# NATIONAL ACCIDENT SAMPLING SYSTEM (NASS)

# CRASHWORTHINESS DATA SYSTEM

Analytical User's Manual

1995 File



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

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## **SECTION 1**

#### INTRODUCTION

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

The NASS CDS provides an automated, comprehensive national traffic accident data base. Data collection began in 1979 in 10 geographic sites, called Primary Sampling Units (PSU's). The 1995 NASS CDS file contains data from 24 PSU's. These data are weighted to represent all police reported motor vehicle accidents occurring in the USA during the year involving passenger cars, light trucks and vans that were towed due to damage.

The NASS program was re-evaluated in the mid-1980's. This re-evaluation resulted in changes which were implemented by NHTSA in January 1988. NASS now has two major operating components: (1) the General Estimates System (GES) which collects data on a sample of police traffic crash reports; and (2) the Crashworthiness Data System (CDS) which collects additional detailed information on a sample of police reported traffic crashes.

Comparing the 1988-1995 files with files from years prior to 1988 is not recommended. The principal attributes of the NASS CDS 1988-1995 files include: focusing on accidents involving automobiles and automobile derivatives, light trucks and vans with gross vehicle weight less than 10,000 pounds; giving special consideration to late model year vehicles (the five most recent model years); emphasizing the more serious injury accidents; eliminating the pedestrian and non-motorist record, the driver record and vehicle registration information. A revised set of data collection forms was designed in 1988 for the crashworthiness data system. Some features are: the introduction of an Accident Event Record to capture all events in the accident; the creation of three new vehicle records (General Vehicle, Exterior Vehicle, Interior Vehicle); and the separation of occupant records into an Occupant Assessment Record and an Occupant Injury Record, wherein all injuries are coded.

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

This manual and the NASS 1995 Crashworthiness Data System's Data Collection, Coding and Editing Manual are the primary documentation supporting the automated file. When using this file one should be careful to understand the coding conventions of all variables used thoroughly. In addition, the user may find the following documents helpful:

CRASH3 Technical Manual, July 1986

Collision Deformation Classification (SAE J224 MAR 80)

**Injury Coding Manual 1988** 

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

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

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

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

## **SECTION 2**

#### CHANGES IN 1995

A formerly coded non-automated data collection record, the Case Summary, has been automated--from which four new records have been created, the TYPE ACCIDENT, ACCIDENT

DESCRIPTION, VEHICLE PROFILE and PERSON PROFILE. Extensive changes have been
made to all the record types this year. Many previous data elements have been modified, renumbered
or deleted. In addition, a number of new data elements have been added. The Class of Vehicle data
element on the ACCIDENT EVENT RECORD has been modified extensively. Sixteen Drug data
elements have been deleted and Precrash Environmental, Air Bag, Speed Results data elements have
been added, as have 20 items decoded from the VIN and extracted by PC VINA, to the GENERAL
VEHICLE RECORD. Additional Measurement data elements have been added to the EXTERIOR
VEHICLE RECORD. Steering Column data elements have been added to the INTERIOR VEHICLE
RECORD. Many new Air Bag data elements have been added to the OCCUPANT ASSESSMENT
RECORD. Many new attributes have been added to the Injury Source data element and three AIS-85
data elements have been have been translated and added to the OCCUPANT INJURY RECORD.

#### ACCIDENT RECORD

One data element has been added
UNSAFE DRIVER ACTIONS SPECIAL STUDY INDICATOR (AC09)

#### ACCIDENT EVENT RECORD

One attribute has been deleted, one has been modified, four have been renumbered and three have been added in the data element

VEHICLE NUMBER OR OBJECT CONTACTED (AC16...AC44)

Deleted:

MOTOR VEHICLE NOT IN-TRANSPORT(71)

Modified:

OVERTURN - ROLLOVER(EXCLUDES END-OVER-END)(31)

Renumbered:

FIRE OR EXPLOSION(33)

JACKKNIFE(34)

OTHER INTRAUNIT DAMAGE (SPECIFY)(35)

NONCOLLISION INJURY(36)

Added:

ROLLOVER - END-OVER-END(32)

PASSENGER CAR, LIGHT TRUCK, VAN OR OTHER VEHICLE NOT IN-

TRANSPORT(70)

MEDIUM/HEAVY TRUCK OR BUS NOT IN-TRANSPORT(71)

Two attributes have been deleted, two have been modified, ten have been renumbered and fourteen have been added to the data element

CLASS OF VEHICLE (AC14...AC42 & AC17...AC45)

#### Deleted:

PASSENGER VAN(13)

PICKUP TRUCK(15)

#### Modified:

OTHER VAN TYPE(28)

SCHOOL BUS(EXCLUDES VAN BASED)(50)

#### Renumbered:

COMPACT UTILITY VEHICLE(14)

LARGE UTILITY VEHICLE(15)

OTHER LIGHT TRUCK(45)

**UNKNOWN LIGHT TRUCK TYPE(48)** 

OTHER BUS(58)

TRUCK(>4,500 KGS GVWR)(60)

TRACTOR WITHOUT TRAILER(67)

TRACTOR-TRAILER(S)(68)

MOTORED CYCLE(80)

OTHER VEHICLE(90)

## Added:

UTILITY STATION WAGON(16)

**UNKNOWN UTILITY TYPE(19)** 

MINIVAN(20)

LARGE VAN(21)

VAN BASED SCHOOL BUS(24)

**UNKNOWN VAN TYPE(29)** 

COMPACT PICKUP TRUCK(30)

LARGE PICKUP TRUCK(31)

OTHER PICKUP TRUCK(38)

UNKNOWN PICKUP TRUCK TYPE(39)

UNKNOWN LIGHT VEHICLE TYPE(49)

UNKNOWN BUS TYPE(59)

UNKNOWN MEDIUM/HEAVY TRUCK TYPE(78)

UNKNOWN LIGHT/MEDIUM/HEAVY TRUCK TYPE(79)

#### GENERAL VEHICLE RECORD

The following data elements have been deleted:

POLICE REPORTED DRUG EVALUATION CLASSIFICATION(GV38)

OTHER DRUG SPECIMEN TEST TYPE FOR DRIVER(GV39)

NARCOTIC DRUG DEC TEST RESULTS(GV40)

NARCOTIC DRUG SPECIMEN TEST RESULTS(GV41)

DEPRESSANT DRUG DEC TEST RESULTS(GV42)

DEPRESSANT DRUG SPECIMEN TEST RESULTS(GV43)

STIMULANT DRUG DEC TEST RESULTS(GV44)

STIMULANT DRUG SPECIMEN TEST RESULTS(GV45)

HALLUCINOGEN DRUG DEC TEST RESULTS(GV46)

HALLUCINOGEN DRUG SPECIMEN TEST RESULTS(GV47)

CANNABINOID DRUG DEC TEST RESULTS(GV48)

CANNABINOID DRUG SPECIMEN TEST RESULTS(GV49)

PHENCYCLIDNE (PCP) DEC TEST RESULTS(GV50)

PHENCYCLIDNE (PCP) SPECIMEN TEST RESULTS(GV51)

INHALANT DRUG DEC TEST RESULTS(GV52)

INHALANT DRUG SPECIMEN TEST RESULTS(GV53)

OTHER DRUG DEC TEST RESULTS(GV54)

OTHER DRUG SPECIMEN TEST RESULTS(GV55)

The following data elements have been renumbered but the attributes have not been changed:

VEHICLE SPECIAL USE (THIS TRIP)(GV09)

POLICE REPORTED VEHICLE DISPOSITION(GV10)

POLICE REPORTED TRAVEL SPEED(GV11)

SPEED LIMIT(GV12)

POLICE REPORTED ALCOHOL PRESENCE FOR DRIVER(GV13)

ALCOHOL TEST RESULT FOR DRIVER(GV14)

POLICE REPORTED OTHER DRUG PRESENCE FOR DRIVER(GV15)

ACCIDENT TYPE(GV36)

DRIVER PRESENCE IN VEHICLE(GV37)

NUMBER OF OCCUPANTS THIS VEHICLE(GV38)

NUMBER OF OCCUPANT FORMS SUBMITTED(GV39)

IS THIS AN AOPS VEHICLE?(GV40)

VEHICLE CURB WEIGHT(GV43)

VEHICLE CARGO WEIGHT(GV44)

FRONT OVERRIDE/UNDERRIDE(THIS VEHICLE)(GV51)

REAR OVERRIDE/UNDERRIDE(THIS VEHICLE)(GV52)

HEADING ANGLE FOR THIS VEHICLE(GV53)

HEADING ANGLE FOR OTHER VEHICLE(GV54)

TOWED TRAILING UNIT(GV55)

DOCUMENTATION OF TRAJECTORY DATA(GV56)

POST COLLISION CONDITION OF TREE OR POLE(GV57)

TOTAL DELTA V(GV59)

LONGITUDINAL COMPONENT OF DELTA V(GV60)

LATERAL COMPONENT OF DELTA V(GV61)

# ENERGY ABSORPTION(GV62) CONFIDENCE IN RECONSTRUCTION PROGRAM RESULTS(GV64)

The following data elements have been renumbered and some of their attributes have been deleted, modified, renumbered or added:

DRIVER'S ZIP CODE(GV17)

Renumbered:

NO DRIVER PRESENT(99998)

DRIVER'S RACE/ETHNIC ORIGIN(GV18)

Renumbered:

OTHER(SPECIFY)(7)

NO DRIVER PRESENT(8)

PRE-EVENT MOVEMENT(GV31)

Renumbered:

NO DRIVER PRESENT(00)

STARTING IN TRAFFIC LANE(04)

STOPPED IN TRAFFIC LANE(05)

PASSING OR OVERTAKING ANOTHER VEHICLE(06)

DISABLED OR PARKED IN TRAVEL LANE(07)

LEAVING A PARKING POSITION(08)

ENTERING A PARKING POSITION(09)

TURNING RIGHT(10)

TURNING LEFT(11)

MAKING A U-TURN(12)

BACKING UP(OTHER THAN FOR PARKING POSITION)(13)

**NEGOTIATING A CURVE(14)** 

CHANGING LANES(15)

MERGING(16)

SUCCESSFUL AVOIDANCE MANEUVER TO A PREVIOUS CRITICAL

EVENT(17)

Added:

DECELERATING IN TRAFFIC LANE(02)

ACCELERATING IN TRAFFIC LANE(03)

CRITICAL PRECRASH EVENT(GV32)

Renumbered:

TRAVELING IN SAME DIRECTION WITH HIGHER SPEED(53)

TRAVELING IN OPPOSITE DIRECTION(54)

IN CROSSOVER(55)

BACKING(56)

Added:

THIS VEHICLE DECELERATING(18)

TRAVELING IN SAME DIRECTION WHILE DECELERATING(52) ATTEMPTED AVOIDANCE MANEUVER(GV33)

Renumbered:

NO DRIVER PRESENT(00)

PRE-IMPACT STABILITY(GV34)(Title Changed)

Deleted:

NO AVOIDANCE MANEUVER(0)

Renumbered:

NO DRIVER PRESENT(0)

PRE-IMPACT LOCATION(GV35)(Title Changed)

Deleted:

NO AVOIDANCE MANEUVER(0)

Modified:

REMAINED OFF ROADWAY(5)

Renumbered:

NO DRIVER PRESENT(0)

Added:

RETURNED TO ROADWAY(6)

ENTERED ROADWAY(7)

ROLLOVER(GV45)(Size changed from one to two digits)

Deleted:

ROLLOVER, 4 OR MORE QUARTER TURNS(4)

Renumbered:

ROLLOVER--END-OVER-END(98)

Added:

CODE NUMBER OF QUARTER TURNS(01-16)

ROLLOVER, 17 OR MORE QUARTER TURNS(17)

ROLLOVER INITIATION TYPE(GV46)(Size changed from one to two digits)

Added:

ROLLOVER--END-OVER-END(98)

LOCATION OF ROLLOVER INITIATION(GV47)

Added:

ROLLOVER--END-OVER-END(8)

ROLLOVER INITIATION OBJECT CONTACTED(GV48)

Deleted:

MOTOR VEHICLE NOT IN-TRANSPORT(71)

Renumbered:

JACKKNIFE(34)

Added:

NO ROLLOVER IMPACT INITIATION(END-OVER-END)(32)

PASSENGER CAR, LIGHT TRUCK, VAN OR OTHER VEHICLE NOT INTRANSPORT(70)

MEDIUM/HEAVY TRUCK OR BUS NOT IN-TRANSPORT(71) LOCATION ON VEHICLE WHERE INITIAL PRINCIPAL TRIPPING FORCE IS APPLIED(GV49)

## Renumbered:

NON-CONTACT ROLLOVER FORCES(SPECIFY)(6)

#### Added:

ROLLOVER--END-OVER-END(8)
DIRECTION OF INITIAL ROLL(GV50)

#### Renumbered:

ROLLOVER--END-OVER-END(8)(Title Changed)

BASIS FOR TOTAL (RESULTANT) DELTA V (HIGHEST)(GV58)(Size changed from one to two digits)

## Title Changed:

RECONSTRUCTION PROGRAM-DAMAGE ONLY ROUTINE(01) RECONSTRUCTION PROGRAM-DAMAGE AND TRAJECTORY ROUTINE(02)

## Renumbered:

ALL VEHICLES AND COLLISION CONDITIONS ARE WITHIN SCOPE OF ONE OF THE ACCEPTABLE RECONSTRUCTION PROGRAMS, BUT THERE IS INSUFFICIENT DATA AVAILABLE, (SPECIFY)(11)

## Added:

NO VEHICLE INSPECTION(00)

ROLLOVER(05)

OTHER NON-HORIZONTAL FORCES(06)

SIDESWIPE TYPE DAMAGE(07)

SEVERE OVERRIDE(08)

YIELDING OBJECT(09)

OVERLAPPING DAMAGE(10)

OTHER,(SPECIFY)(98)

TYPE OF VEHICLE INSPECTION(GV67)

#### Renumbered:

PARTIAL INSPECTION(SPECIFY)(2)

COMPLETE INSPECTION(3)

#### Added:

VEHICLE FULLY REPAIRED-NO DAMAGE EVIDENT(1)

The following new data elements have been added:

OTHER DRUG SPECIMEN TEST RESULT FOR DRIVER(GV16)

RELATION TO INTERCHANGE OR JUNCTION(GV19)

TRAFFICWAY FLOW(GV20)

NUMBER OF TRAVEL LANES(GV21)

ROADWAY ALIGNMENT(GV22)

ROADWAY PROFILE(GV23)

ROADWAY SURFACE TYPE(GV24)

ROADWAY SURFACE CONDITION(GV25)

LIGHT CONDITIONS(GV26)

ATMOSPHERIC CONDITIONS(GV27)

TRAFFIC CONTROL DEVICE(GV28)

TRAFFIC CONTROL DEVICE FUNCTIONING(GV29)

DRIVER'S DISTRACTION/INATTENTION TO DRIVING(GV30)

AIR BAG(S) DEPLOYMENT, FIRST SEAT FRONTAL(GV41)

AIR BAG(S) DEPLOYMENT, OTHER THAN FIRST SEAT FRONTAL(GV42)

IMPACT SPEED(GV63)

BARRIER EQUIVALENT SPEED(GV65)

ESTIMATED HIGHEST DELTA V(RESEARCH DETERMINED)(GV66)

The following new data elements have been extracted from the VIN by the PC VINA translation program:

VINA MAKE

VINA MODEL (PASSENGER VEHICLES)

VINA SERIES (TRUCKS)

VINA BODY TYPE

VINA ROOF TYPE

VINA ROOF TYPE (OPTIONAL 1)

VINA ROOF TYPE (OPTIONAL 2)

VINA ANTI-LOCK BRAKES

VINA FRONT WHEEL DRIVE

VINA FOUR WHEEL DRIVE

VINA RESTRAINT TYPE

VINA CARBURETION (PASSENGER VEHICLES)

VINA FUEL CODE

VINA WEIGHT CODE (TRUCKS)

VINA VEHICLE TYPE

VINA WHEELS/DRIVING WHEELS (TRUCKS)

VINA DAYLIGHT RUNNING LIGHTS

VINA BASE SHIPPING WEIGHT (PASSENGER VEHICLES & M/C)

VINA MOTORCYCLE CC'S ENGINE DISPLACEMENT

VINA MODEL YEAR

#### EXTERIOR VEHICLE RECORD

One attribute has been deleted, one has been modified, four have been renumbered and three have been added in the following data elements:

1ST CDC - OBJECT CONTACTED (EV05)

2ND CDC - OBJECT CONTACTED (EV13)

Deleted:

MOTOR VEHICLE NOT IN-TRANSPORT(71)

Modified:

OVERTURN-ROLLOVER(EXCLUDES END-OVER-END)(31)

Renumbered:

FIRE OR EXPLOSION(33)

JACKKNIFE(34)

OTHER INTRAUNIT DAMAGE(SPECIFY)(35)

NONCOLLISION INJURY(36)

Added:

ROLLOVER--END-OVER-END(32)

PASSENGER CAR, LIGHT TRUCK, VAN OR OTHER VEHICLE NOT IN-

TRANSPORT(70)

MEDIUM/HEAVY TRUCK OR BUS NOT IN-TRANSPORT(71)

The following data elements have been renumbered but the attributes have not been changed:

ARE CDCS DOCUMENTED BUT NOT CODED ON THE AUTOMATED FILE?(EV30)

RESEARCHER'S ASSESSMENT OF VEHICLE DAMAGE(EV31)

IS THIS A MULTI-STAGE MANUFACTURED VEHICLE AND/OR A

CERTIFIED ALTERED VEHICLE?(EV32)

FIRE OCCURRENCE(EV33)

ORIGIN OF FIRE(EV34)

LOCATION OF FUEL TANK-1 FILLER CAP(EV35)(Title Changed)

LOCATION OF FUEL TANK-2 FILLER CAP(EV36)(Title Changed)

TYPE OF FUEL TANK-1(EV37)

TYPE OF FUEL TANK-2(EV38)

