE)
	ACTUAL SEQUENCE NUMBER	

VINJURED	TOTAL NUMBER OF INJURIES IN THIS VEHICLE	(SAS FORMAT NAME - NONE)
	ACTUAL NUMBER OF INJURIES	
VTREAT	MAXIMUM TREATMENT (THIS VEHICLE)	(SAS FORMAT NAME - MORTF)
	(SEE FORMAT AND CODES UNDER TREATMENT IN THE OCCUPANT FILE)	
WHEELNG	WHEELBASE LONG	(SAS FORMAT NAME - WHEBASF)
	85.0- 99.9 = '85.0 - 99.9'	85 to 99.9 in (216 to 254 cm)
	100.0-105.9 = '100.0 - 105.9'	
	106.0-110.9 = '106.0 - 110.9'	
	111.0-115.9 = '111.0 - 115.9'	
	116.0-120.9 = '116.0 - 120.9'	
	121.0-130.9 = '121.0 - 130.9'	
	131.0-150.9 = '131.0 - 150.9'	
WHEELSHT	WHEELBASE SHORT	(SAS FORMAT NAME - WHEBASF)
	(SEE FORMAT AND CODES UNDER WHEELNG)	
YEAR	YEAR OF ACCIDENT	(SAS FORMAT NAME - NONE)
	2-DIGIT NUMBER REPRESENTING THE LAST TWO DIGITS OF THE ACCIDENT YEAR	

REFERENCES

1. K. K. Mak and A. Magaro, National Accident Sampling System (NASS) Longitudinal Barrier Special Study Coding/Editing and Field Procedures Manual, National Highway Traffic Safety Administration, Washington DC, 1984.
2. SAS Institute, Inc., SAS User's Guide, Version 6, Cary, NC, 1990.

APPENDIX A. COMPUTER PROGRAM LISTINGS

Appendix A contains the SAS procedures, in their actual format, used in association with the files within the LBSS data base. These procedures are similar to the ones used to generate the frequency tables in the previous section, create the SAS formats used in generating the tables, and merge several of the files within the data base.

Listing of SAS Procedures

ACCTBLS.SAS	Procedure used to generate frequency tables for the accident file.
BARTBLS.SAS	Procedure used to generate frequency tables for both the barrier accident and barrier contact files.
DRVTBLS.SAS	Procedure used to generate frequency tables for the driver file.
OCCTBLS.SAS	Procedure used to generate frequency tables for the occupant file.
VEHTBLS.SAS	Procedure used to generate frequency tables for the vehicle file.
FORMATS.SAS	Procedure used to create SAS-format library for the LBSS data base.

ACCTBLS.SAS

```
LIBNAME DD2 'd:\LBSS';

/*DSN=d:\LBSS\ACCIDENT*/
/*PROGRAM TO PRODUCE ACCIDENT TABLES*/

PROC FREQ DATA=DD2.ACCIDENT;
  TABLES (AAIS ACCSEVP AINJURED ALIGNMNT ATREAT CLTWAY
    GEOMETRY HARMEVNT HITRUN LANDUSE LANES LGTCOND
    MANCOLL PROFIL RELJUNC RELROAD ROWADD
    SSCC SSLB VEHFORMS WEATHER) * YEAR / MISSPRINT;

  FORMAT ACCSEVP ACCSEVF. HARMEVNT HARMEVNF. LANDUSE LANDUSEF.
    MANCOLL MANCOLF. RELROAD RELROADF. PROFIL RDWDPRF.
    SSLB LONBARF. WEATHER WEATHF. LGTCOND LGTCONF.
    AAIS MAISF. ATREAT MORTF. RELJUNC RELJUNCF.
    CLTWAY TRFWAYF. ALIGNMNT ALIGNMF. GEOMETRY GEOMETRF.
    HITRUN HITRUNF. ROWADD RESTRF.;
  TITLE '1982-1986 LBSS ACCIDENT TABLES';
RUN;
```

BARTBLS.SAS

LIBNAME DD2 'd:\lbss';

/*DSN=D:\LBSS\BARTBLS*/

/*PROGRAM TO PRODUCE TABLES FOR BARRIER FILES L AND M */

PROC FREQ DATA=DD2.BARRL;

TABLES (B12 B15 B18 B21 B24 B27 B13 B14 B15 B16
B17 B19 B20 B22 B23 B25
B26 B27 B28 B29 B30 B31) * YEAR / MISSPRINT;

FORMAT B13 \$COLLF. B16 \$COLLF. B19 \$COLLF. B22 \$COLLF.
B25 \$COLLF. B28 \$COLLF.
B14 LATDSTF. B17 LATDSTF. B20 LATDSTF.
B23 LATDSTF. B26 LATDSTF. B29 LATDSTF.
B30 TOTIMPF. B31 TOTBARMF. ;

TITLE '1982-1986 LBSS BARRIER ACCIDENT DATA';

PROC FREQ DATA=DD2.BARRM;

TABLES (B33 B34 B35 B36 B37
B38 B39 B40 B41 B42 B43 B52 B54 B56
B44 B45 B46 B47 B48 B49 B58 B59
B50 B51 B53 B55 B57 B60
B61 B62 B63 B64 B65 B66
B67 B68 B69 B70A B70B
B71 B72 B73 B74) * YEAR / MISSPRINT;

FORMAT B33 B33F. B34 B34F. B35 B35F. B36 B36F. B37 B37F.
B38 B38F. B39 B39F. B40 B40F. B41 B41F. B42 B42F. B43 B43F.
B44 B44F. B45 B45F. B46 B46F. B47 B47F. B48 B48F. B49 B49F.
B50 B50F. B51 B51F. B53 B53F. B55 B55F. B57 B57F. B60 B60F.
B61 B61F. B62 B62F. B63 B63F. B64 B64F. B65 B65F. B66 B66F.
B67 B67F. B68 B68F. B69 B69F. B70A B70AF. B70B B70BF. B59 B59F.
B52 B52F. B54 B54F. B56 B56F. B58 B58F.
B71 B71F. B72 B72F. B73 B73F. B74 B74F.;

TITLE '1982-1986 LBSS BARRIER CONTACTS DATA';

RUN;

DRVTBLS.SAS

```
LIBNAME DD2 'D:\LBSS';

/*DSN=D:\LBSS\DRVTBLS*/
/*PROGRAM TO PRODUCE DRIVER TABLES */

PROC FREQ DATA=DD2.DRIVER;
  TABLES (ACCESS ALIGNMNT AVOIDMAN DRINKING DRCLASS DRTRAIN
    ENVRF FREQDRIV GRADE LANES MEDIANW
    MEDIANW OCUPANTS PROFIL SHOULDLT SHOULDRT
    SPLIMIT SURCOND SURTYPE) * YEAR / MISSPRINT;

  FORMAT ACCESS ACCCNTLF. ALIGNMNT ALIGNF. AVOIDMAN MANEUF.
    DRINKING ALCOHF. ENVRF ENVRF. PROFIL RDWDPRF.
    GRADE MEASURF. LANES LANESF. MEDIANW MEDTYPF.
    MEDIANW MEDIANF. OCUPANTS NBROCCF. DRTRAIN DRVEDUF.
    DRCLASS DRVCLSF. FREQDRIV DRVFREOF.
    SHOULDLT SHLDTYPF. SHOULDRT SHLDTYPF.
    SURCOND CONDITF. SURTYPE SURFTYPF. SPLIMIT SPEEDF.;

  TITLE '1982-1986 LBSS DRIVER TABLES';

RUN;
```

OCCTBLS.SAS

```
LIBNAME DD2 'd:\lbss';

/*DSN=D:\LBSS\OCCTBLS*/
/*PROGRAM TO PRODUCE OCCUPANT TABLES*/

PROC FREQ DATA=DD2.OCCUPANT;
TABLES (AGE AIS1-AIS5 ASPECT1 - ASPECT6 AUTAVAIL
        AUTFNCT BODYREG1-BODYREG6 EJECTION
        HOSPSTAY INJSEV INJSOU1-INJSOU6
        LESION1-LESION6 MAIS MANAVAIL
        MANUSE OCCNO ROLE SEATPOS SEX
        SOUDAT1-SOUDAT6 SYSORG1-SYSORG6 TREATMNT) * YEAR / MISSPRINT;

FORMAT AIS1-AIS5 MAISF. AGE AGEF. AUTAVAIL RESTAF.
        ASPECT1-ASPECT6 $ASPECF. HOSPSTAY STAYF. MAIS MAISF.
        AUTFNCT FUNCF. BODYREG1-BODYREG6 $BODYRGF. EJECTION EJECTF.
        INJSEV INJSEVF. INJSOU1-INJSOU6 INJOURF. LESION1-LESION6
        $LESIONF. MANAVAIL RESTF. MANUSE RESTF. ROLE OCROLF.
        SEATPOS POSITF. SEX SEXF. SOUDAT1-SOUDAT6 SOURF.
        SYSORG1-SYSORG6 $SYSORGF. TREATMNT MORTF.;

TITLE '1982-1986 LBSS OCCUPANT TABLES';

RUN;
```

VEHTBLS.SAS

```
LIBNAME DD2 'D:\LBSS';

/*DSN=D:\LBSS\VEHTBLS*/
/*PROGRAM TO PRODUCE VEHICLE TABLES */

PROC FREQ DATA=DD2.VEHICLE;
TABLES (ACCSEQ1 ACCSEQ2 BODYTYPE CARGOWGT CURBWGT DOF1 DOCOMPNT
        DOINTRSN DPCOMPNT DPINTRSN DRIVE DVBASIS DVC1 DVLAT
        DVLONG DVTOTAL EXTENT1 GAD1 GVWR IMPTYPE MAGINTRU MAKE
        MODEL MODELyr OBJCONT1 OBJCONT2 OBJCONT3 OBJCONT4 OCCFORMS
        OTHROLE OTVEHWGT PCINTEG PCINTRU POCOMPNT POINTRSN PPCOMPNT
        PPINTRSN ROLLOVER SHL1 SPECUSE SVL1 TDD1 TDD2 TOWAWAY
        TRAVELSP VAIS VEHNO VEHROLE VEHSEQ1 VEHSEQ2 VINJURED VTREAT
        WHEELNG WHEELSHT) * YEAR /MISSPRINT;

FORMAT MAKE MAKEF. OBJCONT1 $COLLF. OBJCONT2 $COLLF.
        OBJCONT3 $COLLF. OBJCONT4 $COLLF. DOF1 DOF1F. DVC1 DVC1F.
        DVBASIS DVBASF. OTHROLE OTHERF. GAD1 $GAD1F.
        DOCOMPNT COMPNTF. DPCOMPNT COMPNTF. POCOMPNT COMPNTF.
        PPCOMPNT COMPNTF. POINTRSN MMAGTUDF. PPINTRSN MMAGTUDF.
        DPINTRSN MMAGTUDF. DOINTRSN MMAGTUDF. VTREAT MORTF.
        DVLAT LDELTVF. DVLONG LDELTVF. VAIS MAISF. DRIVE DRIVEF.
        TDD1-TDD2 $DAMDISTF. SPECUSE SPECVEHF
        PCINTEG INTEG. PCINTRU INTRUF. MAGINTRU MAGTUDF.
        IMPTYPE IMPTYPEF. ROLLOVER ROLLF.
        VEHROLE VEHROLF. BODYTYPE BODYTYPEF. TRAVELSP SPEEDF.
        TOWAWAY TOWAWAYF. DVTOTAL TDELTVF.
        MODELyr MODELyRF. WHEELNG WHEBASF. WHEELSHT WHEBASF.;

TITLE '1982-86 LBSS VEHICLE TABLES';

RUN;
```