LOCATION OF FUEL TANK-1(EV39)(Title Changed)

LOCATION OF FUEL TANK-2(EV40)(Title Changed)

DAMAGE TO FUEL TANK-1(EV41)(Title Changed)

DAMAGE TO FUEL TANK-2(EV42)(Title Changed)

LEAKAGE LOCATION OF FUEL SYSTEM-1(EV43)(Title Changed)

LEAKAGE LOCATION OF FUEL SYSTEM-2(EV44)(Title Changed)

FUEL TYPE-1(EV45)

FUEL TYPE-2(EV46)

IS THIS VEHICLE EQUIPPED WITH MORE THAN TWO FUEL

TANKS?(EV47)

The following new data elements have been added:

UNDEFORMED END WIDTH(EV26)

DIRECT DAMAGE WIDTH(EV27)

## ORIGINAL AVERAGE TRACK WIDTH(EV29)

#### INTERIOR VEHICLE RECORD

The following data elements have been renumbered and attributes have been deleted, modified, renumbered or added:

TYPE OF WINDOW/WINDSHIELD GLAZING(IV15-IV22)

Deleted:

AS-3 - TEMPERED-TINTED(3)

Modified:

NO GLAZING(0)

Renumbered:

AS-14 - GLASS/PLASTIC(6)

Added:

AS-3 - TEMPERED-TINTED(ORIGINAL)(3)

AS-2 - TEMPERED-WITH AFTER MARKET TINT(4)

AS-3 - TEMPERED-TINTED(WITH ADDITIONAL AFTER MARKET TINT)(5)

GLAZING REMOVED PRIOR TO ACCIDENT(7)

WINDOW PRECRASH GLAZING STATUS(IV23-IV30)

Modified:

NO GLAZING(0)

Added:

GLAZING REMOVED PRIOR TO ACCIDENT(7)

GLAZING DAMAGE FROM IMPACT FORCES(IV31-IV38)

Renumbered:

NO GLAZING(0)

NO GLAZING DAMAGE FROM IMPACT FORCES(1)

GLAZING DAMAGE FROM OCCUPANT CONTACT(IV39-IV46)

Modified:

NO GLAZING(0)

NO OCCUPANT CONTACT TO GLAZING(1)

Renumbered:

GLAZING CONTACTED BY OCCUPANT BUT NO GLAZING

DAMAGE(2)

GLAZING IN PLACE AND CRACKED BY OCCUPANT CONTACT(3)

GLAZING IN PLACE AND HOLED BY OCCUPANT CONTACT(4)

GLAZING OUT-OF-PLACE(CRACKED OR NOT) BY OCCUPANT

CONTACT AND NOT HOLED BY OCCUPANT CONTACT(5)

GLAZING OUT-OF-PLACE BY OCCUPANT CONTACT AND HOLED BY

OCCUPANT CONTACT(6)

GLAZING DISINTEGRATED BY OCCUPANT CONTACT(8)

#### Added:

GLAZING REMOVED PRIOR TO ACCIDENT(7)

KNEE BOLSTERS DEFORMED FROM OCCUPANT CONTACT?(IV95)

#### Renumbered:

NO KNEE BOLSTER(0)

NO DEFORMATION(1)

YES - DEFORMATION(2)

DID GLOVE COMPARTMENT DOOR OPEN DURING COLLISION(S)(IV96)

#### Renumbered:

NO GLOVE COMPARTMENT DOOR(0)

NO - DOOR DID NOT OPEN(1)

YES - DOOR OPENED(2)

The following attributes of these data elements were renumbered:

INTRUDING COMPONENT (1ST-10TH)(IV48...IV84)

## Renumbered:

SIDE PANEL-FORWARD OF THE A1/A2-PILLAR(10)

DOOR PANEL(SIDE)(11)

SIDE PANEL-REAR OF THE B-PILLAR(12)

ROOF(OR CONVERTIBLE TOP)(13)

ROOF SIDE RAIL(14)

WINDSHIELD(15)

WINDSHIELD HEADER(16)

WINDOW FRAME(17)

FLOOR PAN(INCLUDES SILL)(18)

**BACKLIGHT HEADER(19)** 

FRONT SEAT BACK(20)

SECOND SEAT BACK(21)

THIRD SEAT BACK(22)

FOURTH SEAT BACK(23)

FIFTH SEAT BACK(24)

SEAT CUSHION(25)

BACK DOOR/PANEL(E.G., TAILGATE)(26)

OTHER INTERIOR COMPONENT(SPECIFY)(27)

The following data elements have been renumbered but the attributes have not been changed:

STEERING RIM/SPOKE DEFORMATION(IV90)

LOCATION OF STEERING RIM/SPOKE DEFORMATION(IV91)

ODOMETER READING(IV92)

INSTRUMENT PANEL DAMAGE FROM OCCUPANT CONTACT?(IV93)

The following new data elements have been added:

TILT STEERING COLUMN ADJUSTMENT(IV88)

TELESCOPING STEERING COLUMN ADJUSTMENT(IV89)

TYPE OF KNEE BOLSTER COVERING(IV94)

ADAPTIVE(ASSISTIVE) DRIVING EQUIPMENT(IV97)

## OCCUPANT ASSESSMENT RECORD

The following data elements have been deleted:

AIR BAG SYSTEM AVAILABILITY/FUNCTION(OA21)

AIR BAG SYSTEM DEPLOYMENT(OA22)

Attributes have been deleted or added in the following data elements:

OCCUPANT'S SEX(OA06)

Deleted:

FEMALE(2)

Added:

FEMALE-NOT REPORTED PREGNANT(2)

FEMALE-PREGNANT-1ST TRIMESTER(1ST-3RD MONTH)(3)

FEMALE-PREGNANT-2ND TRIMESTER(4TH-6TH MONTH)(4)

FRMALE-PREGNANT-3RD TRIMESTER(7TH-9TH MONTH)(5)

FEMALE-PREGNANT-TERM UNKNOWN(6)

ENTRAPMENT(OA16)

Added:

COULD NOT EXIT VEHICLE DUE TO JAMMED DOORS, FIRE, ETC.(2)

The following data elements have been renumbered but the attributes have not been changed:

MANUAL(ACTIVE) BELT SYSTEM AVAILABILITY(OA18)

MANUAL (ACTIVE) BELT SYSTEM USE(OA19)

PROPER USE OF MANUAL (ACTIVE) BELTS(OA20)

MANUAL (ACTIVE) BELT FAILURE MODES DURING ACCIDENT(OA21)

AUTOMATIC (PASSIVE) BELT SYSTEM AVAILABILITY/FUNCTION(OA23)

AUTOMATIC (PASSIVE) BELT SYSTEM USE(OA24)

AUTOMATIC (PASSIVE) BELT SYSTEM TYPE(OA25)

PROPER USE OF AUTOMATIC (PASSIVE) BELT SYSTEM(OA26)

AUTOMATIC (PASSIVE) BELT FAILURE MODES DURING ACCIDENT(OA27)

ARE THERE INDICATIONS OF AIR BAG SYSTEM FAILURE?(OA34)

HEAD RESTRAINT TYPE/DAMAGE BY OCCUPANT(OA49)

SEAT ORIENTATION (THIS OCCUPANT POSITION)(OA51)

SEAT PERFORMANCE (THIS OCCUPANT POSITION)(OA54)

CHILD SAFETY SEAT MAKE/MODEL(OA56)

CHILD SAFETY SEAT ORIENTATION(OA57)

CHILD SAFETY SEAT HARNESS USAGE(OA58)

CHILD SAFETY SEAT SHIELD USAGE(OA59)

CHILD SAFETY SEAT TETHER USAGE(OA60)

INJURY SEVERITY (POLICE RATING)(OA61)

TYPE OF MEDICAL FACILITY (FOR INITIAL TREATMENT)(OA63)

**HOSPITAL STAY(OA64)** 

WORKING DAYS LOST(OA65)

TIME TO DEATH(OA66)

1ST MEDICALLY REPORTED CAUSE OF DEATH(OA67)

2ND MEDICALLY REPORTED CAUSE OF DEATH(OA68)

3RD MEDICALLY REPORTED CAUSE OF DEATH(OA69)

NUMBER OF RECORDED INJURIES FOR THIS OCCUPANT(OA70)

GLASGOW COMA SCALE (GCS) SCORE(OA71)

WAS THE OCCUPANT GIVEN BLOOD?(OA72)

ARTERIAL BLOOD GASES (ABG) -HCO<sub>3</sub>(OA73)

PRIMARY SOURCE OF BELT USE DETERMINATION(OA74)

The following data elements have been renumbered and some of their attributes have been deleted, modified, renumbered or added:

POLICE REPORTED BELT USE(OA28)

Deleted:

RESTRAINED, TYPE UNKNOWN(8)

Modified:

POLICE DID NOT INDICATE BELT USE(1)

OTHER TYPE BELT, (SPECIFY)(8)

Added:

**AUTOMATIC BELT(7)** 

SEAT TYPE (THIS OCCUPANT POSITION)(OA50)

Renumbered:

BOX MOUNTED SEAT(I.E., VAN TYPE)(09)

OTHER SEAT TYPE (SPECIFY)(10)

TYPE OF CHILD SAFETY SEAT(OA56)

Deleted:

**BOOSTER SEAT(4)** 

Added:

BOOSTER SEAT - WITH SHIELD(4)

BOOSTER SEAT - WITHOUT SHIELD(5)

TREATMENT -MORTALITY(OA62)

Renumbered:

TREATMENT - OTHER(SPECIFY)(7)

#### Added:

## TRANSPORTED TO A MEDICAL FACILITY-UNKNOWN IF TREATED(8)

The following new data elements have been added:

OCCUPANT MOBILITY(OA17)

SHOULDER BELT UPPER ANCHORAGE ADJUSTMENT(OA22)

POLICE REPORTED AIR BAG AVAILABILITY/FUNCTION(OA29)

FRONTAL AIR BAG SYSTEM AVAILABILITY/FUNCTION(THIS

OCCUPANT POSITION)(OA30)

FRONTAL AIR BAG SYSTEM DEPLOYMENT(THIS OCCUPANT POSITION)(OA31)

OTHER THAN FIRST SEAT FRONTAL AIR BAG

AVAILABILITY/FUNCTION(THIS OCCUPANT POSITION)(OA32)

AIR BAG(S) DEPLOYMENT, OTHER THAN FIRST SEAT FRONTAL (THIS OCCUPANT POSITION(OA33)

HAD VEHICLE BEEN IN PREVIOUS ACCIDENT(S)?(OA35)

TYPE OF AIR BAG(OA36)

HAD ANY PRIOR MAINTENANCE/SERVICE BEEN PERFORMED ON THIS AIR BAG SYSTEM?(OA37)

AIR BAG DEPLOYMENT ACCIDENT EVENT SEQUENCE NUMBER(OA38)

CDC FOR AIR BAG DEPLOYMENT IMPACT(OA39)

LONGITUDINAL COMPONENT OF DELTA V FOR AIR BAG DEPLOYMENT IMPACT(OA40)

DID AIR BAG MODULE COVER FLAP(S) OPEN AT DESIGNATED TEAR POINTS?(OA41)

WERE AIR BAG MODULE COVER FLAP(S) DAMAGED?(OA42)

WAS THERE DAMAGE TO THE AIR BAG?(OA43)

SOURCE OF AIR BAG DAMAGE(OA44)

WAS THE AIR BAG TETHERED?(OA45)

DID THE AIR BAG HAVE VENT PORTS?(OA46)

WAS THE AIR BAG IN THIS OCCUPANT'S POSITION CONTACTED BY ANOTHER OCCUPANT?(OA47)

WAS THIS OCCUPANT WEARING EYE-WEAR?(OA48)

SEAT TRACK ADJUSTED POSITION PRIOR TO IMPACT(OA52)

SEAT BACK INCLINE PRIOR AND POST IMPACT(OA53)

# OCCUPANT INJURY RECORD

The field size of the following data element (INJURY SOURCE) has been changed from two to three positions and some of its attributes have been deleted, modified, renumbered or added:

INJURY SOURCE(OI012...OI111)

#### Deleted:

LEFT SIDE WINDOW GLASS OR FRAME(25)

RIGHT SIDE WINDOW GLASS OR FRAME(35)

AIR BAG(45)

## Modified:

ADD ON EQUIPMENT(E.G., TAPE DECK, AIR CONDITIONER(009)

#### Renumbered:

LEFT INSTRUMENT PANEL AND BELOW(010)

CENTER INSTRUMENT PANEL AND BELOW(011)

RIGHT INSTRUMENT PANEL AND BELOW(012)

GLOVE COMPARTMENT DOOR(013)

**KNEE BOLSTER(014)** 

WINDSHIELD INCLUDING ONE OR MORE OF THE FOLLOWING:

FRONT HEADER, A(A1/A2)-PILLAR, INSTRUMENT PANEL,

MIRROR OR STEERING ASSEMBLY(DRIVER SIDE ONLY)(015)

WINDSHIELD INCLUDING ONE OR MORE OF THE FOLLOWING:

A(A1/A2)-PILLAR, INSTRUMENT PANEL OR MIRROR

## (PASSENGER SIDE ONLY)(016)

WINDSHIELD REINFORCED BY EXTERIOR OBJECT(SPECIFY)(017)

OTHER FRONT OBJECT(SPECIFY)(019)

LEFT SIDE INTERIOR SURFACE, EXCLUDING HARDWARE OR

ARMRESTS(051)

LEFT SIDE HARDWARE OR ARMREST(052)

LEFT A(A1/A2)-PILLAR(053)

LEFT B-PILLAR(054)

OTHER LEFT PILLAR(SPECIFY)(055)

LEFT SIDE WINDOW SILL(058)

LEFT SIDE WINDOW GLASS INCLUDING ONE OR MORE OF THE

FOLLOWING: FRAME, WINDOW SILL, A(A1/A2)-PILLAR,

B-PILLAR OR ROOF SIDE RAIL(059)

OTHER LEFT SIDE OBJECT(SPECIFY)(060)

RIGHT SIDE INTERIOR SURFACE, EXCLUDING HARDWARE OR

ARMRESTS(101)

RIGHT SIDE HARDWARE OR ARMREST(102)

RIGHT A(A1/A2)-PILLAR(103)

RIGHT B-PILLAR(104)

OTHER RIGHT PILLAR(SPECIFY)(105)

RIGHT SIDE WINDOW SILL(108)

RIGHT SIDE WINDOW GLASS INCLUDING ONE OR MORE OF THE

FOLLOWING: FRAME, WINDOW SILL, A(A1/A2)-PILLAR,

B-PILLAR OR ROOF SIDE RAIL(109)

OTHER RIGHT SIDE OBJECT(SPECIFY)(110)

SEAT, BACK SUPPORT(151)

BELT RESTRAINT WEBBING/BUCKLE(152)

BELT RESTRAINT B-PILLAR OR DOOR FRAME ATTACHMENT POINT(153)

OTHER RESTRAINT SYSTEM COMPONENT(SPECIFY)(154)

HEAD RESTRAINT SYSTEM(155)

OTHER OCCUPANTS(SPECIFY)(160)

**INTERIOR LOOSE OBJECTS(161)** 

CHILD SAFETY SEAT(SPECIFY)(162)

OTHER INTERIOR OBJECT(SPECIFY)(163)

AIR BAG COMPARTMENT COVER-DRIVER SIDE(175)

AIR BAG COMPARTMENT COVER-PASSENGER SIDE(185)

FRONT HEADER(201)

REAR HEADER(202)

ROOF LEFT SIDE RAIL(203)

ROOF RIGHT SIDE RAIL(204)

ROOF OR CONVERTIBLE TOP(205)

FLOOR(INCLUDING TOE PAN)(251)

FLOOR OR CONSOLE MOUNTED TRANSMISSION LEVER, INCLUDING CONSOLE(252)

PARKING BRAKE HANDLE(253)

FOOT CONTROLS INCLUDING PARKING BRAKE(254)

BACKLIGHT(REAR WINDOW)(301)

BACKLIGHT STORAGE RACK, DOOR, ETC(302)

OTHER REAR OBJECT(SPECIFY)(303)

HOOD(451)

OUTSIDE HARDWARE(E.G., OUTSIDE MIRROR, ANTENNA)(452)

OTHER EXTERIOR SURFACE OR TIRES(SPECIFY)(453)

UNKNOWN EXTERIOR OBJECTS(454)

FRONT BUMPER(501)

HOOD EDGE(502)

OTHER FRONT OF VEHICLE(SPECIFY)(503)

HOOD(504)

HOOD ORNAMENT(505)

WINDSHIELD, ROOF RAIL, A-PILLAR(506)

SIDE SURFACE(507)

SIDE MIRRORS(508)

OTHER SIDE PROTRUSIONS(SPECIFY)(509)

REAR SURFACE(510)

**UNDERCARRIAGE**(511)

TIRES AND WHEELS(512)

OTHER EXTERIOR OF OTHER MOTOR VEHICLE(SPECIFY)(513)

UNKNOWN EXTERIOR OF OTHER MOTOR VEHICLE(514)

GROUND(551)

OTHER VEHICLE OR OBJECT(SPECIFY)(598)

UNKNOWN VEHICLE OR OBJECT(599)

FIRE IN VEHICLE(601)

FLYING GLASS(602)

OTHER NONCONTACT INJURY SOURCE(SPECIFY)(603)

AIR BAG EXHAUST GASES(604)

INJURED, UNKNOWN SOURCE(697)

#### Added:

CELLULAR TELEPHONE OR CB RADIO(008)

LEFT SIDE WINDOW GLASS(056)

LEFT SIDE WINDOW FRAME(057)

RIGHT SIDE WINDOW GLASS(106)

RIGHT SIDE WINDOW FRAME(107)

AIR BAG-DRIVER SIDE(170)

AIR BAG-DRIVER SIDE AND EYEWEAR(171)

AIR BAG-DRIVER SIE AND JEWELRY(172)

AIR BAG-DRIVER SIDE AND OBJECT HELD(173)

AIR BAG-DRIVER SIDE AND OBJECT IN MOUTH(174)

AIR BAG COMPARTMENT COVER-DRIVER SIDE AND EYEWEAR(176)

AIR BAG COMPARTMENT COVER-DRIVER SIDE AND JEWELRY(177)

AIR BAG COMPARTMENT COVER-DRIVER SIDE AND OBJECT HELD(178)

AIR BAG COMPARTMENT COVER-DRIVER SIDE AND OBJECT IN MOUTH(179)

AIR BAG-PASSENGER SIDE(180)

AIR BAG-PASSENGER SIDE AND EYEWEAR(181)

AIR BAG-PASSENGER SIDE AND JEWELRY(182)

AIR BAG-PASSENGER SIDE AND OBJECT HELD(183)

AIR BAG-PASSENGER SIDE AND OBJECT IN MOUTH(184)

AIR BAG COMPARTMENT COVER-PASSENGER SIDE AND

EYEWEAR(186)

AIR BAG COMPARTMENT COVER-PASSENGER SIDE AND

JEWELRY(187)

AIR BAG COMPARTMENT COVER-PASSENGER SIDE AND OBJECT HELD(188)

AIR BAG COMPARTMENT COVER-PASSENGER SIDE AND OBJECT IN MOUTH(189)

OTHER AIR BAG(SPECIFY)(190)

OTHER AIR BAG COMPARTMENT COVER(SPECIFY)(195)

HAND CONTROLS FOR BRAKING/ACCELERATION(401)

STEERING CONTROL DEVICES(ATTACHED TO OEM STEERING WHEEL)(402)

STEERING KNOB ATTACHED TO STEERING WHEEL(403)

REPLACEMENT STEERING WHEEL(I.E., REDUCED DIAMETER)(405)

JOY STICK STEERING CONTROLS(406)

WHEELCHAIR TIE-DOWNS(407)

MODIFICATION TO SEAT BELTS(SPECIFY)(408)

ADDITIONAL OR RELOCATED SWITCHES, (SPECIFY) (409)

RAISED ROOF(410)

WALL MOUNTED HEAD REST(USED BEHIND WHEEL CHAIR)(411)

OTHER ADAPTIVE DEVICE(SPECIFY)(412)

The following new AIS-85 data elements have been derived by translation from the AIS-90 codes:

BODY REGION - AIS85 LESION - AIS85 SYSTEM ORGAN - AIS85

## **UNWEIGHTED CASES**

Sixteen Impact Fires Special Study cases, which were oversampled, have been retained on the file with zero weight. Cases qualify for this special study if a vehicle fire occurs from an impact with another vehicle or object and the case is not selected as part of the CDS case sample. As of April 1, 1995, these accidents are limited to fires originating in late model year vehicles (1991-1996). All case numbers are in the 500 series e.g., 04-501G.

## ERRATA SHEET FOR 1995 SAS AND FLAT FILES (Corrected 6/1/99)

## **GENERAL VEHICLE FILE**

The VINA derived data element, VINA MODEL (SAS Label: VINAMOD;
 Flat File Position: Record 23, Positions 17-19 in 1995&1996
 Record 23, Positions 18-20 in 1997), contains the following:
 Passenger Car Model
 Truck Series

2. The VINA derived data element, VINA SERIES (SAS Label: SERTR; Flat File Position: Record 23, Positions 20-22 in 1995&1996

Record 23, Positions 21-23 in 1997), contains the following: Truck Model

#### **SECTION 3**

#### THE SAMPLING SYSTEM AND SAMPLE DESIGN

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

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

# Stage 1 - Select PSU's

For the first stage of selection, the country was divided into 1195 geographic areas called Primary Sampling Units (PSU's). Each PSU consisted of either a central city, a county surrounding a central city, an entire county or a group of contiguous counties. The PSU's were defined so that their minimum population was approximately 50,000.

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

## Stage 2 - Select Police Jurisdictions

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

## Stage 3 - Select Accidents

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

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

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

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

#### SAMPLING VARIABLES

The stratification category (1) by <u>type of vehicle</u> is "CDS applicable"---passenger cars, light trucks and vans and "other vehicles"---all other vehicle types; (2) by <u>injury</u> is "fatal injury"---K, "serious injury"---A or "minor injury, not injured or unknown"---B,C,O,U; (3) by <u>disposition of the injured</u> is "transported to a medical facility" or "not transported"; (4) by <u>hospitalization</u> is "occupant admitted at least overnight"; (5) by <u>tow status</u> is "towed due to damage" or "not towed"; (6) by <u>model year</u> of the vehicle is "late model year"---1991 through 1996 or "non-late model year"---1990 or before.

## SAMPLING STRATA

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

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

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

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

Stratum K-NASS accidents not qualifying for Strata A, B or J in which at least one occupant of a towed

CDS applicable nonlate model year vehicle had a police reported injury of "A" (incapacitating injury) AND was transported to a treatment facility for treatment AND was admitted overnight to the hospital. If the accident involved more than one CDS applicable vehicle, at least two CDS applicable vehicles must be towed.

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

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

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

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

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

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

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

Table 3-1 1995 NASS CDS Strata

Late	Most Severe Police Reported Injury								
Model Year			Transported				Nontransported		
(IMV) Vehicle	Fatal Injury	Serious Injury "A"		Minor Injury or Unk.	Minor Injury, Not Injured or Unknown				
Involve- ment	"K"	Single Multiple CDS CDS Applicable Veh. Vehicles		"C", or "U"	At Least One Towed	No Towed CDS Appli. Veh.			
		Towed Towed Towed Towed			CDS Veh.	ven.			
			Not Hosp- ital- ized		Hosp-				
Injury in Towed, LMY, CDS Veh.	A	J	С	J	C		E	G	Not
Injury not in Towed, LMY, CDS Vehicle	В	к	D	к	D		F	Н	In Scope

Note: Late Model Year refers to 1991 through 1996 model years.

## Sampling

Because the accidents selected in NASS CDS are a probability sample of all accidents occurring in the survey year, the data from these accidents are "weighted" to produce National Estimates. The weights result from the stages of selection, reflecting that accident's probability of selection. The analysis file contains only one weight.

## **PSU Inflation Factor**

The PSU Inflation Factor is the within PSU sampling weight for each accident in that PSU's sample and is equal to the inverse of that accident's probability of selection within the PSU. It is equal to the product of the inverse of the probability of selecting that accident from the other accidents and the inverse of the

probability of selecting the police jurisdiction in which the accident occurred from among all police jurisdictions listed in the PSU (Stage 2).

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

#### National Inflation Factor

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

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

#### **Ratio Inflation Factor**

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

Estimates of National totals for accident characteristics can be obtained using the Ratio Inflation Factor (RIF). However, because the RIFs have been adjusted to actual accident counts, some of the sampling variation has been removed. Therefore they will produce more precise estimates than the National Inflation Factor. It is for this reason that the RIF or Ratio Weight is the only weight on the analysis file. Less than one percent of the cases have RIFs greater than 5000. This is the result of listing at least twice the number of expected serious injury crashes on a given sampling day.

# **SECTION 4**

# DERIVED VARIABLES

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

# SPECIFICATION FOR DERIVED VARIABLES VARIABLE NAME - LOCATION - DESCRIPTION

## MAXIMUM TREATMENT IN THIS ACCIDENT (AC29) (SAS Label: ATREAT)

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

- 1 FATAL
- 3 HOSPITALIZED
- 4 TRANSPORTED AND RELEASED
- 5 TREATMENT AT SCENE
- 6 TREATMENT LATER
- 7 TREATMENT OTHER
- 8 TRANSPORTED TO A MEDICAL FACILITY UNKNOWN IF TREATED
- 2 FATAL RULED DISEASE
- 9 UNKNOWN
- 0 NO TREATMENT
- . NOT COLLECTED

This variable is derived by scanning the TREATMENT-MORTALITY (OA62) variable in each occupant assessment record in the accident.

**Source:** TREATMENT-MORTALITY (OA62).

**Missing Values:** Occupant assessment records will be missing for: (1) Non CDS applicable vehicles-BODY TYPE (GV07) equals 50-99; (2) Non-towed CDS applicable vehicles-BODY TYPE (GV07) equals 01-49 and POLICE REPORTED VEHICLE DISPOSITION (GV10) equals 0 or 9; (3) Towed CDS applicable vehicles with no occupants-BODY TYPE (GV07) equals 01-49 and POLICE REPORTED VEHICLE DISPOSITION (GV10) equals 1 and NUMBER OF OCCUPANT FORMS SUBMITTED (GV39) equals 0. If there are no occupants in any towed CDS applicable vehicle in the accident, then use code "BLANK" (Not Collected) on the Flat file and ".N" (Not Collected) on the SAS file.

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

## MAXIMUM KNOWN A.I.S. IN THIS ACCIDENT (AC30) (SAS Label: AAIS)

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

- 6 MAXIMUM (UNTREATABLE) INJURY
- 5 CRITICAL INJURY
- 4 SEVERE INJURY

- 3 SERIOUS INJURY
- 2 MODERATE INJURY
- 1 MINOR INJURY
- 7 INJURY, UNKNOWN SEVERITY
- 9 UNKNOWN IF INJURED
- 0 NOT INJURED
- . NOT COLLECTED

This variable is derived by scanning the A.I.S. SEVERITY (OI010...OI100) variable on each occupant injury record in the accident. If none of the occupants in the accident has an occupant injury record, then scan the NUMBER OF RECORDED INJURIES FOR THIS OCCUPANT (OA70) variable on the occupant assessment record. Use the following order of codes: if "97", then code "7"; if "99", then code "9"; if "00", then code "0".

**Source:** A.I.S. SEVERITY (OI010...OI100) and NUMBER OF RECORDED INJURIES FOR THIS OCCUPANT (OA70).

Missing Values: Occupant injury and occupant assessment records will be missing for: (1) Non CDS applicable vehicles-BODY TYPE (GV07) equals 50-99; (2) Non-towed CDS applicable vehicles-BODY TYPE (GV07) equals 01-49 and POLICE REPORTED VEHICLE DISPOSITION (GV10) equals 0 or 9; (3) Towed CDS applicable vehicles with no occupants-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV10) equals 1 and NUMBER OF OCCUPANT FORMS SUBMITTED (GV39) equals 0. Occupant injury records will be missing for: (1) Towed CDS applicable vehicles with no known occupant injuries-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV10) equals 1 and NUMBER OF RECORDED INJURIES THIS OCCUPANT (OA70) equals 97, 99 or 00; (2) Non-towed CDS applicable vehicles with no known occupant injuries-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV10) equals 0 or 9 and NUMBER OF RECORDED INJURIES THIS OCCUPANT (OA70) equals 97, 99 or 00. If there are no occupants in any towed CDS applicable vehicle in the accident, then use code "BLANK" (Not Collected) on the Flat file and ".N" (Not Collected) on the SAS file. SAS Codes: .N for Blank (Not Collected) and .U for 9 (Unknown).

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

This two place numeric value indicates the total number of fatally and other seriously injured occupants of towed CDS applicable vehicles involved in the accident. It is derived by totaling for the accident either the number of occupant assessment records in which the TREATMENT-MORTALITY (OA62) value is coded "1" (Fatal) or the number of occupant injury records in which the A.I.S. SEVERITY (OI010...OI100) value is coded "3-6". (Add together "1"s in OA62 and if the code in OA62 is not equal to "1", add one injury per occupant where OI010...OI100 is "3-6").

**Source:** TREATMENT-MORTALITY (OA62) and A.I.S. SEVERITY (OI010...OI100). **Missing Values:** Occupant injury and occupant assessment records will be missing for: (1) Non CDS applicable vehicles-BODY TYPE (GV07) equals 50-99; (2) Non-towed CDS applicable

vehicles-BODY TYPE (GV07) equals 01-49 and POLICE REPORTED VEHICLE DISPOSITION (GV10) equals 0 or 9; (3) Towed CDS applicable vehicles with no occupants-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV10) equals 1 and NUMBER OF OCCUPANT FORMS SUBMITTED (GV39) equals 0. Occupant injury records will be missing for: (1) Towed CDS applicable vehicles with no known occupant injuries-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV10) equals 1 and NUMBER OF RECORDED INJURIES THIS OCCUPANT (OA70) equals 97, 99 or 00; (2) Non-towed CDS applicable vehicles with no known occupant injuries-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV10) equals 0 or 9 and NUMBER OF RECORDED INJURIES THIS OCCUPANT (OA70) equals 97, 99 or 00. If none of the occupants in the accident has an occupant injury record or if, on all the occupant assessment records the only codes in OA70 are equal to "97, 99 or 00", then use code "00" (None) for this derived variable. If there are no occupants in any towed CDS applicable vehicle in the accident, then use code "BLANK" (Not Collected) on the Flat file and ".N" (Not Collected) on the SAS file.

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

## NUMBER OF INJURED OCCUPANTS IN THIS ACCIDENT (AC33-34) (SAS Label: AINJURED)

This two place numeric value indicates the total number of injured occupants of towed CDS applicable vehicles vehicles involved in the accident. It is derived by totaling the number of occupant assessment records in which the variable NUMBER OF RECORDED INJURIES FOR THIS OCCUPANT (OA70) has a value of 01-97.

**Source:** NUMBER OF RECORDED INJURIES FOR THIS OCCUPANT (OA70).

Missing Values: Occupant assessment records will be missing for: (1) Non CDS applicable vehicles-BODY TYPE (GV07) equals 50-99; (2) Non-towed CDS applicable vehicles-BODY TYPE (GV07) equals 01-49 and POLICE REPORTED VEHICLE DISPOSITION (GV10) equals 0 or 9; (3) Towed CDS applicable vehicles with no occupants-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV10) equals 1 and NUMBER OF OCCUPANT FORMS SUBMITTED (GV39) equals 0. Towed CDS applicable vehicles with no known occupant injuries will have codes-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV10) equals 1 and NUMBER OF RECORDED INJURIES THIS OCCUPANT (OA70) equals 99 or 00. Non-towed CDS applicable vehicles with no known occupant injuries will have codes-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV10) equals 0 or 9 and NUMBER OF RECORDED INJURIES THIS OCCUPANT (OA70) equals 99 or 00. If, on all the occupant assessment records in the accident, the only codes in OA70 are equal to "99 or 00", then use code "00" (None) for this derived variable. If there are no occupants in any towed CDS applicable vehicle in the accident, then use code "BLANK" (Not Collected) on the Flat file and ".N" (Not Collected) on the SAS file.

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

## ALCOHOL INVOLVEMENT IN THIS ACCIDENT (AC35) (SAS Label: ALCINV)

This single place numeric value indicates if any involved driver were reported to have had some

alcohol involvement at the time of the accident, using the following order of codes:

- 1 YES
- 2 NO
- 9 UNKNOWN

This variable is derived by scanning the POLICE REPORTED ALCOHOL PRESENCE FOR DRIVER (GV13) and ALCOHOL TEST RESULT FOR DRIVER (GV14) variables on each general vehicle record in the accident. The ALCOHOL INVOLVEMENT codes are derived as follows:

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

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

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

**Source:** POLICE REPORTED ALCOHOL PRESENCE FOR DRIVER (GV13) and ALCOHOL TEST RESULT FOR DRIVER (GV14).

**Missing Values:** None (must have at least one general vehicle record coded through the variable ACCIDENT TYPE (GV36) in the accident).

**SAS Codes:** .U for 9 (Unknown).

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

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

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

04 Wednesday

**Source:** DATE OF ACCIDENT (AC04).

Missing Values: None.

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

PSU INFLATION FACTOR (SAS Label: PSUWGT)

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

This weight is not on the current year file.

**Source:** Computed by NHTSA Headquarters.

Missing Values: None. SAS Codes: None.

## NATIONAL INFLATION FACTOR (SAS Label: NATWGT)

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

This weight is not on the current year file.

**Source:** Computed by NHTSA Headquarters.

Missing Values: None. SAS Codes: None.

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

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

**Source:** Computed by NHTSA Headquarters.

Missing Values: None. SAS Codes: None.

## DRUG INVOLVEMENT IN THIS ACCIDENT (AC62) (SAS Label: DRGINV)

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

- 1 YES
- 2 NO
- 9 UNKNOWN

This variable is derived by scanning the POLICE REPORTED OTHER DRUG PRESENCE FOR DRIVER (GV15) and OTHER DRUG SPECIMEN TEST RESULT (GV16) variables on each general vehicle record in the accident. The DRUG INVOLVEMENT codes are derived as follows:

(YES) 1 - If POLICE REPORTED OTHER DRUG PRESENCE FOR DRIVER equals 1 (YES - OTHER DRUG PRESENT) or OTHER DRUG SPECIMEN TEST RESULT equals 2 (DRUG FOUND IN SPECIMEN).

(NO) 2 -If POLICE REPORTED OTHER DRUG PRESENCE FOR DRIVER equals 0 (NO

OTHER DRUGS PRESENT) and OTHER DRUG SPECIMEN TEST RESULT equals 0 (NO SPECIMEN TEST GIVEN) or 1 (DRUG NOT FOUND IN SPECIMEN).

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

**Source:** POLICE REPORTED OTHER DRUG PRESENCE FOR DRIVER (GV15) and OTHER DRUG SPECIMEN TEST RESULT (GV16).

**Missing Values:** None (must have at least one general vehicle record coded through the variable ACCIDENT TYPE (GV36) in the accident).