FORMATS.SAS

```
LIBNAME LIBRARY 'D:\LBSS';  
PROC FORMAT LIBRARY = LIBRARY;
```

```
/*BARRIER DATA FORMATS -DSN (BARRIERM)*/
```

```
/*LATERAL OFFSET (CLEARANCE)-MODIFIED*/
```

```
VALUE B14FF 0 = '0'  
          1-10 = '1 - 10'  
          11-20 = '11 - 20'  
          21-30 = '21 - 30'  
          31-97 = '31+'  
          . = 'INVALID DATA';
```

```
/*LATERAL OFFSET (CLEARANCE)*/
```

```
VALUE B14F 0 = '0'  
          1-10 = '1 - 10'  
          11-20 = '11 - 20'  
          21-30 = '21 - 30'  
          31-40 = '31 - 40'  
          41-50 = '41 - 50'  
          51-60 = '51 - 60'  
          61-70 = '61 - 70'  
          71-80 = '71 - 80'  
          81-90 = '81 - 90'  
          91-96 = '91 - 96'  
          97 = '97 + FT'  
          98 = 'N/A'  
          99 = 'UNKNOWN'  
          . = 'INVALID DATA';
```

```
/*LONGITUDINAL BARRIER TYPE*/
```

```
VALUE B33F 01 = 'G1 CABLE GRDRAIL'  
          02 = 'G2 W BEAM'  
          03 = 'G3 BOX BEAM'  
          04 = 'G4(1W) BO 8X8 WD'  
          05 = 'G4(2W) BO 6X8 WD'  
          06 = 'G4(1S) BO STEEL'  
          07 = 'G4(2S) BO ST PST'  
          08 = 'G9 BO THRIE ST'  
          09 = 'GR W BEAM STR'  
          10 = 'GR BLK/O W STR'  
          11 = 'GR CRTE SFT SHAPE'  
          12 = 'GR OTHER'  
          13 = 'MB1 CABLE'  
          14 = 'MB2 WST WEAK'
```

15 = 'MB3 BOX BEAM'
 16 = 'MB4 W BO W WOOD'
 17 = 'MB4 S BO W STEL'
 18 = 'MB5 C M B'
 19 = 'MB7 AL STR BEAM'
 20 = 'MB8 AL BAL BEAM'
 21 = 'MB9 BO THRIE STL'
 22 = 'MB10 MBGF STB/A'
 23 = 'MB OTHER'
 99 = 'UNKNOWN'
 . = 'NOT CODED'
 OTHER = 'INVALID CODES';

/*LONGITUDINAL BARRIER TYPE - MODIFIED (WEAK POST ONLY)*/

VALUE WKPSTF 01 = 'G1 CABLE GRDRAIL'
 02 = 'G2 W BEAM'
 03 = 'G3 BOX BEAM'
 13 = 'MB1 CABLE WEAK'
 14 = 'MB2 WST WEAK'
 15 = 'MB3 WST WEAK'
 . = 'NOT WEAK POST';

/*LONGITUDINAL BARRIER TYPE - MODIFIED (STRONG POST ONLY)*/

VALUE STRNGF 04 = 'G4(1W) BO 8X8 WD'
 05 = 'G4(2W) BO 6X8 WD'
 06 = 'G4(1S) BO STEEL'
 07 = 'G4(2S) BO ST PST'
 08 = 'G9 THRIE ST PST'
 09 = 'GR W BEAM STR'
 10 = 'GR BLK/O W STR'
 16 = 'MB4 W BO W WOOD'
 17 = 'MB4 S BO W STEEL'
 19 = 'MB7 AL STR BEAM'
 20 = 'MB8 AL BAL BEAM'
 21 = 'MB9 BO THRIE STL'
 22 = 'MB10 MBGF STB/A'
 . = 'NOT STRONG POST';

/*LONGITUDINAL BARRIER TYPE - MODIFIED (CONCRETE POST ONLY)*/

VALUE CONCRTF 11 = 'GR CRTE SFT SHAPE'
 18 = 'MB5 C M B'
 . = 'NOT CONCRET POST';

/*LONGITUDINAL BARRIER TYPE - MODIFIED (OTHER POST ONLY)*/

VALUE OTHERF 12 = 'GR OTHER'
 23 = 'MB OTHER'
 . = 'NOT OTHER';

/*LONGITUDINAL BARRIER TYPE - MODIFIED (GUARDRAIL ONLY)*/

VALUE B33FA 01 = 'GR CABLE GRDRAIL'
02 = 'GR W BEAM'
03 = 'GR BOX BEAM'
04 = 'GR BLK/O 8X8 WOOD'
05 = 'GR BLK/O 6X8 WOOD'
06 = 'GR BLK/O STEEL'
07 = 'GR BLK/O C POST'
08 = 'GR BLK/O THRIE'
09 = 'GR W BEAM'
10 = 'GR BLK/O W STR'
11 = 'GR CRTE SFT SHAPE'
12 = 'GR OTHER' ;

/*LONGITUDINAL BARRIER TYPE - MODIFIED (MEDIAN BARRIER ONLY)*/

VALUE B33FB 13 = 'MD CABLE'
14 = 'MD W SECTION'
15 = 'MD BOX BEAM'
16 = 'MD BLK/O W WOOD'
17 = 'MD BLK/O W STEL'
18 = 'MD CONCRETE'
19 = 'MD ALUMN BEAM'
20 = 'MD ALUMN BAL BEAM'
21 = 'MD BLK/O THRIE'
22 = 'MD METAL GRD FENCE'
23 = 'MD OTHER'
99 = 'UNKNOWN'
. = 'NOT CODED'
OTHER = 'INVALID CODES';

/*BARRIER BEAM TYPE MODIFIED*/

VALUE B34FF . = 'N/A-NO BEAM'
1 = 'CABLE'
2 = ' W BEAM'
3 = 'BOX BEAM'
U = 'OTHER';

/*BARRIER BEAM TYPE*/

VALUE B34F 0 = 'N/A-NO BEAM'
1 = 'CABLE'
2 = 'W BEAM'
3 = 'BOX BEAM'
4 = 'ALUMN EXTRUSION'
5 = 'THRIE BEAM'
8 = 'OTHER'
9 = 'UNKNOWN'
. = 'NOT CODED'
OTHER = 'INVALID CODES';

/*BLOCKED OUT PRESENCE - MODIFIED*/

VALUE B35FF . = 'N/A - NO BEAM'
1 = 'BLOCKED OUT'
2 = 'NOT BLOCKED OUT'
9 = 'UNKNOWN'
OTHER = 'INVALID CODES';

/*BLOCKED OUT PRESENCE*/

VALUE B35F 0 = 'N/A - NO BEAM'
1 = 'BLOCKED OUT'
2 = 'NOT BLOCKED OUT'
9 = 'UNKNOWN'
. = 'NOT CODED'
OTHER = 'INVALID CODES';

/*TYPE OF POST MATERIAL-MODIFIED*/

VALUE B36FF . = 'N/A - NO POSTS'
1 = 'STEEL'
2 = 'ALUMINUM'
3 = 'WOOD'
4 = 'CONCRETE'
8 = 'OTHER'
9 = 'UNKNOWN'
OTHER = 'INVALID CODES';

/*TYPE OF POST MATERIAL*/

VALUE B36F 0 = 'N/A - NO POSTS'
1 = 'STEEL'
2 = 'ALUMINUM'
3 = 'WOOD'
4 = 'CONCRETE'
8 = 'OTHER'
9 = 'UNKNOWN'
. = 'NOT CODED'
OTHER = 'INVALID CODES';

/* TYPE OF POST - SHAPE MODIFIED*/

VALUE B37FF . = 'N/A - NO POSTS'
1 = 'CIRCULAR'
2-3 = 'SQUARE/RECTANGLE'
4-5 = 'I-BEAM/C-CHANNEL'
.U = 'OTHER';

/* TYPE OF POST - SHAPE*/

VALUE B37F 0 = 'N/A - NO POSTS'
1 = 'CIRCULAR'
2 = 'SQUARE'
3 = 'RECTANGLE'
4 = 'I-BEAM'
5 = 'C-CHANNEL'
8 = 'OTHER'
9 = 'UNKNOWN'
. = 'NOT CODED'
OTHER = 'INVALID CODES';

/* POST SPACING -CENTER TO CENTER*/

VALUE B38F 0.0 = 'N/A - NO POSTS'
0.0-4.9 = '0.0 - 4.9'
5.0-9.9 = '5.0 - 9.9'
10.0-14.9 = '10.0 - 14.9'
15.0-19.9 = '15.0 - 19.9'
20.0-99.6 = '20.0 - 99.6'
99.7 = '99.7+'
. = 'NOT CODED'
99.9 = 'UNKNOWN';

/* POST SPACING -CENTER TO CENTER-MODIFIED*/

VALUE B38FF . = 'N/A - NO POSTS'
2.0-5.4 = '< 5.5'
5.5-7.5 = '5.5 - 7.5'
7.6-11.0 = '7.6 - 11'
11.1-13.4 = '11.1 - 13.4'
13.5-99.7 = '13.5+';

/* END TREATMENT TYPE*/

VALUE B39FF 0 = 'NO IMPACT W/END'
1 = 'BLUNT'
2 = 'N/BRKAWY CBL TRM'
3 = 'TURNDOWN'
4 = 'BRKAWAY CBL TERM'
5 = 'ANCHORN TO BCKSL'
6 = 'ATTACH TO PARAPT'
7 = 'IMPACT ATTENUATR'
8 = 'OTHER'
9 = 'UNKOWN'
. = 'INVALID DATA';

/* END TREATMENT TYPE*/

VALUE B39F 0 = 'NO IMPACT W/BAR'
 1 = 'BLUNT'
 2 = 'N/BRKAWY CBL TRM'
 3 = 'TURNDOWN'
 4 = 'BRKAWAY CBL TERM'
 5 = 'ANCHORN TO BCKSL'
 6 = 'ATTACH TO PARAPT'
 7 = 'IMPACT ATTENUATR'
 8 = 'OTHER'
 9 = 'UNKOWN'
 . = 'NOT CODED'
 OTHER = 'INVALID CODES';

/*LOCATION OF END TREATMENT*/

VALUE B40F 0 = 'NO IMPACT W/BARR'
 1 = 'UPSTREAM'
 2 = 'DOWNSTREAM'
 8 = 'OTHER'
 9 = 'UNKNOWN'
 . = 'NOT CODED'
 OTHER = 'INVALID CODES';

/*DISTANCE FROM END OF BARRIER-MODIFIED */

VALUE B41FF 00 = 'NO IMPT W/BAR END'
 01 = '1 FT OF END'
 02 - 10 = '2 - 10 FT'
 11 - 40 = '11 - 40 FT'
 41 - 97 = '41+ FT'
 . = 'INVALID DATA';

/*DISTANCE FROM END OF BARRIER*/

VALUE B41F 00 = 'NO IMPT W/BAR END'
 01 = 'IMPT 1FT END BARR'
 2 - 10 = '2 - 10 FT'
 11 - 20 = '11 - 20 FT'
 21 - 30 = '21 - 30 FT'
 31 - 40 = '31 - 40 FT'
 41 - 50 = '41 - 50 FT'
 51 - 60 = '51 - 60 FT'
 61 - 70 = '61 - 70 FT'
 71 - 80 = '71 - 80 FT'
 81 - 90 = '81 - 90 FT'
 91 - 96 = '91 - 96 FT'
 97 = '97+ FT'
 . = 'NOT CODED'
 99 = 'UNKNOWN';

/* LENGTH OF FLARE - MODIFIED*/

```

VALUE B42FF 00 = 'NO IMPACT W/BAR'
  1 -10 = '10 FT OR LESS'
 11-30 = '11 - 30 FT'
 31-40 = '31 - 40 FT'
 41-97 = '41+ FT'
  98 = 'IMPT B/END N/FLAR'
  . = 'INVALID DATA';

```

/* LENGTH OF FLARE*/

```

VALUE B42F 00 = 'NO IMPACT W/BAR'
  1 -10 = '10 FT OR LESS'
 11-20 = '11 - 20 FT'
 21-30 = '21 - 30 FT'
 31-40 = '31 - 40 FT'
 41-50 = '41 - 50 FT'
 51-60 = '51 - 60 FT'
 61-70 = '61 - 70 FT'
 71-80 = '71 - 80 FT'
 81-90 = '81 - 90 FT'
 91-96 = '91 - 96 FT'
  97 = '97+ FT'
  98 = 'IMPT B/END N/FLAR'
  . = 'NOT CODED'
 99 = 'UNKNOWN';

```

/* FLARE OFFSET-MODIFIED */

```

VALUE B43FF 00 = 'NO IMPACT W/BAR'
  1 -10 = '10 FT OR LESS'
 11-97 = '> 10 FT'
  98 = 'IMPT B/END N/FLAR'
  . = 'INVALID DATA'
 99 = 'UNKNOWN';

```

/* FLARE OFFSET */

```

VALUE B43F 00 = 'NO IMPACT W/BAR'
  1 -10 = '10 FT OR LESS'
 11-20 = '11 - 20 FT'
 21-30 = '21 - 30 FT'
 31-40 = '31 - 40 FT'
 41-50 = '41 - 50 FT'
 51-60 = '51 - 60 FT'
 61-70 = '61 - 70 FT'
 71-80 = '71 - 80 FT'
 81-90 = '81 - 90 FT'
 91-96 = '91 - 96 FT'
  97 = '97+ FT'
  98 = 'IMPT B/END N/FLAR'
  . = 'NOT CODED'
 99 = 'UNKNOWN';

```

/* LENGTH OF LONGITUDINAL BARRIER SECTION - MODIFIED*/

VALUE B44FF 010-150 = '150 FT'
151-997 = '151+ FT'
998 = 'N/A - MEDIAN BARRIER'
. = 'INVALID DATA'
999 = 'UNKNOWN';

/* LENGTH OF LONGITUDINAL BARRIER SECTION*/

VALUE B44F 010 = '10 FT OR LESS'
11-50 = '11 - 50 FT'
51-70 = '51 - 70 FT'
71-90 = '71 - 90 FT'
91-110 = '91 - 110 FT'
111-130 = '111 - 130 FT'
131-150 = '131 - 150 FT'
151-170 = '151 - 170 FT'
171-190 = '171 - 190 FT'
191-210 = '191 - 210 FT'
211-230 = '211 - 230 FT'
231-250 = '231 - 250 FT'
251-270 = '251 - 270 FT'
271-290 = '271 - 290 FT'
291-310 = '291 - 310 FT'
311-330 = '311 - 330 FT'
331-350 = '331 - 350 FT'
351-370 = '351 - 370 FT'
371-390 = '371 - 390 FT'
391-410 = '391 - 410 FT'
411-430 = '411 - 430 FT'
431-450 = '431 - 450 FT'
451-470 = '451 - 470 FT'
471-490 = '471 - 490 FT'
491-500 = '491 - 500 FT'
501-997 = '501+ FT'
998 = 'N/A - MEDIAN BARRIER'
. = 'NOT CODED'
999 = 'UNKNOWN';

/* LONGITUDINAL BARRIER HEIGHT- MODIFIED*/

VALUE B45FF 05-15 = '15 INCHES OR LESS'
16-19 = '16 - 19 INCHES'
20-22 = '20 - 22 INCHES'
23-25 = '23 - 25 INCHES'
26-29 = '26 - 29 INCHES'
30-33 = '30 - 33 INCHES'
34-44 = '34 - 44 INCHES'
45-50 = '> 44 INCHES'
. = 'INVALID DATA'
99 = 'UNKNOWN';

/* LONGITUDINAL BARRIER HEIGHT*/

VALUE B45F 05 = '5 INCHES OR LESS'
6 -15 = '6 TO 15 INCHES'
16-25 = '16 - 25 INCHES'
26-33 = '26 - 33 INCHES'
34-49 = '34 - 49 INCHES'
50 = '50+ INCHES'
. = 'NOT CODED'
99 = 'UNKNOWN';

/* LOCATION OF BARRIER*/

VALUE B46F 0 = 'IMPT COND N/A'
1 = 'OF LFT SIDE RDWY'
2 = 'OF RGT SIDE RDWY'
8 = 'OTHER'
. = 'NOT CODED'
9 = 'UNKNOWN'
OTHER = 'INVALID CODES';

/* CURB TYPE/PRESENCE*/

VALUE B47F 0 = 'NO CURB PRESENT'
1 = 'BARRIER CURB'
2 = 'MOUNTABLE CURB'
8 = 'OTHER'
9 = 'UNKNOWN'
. = 'NOT CODED'
OTHER = 'INVALID CODES';

/* CURB HEIGHT- MODIFIED*/

VALUE B48FF 0 = 'NO CURB PRESENT'
1-6 = '1 - 6 INCHES'
7-98 = '> 6 INCHES'
. = 'INVALID DATA'
99 = 'UNKNOWN';

/* CURB HEIGHT*/

VALUE B48F 0 = 'NO CURB PRESENT'
1-5 = '1 - 5 INCHES'
5-10 = '5 - 10 INCHES'
11-15 = '11 - 15 INCHES'
16-18 = '16 - 18 INCHES'
19-98 = '19+ INCHES'
. = 'NOT CODED'
99 = 'UNKNOWN';

/*PERPENDICULAR DISTANCE FORM CURB TO STRUCK BARRIER-MODIFIED*/

VALUE B49FF 00 = 'NO CURB PRESENT'

01 = '1 FT OR LESS'

2-5 = '2 TO 5 FT'

6-10 = '6 TO 10 FT'

11-98 = '> 10 FT'

. = 'INVALID DATA'

99 = 'UNKNOWN';

/*PERPENDICULAR DISTANCE FORM CURB TO STRUCK BARRIER*/

VALUE B49F 00 = 'NO CURB PRESENT'

01 = '1 FT OR LESS'

97-98 = '97+ FT'

. = 'NOT CODED'

99 = 'UNKNOWN';

/* ROADSIDE SLOPE - MODIFIED*/

VALUE B50FF 1 = 'ONE SLOPE'

2 = 'TWO SLOPES'

3 = 'THREE SLOPES'

8 = 'OTHER'

. = 'INVALID DATA';

/* ROADSIDE SLOPE*/

VALUE B50F 0 = 'NOT APPLICABLE'

1 = 'ONE SLOPE'

2 = 'TWO SLOPES'

3 = 'THREE SLOPES'

8 = 'OTHER'

9 = 'UNKNOWN'

. = 'NOT CODED'

OTHER = 'INVALID CODES';

/* HORIZONTAL DISTANCE - FIRST SLOPE-MODIFIED*/

VALUE B51FF 00 - 04 = '0 - 4 FT'

05 - 08 = '5 - 8 FT'

09 - 12 = '9 - 12 FT'

13 - 97 = '13+ FT'

. = 'INVALID DATA'

99 = 'UNKNOWN';

/* HORIZONTAL DISTANCE - FIRST SLOPE*/

VALUE B51F 00 = 'NOT APPLICABLE'

01 = 'ONE FT OR LESS'

13 - 96 = '13+ FT'

. = 'NOT CODED'

```

97-98 = '97+ FT'
99 = 'UNKNOWN';

/* RATE OF SLOPE - FIRST SLOPE-MODIFIED */

VALUE B52FF -0.99 - -0.01 = 'NEGATIVE'
0.01 - 0.98 = 'POSTIVE'
0.00 = 'ZERO'
0.99 = 'UNKNOWN'
. = 'INVALID DATA';

/* RATE OF SLOPE - FIRST SLOPE- */

VALUE B52F -0.99 - -0.01 = 'NEGATIVE'
0.01 - 0.98 = 'POSTIVE'
0.99 = 'UNKNOWN'
OTHER = 'ERROR CODES';

/* HORIZONTAL DISTANCE - SECOND SLOPE MODIFIED*/

VALUE B53FF 00 - 04 = '0 - 4 FT'
05 - 08 = '5 - 8 FT'
09 - 12 = '9 - 12 FT'
13 - 97 = '13+ FT'
. = 'INVALID DATA'
99 = 'UNKNOWN';

/* HORIZONTAL DISTANCE - SECOND SLOPE*/

VALUE B53F 00 = 'NOT APPLICABLE'
01 = '1 FT OR LESS'
13 - 96 = '13+ FT'
. = 'NOT CODED'
97-98 = '97+ FT'
99 = 'UNKNOWN';

/* RATE OF SLOPE - SECOND SLOPE - MODIFIED*/

VALUE B54FF -0.99 - -0.01 = 'NEGATIVE'
0.01 - 0.98 = 'POSTIVE'
0.99 = 'UNKNOWN'
OTHER = 'INVALID DATA';

/* RATE OF SLOPE - SECOND SLOPE- */

VALUE B54F -0.99 - -0.01 = 'NEGATIVE'
0.01 - 0.98 = 'POSTIVE'
0.99 = 'UNKNOWN'
OTHER = 'ERROR CODES';

```

/* HORIZONTAL DISTANCE - THIRD SLOPE-MODIFIED*/

VALUE B55FF 00 = '0 - 4 FT'
05 - 08 = '5 - 8 FT'
09 - 12 = '9 - 12 FT'
13 - 97 = '13+ FT'
. = 'INVALID DATA'
99 = 'UNKNOWN';

/* HORIZONTAL DISTANCE - THIRD SLOPE*/

VALUE B55F 00 = 'NOT APPLICABLE'
01 = '1 FT OR LESS'
13 - 96 = '13+ FT'
. = 'NOT CODED'
97-98 = '97+ FT'
99 = 'UNKNOWN';

/* RATE OF SLOPE - THIRD SLOPE */

VALUE B56F -0.99 - -0.01 = 'NEGATIVE'
0.01 - 0.98 = 'POSTIVE'
0.99 = 'UNKNOWN'
OTHER = 'INVALID DATA';

/* TOTAL HORIZONTAL DISTANCE- MODIFIED*/

VALUE B57F 00 = 'BARRIER AT EDGE'
01 - 04 = '1 - 4 FT'
05 - 08 = '5 - 8 FT'
09 - 12 = '9 - 12 FT'
13 - 97 = '13+ FT'
. = 'INVALID DATA'
99 = 'UNKNOWN';

/* TOTAL CHANGE IN ELEVATION IN INCHES-MODIFIED */

VALUE B58FF 00 = 'NO CHANGE IN ELEV'
-12 - -1 = '-1 - -12' '
-98 - -13 = '-13 & GREATER'
1 - 36 = '1" & GREATER'
OTHER = 'INVALID DATA';

/* TOTAL CHANGE IN ELEVATION IN INCHES */

VALUE B58F 00 = 'NO CHANGE IN ELEV'
-12 - -1 = '-1 - -12" '
-24 - -13 = '-13 - -24" '
-36 - -25 = '-25 - -36" '
-84 - -37 = '-37 - -84" '
-96 - -85 = '-96 - -85" '
-98 - -97 = '-97" OR GREATER'
1 - 12 = '1 - 12" '

181-200 = '181 - 200 FT'
 201 = '201+ FT'
 . = 'NOT CODED'
 999 = 'UNKNOWN';

/* MAXIMUM DEPTH OF BARRIER DEFORMATION*/

VALUE B61FF 00 = 'NO DEFORMATION'
 1- 6 = '1 - 6 INCHES'
 7- 12 = '7 - 12 INCHES'
 13- 98 = '> 12 INCHES'
 . = 'INVALID DATA'
 99 = 'UNKNOWN';

/* MAXIMUM DEPTH OF BARRIER DEFORMATION*/

VALUE B61F 00 = 'NO DEFORMATION'
 1- 20 = '1 - 20 INCH'
 21- 50 = '21 - 50 INCH'
 51- 70 = '51 - 70 INCH'
 71- 96 = '71 - 96 INCH'
 . = 'NOT CODED'
 97 = '97+ INCHES'
 OTHER = 'INVALID CODES'
 99 = 'UNKNOWN';

/* ANGLE OF IMPACT - MODIFIED*/

VALUE B62FF 00 - 17 = '17 AND LESS DEGS'
 18 - 27 = '18 - 27 DEGS'
 28 - 45 = '28 - 45 DEGS'
 46 -199 = '> 45 DEGS'
 OTHER = 'INVALID DATA';

/* ANGLE OF IMPACT*/

VALUE B62F 00 - 08 = '0 - 8 DEGS'
 09 - 12 = '9 - 12 DEGS'
 13 - 17 = '13 - 17 DEGS'
 18 - 22 = '18 - 22 DEGS'
 23 - 27 = '23 - 27 DEGS'
 28 - 32 = '28 - 32 DEGS'
 33 - 40 = '33 - 40 DEGS'
 41 - 55 = '41 - 55 DEGS'
 56 - 75 = '56 - 75 DEGS'
 76 - 98 = '76 - 98 DEGS'
 100 - 199 = '100+ DEGS'
 99 = 'UNKNOWN'
 OTHER = 'ERROR CODES'
 . = 'NOT CODED';

13 - 24 = '13 - 24' '
 25 - 36 = '25 - 36' '
 OTHER = 'ERROR CODES';

/* EFFECTIVE HEIGHT OF BARRIER -MODIFIED*/

VALUE B59FF -53 - 0 = '0 - -53'
 1 - 15 = '< + 16" '
 16 - 19 = '16 - 19'
 20 - 22 = '20 - 22'
 23 - 25 = '23 - 25'
 26 - 29 = '26 - 29'
 30 - 33 = '30 - 33'
 34 - 44 = '34 - 44'
 45 - 97 = ' > 44" '
 OTHER = 'INVALID DATA'
 99 = 'UNKNOWN';