**SAS Codes:** .U for 9 (Unknown).

# MANNER OF COLLISION (AC63) (SAS Label: MANCOLL)

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

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

This variable is derived by scanning the OBJECT CONTACTED (AC16) variable on the accident event record and the ACCIDENT TYPE (GV36) variable on the general vehicle record, where VEHICLE NUMBER (AC13) equals VEHICLE NUMBER (GV03). The MANNER OF COLLISION codes are derived as follows:

- 0 (NOT COLLISION WITH VEHICLE IN TRANSPORT) If OBJECT CONTACTED equals 31-99.
- 1 (REAR-END) If OBJECT CONTACTED equals 01-30 and ACCIDENT TYPE equals 20-43.
- 2 (HEAD-ON) If OBJECT CONTACTED equals 01-30 and ACCIDENT TYPE equals 50-63.
- 4 (ANGLE) If OBJECT CONTACTED equals 01-30 and ACCIDENT TYPE equals 68-91.
- 5 (SIDESWIPE, SAME DIRECTION) If OBJECT CONTACTED equals 01-30 and ACCIDENT TYPE equals 44-49.
- 6 (SIDESWIPE, OPPOSITE DIRECTION) If OBJECT CONTACTED equals 01-30 and ACCIDENT TYPE equals 64-67.
- 9 (UNKNOWN) If OBJECT CONTACTED equals 01-30 and ACCIDENT TYPE equals 92-99.

Source: OBJECT CONTACTED (AC16) and ACCIDENT TYPE (GV36).

Missing Values: None (must have at least one general vehicle record coded through the variable

ACCIDENT TYPE (GV36) in the accident.

**SAS Codes:** .U for 9 (Unknown).

## PSU STRATA (AC64-65) (SAS Label: PSUSTRAT)

This two place numeric variable indicates the stratum into which each PSU is grouped in the first stage of selection of sample accidents. It is used for calculating variance by analysts using the SUDAAN statistical system. Values are coded as follows:

01 - 12

This variable is derived by scanning a coded table consisting of psu number and stratum number.

**Source:** PSU NUMBER (AC01) and coded table.

Missing Values: None. SAS Codes: None.

## MAXIMUM TREATMENT IN THIS VEHICLE (GV72-REC22) (SAS Label: VTREAT)

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

- 1 FATAL
- 3 HOSPITALIZED
- 4 TRANSPORTED AND RELEASED
- 5 TREATMENT AT SCENE
- 6 TREATMENT LATER
- 7 TREATMENT OTHER
- 8 TRANSPORTED TO A MEDICAL FACILITY UNKNOWN IF TREATED
- 2 FATAL RULED DISEASE
- 9 UNKNOWN
- 0 NO TREATMENT
- . NOT COLLECTED

This variable is derived by scanning the TREATMENT-MORTALITY (OA62) variable in each occupant assessment record in this vehicle.

**Source:** TREATMENT-MORTALITY (OA62).

**Missing Values:** Occupant assessment records will be missing for: (1) Non CDS applicable vehicles-BODY TYPE (GV07) equals 50-99; (2) Non-towed CDS applicable vehicles-BODY TYPE (GV07) equals 01-49 and POLICE REPORTED VEHICLE DISPOSITION (GV10) equals 0 or 9; (3) Towed CDS applicable vehicles with no occupants-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV10) equals 1 and NUMBER OF OCCUPANT FORMS SUBMITTED (GV39) equals 0. If none of the occupants in the vehicle has an occupant assessment record, then use code "BLANK" (Not Collected) on

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

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

## MAXIMUM KNOWN A.I.S. IN THIS VEHICLE (GV73-REC22) (SAS Label: VAIS)

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

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

This variable is derived by scanning the A.I.S. SEVERITY (OI010...OI100) variable on each occupant injury record in this towed CDS applicable vehicle. If none of the occupants in this vehicle has an occupant injury record, then scan the NUMBER OF RECORDED INJURIES FOR THIS OCCUPANT (OA70) variable on the occupant assessment record. Use the following order of codes: if "97", then code "7"; if "99", then code "9"; if "00", then code "0".

**Source:** A.I.S. SEVERITY (OI010...OI100) and NUMBER OF RECORDED INJURIES FOR THIS OCCUPANT (OA70).

Missing Values: Occupant injury and occupant assessment records will be missing for: (1) Non CDS applicable vehicles-BODY TYPE (GV07) equals 50-99; (2) Non-towed CDS vehicles-BODY TYPE (GV07) equals 01-49 and POLICE REPORTED VEHICLE DISPOSITION (GV10) equals 0 or 9; (3) Towed CDS applicable vehicles with no occupants-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV10) equals 1 and NUMBER OF OCCUPANT FORMS SUBMITTED (GV39) equals 0. Occupant injury records will be missing for: (1) Towed CDS applicable vehicles with no known occupant injuries-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV10) equals 1 and NUMBER OF RECORDED INJURIES THIS OCCUPANT (OA70) equals 97, 99 or 00; (2) Non-towed CDS applicable vehicles with no known occupant injuries-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV10) equals 0 or 9 and NUMBER OF RECORDED INJURIES THIS OCCUPANT (OA70) equals 97, 99 or 00. If none of the occupants in the vehicle has an occupant assessment record, then use code "BLANK" (Not Collected) on the Flat file and use ".N" (Not Collected) on the SAS file.

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

NUMBER SERIOUSLY INJURED IN THIS VEHICLE (GV74&75-REC22) (SAS Label: VINJSER)

This two place numeric value indicates the total number of fatally and other seriously injured occupants of this towed CDS applicable vehicle. It is derived by totaling for the vehicle either the number of occupant assessment records in which the TREATMENT-MORTALITY (OA62) value is coded "1" (Fatal) or the number of occupant injury records in which the A.I.S. SEVERITY (OI010...OI100) value is coded "3-6". (Add together "1"s in OA62 and if the code in OA62 is not equal to "1", add one injury per occupant where OI010...OI100 is "3-6").

**Source:** TREATMENT-MORTALITY (OA62) and A.I.S. SEVERITY (OI010...OI100). **Missing Values:** Occupant injury and occupant assessment records will be missing for: (1) Non CDS applicable vehicles-BODY TYPE (GV07) equals 50-99; (2) Non towed CDS applicable vehicles-BODY TYPE (GV07) equals 01-49 and POLICE REPORTED VEHICLE DISPOSITION (GV10) equals 0 or 9; (3) Towed CDS applicable vehicles with no occupants-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV10) equals 1 and NUMBER OF OCCUPANT FORMS SUBMITTED (GV39) equals 0. Occupant injury records will be missing for: (1)Towed CDS applicable vehicles with no known occupant injuries-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV10) equals 97, 99 or 00; (2) Non towed CDS applicable vehicles with no known occupant injuries-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV10) equals 0 or 9 and NUMBER OF RECORDED INJURIES THIS OCCUPANT (OA70) equals 97, 99 or 00.

If none of the occupants in the vehicle has an occupant assessment record, then use code "BLANK" (Not Collected) on the Flat file and use ".N" (Not Collected) on the SAS file. If, on all the occupant assessment records in the vehicle, the only codes in OA70 are equal to "97, 99 or 00", then use code "00" (None) for this derived variable.

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

#### NUMBER INJURED IN THIS VEHICLE (GV76&77-REC22) (SAS Label: VINJURED)

This two place numeric value indicates the total number of injured occupants of this towed CDS applicable vehicle. It is derived by totaling the number of occupant assessment records in which the variable NUMBER OF RECORDED INJURIES FOR THIS OCCUPANT (OA70) has a value of 01-97.

Source: NUMBER OF RECORDED INJURIES FOR THIS OCCUPANT (OA70).

Missing Values: Occupant assessment records will be missing for: (1) Non CDS applicable vehicles-BODY TYPE (GV07) equals 50-99; (2) Non-towed CDS applicable vehicles-BODY TYPE (GV07) equals 01-49 and POLICE REPORTED VEHICLE DISPOSITION (GV10) equals 0 or 9; (3) Towed CDS applicable vehicles with no occupants-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV10) equals 1 and NUMBER OF OCCUPANT FORMS SUBMITTED (GV39) equals 0. Towed CDS applicable vehicles with no known occupant injuries will have codes-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV10) equals 1 and NUMBER OF RECORDED INJURIES THIS OCCUPANT (OA70) equals 99 or 00. Non-towed CDS applicable vehicles with no known occupant injuries will have codes-BODY TYPE (GV07) equals

01-49, POLICE REPORTED VEHICLE DISPOSITION (GV10) equals 0 or 9 and NUMBER OF RECORDED INJURIES THIS OCCUPANT (OA70) equals 99 or 00. If none of the occupants in the vehicle has an occupant assessment record, then use code "BLANK" (Not Collected) on the Flat file and ".N" (Not Collected) on the SAS file. If, on all the occupant assessment records in the vehicle, the only codes in OA70 are equal to "99 or 00", then use code "00" (None) for this derived variable.

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

#### FRONT/REAR WHEEL DRIVE (GV78-REC22) (SAS Label: DRIVE)

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

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

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

Source: VEHICLE MODEL YEAR (GV04), VEHICLE MAKE (GV05), VEHICLE MODEL

(GV06), BODY TYPE (GV07) and coded table.

Missing Values: None.

**SAS Codes:** .U for 9 (Unknown).

#### VIN LENGTH (GV79&80-REC22) (SAS Label: VINLNGTH)

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

Source: VEHICLE IDENTIFICATION NUMBER (GV08).

Missing Values: None.

**SAS Codes:** .U for 99 (Unknown).

#### WEIGHT OF THE OTHER VEHICLE (GV81-83;REC22) (SAS Label: OTVEHWGT)

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

045	LESS THAN 450 KILOGRAMS
046 - 609	460-6,090 KILOGRAMS
610	6,100 KILOGRAMS OR MORE
998	NOT APPLICABLE (MOST SEVERE IMPACT NOT WITH
	ANOTHER VEHICLE OR WITH VEHICLE HITTING ITSELF)

#### 999 UNKNOWN . NOT COLLECTED

This variable is derived by scanning the OBJECT CONTACTED (EV05) variable from the HIGHEST DELTA "V" as coded on the exterior vehicle record. If the object contacted is another CDS applicable vehicle, then the weight is derived by scanning the VEHICLE CURB WEIGHT (GV43) variable as coded on the general vehicle record for the other CDS applicable vehicle. **Source:** OBJECT CONTACTED (EV05), BODY TYPE (GV07) & VEHICLE CURB WEIGHT (GV43).

Missing Values: Exterior vehicle records will be missing and variables GV37-67 on general vehicle records will not be coded for Non CDS applicable vehicles-BODY TYPE (GV07) equals 50-99. If the most severe impact is between an inspected CDS applicable vehicle and a non CDS applicable vehicle, then use code "BLANK" (Not Collected) on the Flat file and use ".N" (Not Collected) on the SAS file. Exterior vehicle records will be missing for CDS applicable vehicles which are not inspected- BODY TYPE (GV07) equals 01-49 and TYPE OF VEHICLE INSPECTION (GV67) equals 0. Use code "BLANK" (Not Collected) on the Flat file and use ".N" (Not Collected) on the SAS file. If the OBJECT CONTACTED (EV05) variable is blank (non collision event) for an inspected CDS applicable vehicle, then use code 998 (Not Applicable). SAS Codes: .N for Blank (Not Collected) and .U for 999 (Unknown)

#### BODY TYPE OF THE OTHER VEHICLE (GV84&85-REC22) (SAS Label: OTBDYTYP)

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

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

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

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

**Missing Values:** Exterior vehicle records will be missing for:

- (1) Non CDS applicable vehicles-BODY TYPE (GV07) equals 50-99;
- (2) Not Inspected CDS applicable vehicles-BODY TYPE (GV07) equals 01-49 and TYPE OF VEHICLE INSPECTION (GV67) equals 0. For these vehicle types, use code "BLANK" (Not Collected) on the Flat file and ".N" (Not Collected) on the SAS file. If the OBJECT CONTACTED (EV05) variable is blank (non collision event) for an inspected CDS applicable vehicle, then use code 98 (Not Applicable).

**SAS Codes:** .N for Blank (Not Collected) and .U for 99 (Unknown).

#### VINA MAKE (GV12-16;REC23) (SAS Label: VINMAKE)

This five place alphanumeric value indicates the National Crime Information Center (NCIC) code for vehicle make. 99999 denotes unknown.

This variable is derived by the VINA analysis system scanning the VEHICLE IDENTIFICATION NUMBER (GV08).

**Source:** VEHICLE IDENTIFICATION NUMBER (GV08).

Missing Values: If VINA VEHICLE TYPE is unknown (U), then VIN MAKE will be

blank.

SAS Codes: None.

VINA MODEL (PASS. VEH.) (GV17-19;REC23) (SAS Label: VINAMOD)

This three place alphanumeric value contains a Polk series code for the model of passenger vehicles. For a listing of these codes please refer to the Polk PC VINA manual.

This variable is derived by the VINA analysis system scanning the VEHICLE IDENTIFICATION NUMBER (GV08).

**Source:** VEHICLE IDENTIFICATION NUMBER (GV08).

Missing Value: If VINA VEHICLE TYPE is unknown (U), then VINA MODEL (PASS. VEH.)

will be blank.

SAS Codes: None.

VINA SERIES (TRUCKS) (GV20-22;REC23) (SAS Label: SERTR)

This three place alphanumeric value contains a Polk series code. For a listing of these codes please refer to the Polk PC VINA manual.

This variable is derived by the VINA analysis system scanning the VEHICLE IDENTIFICATION NUMBER (GV08).

**Source:** VEHICLE IDENTIFICATION NUMBER (GV08).

Missing Value: If VINA VEHICLE TYPE is equal to Passenger Vehicle (P), Motorcycle (M)

or Unknown (U), then VINA SERIES (TRUCKS) will be blank.

SAS Codes: None.

VINA BODY TYPE (GV23&24;REC23) (SAS Label: VINBT)

This two place alphanumeric value indicates the vehicle's body type. The applicable codes and their descriptors are listed in the following table:

#### Body Type Codes

Passenger Vehicles				
AM	Ambulance	UT	Utility **	
СВ	Cab & Chassis (Luv)	WW	Wide Wheel Wagon	
СР	Coupe	2D	Sedan 2 Dr.	
CV	Convertible	2F	Formal Hardtop 2 Dr.	
НР	Hatchback*	2H (81-03)	Hatchback 2 Dr.	
HR	Hearse	2L	Liftback 3 Dr.	
НТ	Hardtop *	2P	Pillard Hardtop 2 Dr.	
LB	Liftback	2T	Hardtop 2 Dr.	
LM	Limousine	2W	Wagon 2 Dr.	
NB	Notchback	3D	Runabout 3 Dr.	
PK	Pickup **	4D	Sedan 4 Dr.	
PN	Panel **	4H (81-03)	Hatchback 4 Dr.	
RD	Roadster	4L	Liftback 5 Dr.	
SB	Sport Hatchback	4P	Pillard Hardtop 4 Dr.	
SC	Sport Coupe	4T	Hardtop 4 Dr.	
SD	Sedan *	4W	Wagon 4 Dr.	
SV	Sport Van	5D	Sedan 5 Dr.	
SW	Station Wagon			

<sup>\*</sup> Used only when number of doors is unknown

<sup>\*\*</sup> To code trucks commonly registered as passenger vehicles

Trucks			
AC Auto Carrier M		MV	Maxi Van
AR	Armored Truck	MY	Motorized Cutaway

BU	Bus	PC	Club Cab Pickup
СВ	Chassis and Cab	PD	Parcel Delivery
CC	Conventional Cab	PK	Pickup
CG	Cargo Van	PM	Pickup with Camper mounted on bed
СН	Crew Chassis	PN	Panel
CL	Club Chassis	PS	Super Cab Pickup
CM	Concrete or Transit Mixer	RD	Roadster (Jeep, Jeep Commando)
CR	Crane	SN	Step Van
CS	Super Cab/Chassis Pickup	SP	Sport Pickup
CU	Custom Pickup	ST	Stake or Rack
CV	Convertible (Jeep Commando, Suzuki Samarai, Dodge Dakota)	SV	Sports Van
CW	Crew Pickup	SW	Station Wagon (Jeep Wagonneer, Dodge Sportsman A100, Toyota Landcruiser)
CY	Cargo Cutaway	<b>S</b> 1	One Seat
DP	Dump	S2	Two Seat
DS	Tractor Truck (diesel)	TB	Tilt Cab
EC	Extended Cargo Van	TL	Tilt Tandem
ES	Extended Sport Van	TM	Tandem
EV	Ext Van	TN	Tank
EW	Extended Window Van	TR	Tractor Truck (Gasoline)
FB	Flat-bed or Platform	UT	Utility (Blazer, Jimmy, Scout, etc.)
FC	Forward Control	VC	Van Camper
FT	Fire Truck	VD	Display Van
GG	Garbage or Refuse	VN	Van
GL	Gliders	VT	Vanette (including Metro and Handy Van)
GN	Grain	VW	Window Van

НО	Hopper	WK	Tow Truck Wrecker
IC	Incomplete Chassis	WW	Wide Wheel Wagon
IE	Incomplete Ext Van	XT	Travelall
LG	Logger	YY	Cutaway
LL	Suburban & Carry All	2W	2 Dr. Wagon
МН	Motorized Home	4W	4 Dr. Wagon
MP	Multi-purpose	8V	8 Passenger Sport Van

Motorcycles			
AT	All terrain	MY	Mini Cycle
EN	Enduro	RC	Racer
MK	Mini Bike	RS	Road/Street
MM	Mini Moto Cross	RT	Road/Trail
MP	Moped	T	Dirt
MR	Mini Road/Trail	TL	Trail/Dirt
MS	Motor Scooter	TR	Trails
MX	Moto Cross	_	

This variable is derived by the VINA analysis system scanning the VEHICLE IDENTIFICATION NUMBER (GV08).

Source: VEHICLE IDENTIFICATION NUMBER (GV08).

Missing Value: If VINA VEHICLE TYPE is unknown (U), then VINA BODY TYPE will

be blank.

SAS Codes: None.

#### VINA ROOF TYPE (GV25;REC23) (SAS Label: ROOF1)

This single place numeric value indicates the type of roof on the vehicle using the following codes:

- 1 None/not available
- 2 Manual sun/moon roof

- 3 Power sun/moon roof
- 4 Removable panels
- 5 Removable roof
- 6 Retractable roof panel
- 7 Other/unknown

This variable is derived by the VINA analysis system scanning the VEHICLE IDENTIFICATION NUMBER (GV08).