/* EFFECTIVE HEIGHT OF BARRIER*/

VALUE B59F -53 - -01 = '-53 - -01'
 0 = '0 '
 1 - 10 = '1 - 10'
 11 - 20 = '11 - 20'
 21 - 30 = '21 - 30'
 31 - 40 = '31 - 40'
 41 - 50 = '41 - 50'
 51 - 60 = '51 - 60'
 61 - 70 = '61 - 70'
 71 - 80 = '71 - 80'
 81 - 90 = '81 - 90'
 91 - 96 = '91 - 96'
 97 = '97+'
 99 = 'UNKNOWN';

/*LENGTH OF DIRECT CONTACT/DAMAGE-MODIFIED*/

VALUE B60FF 1- 20 = '1 - 20 FT'
 21- 50 = '21 - 50 FT'
 51-201 = '51+ FT'
 . = 'INVALID DATA'
 999 = 'UNKNOWN';

/*LENGTH OF DIRECT CONTACT/DAMAGE*/

VALUE B60F 1- 20 = '1 - 20 FT'
 21- 50 = '21 - 50 FT'
 51- 70 = '51 - 70 FT'
 71- 80 = '71 - 80 FT'
 81-100 = '81 - 100 FT'
 101-120 = '101 - 120 FT'
 121-140 = '121 - 140 FT'
 141-160 = '141 - 160 FT'
 161-180 = '161 - 180 FT'

/* VEHICLE YAWING ANGLE AT IMPACT-MODIFIED*/

VALUE B63FF 00 - 17 = '17 & LESS DEGS'
18 - 27 = '18 - 27 DEGS'
28 - 45 = '28 - 45 DEGS'
46 - 199 = '45+ DEGS'
. = 'NOT CODED';

/* VEHICLE YAWING ANGLE AT IMPACT*/

VALUE B63F 00 - 08 = '0 - 8 DEGS'
09 - 12 = '9 - 12 DEGS'
13 - 17 = '13 - 17 DEGS'
18 - 22 = '18 - 22 DEGS'
23 - 27 = '23 - 27 DEGS'
28 - 32 = '28 - 32 DEGS'
33 - 40 = '33 - 40 DEGS'
41 - 55 = '41 - 55 DEGS'
56 - 75 = '56 - 75 DEGS'
76 - 98 = '76 - 98 DEGS'
99 = 'UNKNOWN'
100 - 199 = '100 + DEGS'
. = 'NOT CODED'
OTHER = 'ERROR CODES' ;

/* IMPACT SPEED*/

VALUE B64F 00 = ' 0 MPH'
01-10 = '01 - 10 MPH'
11-20 = '11 - 20 MPH'
21-35 = '21 - 35 MPH'
36-45 = '36 - 45 MPH'
46-55 = '46 - 55 MPH'
56-65 = '56 - 65 MPH'
66-75 = '66 - 75 MPH'
76-85 = '76 - 85 MPH'
86-96 = '86 - 96 MPH'
97 = '97+ MPH'
99 = 'UNKNOWN'
200 = '< 10'
201 = '< 15'
202 = '< 20'
203 = '< 30'
204 = '< 40'
205 = '< 50'
206 = '< 60'
991 = ' LOW'
299 = '> 5 '
298 = '> 10'
300 = '> 20'
301 = '> 25'
302 = '> 30'

```

303 = '> 32'
297 = '> 35'
304 = '> 37'
305 = '> 40'
306 = '> 50'
310 = '> 55'
307 = '> 60'
308 = '> 65'
309 = '> 70'
992 = 'HIGH'
. = 'NOT CODED';

```

/* SEPARATION ANGLE*/

```

VALUE B65FF 00 - 08 = '0 - 8 DEGS'
09 - 17 = '9 - 17 DEGS'
18 - 199 = '18+ DEGS'
OTHER = 'INVALID DATA';

```

/* SEPARATION ANGLE*/

```

VALUE B65F 00 - 08 = '0 - 8 DEGS'
09 - 12 = '9 - 12 DEGS'
13 - 17 = '13 - 17 DEGS'
18 - 22 = '18 - 22 DEGS'
23 - 27 = '23 - 27 DEGS'
28 - 32 = '28 - 32 DEGS'
33 - 40 = '33 - 40 DEGS'
41 - 55 = '41 - 55 DEGS'
56 - 75 = '56 - 75 DEGS'
76 - 98 = '76 - 98 '
100 - 199 = '100+ DEGS'
99 = 'UNKNOWN'
. = 'NOT CODED'
OTHER = 'ERROR CODES';

```

/*BARRIER PERFORMANCE*/

```

VALUE B66F 1 = 'VH REDIREC BY BAR'
2 = 'VH SNAGGED BY BAR'
3 = 'VH OVERRODE BAR'
4 = 'VH VAULTED BAR'
5 = 'VH PENETRATED BAR'
8 = 'OTHER'
9 = 'UNKNOWN'
. = 'NOT CODED'
OTHER = 'INVALID CODES';

```

/* POST-IMPACT TRAJECTORY*/

VALUE B67F . = 'NOT CODED'

1 = 'VH REMN IN RDSID'

2 = 'VH RETRN TO RDWY'

3 = 'VH CRS RDWY OPSD'

4 = 'VH CRS MED TRWAY'

5 = 'VH TOP/OVER/THRU'

8 = 'OTHER'

9 = 'UNKNOWN'

OTHER = 'INVALID CODES';

/* SUBSEQUENT IMPACT*/

VALUE B68F 0 = 'NONE'

1 = 'ANOTHER VEHICLE'

2 = 'ANOTHR RDSID OBJ'

3 = 'SAME LONGIT BARR'

4 = 'ANOTHER LOG BARR'

5 = 'BRIDGE RAIL/END'

6 = 'ROLLOVER'

8 = 'OTHER'

9 = 'UNKNOWN'

. = 'NOT CODED'

OTHER = 'INVALID DATA';

/* ROLLOVER - M FILE*/

VALUE B69F 0 = 'NO ROLLOVER'

1 = 'ROLL 1 QTR TURN'

2 = 'ROLL 2 QTR TURN'

3 = 'ROLL 3 QTR TURN'

4 = 'ROLL 4+ QTR TURN'

5 = 'ROLL W/VAULT PICH'

6 = 'OVRTRN DETAIL UNK';

/* FORMATS FOR BARRIERL*/

/* COLLISION WITH STATIONARY OBJECT - MODIFIED CHARACTER VERSION*/

VALUE \$COLLF '0','00','0' = 'NONCOLLISON'

'A1' = 'CS-GRDRAIL'

'A2' = 'CS-GRDRL N/MED'

'A3' = 'CS-CON BAR N/MED'

'A4' = 'CS-OT L/BAR N/MD'

'A5' = 'CS-GRDRL/P N/MED'

'A6' = 'CS-GRDRL EN N/MED'

'A7' = 'CS-GUARDRAIL MED'

'A8' = 'CS-MEDIAN BARRIER'

'A9' = 'CS-CONC BAR MED'
 '1A' = 'CS-OTH MED BAR'
 '1B' = 'CS-GRDRL PR MED'
 '1C' = 'CS-GRDRL END MED'
 '1D' = 'CS-BRD/BRDG TRANSI'
 'J7' = 'CNS-PED N/MOTOR'
 '31' = 'CS-MVH N/TRANSPRT'
 '32' = 'CS-TREE < 6" DIAM'
 '33' = 'CS-TREE > 6" DIAM'
 '34' = 'CS-LUMINAIR BRKWY'
 '35' = 'CS-LUMINA N/BRKWY'
 '36' = 'CS-LRG SIGN BRKWY'
 '37' = 'CS-LRG SGN N/BRWY'
 '38' = 'CS-SM SGN BRKWY'
 '39' = 'CS-SM SGN N/BRKWY'
 '40' = 'CS-UTILITY POLE'
 '41' = 'CS-FENCE'
 '42' = 'CS-OTHER PST/POLE'
 '43' = 'CS-MAIL BOX'
 '44' = 'CS-DELINEATOR'
 '45' = 'CS-TRAF SGNL POLE'
 '46' = 'CS-OTHER MOV OBJ'
 '47' = 'CS-CULVERT'
 '48' = 'CS-RAILROAD TRKS'
 '49' = 'CS-CURB'
 '50' = 'CS-ABUTMENT'
 '51' = 'CS-WALL (STN/RCK)'
 '56' = 'CS-BRIDGE SUPPRT'
 '52' = 'CS-EMBANKMT EART'
 '53' = 'CS-EMBNK RCK/STN'
 '54' = 'CS-BUILDING RIGID'
 '55' = 'CS-BLDG N/RIGID'
 '57' = 'CS-BRDG RAIL'
 '58' = 'CS-BRDG PARPAP,END'
 '59' = 'CS-CRSH CUSHION'
 '60' = 'CS-GROUND'
 '62' = 'CS-TRAIN'
 '63' = 'CS-DITCH'
 '64' = 'CS-OTHER STAT OBJ'
 '65' = 'CNS-ANIMAL'
 '66' = 'CNS-TRL DISCONEC'
 '67' = 'CNS-TRAIN'
 '68' = 'CNS-OTH N/ST OBJ'
 '96' = 'CNS-VEH OCCUPNT'
 '97' = 'CNS-OTH OCCUPNT'
 '98' = 'CNS-NOT APPLICBL'
 ' U', ' ' = 'CNS UNKNOWN';

/* COLLISION WITH STATIONARY OBJECT*/

VALUE COLLFF 00 = 'NONCOLLISON'
 01 = 'CS-GRDRAIL'
 02 = 'CS-GRDRL N/MED'

03 = 'CS-CON BAR N/MED'
 04 = 'CS-OT L/BAR N/MD'
 05 = 'CS-GRDRL/P N/MED'
 06 = 'CS-GRDRL EN N/MED'
 07 = 'CS-GUARDRAIL MED'
 08 = 'CS-MEDIAN BARRIER'
 09 = 'CS-CONC BAR MED'
 10 = 'CS-OTH MED BAR'
 11 = 'CS-GRDRL PR MED'
 12 = 'CS-GRDRL END MED'
 13 = 'CS-BRD/BRDG TRANSI'
 31 = 'CS-MVH N/TRANSPRT'
 32 = 'CS-TREE < 6" DIAM'
 33 = 'CS-TREE > 6" DIAM'
 34 = 'CS-LUMINAIR BRKWY'
 35 = 'CS-LUMINA N/BRKWY'
 36 = 'CS-LRG SIGN BRKWY'
 37 = 'CS-LRG SGN N/BRWY'
 38 = 'CS-SM SGN BRKWY'
 39 = 'CS-SM SGN N/BRKWY'
 40 = 'CS-UTILITY POLE'
 41 = 'CS-FENCE'
 42 = 'CS-OTHER PST/POLE'
 43 = 'CS-MAIL BOX'
 44 = 'CS-DELINEATOR'
 45 = 'CS-TRAF SGNL POLE'
 46 = 'CS-OTHER MOV OBJ'
 47 = 'CS-CULVERT'
 48 = 'CS-RAILROAD TRKS'
 49 = 'CS-CURB'
 50 = 'CS-ABUTMENT'
 51 = 'CS-WALL (STN/RCK)'
 56 = 'CS-BRIDGE SUPPRT'
 52 = 'CS-EMBANKMT EART'
 53 = 'CS-EMBNK RCK/STN'
 54 = 'CS-BUILDING RIGID'
 55 = 'CS-BLDG N/RIGID'
 57 = 'CS-BRDG RAIL'
 58 = 'CS-BRDG PARPAP,END'
 59 = 'CS-CRSH CUSHION'
 60 = 'CS-GROUND'
 62 = 'CS-TRAIN'
 63 = 'CS-DITCH'
 64 = 'CS-OTHER STAT OBJ'
 65 = 'CNS-ANIMAL'
 66 = 'CNS-TRL DISCONEC'
 67 = 'CNS-TRAIN'
 68 = 'CNS-OTH N/ST OBJ'
 71-95 = 'CNS-PED N/MOTOR'
 96 = 'CNS-VEH OCCUPNT'
 97 = 'CNS-OTH OCCUPNT'
 98 = 'CNS-NOT APPLICBL'
 . = 'NOT CODED'
 99 = 'CNS-UNKNOWN';

/* LATERAL OFFSET CLEARANCE TO NEAREST FOOT*/

VALUE LATDSTF 0 = '0'
1-10 = '1 - 10 FT'
11 -20 = '11 - 20'
21 -30 = '21 - 30'
31 -40 = '31 - 40'
41 -50 = '41 - 50'
51 -60 = '51 - 60'
61 -70 = '61 - 70'
71 -80 = '71 - 80'
81 -90 = '81 - 90'
91 -96 = '91 - 96'
97 = '97+ FT'
98 = 'NOT APPLICABLE'
. = 'NOT CODED'
99 = 'UNKNOWN';

/* TOTAL NUMBER OF IMPACTS IN ACCIDENT*/

VALUE TOTIMPF 1 = '1'
2 = '2'
3 = '3'
4 = '4'
5 = '5'
6 = '6'
7 = '7+ IMPACTS'
. = 'NOT CODED'
9 = 'UNKNOWN';

/* TOTAL NUMBER OF LONGITUDINAL BARRIER IMPACTS-MODIFIED*/

VALUE TOTBARFF 3-5 = '> 2 IMPACTS'
. = 'NOT CODED'
9 = 'UNKNOWN';

/* TOTAL NUMBER OF LONGITUDINAL BARRIER IMPACTS*/

VALUE TOTBARMF 1 = '1'
2 = '2'
3 = '3'
4 = '4'
5 = '5'
6 = '6'
7 = '7+ IMPACTS'
. = 'NOT CODED'
9 = 'UNKNOWN';

```

/*CONCRETE BARRIER DIMENSION - 70A */
/* CAROL CONLEY'S FORMATS*/
VALUE B70AF 0.0 = 'NO CONCRETE BARR'
1.0-1.4 = '1.0 - 1.4'
1.5-2.4 = '1.5 - 2.4'
2.5-3.4 = '2.5 - 3.4'
3.5-4.4 = '3.5 - 4.4'
4.5-5.4 = '4.5 - 5.4'
5.5-6.4 = '5.5 - 6.4'
6.5-7.4 = '6.5 - 7.4'
7.5-8.4 = '7.5 - 8.4'
8.5-9.0 = '8.5 IN OR OVER'
. = 'NOT CODED'
99.9 = 'UNKNOWN';

```

```

/*CONCRETE BARRIER DIMENSION - 70B*/
/* CAROL CONLEY'S FORMATS*/
VALUE B70BF 0.0 = 'NO CONCRETE BARR'
10.0-11.9 = '10.0 - 11.9'
12.0-13.9 = '12.0 - 13.9'
14.0-15.9 = '14.0 - 15.9'
16.0-17.9 = '16.0 - 17.9'
18.0-19.9 = '18.0 - 19.9'
20.0-21.9 = '20.0 - 21.9'
22.0-23.9 = '22.0 - 23.9'
24.0-25.0 = '24 INCH & OVER'
. = 'NOT CODED'
99.9 = 'UNKNOWN';

```

```

/* IMPACT ANGLE*/

```

```

VALUE B71F 0 = 'LIMITED CONFIDENCE'
1 = '+-(10) DEG CONFIDE'
2 = '+-(05) DEG CONFIDE'
. = 'NOT CODED'
9 = 'UNKNOWN';

```

```

/* VEHICLE YAWING ANGLE AT IMPACT*/

```

```

VALUE B72F 0 = 'LIMITED CONFIDENCE'
1 = '+-(10) DEG CONFIDE'
2 = '+-(05) DEG CONFIDE'
. = 'NOT CODED'
9 = 'UNKNOWN';

```

```

/* SEPARATION ANGLE*/

```

```

VALUE B73F 0 = 'LIMITED CONFIDENCE'
1 = '+-(10) DEG CONFIDE'
2 = '+-(05) DEG CONFIDE'

```

. = 'NOT CODED'
9 = 'UNKNOWN';

/* VEHICLE SEPARATION-FINAL REST DISTANCE (D3)*/

VALUE B74F 0 = 'LIMITED CONFIDENCE'
1 = '+-(10) DEG CONFIDE'
2 = '+-(05) DEG CONFIDE'
. = 'NOT CODED'
9 = 'UNKNOWN';

/*ACCIDENT FORMATS */

/*RELATION TO JUNCTION*/

VALUE RELJUNCF 01 = 'NON-JUNCTION'
02 = 'THREE LEG INTER'
03 = 'FOUR LEG INTER'
04 = '4+ LEG INTER'
05 = 'ROTARY/TRAF CIRC'
06 = 'INTERSEC RELATED'
07 = 'CHANNEL'
08 = 'MERGE/DIVERGENCE'
09 = 'ENTRANC/EXIT RMP'
10 = 'INTERCHANGE AREA'
11 = 'DRVWY/ALLEY ACCESS'
12 = 'RAILROAD GRDE CROS'
13 = 'CROSSROAD RELATED'
99 = 'UNKNOWN';

/*OTHER VEHICLE ROLE*/

VALUE OTHERF 0 = 'NOIMPACT'
1 = 'FRONT OF OTH VEH'
2 = 'SIDE OF OTH VEH'
3 = 'REAR OF OTH VEH'
4 = 'INTRAUNIT DAMAGE'
5 = 'OTH LOC ON OTH VEH'
6 = 'OBJ STAT/NONSTAT'
7 = 'PED/NONMOTORIST'
8 = 'MOTORCYCLE/MOPED'
9 = 'UNK IMPACT TYPE'
10 = 'SD/END SWP OTH VH';

/*BASIS FOR TOTAL DELTA V (HIGHEST)*/

VALUE DVBASF 1 = 'CAL/PGM DAM ONLY'
2 = 'CAL/PGM DAM/TRAJ'
3 = 'CAL/MISS VEH ALG'
4 = 'CAL/YLD OBJ ALG'
5 = 'CAL/ OTH TECHNIQ'
6 = 'NCAL/BEYND SCOPE'

7 = 'NCAL/ALL BYND SCP'
8 = 'NCAL/INSUFF DATA';

/*ACCIDENT MONTH*/

VALUE MONTHF 01 = 'JANUARY'
02 = 'FEBRUARY'
03 = 'MARCH'
04 = 'APRIL'
05 = 'MAY'
06 = 'JUNE'
07 = 'JULY'
08 = 'AUGUST'
09 = 'SEPTEMBER'
10 = 'OCTOBER'
11 = 'NOVEMBER '
12 = 'DECEMBER'
OTHER = 'ERROR CODES';

/* MAXIMUM KNOWN AIS IN ACCIDENT SAME AS AIS*/

VALUE MAISF 0 = 'NO INJURY'
1 = 'MINOR INJURY'
2 = 'MODERATE INJR'
3 = 'SERIOUS INJUR'
4 = 'SEVERE INJURY'
5 = 'CRITICAL INJR'
6 = 'MAX/UNTREATABL'
7 = 'INJURY/UNK SEV'
9 = 'UNKNOWN';

/*INTERCHANGE GEOMETRY*/

VALUE GEOMETRF 0 = 'NO INTERCHANGE'
1 = 'FULL DIAMOND'
2 = 'PARTIAL DIAMD'
3 = 'FULL CLOVERLFT'
4 = 'PART CLOVERLFT'
5 = 'TRUMPET'
6 = 'DIRECTIONAL'
8 = 'OTHER'
9 = 'UNKNOWN';

/*ROAD ALIGNMENT*/

VALUE ALIGNMF 1 = 'STRAIGHT'
2 = 'CURVE RIGHT'
3 = 'CURVE LFT'
9 = 'UNKNOWN';

/*ROADWAY PROFILE*/

VALUE RDWDPRF 1 = 'LEVEL/(< 2%)'
2 = 'POS GRADE'
3 = 'NEG GRADE'
4 = 'HILLCREST'
5 = 'SAG'
6 = '+ OR - GRADE'
9 = 'UNKNOWN';

/*FIRST HARMFUL EVENT*/

VALUE HARMEVNF 01 = 'NC-OVERTURN'
02 = 'NC-FIRE/EXPLOSON'
03 = 'NC-IMMERSION'
04 = 'NC-GAS INHALATN '
05 = 'NC-FELL FRM VEH '
06 = 'NC-INJ IN VEHICL'
07 = 'NC-OTH NON-COLLI'
08 = 'CL-PEDESTRIAN'
09 = 'CL-PEDALCYCLIST'
10 = 'CL-RAILWAY TRAIN'
11 = 'CL-ANIMAL'
12 = 'CL-MV TRNS SM RD'
13 = 'CL-MV TRNS OT RD'
14 = 'CL-PRK MOTOR VEH'
15 = 'CL-OT NONMOTORIS'
16 = 'CL-THRWN FAL/OBJ'
17 = 'CL-BOULDER'
18 = 'CL-OTHER OBJ/NF'
19 = 'CFO-BUILDING'
20 = 'CLO-IMPCT ATTEN'
21 = 'CLO-BRIDGE PIER'
22 = 'CLO-BRIDGE PARAPT'
23 = 'CLO-BRIDGE RAIL'
24 = 'CLO-GUARDRIL'
25 = 'CLO-CNT TRF BAR'
26 = 'CLO-OTH LON BAR'
27 = 'CLO-HWY TRF SGN'
28 = 'CLO-OVHD SGN SUP'
29 = 'CLO-LGHT SUPPRT'
30 = 'CLO-UTILITY POLE'
31 = 'CLO-OTH POST'
32 = 'CLO-CULVERT'
33 = 'CLO-CURB'
34 = 'CLO-DITCH'
35 = 'CLO-EMBNK EARTH'
36 = 'CLO-EMBNK ROCK'
38 = 'CLO-FENCE'
39 = 'CLO-WALL'
40 = 'CLO-FIRE HYDRANT'
41 = 'CLO-SHRUBBERY'
42 = 'CLO-TREE'

43 = 'CLO-OTHER'
44 = 'CLO-POTHOLE'
99 = 'CLO-UNKNOWN'
OTHER = 'ERROR CODE';

/*MANNER OF COLLISION*/

VALUE MANCOLF 0 = 'NOT COLLISION'
1 = 'REAR-END'
2 = 'HEAD-ON'
3 = 'REAR-TO-REAR'
4 = 'ANGLE'
5 = 'SDSWPE S/DIR'
6 = 'SDSWPE O/DIR'
9 = 'UNKNOWN';

/*RELATION TO ROADWAY*/

VALUE RELROADF 1 = 'ON ROADWAY'
2 = 'ON SHOULDER'
3 = 'IN MEDIAN'
4 = 'ON ROADSIDE'
5 = 'OUTSIDE R-OF-WAY'
6 = 'OFF RDWY-LOC UNK'
7 = 'IN PARK LANE'
8 = 'GORE'
9 = 'UNKNOWN';

/*NUMBER OF VEHICLE FORMS*/

VALUE VEHFRMS 1-5 = '1 TO 05'
6-10 = '6 TO 10'
11-15 = '11 TO 15'
16-20 = '16 TO 20'
21-30 = '21 TO 30';

/*POLICE REPORT ACCIDENT SEVERITY*/

VALUE ACCSEVF 0 = 'NO INJURY'
1 = 'POSSIBLE INJURY'
2 = 'NONINCAP INJURY'
3 = 'INCAPACIT INJURY'
4 = 'KILLED'
5 = 'INJ/SEV UNKNOWN'
6 = 'DIED BEFORE ACC'
9 = 'UNKNOWN';

/*HIT AND RUN*/

VALUE HITRUNF 0 = 'NO HIT/RUN'
1 = 'HIT MV IN TRNS'
2 = 'HIT PED/NON MOT'
3 = 'HIT PRK VEH OBJ';

/*LIGHT CONDITION*/

VALUE LGTCONF 1 = 'DAYLIGHT'
2 = 'DARK'
3 = 'DARK, BUT LIGHTD'
4 = 'DAWN'
5 = 'DUSK'
9 = 'UNKNOWN';

/*ATMOSPHERIC CONDITION*/

VALUE WEATHF 1 = 'NO ADVERSE CONDIT'
2 = 'RAIN'
3 = 'SLEET'
4 = 'SNOW'
5 = 'FOG'
6 = 'RAIN AND FOG'
7 = 'SLEET AND FOG'
8 = 'OTHER'
9 = 'UNKNOWN';

/*LAND USE*/

VALUE LANDUSF 1 = 'URBAN'
2 = 'RURAL'
9 = 'UNKNOWN';