**Source:** VEHICLE IDENTIFICATION NUMBER (GV08).

Missing Value: If VINA VEHICLE TYPE is unknown (U), then VINA ROOF TYPE will be

blank.

SAS Codes: "." for Blank.

#### VINA ROOF TYPE (OPTIONAL 1) (GV26;REC23) (SAS Label: ROOF2)

This single place numeric value indicates the an optional type of roof for the vehicle using the following codes:

- 1 None/not available
- 2 Manual sun/moon roof
- 3 Power sun/moon roof
- 4 Removable panels
- 5 Removable roof
- 6 Retractable roof panel
- 7 Other/unknown

This variable is derived by the VINA analysis system scanning the VEHICLE IDENTIFICATION NUMBER (GV08).

**Source:** VEHICLE IDENTIFICATION NUMBER (GV08).

Missing Value: If VINA VEHICLE TYPE is unknown (U), then VINA ROOF TYPE

(OPTIONAL 1) will be blank. **SAS Codes:** "." for Blank.

#### VINA ROOF TYPE (OPTIONAL 2) (GV27;REC23) (SAS Label: ROOF3)

This single place numeric value indicates the an optional type of roof for the vehicle using the following codes:

- 1 None/not available
- 2 Manual sun/moon roof
- 3 Power sun/moon roof
- 4 Removable panels
- 5 Removable roof
- 6 Retractable roof panel

#### 7 Other/unknown

This variable is derived by the VINA analysis system scanning the VEHICLE IDENTIFICATION NUMBER (GV08).

**Source:** VEHICLE IDENTIFICATION NUMBER (GV08).

Missing Value: If VINA VEHICLE TYPE is unknown (U), then VINA ROOF TYPE

(OPTIONAL 2) will be blank. **SAS Codes:** "." for Blank.

#### VINA ANTI-LOCK BRAKES (GV28;REC23) (SAS Label: ANTILOCK)

This single place numeric value indicates if anti-lock brakes are available in the vehicle and if so, which axles have the system (if known). The following codes are used:

- 1 Not Available
- 2 4 wheel standard
- 3 Rear only standard
- 4 ABS standard, wheels unknown
- 5 4 wheel optional
- 6 Rear only optional
- ABS optional, wheels unknown
- 8 Unknown

This variable is derived by the VINA analysis system scanning the VEHICLE IDENTIFICATION NUMBER (GV08).

**Source:** VEHICLE IDENTIFICATION NUMBER (GV08).

Missing Value: If VINA VEHICLE TYPE is unknown (U), then VINA ANTI-LOCK

BRAKES will be blank. **SAS Codes:** "." for Blank.

#### VINA FRONT WHEEL DRIVE (GV29;REC23) (SAS Label: FRTWHLDR)

This single place alphanumeric value indicates if the vehicle is front wheel drive using the following codes.

N No

Y Yes

\* Some vehicles of this series

This variable is derived by the VINA analysis system scanning the VEHICLE IDENTIFICATION NUMBER (GV08).

**Source:** VEHICLE IDENTIFICATION NUMBER (GV08).

Missing Value: If VINA VEHICLE TYPE is unknown (U), then VINA FRONT WHEEL

DRIVE will be blank. **SAS Codes:** None.

#### VINA FOUR WHEEL DRIVE (GV30;REC 23) (SAS Label: FOURWHDR)

This single place alphnumeric value indicates if the vehicle is four wheel drive using the following codes.

N No

Y Yes

\* Some vehicles of this series

This variable is derived by the VINA analysis system scanning the VEHICLE IDENTIFICATION NUMBER (GV08).

**Source:** VEHICLE IDENTIFICATION NUMBER (GV08).

Missing Value: If VINA VEHICLE TYPE is unknown (U), then VINA FOUR WHEEL

DRIVE will be blank. **SAS Codes:** None.

#### VINA RESTRAINT TYPE (GV31;REC23) (SAS Label: RESTYPE)

This single place alphanumeric value indicates the actual presence of the restraint type in the vehicle. The code cannot be used to determine whether the restraint is an optional or a standard feature of the vehicle. The codes are valid for model years 1985 to the current model year. The following codes are used:

- A Active (manual) belts
- B Driver front air bag/passenger side belt unknown
- C Dual front air bags/belt system unknown
- D Dual front air bag/passenger side passive belts
- E Dual front air bags/active belts
- F Dual front air bags/passive belts
- G Dual air bags front and side/belts unknown
- H Dual air bags front, head and sides/belts unknown
- I Dual air bags front, head and sides/passive belts
- J Dual air bags front and sides/passive belts
- K Dual air bags front and sides/active belts
- L Dual air bags front, head and sides/active belt
- M Driver front air bag/passenger side active belt
- P Passive (automatic) belts

This variable is derived by the VINA analysis system scanning the VEHICLE IDENTIFICATION NUMBER (GV08).

**Source:** VEHICLE IDENTIFICATION NUMBER (GV08).

Missing Value: If VINA VEHICLE TYPE is unknown (U), then VINA RESTRAINT TYPE

will be blank.

SAS Codes: None.

#### VINA CARBURETION (PASS VEH) (GV 32;REC23) (SAS Label: CARBUR)

This single place alphanumeric value contains the number of barrels for the engine or a descriptive code indicating that the engine is high performance, fuel-injected, turbo, or electronically controlled. The codes are for passenger vehicles only. The codes and their meanings are listed in the following table:

Carburetion Codes and Meanings			
Code	Number of BBL	Description of Engine	
(a number)	Number specified by the code	Number of barrels for the engine (e.g. 4)	
A*	1	Lower HP	
B*	1	Higher HP	
С	1	Turbo	
D*	1	Turbo Low HP	
E*	1	Turbo High HP	
F	Unknown	A fuel injection rating code used when the manufacturer's specifications do not show the number of barrels.	
G	1	Electronically controlled	
Н	Unknown	A high performance rating code used when the manufacturer's specifications do not show the number of barrels.	
J*	2	Lower HP	
K*	2	Higher HP	
L	2	Turbo	
M*	2	Turbo Low HP	
N*	2	Turbo High HP	
P	2	Electronically controlled	
Q	Unknown	Electronically controlled	

R	4	Electronically controlled
S*	4	Lower HP
T	1,2 or 4	Turbo Fuel Injected
U*	4	Higher HP
V	4	Turbo
W*	4	Turbo Low HP
X*	4	Turbo High HP
Y	Unknown	Turbo
Z	Unknown	Super Charged

<sup>\*</sup>NOTE: These values are coded only when necessary to apply correct insurance symbol.

This variable is derived by the VINA analysis system scanning the VEHICLE IDENTIFICATION NUMBER (GV08).

**Source:** VEHICLE IDENTIFICATION NUMBER (GV08).

Missing Value: If VINA VEHICLE TYPE is equal to Trucks (T), Motorcycle (M) or

unknown (U), then VINA CARBURETION (PASS VEH) will be blank.

**SAS Codes:** None.

#### VINA FUEL CODE (GV33;REC23) (SAS Label: FUELCODE)

This single place alphanumeric value indicates the type of fuel suggested by the manufacturer for the engine. The descriptive codes and their meanings are as follows:

- D Diesel
- E Electric
- F Flexible Fuel
- G Gas
- N Compressed Natural Gas
- P Propane

This variable is derived by the VINA analysis system scanning the VEHICLE IDENTIFICATION NUMBER (GV08).

**Source:** VEHICLE IDENTIFICATION NUMBER (GV08).

Missing Value: If VINA VEHICLE TYPE is unknown (U), then VINA FUEL CODE will be

blank.

SAS Codes: None.

#### VINA WEIGHT CODE (TRUCKS) (GV34;REC23) (SAS Label: WGTCDTR)

This single place numeric value indicates the manufacturer's Gross Vehicle Weight (GVW) rating. The descriptive codes and their meanings are as follows:

- 1 6,000 and less
- 2 6,001 10,000
- 3 10,001 14,000
- 4 14,001 16,000
- 5 16,001 19,500
- 6 19,501 26,000
- 7 26,001 33,000
- 8 33,001 and more
- 9 weight unknown

This variable is derived by the VINA analysis system scanning the VEHICLE IDENTIFICATION NUMBER (GV08).

**Source:** VEHICLE IDENTIFICATION NUMBER (GV08).

Missing Value: If VINA VEHICLE TYPE is equal to Passenger Vehicle (P), Motorcycle

(M) or unknown (U), then VINA WEIGHT CODE (TRUCKS) will be blank.

**SAS Codes:** "." for Blank.

#### VINA VEHICLE TYPE (GV35;REC23) (SAS Label: VEHTYPE)

This single place alphanumeric value indicates the type of vehicle using the following values:

- P Passenger Vehicle
- T Truck
- M Motorcycle
- U Unknown

This variable is derived by the VINA analysis system scanning the VEHICLE IDENTIFICATION NUMBER (GV08).

**Source:** VEHICLE IDENTIFICATION NUMBER (GV08).

Missing Value: None. SAS Codes: None.

VINA WHEELS/DRIVING WHEELS (TRUCKS) (GV36&37;REC23) (SAS Label: WHLDRWHL)

This two place numeric value contains information about truck wheels. The first position contains the total number of wheels. The second position contains the number of driving wheels.

This variable is derived by the VINA analysis system scanning the VEHICLE IDENTIFICATION NUMBER (GV08).

**Source:** VEHICLE IDENTIFICATION NUMBER (GV08).

**Missing Value:** If VINA VEHICLE TYPE is equal to Passenger Vehicle (P), Motorcycle (M) or unknown (U), then VINA WHEELS/DRIVING WHEELS (TRUCKS) will be blank.

**SAS Codes:** "." for Blank.

#### VINA DAYLIGHT RUN LIGHTS (GV38;REC23) (SAS Label: DAYRUNLT)

This single place alphanumeric value indicates the availability of Daytime Running Lights. Values are coded as follows:

- S Standard
- O Optional
- N Not Available
- U Unknown

This variable is derived by the VINA analysis system scanning the VEHICLE IDENTIFICATION NUMBER (GV08).

**Source:** VEHICLE IDENTIFICATION NUMBER (GV08).

Missing Value: If VINA VEHICLE TYPE is unknown (U), then VINA DAYLIGHT RUN

LIGHTS will be blank. **SAS Codes:** None.

VINA BASE SHIPPING WEIGHT (PASS VEH & M/C) (GV39-42;REC23) (SAS Label: VEHWGT)

This four place numeric value indicates the base shipping weight (dry weight) of passenger vehicles and motorcycles.

This variable is derived by the VINA analysis system scanning the VEHICLE IDENTIFICATION NUMBER (GV08).

**Source:** VEHICLE IDENTIFICATION NUMBER (GV08).

Missing Value: If VINA VEHICLE TYPE is unknown (U), then VINA BASE SHIPPING

WEIGHT (PASS VEH & M/C) will be blank.

**SAS Codes:** "." for Blank.

VINA MOTORCYCLE CC's ENGINE DISPLACEMENT (GV43-46;REC23) (SAS Label: MCYCLDS)

This four place numeric value indicates the manufacturer's cubic centimeter (CC) displacement of the model.

This variable is derived by the VINA analysis system scanning the VEHICLE IDENTIFICATION NUMBER (GV08).

**Source:** VEHICLE IDENTIFICATION NUMBER (GV08).

**Missing Value:** If VINA VEHICLE TYPE is equal to Passenger Vehicle (P), Truck (T) or unknown (U), then VINA MOTORCYCLE CC's ENGINE DISPLACEMENT will be blank.

**SAS Codes:** "." for Blank.

VINA MODEL YEAR (GV47&48;REC23) (SAS Label: VINMODYR)

This two place numeric value indicates the last two digits of the vehicle's model year.

This variable is derived by the VINA analysis system scanning the VEHICLE IDENTIFICATION NUMBER (GV08).

**Source:** VEHICLE IDENTIFICATION NUMBER (GV08).

Missing Value: If VINA VEHICLE TYPE is unknown (U), then VINA MODEL YEAR will

be blank.

**SAS Codes:** "." for Blank.

MAXIMUM KNOWN OCCUPANT A.I.S. (OA114) (SAS Label: MAIS)

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

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

This variable is derived by scanning the A.I.S. SEVERITY (OI010...OI100) variable on the occupant injury record. If this occupant does not have an occupant injury record, then scan the NUMBER OF RECORDED INJURIES FOR THIS OCCUPANT (OA70) variable on the occupant assessment record. Use the following order of codes: if "97", then code "7"; if "99", then code "9"; if "00", then code "0".

**Source:** A.I.S. SEVERITY (OI010...OI100) and NUMBER OF RECORDED INJURIES FOR THIS OCCUPANT (OA70).

**Missing Values:** None (if you do not have an occupant injury record, you will have an occupant assessment record for each occupant of a towed CDS applicable vehicle). Occupant injury and occupant assessment records will be missing for: (1) Non CDS applicable vehicles-

BODY TYPE (GV07) equals 50-99; (2) Non-towed CDS applicable vehicles-BODY TYPE (GV07) equals 01-49 and POLICE REPORTED VEHICLE DISPOSITION (GV10) equals 0 or 9. Occupant injury records will be missing for: (1)Towed CDS applicable vehicles with no known occupant injuries-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV10) equals 1 and NUMBER OF RECORDED INJURIES THIS OCCUPANT (OA70) equals 97, 99 or 00; (2)Non-towed CDS applicable vehicles with no known occupant injuries-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV10) equals 0 or 9 and NUMBER OF REPORTED INJURIES THIS OCCUPANT (OA70) equals 97, 99 or 00.

**SAS Codes:** .U for 9 (Unknown).

#### OCCUPANT I.S.S. (OA115-116) (SAS Label: ISS)

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

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

It is derived by scanning the BODY REGION (OI006...OI096) and the A.I.S. SEVERITY (OI010...OI100) variables on the occupant injury record. The I.S.S. score is calculated by adding the squares of the highest A.I.S. SEVERITY entries for each of the three most severely injured body regions. For A.I.S. Code "7" (Injury, Unknown Severity), use code "0". If the occupant injury record is missing, scan the NUMBER OF RECORDED INJURIES FOR THIS OCCUPANT (OA70) variable on the occupant assessment record. If the codes in OA70 are "97, 99 or 00", then use code "0". An example of calculating an I.S.S. score is the following:

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

**Source:** BODY REGION (OI006...OI096) and A.I.S. SEVERITY (OI010...OI100). **Missing Values:** None (if you do not have an occupant injury record, you will have an occupant assessment record for each occupant of a towed CDS applicable vehicle). Occupant injury and occupant assessment records will be missing for: (1) Non CDS applicable vehicles-BODY TYPE (GV07) equals 50-99; (2) Non-towed CDS applicable vehicles-BODY TYPE (GV07) equals 01-49 and POLICE REPORTED VEHICLE DISPOSITION (GV10) equals

0 or 9. Occupant injury records will be missing for: (1)Towed CDS applicable vehicles with no known occupant injuries-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV10) equals 1 and NUMBER OF RECORDED INJURIES THIS OCCUPANT (OA70) equals 97, 99 or 00; (2)Non-towed CDS applicable vehicles with no known occupant injuries-BODY TYPE (GV07) equals 01-49, POLICE REPORTED VEHICLE DISPOSITION (GV10) equals 0 or 9 and NUMBER OF RECORDED INJURIES THIS OCCUPANT (OA70) equals 97, 99 or 00.

SAS Codes: None.

## **SECTION 5**SEQUENTIAL ANALYTICAL FILE RECORD LAYOUTS

#### ACCIDENT RECORD

1	PSU NUMBER	38
2	rsu number	39
		40
3		41
	CASE NUMBER	42
5	Chall Weight	43
6		44
		45
7	RECORD NUMBER (11)	
8	,	46
		47
9	VERSION NUMBER	48
		49
10	NUMBER OF GENERAL	50
11	VEHICLE FORMS SUBMITTED	51
		52
12	MONTH OF ACCIDENT	53
13		
		54
14		55
15		56
		57 RATIO INFLATION FACTOR
16	YEAR OF ACCIDENT	58
17		59
		60
18		61
	TIME OF ACCIDENT	
20		62 DRUG INVOLVED
21		OO MANNED OF COLLEGE
		63 MANNER OF COLLISION
00	ADMINICED ATTIVE LICE	
	ADMINISTRATIVE USE	
		64 PSU STRATA
23	PEDESTRI AN STUDY	64 PSU STRATA 65
23	PEDESTRIAN STUDY	64 PSU STRATA
23  24	PEDESTRIAN STUDY  IMPACT FIRE	64 PSU STRATA 65
23  24	PEDESTRIAN STUDY IMPACT FIRE	64 PSU STRATA 65
23  24  25	PEDESTRIAN STUDY  IMPACT FIRE	64 PSU STRATA 65
23  24  25	PEDESTRIAN STUDY  IMPACT FIRE  UNSAFE DRIVER ACTIONS	64 PSU STRATA 65
23  24  25  26	PEDESTRIAN STUDY  IMPACT FIRE  UNSAFE DRIVER ACTIONS  NOT ACTIVE	64 PSU STRATA 65
23 24  25  26	PEDESTRIAN STUDY  IMPACT FIRE  UNSAFE DRIVER ACTIONS  NOT ACTIVE	64 PSU STRATA 65
23  24  25  26 	PEDESTRIAN STUDY  IMPACT FIRE  UNSAFE DRIVER ACTIONS  NOT ACTIVE  NUMBER OF RECORDED	64 PSU STRATA 65
23  24  25  26 	PEDESTRIAN STUDY  IMPACT FIRE  UNSAFE DRIVER ACTIONS  NOT ACTIVE	64 PSU STRATA 65
23  24  25  26  27 28	PEDESTRIAN STUDY  IMPACT FIRE  UNSAFE DRIVER ACTIONS  NOT ACTIVE  NUMBER OF RECORDED  EVENTS IN THIS ACCIDENT	64 PSU STRATA 65
23  24  25  26  27 28	PEDESTRIAN STUDY  IMPACT FIRE  UNSAFE DRIVER ACTIONS  NOT ACTIVE  NUMBER OF RECORDED EVENTS IN THIS ACCIDENT  MAXIMUM TREATMENT	64 PSU STRATA 65
23  24  25  26  27 28  29	PEDESTRIAN STUDY  IMPACT FIRE  UNSAFE DRIVER ACTIONS  NOT ACTIVE  NUMBER OF RECORDED EVENTS IN THIS ACCIDENT  MAXIMUM TREATMENT	64 PSU STRATA 65
23  24  25  26  27 28  29	PEDESTRIAN STUDY  IMPACT FIRE  UNSAFE DRIVER ACTIONS  NOT ACTIVE  NUMBER OF RECORDED EVENTS IN THIS ACCIDENT  MAXIMUM TREATMENT  MAXIMUM KNOWN AIS	64 PSU STRATA 65
23  24  25  26  27 28  29  30	PEDESTRIAN STUDY  IMPACT FIRE  UNSAFE DRIVER ACTIONS  NOT ACTIVE  NUMBER OF RECORDED EVENTS IN THIS ACCIDENT  MAXIMUM TREATMENT  MAXIMUM KNOWN AIS	64 PSU STRATA 65
23  24  25  26  27 28  30  31	PEDESTRIAN STUDY  IMPACT FIRE  UNSAFE DRIVER ACTIONS  NOT ACTIVE  NUMBER OF RECORDED EVENTS IN THIS ACCIDENT  MAXIMUM TREATMENT  MAXIMUM KNOWN AIS	64 PSU STRATA 65
23 24 25 27 28 29 31 32	PEDESTRIAN STUDY  IMPACT FIRE  UNSAFE DRIVER ACTIONS  NOT ACTIVE  NUMBER OF RECORDED EVENTS IN THIS ACCIDENT  MAXIMUM TREATMENT  MAXIMUM KNOWN AIS  NUMBER OF SERIOUSLY	64 PSU STRATA 65
23  24  25  26  27 28  29  30  31 32	PEDESTRIAN STUDY  IMPACT FIRE  UNSAFE DRIVER ACTIONS  NOT ACTIVE  NUMBER OF RECORDED EVENTS IN THIS ACCIDENT  MAXIMUM TREATMENT  MAXIMUM KNOWN AIS  NUMBER OF SERIOUSLY INJURED OCCUPANTS	64 PSU STRATA 65
23  24  25  26  27 28  29  30  31 32	PEDESTRIAN STUDY  IMPACT FIRE  UNSAFE DRIVER ACTIONS  NOT ACTIVE  NUMBER OF RECORDED EVENTS IN THIS ACCIDENT  MAXIMUM TREATMENT  MAXIMUM KNOWN AIS  NUMBER OF SERIOUSLY INJURED OCCUPANTS	64 PSU STRATA 65
23  24  25  27 28  30  31 32  33	PEDESTRIAN STUDY  IMPACT FIRE  UNSAFE DRIVER ACTIONS  NOT ACTIVE  NUMBER OF RECORDED EVENTS IN THIS ACCIDENT  MAXIMUM TREATMENT  MAXIMUM KNOWN AIS  NUMBER OF SERIOUSLY INJURED OCCUPANTS	64 PSU STRATA 65
23  24  25  27 28  30  31 32  33 34 	PEDESTRIAN STUDY  IMPACT FIRE  UNSAFE DRIVER ACTIONS  NOT ACTIVE  NUMBER OF RECORDED EVENTS IN THIS ACCIDENT  MAXIMUM TREATMENT  MAXIMUM KNOWN AIS  NUMBER OF SERIOUSLY INJURED OCCUPANTS	64 PSU STRATA 65
23  24  25  27 28  30  31 32  33 34 	PEDESTRIAN STUDY  IMPACT FIRE  UNSAFE DRIVER ACTIONS  NOT ACTIVE  NUMBER OF RECORDED EVENTS IN THIS ACCIDENT  MAXIMUM TREATMENT  MAXIMUM KNOWN AIS  NUMBER OF SERIOUSLY INJURED OCCUPANTS  NUMBER OF INJURED OCCUPANTS	64 PSU STRATA 65
23 24 25 27 28 30 31 32 33 34 35	PEDESTRIAN STUDY  IMPACT FIRE  UNSAFE DRIVER ACTIONS  NOT ACTIVE  NUMBER OF RECORDED EVENTS IN THIS ACCIDENT  MAXIMUM TREATMENT  MAXIMUM KNOWN AIS  NUMBER OF SERIOUSLY INJURED OCCUPANTS  NUMBER OF INJURED OCCUPANTS	64 PSU STRATA 65
23  24  25  27 28  30  31 32  33 34  35	PEDESTRIAN STUDY  IMPACT FIRE  UNSAFE DRIVER ACTIONS  NOT ACTIVE  NUMBER OF RECORDED EVENTS IN THIS ACCIDENT  MAXIMUM TREATMENT  MAXIMUM KNOWN AIS  NUMBER OF SERIOUSLY INJURED OCCUPANTS  NUMBER OF INJURED OCCUPANTS	64 PSU STRATA 65

#### ACCIDENT EVENT RECORD

1 2	PSU NUMBER
3 4 5 6	CASE NUMBER
7 8	RECORD NUMBER (12)
9	VERSION NUMBER
_	ACCIDENT EVENT SEQUENCE NUMBER
12 13	VEHICLE NUMBER (1)
14 15	CLASS OF VEHICLE (1)
16	GENERAL AREA OF DAMAGE (1)
	VEHICLE NUMBER (2) OR OBJECT CONTACTED
19 20	CLASS OF VEHICLE (2)
21	GENERAL AREA OF DAMAGE (2)

#### GENERAL VEHICLE FORM

1	PSU NUMBER	56 DRIVER'S RACE
2		57 RELATION TO INTERCHANGE
3 4	CASE NUMBER	58 TRAFFICWAY FLOW
5 6		59 NUMBER OF TRAVEL LANES
	RECORD NUMBER (21)	60 ROADWAY ALIGNMENT
8		61 ROADWAY PROFILE
	VERSION NUMBER	62 ROADWAY SURFACE TYPE
11	VEHICLE NUMBER	63 ROADWAY SURFACE CONDITION
12	VEHI CLE MODEL YEAR	64 LIGHT CONDITIONS
	WEHL CLE MAVE	65 ATMOSPHERIC CONDITIONS
14 15	VEHI CLE MAKE	66 TRAFFIC CONTROL DEVICE
16		67 TRAF. CONTROL FUNCTIONING
18	VEHI CLE MODEL	68 DRIVER'S DISTRACTION/ 69 INATTENTION TO DRIVING
20	BODY TYPE	70 PRE-EVENT MOVEMENT 71
21 22 23 24		72 CRITICAL PRECRASH EVENT 73
25 26 27	VEHICLE IDENTIFICATION NUMBER	74 ATTEMPTED 75 AVOIDANCE MANEUVER
28 29		76 PRE-IMPACT STABILITY
30		77 PRE-IMPACT LOCATION
31 32		78 ACCIDENT TYPE 79
33 34 35 36		80 VIN CHECK
37		
	VEHICLE SPECIAL USE	
39	VEHICLE DISPOSITION	
40 41 42	TRAVEL SPEED	
44 45	SPEED LIMIT	
	ALCOHOL PRESENCE	
48	ALCOHOL TEST RESULT	
	DRUG PRESENCE	
	OTHER DRUG SPECIMEN TEST	
51 52 53 54 55	DRIVER'S ZIP CODE	

## GENERAL VEHICLE FORM (CONTINUED)

1 2	PSU NUMBER	47	BASIS FOR TOTAL DELTA V
3 4 5 6	CASE NUMBER	48 49 50	TOTAL DELTA V
8	RECORD NUMBER (22)	51 52 53 54	LONGITUDINAL COMPONENT OF DELTA V
10 11	VERSION NUMBER VEHICLE NUMBER	55 56 57	LATERAL COMPONENT OF
12  13	DRIVER PRESENCE NUMBER OF OCCUPANTS	58  59 60	ENERGY ABSORPTION
15	THIS VEHICLE  NUMBER OF OCCUPANT FORMS SUBMITTED		IMPACT SPEED
17 	AOPS VEHICLE	64 65	
	BAG DEPLOYMENT-1ST SEAT FR		CONFIDENCE IN RECONS. PGM
20	BAG DEPLOYMENT-OTHER VEHICLE CURB WEIGHT	67 68 69	BARRIER EQUIVALENT SPEED
21 22		70	ESTI MATED HIGHEST DELTA V
23 24	VEHICLE CARGO WEIGHT		TYPE OF VEHICLE INSPECTION
25		72	MAXI MUM TREATMENT
26 27	ROLLOVER	73	MAXIMUM KNOWN AIS
	ROLLOVER INITIATION TYPE	75 	NUMBER OF SERIOUSLY INJURED IN THIS VEHICLE
30	LOCATION OF ROLLOVER INIT.	77	NUMBER OF INJURED IN THIS VEHICLE
31	ROLLOVER OBJECT CONTACTED	78	FRONT/REAR WHEEL DRIVE
33	LOCATION OF TRIPPING FORCE	80	VIN LENGTH
34	DIRECTION OF INITIAL ROLL	81	WEIGHT OF THE
35	FRONT OVERRIDE/UNDERRIDE	83	OTHER VEHICLE
36	REAR OVERRI DE/UNDERRI DE	84	BODY TYPE OF
37 38 39	HEADING ANGLE FOR THIS VEHICLE		THE OTHER VEHICLE
40 41 42	HEADING ANGLE FOR OTHER VEHICLE		
43	TOWED TRAILING UNIT		
	DOC. OF TRAJECTORY DATA		
45	CONDITION OF TREE OR POLE		

## GENERAL VEHICLE FORM (CONTINUED)

2	PSU NUMBER
3 4 5 6	CASE NUMBER
7 8	RECORD NUMBER (23)
	VERSION NUMBER
10 11	VEHI CLE NUMBER
15 16	VINA MAKE
18 19	VI NA MODEL (PASS. VEH.)
21 22	VINA SERIES (TRUCKS)
24	VINA BODY TYPE
	VINA ROOF TYPE
26	VINA ROOF TYPE (OPTIONAL 1)
	VINA ROOF TYPE (OPTIONAL 2)
28	VINA ANTI-LOCK BRAKES
	VINA FRONT WHEEL DRIVE
30	VINA FOUR WHEEL DRIVE
31	VINA RESTRAINT TYPE
32	VINA CARBURETION (PASS VEH)
	VINA FUEL CODE
34	
35	VI NA VEHI CLE TYPE
36 37	VINA WHEELS/DRIVING WHEELS (TRUCKS)
	VINA DAYLIGHT RUN LIGHTS
39 40 41 42	VINA BASE SHIPPING WEIGHT (PASS VEH & M/C)
44 45 46	VINA MOTORCYCLE CC'S ENGINE DISPLACEMENT
47 48	VINA MODEL YEAR

#### **EXTERIOR VEHICLE FORM**

CASE NUMBER   S1   CRASH DAMAGE DATA FOR   102   CRASH DAMAGE DATA FOR   103   CRASH DAMAGE DATA FOR   104   CRASH DAMAGE DATA FOR   104   CRASH DAMAGE DATA FOR   105   CRASH DAMAGE DATA FOR   105   CRASH DAMAGE DATA FOR   106   CRASH DAMAGE DATA FOR   107   CRASH DAMAGE DATA   CRASH DAMAGE DATA FOR   CRASH DAMAG	FIRE OCCURRENCE  DRIGIN OF FIRE  FILLER CAP TANK-1  FILLER CAP TANK-2  TYPE OF TANK-1  LOCATION TANK-1  LOCATION TANK-2  DAMAGE TANK-1  DAMAGE TANK-1  LEAKAGE TANK-1
4 CASE NUMBER 51 CRASH DAMAGE DATA FOR 52 HI GHEST DELTA "V" - C5	ORIGIN OF FIRE FILLER CAP TANK-1 FILLER CAP TANK-2  TYPE OF TANK-1  TYPE OF TANK-2  LOCATION TANK-1  DAMAGE TANK-1  DAMAGE TANK-2  LEAKAGE TANK-1
6       53       103         7       RECORD NUMBER (31)       54       CRASH DAMAGE DATA FOR       104         8       55       HI GHEST DELTA "V" - C6	FILLER CAP TANK-1 FILLER CAP TANK-2 FYPE OF TANK-1 FYPE OF TANK-2 LOCATION TANK-1 LOCATION TANK-2 DAMAGE TANK-1 LEAKAGE TANK-1 LEAKAGE TANK-1
7 RECORD NUMBER (31)       54 CRASH DAMAGE DATA FOR       104 1         8       55 HI GHEST DELTA "V" - C6	FILLER CAP TANK-2  FYPE OF TANK-1  FYPE OF TANK-2  LOCATION TANK-1  LOCATION TANK-2  DAMAGE TANK-1  DAMAGE TANK-1  LEAKAGE TANK-1
Section Number   Sect	TYPE OF TANK-1  TYPE OF TANK-2  LOCATION TANK-1  LOCATION TANK-2  DAMAGE TANK-1  DAMAGE TANK-2  LEAKAGE TANK-1
57 CRASH DAMAGE DATA FOR   106   10 VEHI CLE NUMBER   58 HI GHEST DELTA "V" - D	TYPE OF TANK-2  LOCATION TANK-1  LOCATION TANK-2  DAMAGE TANK-1  DAMAGE TANK-2  LEAKAGE TANK-1
11	LOCATION TANK-1 LOCATION TANK-2 DAMAGE TANK-1 DAMAGE TANK-2 LEAKAGE TANK-1 LEAKAGE TANK-2
12 ACCI DENT SEQUENCE - 1       108 1         13 61 CRASH DAMAGE DATA	LOCATION TANK-2 DAMAGE TANK-1 DAMAGE TANK-2 LEAKAGE TANK-1 LEAKAGE TANK-2
62 FOR 2ND HI GHEST  14 OBJECT  15 CONTACTED - 1	DAMAGE TANK-1 DAMAGE TANK-2 LEAKAGE TANK-1 LEAKAGE TANK-2
15 CONTACTED - 1	DAMAGE TANK-2 LEAKAGE TANK-1 LEAKAGE TANK-2
16 DI RECTION       65 2ND HI GHEST DELTA "V" - C1       111 1         17 OF FORCE - 1       66          18 DEFORMATION LOCATION - 1       67 CRASH DAMAGE DATA FOR          68 2ND HI GHEST DELTA "V" - C2       113 1	LEAKAGE TANK-1 LEAKAGE TANK-2
112 18 DEFORMATION LOCATION - 1 67 CRASH DAMAGE DATA FOR	LEAKAGE TANK-2
68 2ND HIGHEST DELTA "V" - C2 113	
10 LONG /LATERAL LOCATION 1 CO 111	FUEL TYPE TANK-1
19 LONG. /LATERAL LOCATION - 1 69 114	
20 VERT. /LATERAL LOCATION - 1	FUEL TYPE TANK-2
21 TYPE OF DAMAGE DIST 1 72 117	MORE THAN TWO TANKS
24 ACCI DENT SEQUENCE - 2 76 CRASH DAMAGE DATA FOR	
77 2ND HIGHEST DELTA "V" - C5 26 OBJECT 78	
27 CONTACTED - 2	
28 DIRECTION 80 2ND HIGHEST DELTA "V" - C6 29 OF FORCE - 2 81	
30 DEFORMATION LOCATION - 2 82 CRASH DAMAGE DATA	
31 LONG. /LATERAL LOCATION - 2 84 DELTA "V" - D	
32 VERT. /LATERAL LOCATION - 2	
33 TYPE OF DAMAGE DIST 2 87	
34 DEFORMATION	
35 EXTENT - 2 89 DI RECT DAMAGE WIDTH 90	
36 CRASH DAMAGE DATA FOR 91 37 HIGHEST DELTA "V" - L	
38 92 ORIGINAL WHEELBASE 93	
39 CRASH DAMAGE DATA FOR 94 40 HIGHEST DELTA "V" - C1	
41 95 ORI GI NAL AVERAGE 96 TRACK WI DTH	
42 CRASH DAMAGE DATA FOR 97 43 HIGHEST DELTA "V" - C2	
98 CDCS DOCUMENTED-NOT CODED	
45 CRASH DAMAGE DATA FOR 99 VEHICLE DISPOSITION (RES.) 46 HIGHEST DELTA "V" - C3 47	

#### INTERIOR VEHICLE FORM

1 2	PSU NUMBER
3	
<b>4</b> 5	CASE NUMBER
6	
7 8	RECORD NUMBER (41)
9	VERSION NUMBER
10 11	VEHI CLE NUMBER
12 13	
14	DOOR/GATE/HATCH OPENING-LF
	DOOR/GATE/HATCH OPENING-RF
16	DOOR/GATE/HATCH OPENING-LR
17	DOOR/GATE/HATCH OPENING-RR
18	DOOR/GATE/HATCH OPENING-TG
19	DOOR/GATE/HATCH DAMAGE-LF
	DOOR/GATE/HATCH DAMAGE-RF
21	DOOR/GATE/HATCH DAMAGE-LR
22	DOOR/GATE/HATCH DAMAGE-RR
23	DOOR/GATE/HATCH DAMAGE-TG
24	TYPE OF GLAZING-WS
25	TYPE OF GLAZING-LF
26	TYPE OF GLAZING-RF
27	TYPE OF GLAZING-LR
	TYPE OF GLAZING-RR
	TYPE OF GLAZING-BL
30	TYPE OF GLAZING-RO
31	TYPE OF GLAZING-OT
32	PRECRASH GLAZING STATUS-WS
	PRECRASH GLAZING STATUS-LF
34	PRECRASH GLAZING STATUS-RF
35	PRECRASH GLAZING STATUS-LR
36	PRECRASH GLAZING STATUS-RR
	PRECRASH GLAZING STATUS-BL
	PRECRASH GLAZING STATUS-RO
	PRECRASH GLAZING STATUS-OT