/*FEDERAL AID SYSTEM*/

VALUE FEDAIDF 1 = 'INTERSTATE'
2 = 'OTH FA-PRIMARY'
3 = 'FA-SECONDARY'
4 = 'FA-URB ARTERIAL'
5 = 'FA-URB COLLECTR'
6 = 'NFA-ATERIAL'
7 = 'NFA-COLLECTOR'
8 = 'NFA-LOCAL'
9 = 'UNKNOWN';

/*CLASS TRAFFICWAY*/

VALUE TRFWAYF 1 = 'INTERSTATE'
2 = 'OTHER US ROUTE'
3 = 'OTHER STATE RTE'
4 = 'COUNTY ROAD'
5 = 'LOCAL STREET'

6 = 'MUNICIPALITY'
8 = 'OTHER'
9 = 'UNKNOWN';

/*FUNCTIONAL CLASS*/

VALUE FUNCLSF 1 = 'PA-INTERSTATE'
2 = 'PA-OTH URB FRWY'
3 = 'PA-OTHER'
4 = 'MINOR ATERIAL'
5 = 'URBAN COLLECTOR'
6 = 'MAJOR RUR COLLEC'
7 = 'MINOR RUR COLLEC'
8 = 'LOCAL ROAD/STREET'
9 = 'UNKNOWN';

/*MEDIAN WIDTH */

VALUE MEDWIDF 00 = 'NO MEDIAN'
97 = '97 + FEET'
99 = 'UNKNOWN';

/*RESTRICTION OF ROADWAY AT SCENE*/

VALUE RESTRF 0 = 'NO RESTRICTION'
1 = 'NARROW BRIDGE'
2 = 'PREV ACC ON RDWY'
3 = 'MAINT REPAIR'
4 = 'STANDING WATER'
8 = 'OTH RDWY REST'
9 = 'UNKNOWN';

/*ADDITIONAL RESTRICTIONS OF ROADWAY SCENE*/

VALUE ADRESTF 0 = 'NONE'
2 = 'PREV ACC RDWY'
3 = 'MAINT REPAIR'
4 = 'STANDING WATER'
5 = 'MORE THAN 2 REST'
8 = 'OTHER RDWY REST'
9 = 'UNKNOWN';

/*SS8-LONGITUDINAL BARRIER*/

VALUE LONBARF . = 'NOT IN EFFECT'
0 = 'NO'
1 = 'YES';

/*SS9 - CRASH CUSHION*/

VALUE CUSHF . = 'NOT IN EFFECT'
0 = 'NO'
1 = 'YES';

/*VEHICLE FORMATS*/

/*DIRECTION OF FORCE-DEGREES*/

VALUE DOF1F 0 = '0 DEG'
1-10 = '1-10 DEG'
11-20 = '11-20 DEG'
21-30 = '21-30 DEG'
31-40 = '31-40 DEG'
41-96 = '41+ DEG';

/*CRASH DAMAGE DATA MAX DELTA V - C1*/

VALUE DVC1F 0 = '0'
1-10 = '1-10'
11-20 = '11-20'
21-30 = '21-30'
31-40 = '31-40'
41-999 = '41+';

/*DEFORMATION LOCATION*/

VALUE \$GAD1F 'B' = 'BOTTOM'
'F' = 'FRONT'
'L' = 'LEFT'
'R' = 'RIGHT'
'T' = 'TOP';

/* WEIGHT OF THE OTHER VEHICLE*/

VALUE OTHWHF 001 = '< 150 LBS'
002-996 = '150-99,649 LBS'
997 = '99,650 +'
998 = 'NOT APPLIC'
999 = 'UNKNOWN';

/* FRONT/REAR WHEEL DRIVE*/

VALUE DRIVEF 1 = 'REAR WHL DRV'
2 = 'FRNT WHL DRV'
8 = 'NOT PASS CAR'
9 = ' UNKNOWN';

/*VEHICLE MAKE/MODEL*/

VALUE MAKEF 01 = 'AMERICAN MOTORS '

02 = 'JEEP'
03 = 'AM GENERAL'
06 = 'CHRYSLER'
07 = 'DODGE'
08 = 'IMPERIAL'
09 = 'PLYMOUTH'
12 = 'FORD'
13 = 'LINCOLN'
14 = 'MERCURY'
18 = 'BUICK'
19 = 'CADILLAC'
20 = 'CHEVROLET'
21 = 'OLDSMOBILE'
22 = 'PONTIAC'
23 = 'GMC'
29 = 'OTHER DOMESTIC'
30 = 'VOLKSWAGEN'
31 = 'ALFA ROMEO'
32 = 'AUDI'
33 = 'AUSTIN'
34 = 'BMW'
35 = 'DATSUN/NISSAN'
36 = 'FLAT'
37 = 'HONDA'
38 = 'ISUZU'
39 = 'JAGUAR'
40 = 'LANCIA'
41 = 'MAZDA'
42 = 'MERCEDES BENZ'
43 = 'MG'
44 = 'PEUGEOT'
45 = 'PORSCHE'
46 = 'RENAULT'
47 = 'SAAB'
48 = 'SUBARU'
49 = 'TOYOTA'
50 = 'TRIUMPH'
51 = 'VOLVO'
52 = 'MITSUBISHI'
53 = 'SUZUKI'
58 = 'OTH FOR/MORGAN'
59 = 'OTHER IMPORT'
60 = 'MTCYC-BSA'
61 = 'MTCYC-DUCATI'
62 = 'MTCYC-HAR DAV'
63 = 'MTCYC-KAWASAKI'
64 = 'MTCYC-MOTO-GUZ'
65 = 'MTCYC-NORTON'
67 = 'MTCYC-YAMAHA'
69 = 'MTCYC-OTHER'
70 = 'MO-PED'

80 = 'TRK/BROCKWAY'
 81 = 'TRK/DIAMOND'
 82 = 'TRK/FREIGHTLINER'
 83 = 'TRK/FWD'
 84 = 'TRK/INTER HARVET'
 85 = 'TRK/KENWORTH'
 86 = 'TRK/MACK'
 87 = 'TRK/PETERBILT'
 88 = 'TRK/OTHER'
 95 = 'TRK/BUS OTHER'
 97 = 'SNWMOBILE/GO-CRT'
 98 = 'OTHER MAKE'
 99 = 'UNKNOWN';

/*BODY TYPE*/

VALUE BODYTYPEF 01 = 'CONVERTIBLE'

02 = '2/DR SEDAN'
 03 = '3/DR HATCHBACK'
 04 = '4/DR SEDAN HT'
 05 = '5/DR HATCHBACK'
 06 = 'STATION WAGON'
 08 = 'OTH AUTO TYPE'
 09 = 'UNK AUTO TYPE'
 10 = 'AUTO BASE PICKUP'
 11 = 'AUTO BASE PANEL'
 12 = 'SHRT UTILITY TRK'
 13 = 'LARGE LIMO'
 20 = 'MOTOCYCLE'
 21 = 'MOPEDS'
 28 = 'OTH MOTOCYCLE'
 29 = 'UNK MOTOCYCLE TYP'
 30 = 'SCHOOL BUS'
 31 = 'CROSS CNTRY'
 32 = 'TRANSIT BUS'
 38 = 'OTHER BUS'
 39 = 'UNK BUS TYPE'
 40 = 'VAN'
 41 = 'VAN COMMERCIAL'
 42 = 'VAN BASED M/HOME'
 48 = 'OTHER VAN TYPE'
 49 = 'UNK VAN TYPE'
 50 = 'PICKUP O/BOX'
 51 = 'PICKUP S/CAMPER'
 52 = 'PCKUP BASED M/HOME'
 53 = 'CAB CHASSIS BASED'
 54 = 'TRUCK BASED PANEL'
 55 = 'TRUCK BASED STAT'
 56 = 'TRUCK BASED UTILT'
 58 = 'OTH LGHT CON TRK'
 59 = 'UNK LGHT CON TRK'
 69 = 'UNK LGHT TRK'
 70 = 'STEP VANS'
 71 = 'TRK > 10K < 26K'

72 = 'TRK > 26K LBS'
 73 = 'M/HVY TRK M/HOME'
 74 = 'TRK-TRAC N/C TRL'
 75 = 'TRK-TRAC TRAILER'
 77 = 'TRK-TRAC UNK TRL'
 78 = 'UNK M/HVY TRK TYP'
 79 = 'UNK TRK TYP LGHT'
 80 = 'SNOWMOBILE'
 81 = 'FAR EQUIP'
 82 = 'ATV'
 83 = 'CONSTR EQUIP'
 88 = 'OTHER'
 89 = 'UNK OTH VEH'
 99 = 'UNK BODY TYPE';

/*MANNER OF LEAVING SCENE*/

VALUE TOWAWAYF 1 = 'DRIVEN'
 2 = 'TOWED-VEH/DAM'
 3 = 'TOWED-VEH N/DAM'
 4 = 'ABANDONED'
 5 = 'TOWED DETAILS UNK'
 9 = 'UNKNOWN';

/*VEHICLE ROLE*/

VALUE VEHROLF 0 = 'NONCOLLISION'
 1 = 'STRIKING UNIT'
 2 = 'STRUCK UNIT'
 3 = 'BOTH STRI/STRU'
 9 = 'UNKNOWN';

/*WHEELBASE*/

VALUE WHEBASF 85.0- 99.6 = '85.0 - 99.6'
 100.0-105.9 = '100.0 - 105.9'
 106.0-110.9 = '106.0 - 110.9'
 111.0-115.9 = '111.0 - 115.9'
 116.0-120.9 = '116.0 - 120.9'
 121.0-130.9 = '121.0 - 130.9'
 131.0-150.9 = '131.0 - 150.9';

/*TRAVEL SPEED*/

VALUE SPEEDF 00 = 'STOPPED'
 01-20 = '1 TO 20 MP'
 21-30 = '21 TO 30 MP'
 31-40 = '31 TO 40 MP'
 41-50 = '41 TO 50 MP'
 51-60 = '51 TO 60 MP'
 61-70 = '61 TO 70 MP'
 71-80 = '71 TO 80 MP'

81-90 = '81 TO 90 MP'
91-96 = '91 TO 96 MP'
97 = '97 + MP'
99 = 'UNKNOWN';

/*OBJECT CONTACTED - DELETED */

/*TYPE OF DAMAGE DISTRIBUTION*/

VALUE \$DAMDISTF 'W' = 'WIDE IMPACT AREA'
'N' = 'NARROW IMPT AREA'
'S' = 'SIDESWIPE'
'O' = 'ROLLOVER'
'A' = 'OVERHNG STRUCT'
'E' = 'CORNER'
'K' = 'CONVER IN IMPCT'
'U' = 'NO RESID DEFORM'
'R' = 'OVERRIDE'
'9' = 'UNKNOWN';

/*VEHICLE SPECIAL USE*/

VALUE SPECVEHF 0 = 'NO SPECIAL USE'
1 = 'TAXI'
2 = 'VEH AS SCH BUS'
3 = 'VEN AS OTH BUS'
4 = 'MILITARY'
5 = 'POLICE'
6 = 'AMBULANCE'
7 = 'FIRE'
9 = 'UNKNOWN';

/*PASSENGER COMPARTMENT INTEGRITY*/

VALUE INTEGFI 0 = 'NO PASS COMPT'
1 = 'NO INTREG LOSS'
2 = 'YES, WINDSHIELD'
3 = 'YES, DOOR/SIDE'
4 = 'YES, DOOR/REAR'
5 = 'YES, ROOF'
6 = 'YES, WND SHLD/DOOR'
7 = 'YES, OTHER COMBIN'
8 = 'YES, SDE/REAR WIND'
9 = 'UNKNOWN';

/*PASSENGER COMPARTMENT INTRUSION*/

VALUE INTRUF 0 = 'NO PAS COMPT'
1 = 'NO INTRUSION'
2 = 'FRONT'
3 = 'RIGHT SIDE'
4 = 'LEFT SIDE'

5 = 'REAR'
 6 = 'BOTTOM'
 7 = 'TOP'
 8 = 'TWO/MORE AREAS'
 9 = 'UNKNOWN';

/*MAGNITUDE OF INTRUSION*/

VALUE MAGTUDF 0 = 'NO INTRUSION'
 1 = '< 5 CENTIMETERS'
 2 = '5-15 CENTIMETERS'
 3 = '> 15 CENTIMETERS'
 9 = 'UNKNOWN';