40	GLAZING DAMAGE-IMPACT-WS
41	GLAZING DAMAGE-IMPACT-LF
42	GLAZING DAMAGE-IMPACT-RF
43	GLAZING DAMAGE-IMPACT-LR
44	GLAZING DAMAGE-IMPACT-RR
45	GLAZING DAMAGE-IMPACT-BL
46	GLAZING DAMAGE-IMPACT-RO
47	GLAZING DAMAGE-IMPACT-OT
48	GLAZING DAMAGE-CONTACT-WS
49	GLAZING DAMAGE-CONTACT-LF
50	GLAZING DAMAGE-CONTACT-RF
51	GLAZING DAMAGE-CONTACT-LR
52	GLAZING DAMAGE-CONTACT-RR
53	GLAZING DAMAGE-CONTACT-BL
54	GLAZING DAMAGE-CONTACT-RO
55	GLAZING DAMAGE-CONTACT-OT

## INTERIOR VEHICLE FORM (CONTINUED)

1	PSU NUMBER		MAGNITUDE OF INTRUSION-6TH
2		47	CRUSH DIRECTION-6TH
3 4 5 6	CASE NUMBER	48 49	LOCATION OF INTRUSION-7TH
7 8	RECORD NUMBER (42)	50 51	INTRUDING COMPONENT-7TH
	VERSION NUMBER	52	MAGNITUDE OF INTRUSION-7TH
10	VEHICLE NUMBER	53	CRUSH DIRECTION-7TH
11	VEHI CEE NUMBER	54 55	LOCATION OF INTRUSION-8TH
12 13	LOCATION OF INTRUSION-1ST	56 57	INTRUDING COMPONENT-8TH
14 15	INTRUDING COMPONENT-1ST	58	MAGNITUDE OF INTRUSION-8TH
16	MAGNITUDE OF INTRUSION-1ST	59	CRUSH DIRECTION-8TH
17	CRUSH DIRECTION-1ST	60 61	LOCATION OF INTRUSION-9TH
18 19	LOCATION OF INTRUSION-2ND	62 63	INTRUDING COMPONENT-9TH
20 21	INTRUDING COMPONENT-2ND	64	MAGNITUDE OF INTRUSION-9TH
22	MAGNITUDE OF INTRUSION-2ND	65	CRUSH DIRECTION-9TH
23	CRUSH DIRECTION- 2ND	66	LOCATION OF INTRUSION-10TH
24 25	LOCATION OF INTRUSION-3RD	67 68 69	INTRUDING COMPONENT-10TH
26 27	INTRUDING COMPONENT-3RD	70	MAGNITUDE OF INTRUSION-10TH
28	MAGNITUDE OF INTRUSION-3RD		CRUSH DIRECTION-10TH
29	CRUSH DIRECTION-3RD	72	STEERING COLUMN TYPE
30 31	LOCATION OF INTRUSION-4TH	73 74	
32 33	INTRUDING COMPONENT-4TH	75 76	
	MAGNITUDE OF INTRUSION-4TH	77	
	CRUSH DIRECTION-4TH	78 79 80	
36 37	LOCATION OF INTRUSION-5TH	81	
38 39	INTRUDING COMPONENT-5TH	82 83	
40	MAGNITUDE OF INTRUSION-5TH	84	TILT STEERING COLUMN ADJ.
41	CRUSH DI RECTI ON-5TH	85	TELESCOPING STEER COL ADJ.
42 43	LOCATION OF INTRUSION-6TH	86 87	STEERING RIM/SPOKE DEFORMATION
44 45	INTRUDING COMPONENT-6TH	88 89	LOCATION OF STEERING RIM/SPOKE DEFORMATION
		90 91 92	ODOMETER READING

93	INSTRUMENT PANEL DAMAGE
94	TYPE KNEE BOLSTER COVERING
95	KNEE BOLSTERS DEFORMED
96	GLOVE COMPARTMENT DR OPEN
97	ADAPTI VE DRI VI NG EQUI PMENT

#### OCCUPANT ASSESSMENT FORM

	PSU NUMBER		AIR BAG AVAILABILITY-FRONT	91	INJURY SEVERITY
			AIR BAG DEPLOYMENT-FRONTAL		TREATMENT - MORTALITY
3 4	CASE NUMBER	48	AIR BAG AVAILABILITY-OTHER		TYPE OF MEDICAL FACILITY
5 6		<b>49</b>	AIR BAG DEPLOYMENT-OTHER	94 95	HOSPITAL STAY
7 8	RECORD NUMBER (51)		DID AIR BAG FAIL?		WORKING DAYS LOST
	VERSION NUMBER		VEHICLE IN PREVIOUS ACC. ?	97	
	VEHI CLE NUMBER		TYPE OF AIR BAG	98 99	TIME TO DEATH
11			PRIOR MAINTENANCE ON BAG?	100	1ST MEDICALLY REPORTED
13	OCCUPANT NUMBER	<b>55</b>	AIR BAG DEPLOYMENT ACCIDENT EVENT SEQUENCE NO.		CAUSE OF DEATH
	OCCUPANT' S AGE	<b>56</b>	CDC FOR AIR BAG DEPLOYMENT	103	2ND MEDICALLY REPORTED CAUSE OF DEATH
16	OCCUPANT' S SEX	<b>58</b>	LONGITUDINAL COMPONENT OF DELTA "V" FOR AIR BAG	104 105	3RD MEDICALLY REPORTED CAUSE OF DEATH
17	OCCUPANT' S HEIGHT	60	DEPLOYMENT IMPACT	106	# OF RECORDED INJURIES
18 19		61	DID AIR BAG FLAPS OPEN?		FOR THIS OCCUPANT
	OCCUPANT' S WEIGHT	62	WERE AIR BAG FLAPS DAMAGED?	109	GLASGOW SCORE
21 22		63	WAS THERE DAMAGE TO	110	BLOOD GIVEN
	OCCUPANT' S ROLE		THE AIR BAG?		ABG BI CARBONATE
	OCCUPANT' S SEAT POSITION	66	SOURCE OF AIR BAG DAMAGE		BELT USE DETERMINATION
	OCCUPANT' S POSTURE	67	WAS THE AIR BAG TETHERED?		MAXIMUM KNOWN AIS
	EJECTI ON	68	DID AIRBAG HAVE VENT PORTS?		INJURY SEVERITY SCORE
	EJECTION AREA	69	AIR BAG CONTACT BY OTH OCC?	116	INJUNI SEVENIII SCORE
	EJECTION MEDIUM	70	WAS OCC. WEARING EYE-WEAR?		
	MEDI UM STATUS	71	HEAD REST. TYPE/DAMAGE		
	ENTRAPMENT	72 73	SEAT TYPE		
	OCCUPANT MOBILITY		SEAT ORIENTATION		
33	MANUAL BELT AVAILITY	75	SEAT TRACK POSITION-PRIOR		
35	MANUAL BELT USE	77	SEAT BACK INCLINE PRIOR AND POST IMPACT		
	PROPER USE OF MANUAL BELT	<b>78</b>	SEAT PERFORMANCE		
	MANUAL BELT FAILURE	79	CHILD SAFETY SEAT MAKE/MODEL		
38	SHOULDER BELT ANCHORAGE ADJ		NARE/ NUDEL		
39	AUTOMATIC BELT AVAILABILITY	82	TYPE OF CHILD SEAT		
40	AUTOMATIC BELT USE	83	CHILD SAFETY SEAT ORIENTATION		
	AUTOMATIC BELT TYPE		CHILD SAFETY SEAT		
	PROPER USE - AUTOMATIC BELT	86	HARNESS USAGE		
	AUTOMATIC BELT FAILURE MODE	88	CHILD SAFETY SEAT SHIELD USAGE		
	POLICE REPORTED ALB DAG USE	89	CHILD SAFETY SEAT		
	POLICE REPORTED AIR BAG USE	90	TETHER USAGE		

#### **OCCUPANT INJURY FORM**

1 2	PSU NUMBER
3 4 5 6	CASE NUMBER
7	RECORD NUMBER (61)
9	VERSION NUMBER
10 11	VEHI CLE NUMBER
15	
	SOURCE OF INJURY DATA
	BODY REGION - AIS90
18	
20	SPECIFIC ANATOMIC STRUCTURE
22	
23	AIS SEVERITY
	ASPECT - AI S90
25 26 27	
	CONFIDENCE LEVEL
29	DIRECT/INDIRECT INJURY
31	
	BODY REGION - AIS85
	LESI ON - AI S85
	SYSTEM ORGAN - AIS85

#### TYPE ACCIDENT FORM

1 2	PSU NUMBER
3 4 5 6	CASE NUMBER
7 8	RECORD NUMBER (66)
9	VERSI ON
10 11	LINE NUMBER
12	TEXT66

#### ACCIDENT DESCRIPTION FORM

2	PSU NUMBER
3 1 5	CASE NUMBER
7	RECORD NUMBER (71)
9	VERSION NUMBER
10 11	LINE NUMBER
12	
	TEXT71
91	
7 3 3  10 11	RECORD NUMBER (71) VERSION NUMBER LINE NUMBER

#### **VEHICLE PROFILE FORM**

1 2	PSU NUMBER
3 4 5 6	CASE NUMBER
7 8	RECORD NUMBER (81)
9	VERSION NUMBER
10 11	LINE NUMBER
12	
•	TEXT81
91	

#### PERSON PROFILE FORM

1 2	PSU NUMBER
3 4 5 6	CASE NUMBER
7 8	RECORD NUMBER (91)
9	VERSION NUMBER
10 11	LINE NUMBER
12	
	TEXT91
	TEXT91
<b>9</b> 1	
:	

#### SECTION 6 SAS FILE

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

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

#### SAS Date Base Contents

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

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

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

The remainder of this Section presents the SAS layout for the current year NASS Analysis file. In general, the order of variables in the SAS data sets follows the order of data fields on the master file (and thus the order of

items on the data collection forms used by NASS investigation teams). The user can invoke PROC CONTENTS to produce the following list of SAS variables:

#### The SAS System

#### CONTENTS PROCEDURE

----- Di rectory-----

Libref: NASS95 Engine: V610

Physical Name: Mt \NASSDB\NASS95

#	Name	Memtype	Indexes
1	ACCIDENT	DATA	
2	ACC DESC	DATA	
3	EVENT	DATA	
4	GV	DATA	
5	0A	DATA	
6	0I	DATA	
7	PERS_PRO	DATA	
8	TYP_ACC	DATA	
9	VE	DATA	
10	VEH_PRO	DATA	
11	VI	DATA	

### The SAS System CONTENTS PROCEDURE

Data Set Name:NASS95. ACCIDENTObservations:4552Member Type:DATAVariables:24Engine:V610Indexes:0Created:9: 07 Friday, October 11, 1996Observation Length:76

-----Alphabetic List of Variables and Attributes-----

#	Vari abl e	Type	Len	Pos	Label
 1	AAIS	Num	3	0	MAXIMUM KNOWN AIS IN ACCIDENT
24	ADMI NSS	Num	3	73	ADMINISTRATIVE USE
2	<b>AI NJSER</b>	Num	3	3	NUMBER OF SERIOUSLY INJURED OCCUPANTS
3	AI NJURED	Num	3	6	TOTAL NUMBER OF INJURED OCCUPANTS
4	ALCI NV	Num	3	9	ALCOHOL INVOLVED IN ACCIDENT
5	ATREAT	Num	3	12	MAXIMUM TREATMENT IN ACCIDENT
6	CASEI D	Char	4	15	CASE NUMBER - STRATUM
7	<b>CASENO</b>	Num	3	19	CASE SEQUENCE NUMBER
8	DAYWEEK	Num	3	22	DAY OF WEEK OF ACCIDENT
9	DRGI NV	Num	3	25	DRUG I NVOLVED
10	DRVRACT	Num	3	28	UNSAFE DRIVER ACTIONS
11	<b>EVENTS</b>	Num	3	31	NUMBER OF RECORDED EVENTS IN ACCIDENT
12	FI RESTDY	Num	3	34	IMPACT FIRES
13	MANCOLL	Num	3	37	MANNER OF COLLISION
14	MONTH	Num	3	40	MONTH OF ACCIDENT
15	PEDSTUDY	Num	3	43	PEDESTRI AN CRASH DATA STUDY
16	PSU	Num	3	46	PRIMARY SAMPLING UNIT NUMBER
17	PSUSTRAT	Num	3	49	PRIMARY SAMPLING UNIT STRATIFICATION
18	RATWGT	Num	6	52	RATIO INFLATION FACTOR
19	STRATIF	Char	1	58	CASE STRATUM
20	TI ME	Num	4	59	TIME OF ACCIDENT
21	VEHFORMS	Num	3	63	NUMBER GENERAL VEHICLE FORMS SUBMITTED
22	VERSI ON	Num	4	66	VERSION NUMBER
23	YEAR	Num	3	70	YEAR OF ACCIDENT

-----Variables Ordered by Position-----

#	Vari abl e	Type	Len	Pos	Label
1	AAIS		3	0	MAXIMUM KNOWN AIS IN ACCIDENT
2	AI NJSER	Num	3	3	NUMBER OF SERIOUSLY INJURED OCCUPANTS
3	AI NJURED	Num	3	6	TOTAL NUMBER OF INJURED OCCUPANTS
4	ALCI NV	Num	3	9	ALCOHOL INVOLVED IN ACCIDENT
5	ATREAT	Num	3	12	MAXIMUM TREATMENT IN ACCIDENT
6	CASEI D	Char	4	15	CASE NUMBER - STRATUM
7	CASENO	Num	3	19	CASE SEQUENCE NUMBER
8	DAYWEEK	Num	3	22	DAY OF WEEK OF ACCIDENT
9	DRGI NV	Num	3	25	DRUG I NVOLVED
10	DRVRACT	Num	3	28	UNSAFE DRIVER ACTIONS
11	<b>EVENTS</b>	Num	3	31	NUMBER OF RECORDED EVENTS IN ACCIDENT
12	FI RESTDY	Num	3	34	IMPACT FIRES
13	MANCOLL	Num	3	37	MANNER OF COLLISION
14	MONTH	Num	3	40	MONTH OF ACCIDENT
15	PEDSTUDY	Num	3	43	PEDESTRI AN CRASH DATA STUDY
16	PSU	Num	3	46	PRIMARY SAMPLING UNIT NUMBER
17	PSUSTRAT	Num	3	49	PRIMARY SAMPLING UNIT STRATIFICATION
18	RATWGT	Num	6	52	RATIO INFLATION FACTOR
19	STRATIF	Char	1	58	CASE STRATUM
20	TI ME	Num	4	<b>59</b>	TIME OF ACCIDENT
21	VEHFORMS	Num	3	63	NUMBER GENERAL VEHICLE FORMS SUBMITTED
22	VERSI ON	Num	4	66	VERSION NUMBER
23	YEAR	Num	3	70	YEAR OF ACCIDENT
24	ADMI NSS	Num	3	73	ADMINI STRATI VE USE

----Sort Information----

Sortedby: PSU CASENO

Validated: YES Character Set: ANSI

#### The SAS System

#### CONTENTS PROCEDURE

Data Set Name:NASS95.ACC\_DESCObservations:30931Member Type:DATAVariables:7Engine:V610Indexes:0Created:9:05 Friday, October 11, 1996Observation Length:97

-----Alphabetic List of Variables and Attributes-----

#	Vari abl e	Type	Len	Pos	Label
6	CASEI D	Char	4	90	CASE NUMBER - STRATUM
3	<b>CASENO</b>	Num	3	83	CASE SEQUENCE NUMBER
5	LINENO	Num	3	87	LINE NUMBER
2	PSU	Num	3	80	PRIMARY SAMPLING UNIT NUMBER
4	STRATI F	Char	1	86	CASE STRATUM
1	TEXT	Char	80	0	SUMMARY TEXT
7	VERSI ON	Num	3	94	VERSION NUMBER

-----Variables Ordered by Position-----

#	Vari abl e	Type	Len	Pos	Label
1	TEXT	Char	80	0	SUMMARY TEXT
2	PSU	Num	3	80	PRIMARY SAMPLING UNIT NUMBER
3	<b>CASENO</b>	Num	3	83	CASE SEQUENCE NUMBER
4	STRATI F	Char	1	86	CASE STRATUM
5	LI NENO	Num	3	87	LINE NUMBER
6	CASEI D	Char	4	90	CASE NUMBER - STRATUM
7	VERSI ON	Num	3	94	VERSION NUMBER

----Sort Information----

Sortedby: PSU CASENO LINENO

Validated: YES Character Set: ANSI

#### The SAS System

#### CONTENTS PROCEDURE

Data Set Name:NASS95. EVENTObservations:8546Member Type:DATAVariables:13Engine:V610Indexes:0Created:9: 07 Friday, October 11, 1996Observation Length:38

-----Alphabetic List of Variables and Attributes-----

#	Vari abl e	Type	Len	Pos	Label
1	ACCSEQ	Num	3	0	ACCIDENT EVENT SEQUENCE NUMBER
2	CASEI D	Char	4	3	CASE NUMBER - STRATUM
3	<b>CASENO</b>	Num	3	7	CASE SEQUENCE NUMBER
5	CLASS1	Num	3	13	CLASS OF FIRST VEHICLE
4	CLASS2	Num	3	10	CLASS OF OTHER VEHICLE
6	GADEV1	Char	1	16	GENERAL AREA OF DAMAGE FIRST VEHICLE
7	GADEV2	Char	1	17	GENERAL AREA OF DAMAGE OTHER VEHICLE
8	OBJCONT	Num	3	18	OTHER VEHICLE NUMBER OR OBJECT CONTACTED
10	PSU	Num	3	27	PRIMARY SAMPLING UNIT NUMBER
9	RATWGT	Num	6	21	RATIO INFLATION FACTOR
11	STRATI F	Char	1	30	CASE STRATUM
12	VEHNUM	Num	3	31	VEHICLE NUMBER
13	VERSI ON	Num	4	34	VERSION NUMBER