/*MAGNITUDE OF INTRUSION 85-86*/

VALUE MMAGTUDF 0 = 'NO INTRUSION'
 1 = '< 2 INCHES'
 2 = '> = 2" BUT < 6"
 3 = '> = 6" BUT < 12"
 4 = '> = 12" '
 9 = 'UNKNOWN';

/*INTRUDING COMPONENT*/

VALUE COMPNTF 00 = 'NO PASS INTRUS'
 01 = 'STEERING COLUM'
 02 = 'INSTR PANEL LFT'
 03 = 'INSTR PANEL CNT'
 04 = 'INSTR PANEL RGHT'
 05 = 'A-PILLAR'
 06 = 'B-PILLAR'
 07 = 'DOOR PANEL'
 08 = 'ROOF'
 09 = 'ROOF SIDE RAIL'
 10 = 'WINDSHELD HEAD'
 11 = 'N/INTRUS PRIM COM'
 20 = 'STR COL/INT PN'
 21 = 'STR COL A-PILA'
 22 = 'INST PAN A-PILA'
 23 = 'A-PILLAR & ROOF'
 24 = 'A-PILAR/B-PILAR'
 25 = 'A-PILAR/ROOF'
 26 = 'ROOF & DR PAN'
 27 = 'ROOF & WNDSHLD'
 97 = 'OTHER COMBINATION'
 98 = 'INSTRU N/LIST'
 99 = 'UNKNOWN';

/*TYPE OF MOST SEVER IMPACT*/

VALUE IMPTYPEF 0 = 'NOIMPACT'
 1 = 'FRONT'
 2 = 'LEFT SIDE'

3 = 'RIGHT SIDE'
4 = 'REAR'
5 = 'OTHER IMPACT'
9 = 'UNKN IMPCT TYPE' ;

/*ROLLOVER */

VALUE ROLLF 0 = 'NO ROLLOVER'
1 = 'ROLVR < 4 QT TRN'
2 = 'ROLVR 4 + QT TRN'
3 = 'ROLVR DETAIL UNK'
5 = 'ROLVR /LAT AXIS ';

/*VEHICLE CURB WEIGHT*/

VALUE CURBWTF 000-049 = '< 50 LBS'
050-100 = '50 TO 100 LBS'
101-200 = '101 TO 200 LBS'
201-300 = '201 TO 300 LBS'
301-400 = '301 TO 400 LBS'
401-500 = '401 TO 500 LBS'
501-600 = '501 TO 600 LBS';

/*GROSS VEHICLE WEIGHT RATING*/

VALUE VEHWTF 0 = 'NOT A TRUCK'
1 = '10,000 TO 14,000'
2 = '14,001 TO 16,000'
3 = '16,001 TO 19,500'
4 = '19,501 TO 26,000'
5 = '26,001 TO 33,000'
6 = '33,001 + '
9 = 'UNKNOWN';

/*VEHICLE CARGO WEIGHT*/

VALUE CRGOWTF 000-049 = '< 50 LBS'
050-100 = '50 TO 100 LBS'
101-200 = '101 TO 200 LBS'
201-300 = '201 TO 300 LBS'
301-400 = '301 TO 400 LBS'
401-500 = '401 TO 500 LBS'
501-800 = '> 500 LBS '
997 = '> 99,650 LBS'
999 = 'UNKNOWN';

/*MODEL YEAR*/

VALUE MODELRF 51-70 = '51 - 70'
71-75 = '71 - 75'

76-80 = '76 - 80'
 81-85 = '81 - 85'
 86-87 = '86 - 87';

/*TOTAL DELTA V*/

VALUE TDELTVF 00 = '< 0.5 KPH'
 1-10 = '1 TO 10 KPH'
 11-20 = '11 TO 20 KPH'
 21-30 = '21 TO 30 KPH'
 31-40 = '31 TO 40 KPH'
 41-50 = '41 TO 50 KPH'
 51-60 = '51 TO 60 KPH'
 61-70 = '61 TO 70 KPH'
 71-80 = '71 TO 80 KPH'
 81-96 = '81 TO 96 KPH'
 97 = '97+ KPH'
 99 = 'UNKNOWN';

/*LONGITUDINAL COMPONENT OF DELTA V*/

VALUE LDELTVF 00 = '> -0.5 KPH < .05'
 -10 - -1 = '-1 TO -10 KPH'
 -20 - -11 = '-11 TO -20 KPH'
 -30 - -21 = '-21 TO -30 KPH'
 -40 - -31 = '-31 TO -40 KPH'
 -50 - -41 = '-41 TO -50 KPH'
 -60 - -51 = '-51 TO -60 KPH'
 -70 - -61 = '-61 TO -70 KPH'
 -80 - -71 = '-71 TO -80 KPH'
 -96 - -81 = '-81 TO -96 KPH'
 1-10 = '1 TO 10 KPH'
 11-20 = '11 TO 20 KPH'
 21-30 = '21 TO 30 KPH'
 31-40 = '31 TO 40 KPH'
 97 = '97+ KPH'
 99 = 'UNKNOWN';

/*DRIVER FORMATS*/

VALUE MEASURF 000 = 'NO GRADE'
 -15 - -11 = '-15- -11'
 -10 - -6 = '-10- -6'
 -5 - -1 = '-5 - -1'
 1 - 5 = '1 - 5'
 6 - 10 = '6 - 10'
 11 - 15 = '11 - 15'
 16 - 20 = '16 - 20'
 99 = 'UNKNOWN';

/* GRADE MEASUREMENT*/

VALUE MEASURF 000 = 'NO GRADE'

-15 - -11 = '-15- -11'

-10 - -6 = '-10- -6'

-5 - -1 = '-5 - -1'

1 - 5 = '1 - 5'

6 - 10 = '6 - 10'

11 - 15 = '11 - 15'

16 - 20 = '16 - 20'

99 = 'UNKNOWN';

/* DRIVER EDUCATION*/

VALUE DRVEDUF 0 = 'NO FORMAL TRAIN'

1 = 'TRAIN TIME OF ACC'

2 = 'HS DRV TRAIN'

3 = 'COMM DRV TRAIN'

4 = 'TRK DRV TRAIN SCH'

5 = 'MOTOR CAR PGM'

6 = 'MTCYC DRV TRAIN'

7 = 'VOC TRAIN PGM'

8 = 'OTH FORM TRAIN'

9 = 'UNKNOWN';

/*NUMBER OF OCCUPANTS THIS VEHICLE*/

VALUE NBROCCF 1-2 = '1 TO 2'

3-4 = '3 TO 4'

5-6 = '5 TO 6'

7-8 = '7 TO 8'

9-10 = '9 TO 10';

/*ATTEMPTED AVOIDANCE MANEUVER*/

VALUE MANEUF . = 'NO DRIVER'

00 = 'NO AVOIDANCE AC'

01 = 'BRAKING N/LOCK'

02 = 'BRAKING LOCKUP'

03 = 'PUMPING BRAKS'

04 = 'RELEASING BRKS'

05 = 'STEERING LEFT'

06 = 'STEERING RIGHT'

07 = 'BRK/STR LEFT'

08 = 'BRK/STR RIGHT'

09 = 'ACCELERATING'

10 = 'ACCEL/STR LEFT'

11 = 'ACCEL/STR RIGHT'

86 = 'NO IMPACT'

85 = 'BRK LCKUP UNK'

98 = 'OTHER ACTION'

99 = 'UNKNOWN';

/*POLICE REPORTED ALCOHOL PRESENCE*/

VALUE ALCOHF . = 'NO DRIVER'
0 = 'NO ALCOHOL'
1 = 'ALCOHOL PRESENT'
8 = 'NO REPORTED'
9 = 'UNKNOWN';

/*NUMBER OF TRAVEL LANES*/

VALUE LANESF 1 = 'ONE'
2 = 'TWO'
3 = 'THREE'
4 = 'FOUR'
5 = 'FIVE'
6 = 'SIX'
7 = 'SEVEN'
8 = 'UNKNOWN';

/*MEDIAN TYPE*/

VALUE MEDTYPF 0 = 'NO MEDIAN'
1 = 'CURBED'
2 = 'POSITIVE BARRIER'
3 = 'UNPROTECTED'
8 = 'CURBED W/POS BARR'
9 = 'UNKNOWN';

/*MEDIAN WIDTH*/

VALUE MEDIANF 00 = 'NO MEDIAN'
1-10 = '1 - 10 FT'
11-20 = '11 - 20 FT'
21-30 = '21 - 30 FT'
31-40 = '31 - 40 FT'
41-50 = '41 - 50 FT'
51-60 = '51 - 60 FT'
61-70 = '61 - 70 FT'
71-80 = '71 - 80 FT'
81-96 = '81 - 96 FT'
97 = '97 + FEET'
99 = 'UNKNOWN';

/*ACCESS CONTROL*/

VALUE ACCCNTLF 1 = 'FULL'
2 = 'PARTIAL'
3 = 'UNCONTROLLED'
9 = 'UNKNOWN';

/*SHOULDER TYPE*/

VALUE SHLDTYPEF 0 = 'NO SHOULDER'
1 = 'SURFACED 2-6 FT'
2 = 'SURFACED > 6 FT'
3 = 'GRAV/OTH 2-6 FT'
4 = 'GRAV/OTH > 6 FT'
5 = 'NAT EARTH 2-6 FT'
6 = 'NAT EARTH > 6 FT'
9 = 'UNKNOWN';

/*ROADWAY ALIGNMENT*/

VALUE ALIGNF 1 = 'STRAIGHT'
2 = 'CURVE RIGHT'
3 = 'CURVE LEFT'
9 = 'UNKNOWN';

/*ROADWAY PROFILE*/

VALUE RDPROFILF 1 = 'LEVEL < 2% GRDE'
2 = 'POSITIVE GRADE'
3 = 'NEGATIVE GRADE'
4 = 'HILLCREST'
5 = 'SAG'
9 = 'UNKNOWN';

/*ROADWAY SURFACE TYPE*/

VALUE SURFTYPEF 1 = 'CONCRETE'
2 = 'BITUM ASPHALT'
3 = 'BRICK OR BLOCK'
4 = 'SLAG, GRAVEL '
5 = 'DIRT'
8 = 'OTHER'
9 = 'UNKNOWN';

/*ROADWAY SURFACE CONDITION*/

VALUE CONDITF 1 = 'DRY'
2 = 'WET'
3 = 'SNOW/SLUSH'
4 = 'ICE'
5 = 'SAND, DIRT/OIL'
8 = 'OTHER'
9 = 'UNKNOWN';

/*SPEED LIMIT*/

VALUE SPEEDF 00 = 'NO STATUTORY LIMIT'

01-25 = '1 TO 25 MPH'
26-35 = '26 TO 35 MPH'
36-45 = '36 TO 45 MPH'
46-55 = '46 TO 55 MPH'
56-65 = '56 TO 65 MPH'
66-75 = '66 TO 75 MPH'
76-85 = '76 TO 85 MPH'
86-98 = '86 TO 98 MPH'
99 = 'UNKNOWN';

/*OTHER ENVIRONMENTAL RELATED FACTORS*/

VALUE ENVRF 00 = 'NO OTHER FACTORS'

01 = 'VO-RAIN/SNOW/FOG'
02 = 'VO-GLARE/SUNLIGH'
03 = 'VO-CURVE,HIL ETC'
04 = 'VO-BUILDING ETC'
05 = 'VO-TREES,CROPS'
06 = 'VO-MOVN VEH'
07 = 'VO-SPLASH/SPRAY'
08 = 'VO-PRKED VEH'
09 = 'VO-OTH OBJ N/CLS'
20 = 'LC-SEVERE CRSWND'
21 = 'LC-WND FRM TRCK'
22 = 'LC-SLIPPERY SURF'
23 = 'LC-AVOID OBJ'
24 = 'LC-RUTS,HOLES'
25 = 'LC-AVOID ANIMAL'
26 = 'LC-AVOID VEH RDWY'
27 = 'LC-AVOID PEDESTRN'
28 = 'LC-AVOID WTR,SNOW'
30 = 'RF-INADQ WRN,EXIT'
31 = 'RF-PAVMNT MRK'
32 = 'RF-SURF WSH OUT'
33 = 'RF-SHLD LOW/HIGH'
34 = 'RF-INADQ CONSTR'
35 = 'RF-VEH UNATTNED'
98 = 'OTHER'
99 = 'UNKNOWN';

/* DRIVER CLASSIFICATION*/

VALUE DRVCLSF 0 = 'NONCOMMERCIAL'

1 = 'FULL TIME EMPLE'
2 = 'PART TIME EMPLE'
3 = 'OWNER OPERATOR'
4 = 'LEASE/LABOR CONT'
8 = 'OTHER'
9 = 'UNKNOWN';

/* DRIVER FREQUENCY DRIVING ROAD */

VALUE DRVFREQ 1 = 'DAILY'
2 = 'WEEKLY'
3 = ' MONTHLY'
4 = '< ONCE A MNTH'
5 = 'FIRST TIME'
9 = 'UNKNOWN';

/*OCCUPANT FORMATS*/

/*AGE OF OCCUPANT*/

VALUE AGEF 00 = '< THAN ONE YEAR'
1-5 = '1 TO 5 YRS OLD'
6-10 = '5 TO 10 YRS OLD'
11-15 = '11 TO 15 YRS OLD'
16-20 = '16 TO 20 YRS OLD'
21-30 = '21 TO 30 YRS OLD'
31-40 = '31 TO 40 YRS OLD'
41-50 = '41 TO 50 YRS OLD'
51-60 = '51 TO 60 YRS OLD'
61-70 = '61 TO 70 YRS OLD'
71-80 = '71 TO 80 YRS OLD'
81-90 = '81 TO 90 YRS OLD'
91-96 = '91 TO 96 YRS OLD'
97 = '97 + YEARS OLD'
99 = 'UNKNOWN';

/*OCCUPANT'S SEX*/

VALUE SEXF 1 = 'MALE'
2 = 'FEMALE'
9 = 'UNKNOWN';

/*OCCUPANT'S ROLE*/

VALUE OCROLF 1 = 'DRIVER'
2 = 'PASSENGER'
9 = 'UNKNOWN';

/*OCCUPANT SEATING POSITION*/

VALUE POSITF 01 = 'FRONT LFT SIDE'
02 = 'FRONT MIDDLE'
03 = 'FRONT RIGHT SIDE'
04 = 'SCND SEAT LEFT'
05 = 'SCND SEAT MIDDLE'
06 = 'SCND SEAT RIGHT'
07 = 'THRD SEAT LEFT'
08 = 'THRD SEAT MIDDLE'

09 = 'THRD SEAT RIGHT'
 10 = 'FRNT SEAT ADD PAS'
 11 = 'SCND SET ADD PAS'
 12 = 'TRK/TRA SLEP SEC'
 13 = 'OTHER ENCL AREA'
 14 = 'IN UNENCLS AREA'
 15 = 'IN TRAIL UNIT'
 99 = 'UNKNOWN';

/*ENTRAPMENT*/

VALUE ENTRPF 0 = 'NO ENTRAPPED'
 1 = 'ENTRAPPED'
 9 = 'UNKNOWN';

/*EJECTION*/

VALUE EJECTF 0 = 'NONE'
 1 = 'COMPLETE EJECT'
 2 = 'PARTIAL EJECT'
 3 = 'EJECT UNKWN'
 9 = 'UNNNOWN';

/*TREATMENT MORTALITY- OCC SAME AS MAX TREATMENT ACC*/

VALUE MORTF 0 = 'TREAT LATER'
 1 = 'FATAL'
 2 = 'FATAL-DISEASE'
 3 = 'NFAT-HOSPITAL'
 4 = 'NFAT-TREAT/REL'
 5 = 'NFAT-TREAT/OTH'
 6 = 'NFAT-NO TREATMNT'
 8 = 'TREATMNT AT SCN'
 9 = 'UNKNOWN';

/*RESTRAINT SYSTEM AVAILABILITY/USE*/

VALUE RESTF 0 = 'NONE'
 1 = 'SHOULD BELT'
 2 = 'LAP BELT'
 3 = 'LAP & SHLD BELT'
 4 = 'MOTORCYCLE HELM'
 5 = 'CHLD-SF W/O TETH'
 6 = 'CHLD-SF W/TH PROP'
 7 = 'CHLD-SF W/TH IMPR'
 8 = 'REST AVA TYP UNK'
 9 = 'UNKNOWN';

/*RESTRAINT SYSTEM AVAILABILITY*/

VALUE RESTAF 0 = 'NOT EQUIPPED'
 1 = 'AIRBAG'
 2 = 'AIRBAG DISCON'

3 = 'AIRBAG N/REINST'
 4 = '2 PNT AUTO BLT'
 5 = '3 PNT AUTO BLT'
 6 = 'AUTO BLT DESTR'
 9 = 'UNKNOWN';

/*AUTOMATIC RESTRAINT FUNCTION*/

VALUE FUNCF 0 = 'NOT EQUIPPED'
 1 = 'AUTO BELT IN USE'
 2 = 'AUTO BELT N/USE'
 3 = 'DEPLOYED AIRBAG'
 4 = 'NONDEPLOYED AIRBG'
 9 = 'UNKNOWN';

/*OIC BODY REGION*/

VALUE \$BODYRGF 'M' = 'ABDOMEN'
 'Q' = 'ANKLE-FOOT'
 'A' = 'ARM (UPPER)'
 'B' = 'BACK/SPINE'
 'C' = 'CHEST'
 'E' = 'ELBOW'
 'F' = 'FACE'
 'R' = 'FOREARM'
 'H' = 'HEAD/SKULL'
 'U' = 'INJ/UNK REGN'
 'K' = 'KNEE'
 'L' = 'LEG (LOWER)'
 'Y' = 'LOWER LIMBS'
 'N' = 'NECK'
 'P' = 'PELVIS'
 'S' = 'SHOULDER'
 'T' = 'THIGH'
 'X' = 'UPPER LIMBS'
 'O' = 'WHOLE BODY'
 'W' = 'WRIST'
 '0' = 'NOT INJURED'
 '9' = 'UNKNOWN';

/* HOPSITAL STAY*/

VALUE STAYF 00 = 'NOT HOSPITALIZED'
 1-10 = '1 TO 10 DAYS'
 11-20 = '11 TO 20 DAYS'
 21-30 = '21 TO 30 DAYS'
 31-40 = '31 TO 40 DAYS'
 41-50 = '41 TO 50 DAYS'
 51-60 = '51 TO 60 DAYS'
 61 = '61 + DAYS'
 99 = 'UNKNOWN';

/*OIC ASPECT OF INJURY*/

VALUE \$ASPECF 'A' = 'ANTERIOR-FRONT'

'B' = 'LATERAL'

'C' = 'CENTRAL'

'I' = 'INFERIOR-LOWER'

'U' = 'INJURED/UNKN'

'L' = 'LEFT'

'P' = 'POSTERIOR BACK'

'R' = 'RIGHT'

'S' = 'SUPERIOR UPPER'

'W' = 'WHOLE REGION'

'0' = 'NOT INJURED'

'9' = 'UNKN IF INJ';

/*OIC LESION*/

VALUE \$LESIONF 'A' = 'ABRASION'

'M' = 'AMPUTATION'

'V' = 'AVULSION'

'B' = 'BURN'

'K' = 'CONCUSSION'

'C' = 'CONTUSION'

'N' = 'CRUSH'

'G' = 'DETACHMENT'

'D' = 'DISLOCATION'

'F' = 'FRACTURE'

'Z' = 'FRACT & DISLOC'

'U' = 'INJ/UNKN LESION'

'L' = 'LACERATION'

'O' = 'OTHER'

'P' = 'PERFORATION'

'R' = 'RUPTURE'

'S' = 'SPRAIN'

'T' = 'STRAIN'

'E' = 'TOTAL SEVERENCE'

'0' = 'NOT INJURED'

'9' = 'UNKN IF INJ';

/*OIC SYSTEM/ORGAN*/

VALUE \$SYSORGF 'W' = 'ALL SYSTM IN REG'

'A' = 'ARTERIES -VIENS'

'B' = 'BRAIN'

'D' = 'DIGESTIVE'

'E' = 'EARS'

'O' = 'EYES'

'H' = 'HEART'

'U' = 'UNINJ,UNK SYSTM'

'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,OTH ENDOC'
 'G' = 'UROGENITAL'
 'V' = 'VERTEBRAE'
 'O' = 'NOT INJURED'
 '9' = 'UNK IF INJURED';

/*OIC INJURY SOURCE */

VALUE INJOURF 00 = 'NOT INJURED'

01 = 'FR-WNDSHIELD'
 02 = 'FR-MIRROW'
 03 = 'FR-STEER ASSEMB'
 04 = 'FR-ADD-ON EQUIP'
 05 = 'FR-INSTR PANEL'
 06 = 'FR-SUNVISOR'
 09 = 'FR-OTH FRONT OBJ'
 11 = 'SD-INTERIOR SURF'
 12 = 'SD-HARDWR/ARMRST'
 13 = 'SD-A PILLAR'
 14 = 'SD-B PILLAR'
 15 = 'SD-OTHER PILLAR'
 16 = 'SD-WNDW GLAS FRM'
 19 = 'SD-OTH SIDE OBJ'
 21 = 'INT-SEAT,BCK SUP'
 22 = 'INT-BELT RST SYS'
 23 = 'INT-HEAD RESTRAN'
 24 = 'INT-AIR CUSHION'
 25 = 'INT-OTH OCCUP'
 26 = 'INT-INT LOOSE OB'
 29 = 'INT-OTH INT OBJ'
 31 = 'RF-FRONT HEADER'
 32 = 'RF-REAR HEADER'
 33 = 'RF-ROOF SDE RAIL'
 34 = 'RF-ROOF/CONV TOP'
 41 = 'FL-FLOOR'
 42 = 'FL-CONSOLE MNT'
 43 = 'FL-PARK BRK HNDL'
 44 = 'FL-FOOT CNTL'
 45 = 'RE-REAR WINDOW'
 46 = 'RE-STORAGE RACK'
 49 = 'RE-OTH REAR OBJ'
 51 = 'EOV-HOOD'
 52 = 'EOV-OUTSDE HRDWR'
 53 = 'EOV-OTH-EXT SURF'
 59 = 'EOV-UNK EXT OBJ'
 61 = 'CYC-HNDL BARD'

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62 = 'CYC-FRAME'
63 = 'CYC-SEAT'
64 = 'CYC-FOOT PEDAL'
65 = 'CYC-WHEEL/TIRE'
66 = 'CYC-ENGINE'
67 = 'CYC-GAS TANK'
69 = 'CYC-OTH CYC PRT'
71 = 'EOMV-BUMPER'
72 = 'EOMV-HOOD EDGE'
73 = 'EOMV-OTH FRNT VH'
74 = 'EOMV-HOOD'
75 = 'EOMV-HOOD ORNAMT'
76 = 'EOMV-WINDSHIELD'
77 = 'EOMV-SIDE SURF'
78 = 'EOMV-SIDE MIRROR'
79 = 'EOMV-OTH SD PROT'
80 = 'EOMV-REAR SURF'
81 = 'EOMV-UND-CARIAGE'
82 = 'EOMV-TIRES/WHELS'
83 = 'EOMV-OTH EXT MV'
84 = 'EOMV-UNK EXT'
86 = 'OVEH-GROUND'
87 = 'OVEH-OTH VEH OBJ'
89 = 'OVEH-UNK VEH OBJ'
90 = 'NCONT INJ-SOURCE'
97 = 'NCONT INJ/N/SOUR'
99 = 'NCONT-UNK IF INJ';
/*OIC SOURCE OF DATA*/

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VALUE SOURF 01 = 'OF-AUTOPSY RECS'
02 = 'OF-HOSP MED RECS'
03 = 'OF-EMER RM RECS'
04 = 'OF-PRIV PHYSICAN'
05 = 'UNOF-LAY COR RPT'
06 = 'UNOF-EMP PERSONL'
07 = 'UNOF-INTERVIEWEE'
08 = 'UNOF-OTH SOURCE'
09 = 'UNOF-POLICE'
99 = 'UNOF-UNK IF INJ'
00 = 'UNOF-NOT INJURED';

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/*INJURY SEVERITY (POLICE RATING)*/

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VALUE INJSEVF 0 = 'NO INJURY'
1 = 'POSSIBLE INJ'
2 = 'NONCAP-INJURY'
3 = 'INCAP INJURY'
4 = 'KILLED'
5 = 'INJ SEV UNK'
6 = 'DIED BEFOR ACC'
9 = 'UNKNOWN';

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RUN;

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