-----Variables Ordered by Position-----

#	Vari abl e	Type	Len	Pos	Label
1	ACCSEQ	Num	3	0	ACCIDENT EVENT SEQUENCE NUMBER
2	CASEI D	Char	4	3	CASE NUMBER - STRATUM
3	<b>CASENO</b>	Num	3	7	CASE SEQUENCE NUMBER
4	CLASS2	Num	3	10	CLASS OF OTHER VEHICLE
5	CLASS1	Num	3	13	CLASS OF FIRST VEHICLE
6	GADEV1	Char	1	16	GENERAL AREA OF DAMAGE FIRST VEHICLE
7	GADEV2	Char	1	17	GENERAL AREA OF DAMAGE OTHER VEHICLE
8	OBJCONT	Num	3	18	OTHER VEHICLE NUMBER OR OBJECT CONTACTED
9	RATWGT	Num	6	21	RATIO INFLATION FACTOR
10	PSU	Num	3	27	PRIMARY SAMPLING UNIT NUMBER
11	STRATI F	Char	1	30	CASE STRATUM
12	VEHNUM	Num	3	31	VEHI CLE NUMBER
13	<b>VERSION</b>	Num	4	34	VERSION NUMBER

----Sort Information----

Sortedby: PSU CASENO ACCSEQ

Validated: YES Character Set: ANSI

## The SAS System

## CONTENTS PROCEDURE

Data Set Name:NASS95. GVObservations:7971Member Type:DATAVariables:100Engine:V610Indexes:0Created:9: 07 Friday, October 11, 1996Observation Length:302

-----Alphabetic List of Variables and Attributes-----

		Ai pilai	CCIC LI	3C 01 V	arrables and Accribates
#	Vari abl e	Type	Len	Pos	Label
1	ACCTYPE	Num	3	0	ACCIDENT TYPE
2	ALCTEST				
49	ALI GNMNT	Num	3 3	151	ROADWAY ALI GNMENT
4	ANGOTHER	Num	3	9	HEADING ANGLE FOR OTHER VEHICLE
3	ANGTHI S	Num	3	6	HEADING ANGLE FOR THIS VEHICLE
91	ANTI LOCK	Num	3	286	ANTI LOCK BRAKES
5	AOPSVEH	Num	3	12	AOPS VEHICLE
7	BAGDEPFV	Num	3	18	AIR BAG DEPLOYMENT, FIRST SEAT FRONTAL
8	BAGDEPOV	Num	3	21	AIR BAG DEPLOYMENT, OTHER
9	BAREQSP	Num	3	24	BARRIER EQUIVALENT SPEED
10	BODYTYPE	Num	3	27	VEHI CLE BODY TYPE
95	CARBUR	Char	1	292	CARBURETI ON
11	CARGOWGT	Num	3	30	VEHI CLE CARGO WEI GHT
12	CASEI D	Char	4	33	CASE NUMBER - STRATUM
13	CASENO	Num	3	37	CASE SEQUENCE NUMBER
14	CONDTREE	Num	3	40	POST COLLISION CONDITION OF TREE OR POLE
15	CURBWGT	Num	4	43	VEHI CLE CURB WEI GHT
100	DAYRUNLT	Char	1	301	DAYLIGHT RUNNING LIGHTS DOCUMENTATION OF TRAJECTORY DATA
17 19	DOCTRAJ DDI NKI NC	Num Num	3 3	50 56	DOCUMENTATION OF TRAJECTORY DATA POLICE REPORTED ALCOHOL PRESENCE
18	DRI NKI NG DRI VDI ST	Num	3	53	DRIVER'S DISTRACTION/INATTENTION TO DRIV
20	DRI VE	Num	3	59	FRONT/REAR WHEEL DRIVE
21	DRPRES	Num	3	62	DRIVER PRESENCE IN VEHICLE
22	DRRACE	Num	3	65	DRIVER'S RACE/ETHNIC ORIGIN
81	DRUGS	Num	3	253	REPORTED OTHER DRUG
23	DRZI P	Num	4	68	DRIVER'S ZIP CODE
24	DVBASIS	Num	3	72	BASIS FOR TOTAL DELTA V (HIGHEST)
25	DVCONFI D	Num	3	75	CONFIDENCE IN RECONSTRUCTION
16	DVEST	Num	3	47	ESTI MATED HI GHEST DELTA V
26	DVLAT	Num	3	78	LATERAL COMPONENT OF DELTA V
27	DVLONG	Num	3	81	LONGITUDINAL COMPONENT OF DELTA V
28	DVTOTAL	Num	3	84	TOTAL DELTA V
29	ENERGY	Num	4	87	ENERGY ABSORPTION
93	FOURWHDR	Char	1	290	FOUR WHEEL DRIVE
30	FOVERI DE	Num	3	91	FRONT OVERRIDE/UNDERRIDE THIS VEHICLE
92	FRTWHLDR	Char	1	289	FRONT WHEEL DRIVE
96	FUELCODE	Char	1	293	FUEL CODE
31	I MPACTSP	Num	3	94	IMPACT SPEED
32	I NSPTYPE	Num	3	97	TYPE OF VEHICLE INSPECTION
33	LANES	Num	3	100	NUMBER OF LANES
34	LGTCOND	Num	3	103	LIGHT CONDITIONS
35	MAKE	Num	3	106	VEHI CLE MAKE
36	MANEUVER	Num	3	109	ATTEMPTED AVOI DANCE MANEUVER
82	MCYCLDS	Num	4	256	MOTORCYCLE ENGINE DISPLACEMENT
37	MODEL	Num	3	112	VEHI CLE MODEL
38	MODELYR	Num	3	115	VEHICLE MODEL YEAR
40	OCCEORMS	Num	3	124	NUMBER OF OCCUPANT FORMS SUBMITTED
41	OCUPANTS OTRIVTVP	Num	3	127	NUMBER OF OCCUPANTS THIS VEHICLE
42 43	OTBDYTYP OTVEHWGT	Num Num	3 3	130 133	BODY TYPE OF THE OTHER VEHICLE WEIGHT OF THE OTHER VEHICLE
43 44	PREEVENT	Num	ა 3	136	INITIAL CRITICAL (PRECRASH) EVENT
44	PREILOC	Num	ა 3	130	PRE-IMPACT LOCATION
47	PREI STAB	Num	3	142	PRE-IMPACT EDUCATION PRE-IMPACT STABILITY
45	PREMOVE	Num	3	139	PRE-EVENT MOVEMENT PRIOR REC CRIT EVENT
40	PROFILE	Num	0	155	DOADHAY DOGLLE

157

51

PROFI LE

Num

3

ROADWAY PROFILE

48	PSU	Num	3	148	PRIMARY SAMPLING UNIT NUMBER
39	RATWGT	Num	6	118	RATIO INFLATION FACTOR
53	<b>RELI NTER</b>	Num	3	163	RELATION TO JUNCTION
94	RESTYPE	Char	1	291	RESTRAINT TYPE
<b>54</b>	ROLI NDI R	Num	3	166	DIRECTION OF INITIAL ROLL
55	ROLI NLOC	Num	3	169	LOCATION OF ROLLOVER
56	ROLI NTYP	Num	3	172	ROLLOVER INITIATION TYPE
57	ROLLOBJ	Num	3	175	ROLLOVER INITIATION OBJECT CONTACTED
58	ROLLOVER	Num	3	178	ROLLOVER
88	ROOF1	Num	3	277	ROOF
89	ROOF2	Num	3	280	OPTIONAL ROOF 1
90	ROOF3	Num	3	283	OPTI ONAL ROOF 2
59	ROVERI DE	Num	3	181	REAR OVERRIDE/UNDERRIDE THIS VEHICLE
86	SERTR	Char	3	272	VINA SERIES TRUCK
60	SPECOTH	Num	3	184	OTHER DRUG: SPECIMEN TEST RESULTS
61	SPLIMIT	Num	3	187	SPEED LIMIT
62	STRATI F	Char	1	190	CASE STRATUM
50	SURCOND	Num	3	154	ROADWAY SURFACE CONDITION
52	SURTYPE	Num	3	160	ROADWAY SURFACE TYPE
63	TOWHI TCH	Num	3	191	TOWED TRAILING UNIT
64	TOWPAR	Num	3	194	POLICE REPORTED VEHICLE DISPOSITION
65	TRAFCONT	Num	3	197	TRAFFIC CONTROL DEVICE
68	TRAFFLOW	Num	3	206	TRAFFI CWAY FLOW
67	TRAVELSP	Num	3	203	POLICE REPORTED TRAVEL SPEED
66	TRCTLFCT	Num	3	200	TRAFFIC CONTROL DEVICE FUNCTIONING
69	TRI PLOC	Num	3	209	LOC. ON VEH. WHERE INIT TRIP FORCE APPL
70	VAIS	Num	3	212	MAXIMUM KNOWN AIS IN THIS VEHICLE
71	VEHNO	Num	3	215	VEHI CLE NUMBER
98	VEHTYPE	Char	1	297	TYPE OF VEHICLE
72	VEHUSE	Num	3	218	VEHICLE SPECIAL USE
83	VEHWGT	Num	4	260	VIN VEHICLE WEIGHT - CAR
73	VERSI ON	Num	4	221	VERSION NUMBER
74	VIN	Char	10	225	VEHICLE IDENTIFICATION NUMBER
85	VI NAMOD	Char	3	269	VIN MODEL CARS
87	VINBT	Char	2	275	VIN BODY TYPE
75	VINJSER	Num	3	235	NUMBER SERIOUSLY INJURED IN THIS VEHICLE
76	VI NJURED	Num	3	238	NUMBER INJURED IN THIS VEHICLE
78	VI NLNGTH	Num	3	244	VIN LENGTH
84	VI NMAKE	Char	5	264	VIN MAKE
80	VI NMODYR	Num	3	250	VIN MODEL YR
77	VINO	Num	3	241	VI NO
79	VTREAT	Num	3	247	MAXIMUM TREATMENT IN THIS VEHICLE
6	WEATHER	Num	3	15	ATMOSPHERIC CONDITIONS
97	WGTCDTR	Num	3	294	TRUCK WEIGHT CODE
99	WHLDRWHL	Num	3	298	NUMBER WHEELS/NUMBER OF DRIVE WHEELS

# -----Variables Ordered by Position-----

#	Vari abl e	Type	Len	Pos	Label
1	ACCTYPE	Num	3	0	ACCI DENT TYPE
2	ALCTEST	Num	3	3	ALCOHOL TEST RESULT FOR DRIVER
3	ANGTHI S	Num	3	6	HEADING ANGLE FOR THIS VEHICLE
4	ANGOTHER	Num	3	9	HEADING ANGLE FOR OTHER VEHICLE
5	AOPSVEH	Num	3	12	AOPS VEHICLE
6	WEATHER	Num	3	15	ATMOSPHERIC CONDITIONS
7	BAGDEPFV	Num	3	18	AIR BAG DEPLOYMENT, FIRST SEAT FRONTAL
8	BAGDEPOV	Num	3	21	AIR BAG DEPLOYMENT, OTHER
9	BAREQSP	Num	3	24	BARRIER EQUIVALENT SPEED
10	BODYTYPE	Num	3	27	VEHICLE BODY TYPE
11	CARGOWGT	Num	3	30	VEHICLE CARGO WEIGHT
12	CASEI D	Char	4	33	CASE NUMBER - STRATUM
13	<b>CASENO</b>	Num	3	37	CASE SEQUENCE NUMBER
14	CONDTREE	Num	3	40	POST COLLISION CONDITION OF TREE OR POLE
15	CURBWGT	Num	4	43	VEHICLE CURB WEIGHT
16	DVEST	Num	3	47	ESTIMATED HIGHEST DELTA V
17	DOCTRAJ	Num	3	50	DOCUMENTATION OF TRAJECTORY DATA
18	DRI VDI ST	Num	3	53	DRIVER'S DISTRACTION/INATTENTION TO DRIV

19	DRI NKI NG	Num	3	<b>56</b>	POLICE REPORTED ALCOHOL PRESENCE
20	DRI VE	Num	3	59	FRONT/REAR WHEEL DRIVE
21	DRPRES	Num	3	62	DRIVER PRESENCE IN VEHICLE
22	DRRACE	Num	3	65	DRIVER'S RACE/ETHNIC ORIGIN
23	DRZI P	Num	4	68	DRIVER'S ZIP CODE
24	<b>DVBASIS</b>	Num	3	72	BASIS FOR TOTAL DELTA V (HIGHEST)
25	DVCONFI D	Num	3	75	CONFIDENCE IN RECONSTRUCTION
26	DVLAT	Num	3	78	LATERAL COMPONENT OF DELTA V
27	DVLONG	Num	3	81	LONGITUDINAL COMPONENT OF DELTA V
28	DVTOTAL	Num	3	84	TOTAL DELTA V
29	ENERGY	Num	4	87	ENERGY ABSORPTION
30	FOVERI DE	Num	3	91	FRONT OVERRIDE/UNDERRIDE THIS VEHICLE
31	I MPACTSP	Num	3	94	IMPACT SPEED
32	INSPTYPE	Num	3	97	TYPE OF VEHICLE INSPECTION
33	LANES	Num	3	100	NUMBER OF LANES
34	LGTCOND	Num	3	103	LIGHT CONDITIONS
35	MAKE	Num	3	106	VEHI CLE MAKE
36	MANEUVER	Num	3	109	ATTEMPTED AVOIDANCE MANEUVER
37	MODEL	Num	3	112	VEHICLE MODEL
38	MODELYR	Num	3	115	VEHICLE MODEL YEAR
39	RATWGT	Num	6	118	RATIO INFLATION FACTOR
40	OCCFORMS	Num	3	124	NUMBER OF OCCUPANT FORMS SUBMITTED
41	OCUPANTS	Num	3	127	NUMBER OF OCCUPANTS THIS VEHICLE
42	OTBDYTYP	Num	3	130	BODY TYPE OF THE OTHER VEHICLE
43	OTVEHWGT	Num	3	133	WEIGHT OF THE OTHER VEHICLE
44	<b>PREEVENT</b>	Num	3	136	INITIAL CRITICAL (PRECRASH) EVENT
45	PREMOVE	Num	3	139	PRE-EVENT MOVEMENT PRIOR REC CRIT EVENT
46	PREI LOC	Num	3	142	PRE-IMPACT LOCATION
47	PREI STAB	Num	3	145	PRE-IMPACT STABILITY
48	PSU	Num	3	148	PRIMARY SAMPLING UNIT NUMBER
			3		
49	ALI GNMNT	Num		151	ROADWAY ALIGNMENT
50	SURCOND	Num	3	154	ROADWAY SURFACE CONDITION
51	PROFI LE	Num	3	157	ROADWAY PROFILE
52	SURTYPE	Num	3	160	ROADWAY SURFACE TYPE
53	RELI NTER	Num	3	163	RELATION TO JUNCTION
<b>54</b>	ROLI NDI R	Num	3	166	DIRECTION OF INITIAL ROLL
55	ROLI NLOC	Num	3	169	LOCATION OF ROLLOVER
56	ROLI NTYP	Num	3	172	ROLLOVER INITIATION TYPE
57	ROLLOBJ	Num	3	175	ROLLOVER INITIATION OBJECT CONTACTED
58	ROLLOVER	Num	3	178	ROLLOVER
59	ROVERI DE	Num	3	181	REAR OVERRIDE/UNDERRIDE THIS VEHICLE
60	SPECOTH	Num	3	184	OTHER DRUG: SPECIMEN TEST RESULTS
61	SPLIMIT	Num	3	187	SPEED LIMIT
62	STRATI F	Char	1	190	CASE STRATUM
63	TOWHI TCH	Num	3	191	TOWED TRAILING UNIT
64	TOWPAR	Num	3	194	POLICE REPORTED VEHICLE DISPOSITION
65	TRAFCONT	Num	3	197	TRAFFIC CONTROL DEVICE
66	TRCTLFCT	Num	3	200	TRAFFIC CONTROL DEVICE FUNCTIONING
67	TRAVELSP	Num	3	203	POLICE REPORTED TRAVEL SPEED
68	TRAFFLOW	Num	3	206	TRAFFICWAY FLOW
69	TRI PLOC	Num	3	209	LOC. ON VEH. WHERE INIT TRIP FORCE APPL
70	VAIS	Num	3	212	MAXIMUM KNOWN AIS IN THIS VEHICLE
71	VEHNO	Num	3	215	VEHI CLE NUMBER
72	VEHUSE	Num	3	218	VEHICLE SPECIAL USE
73	VERSION	Num	4	221	VERSION NUMBER
74	VIN	Char	10	225	VEHICLE IDENTIFICATION NUMBER
75	VINJSER	Num	3	235	NUMBER SERIOUSLY INJURED IN THIS VEHICLE
76	VINJURED	Num	3	238	NUMBER INJURED IN THIS VEHICLE
77	VINO	Num	3	241	VINO
78	VI NLNGTH	Num	3	244	VIN LENGTH
79	VTREAT	Num	3	247	MAXIMUM TREATMENT IN THIS VEHICLE
80	VI NMODYR	Num	3	250	VIN MODEL YR
81	DRUGS	Num	3	253	REPORTED OTHER DRUG
82	MCYCLDS	Num	4	256	MOTORCYCLE ENGINE DISPLACEMENT
					VIN VEHICLE WEIGHT - CAR
83	VEHWGT	Num	4	260	
84	VINMAKE	Char	5	264	VIN MAKE
85	VINAMOD	Char	3	269	VIN MODEL CARS
86	SERTR	Char	3	272	VINA SERIES TRUCK
87	VI NBT	Char	2	275	VIN BODY TYPE

88	ROOF1	Num	3	277	ROOF
89	ROOF2	Num	3	280	OPTI ONAL ROOF 1
90	ROOF3	Num	3	283	OPTIONAL ROOF 2
91	ANTI LOCK	Num	3	286	ANTI LOCK BRAKES
92	FRTWHLDR	Char	1	289	FRONT WHEEL DRIVE
93	FOURWHDR	Char	1	290	FOUR WHEEL DRIVE
94	RESTYPE	Char	1	291	RESTRAINT TYPE
95	CARBUR	Char	1	292	CARBURETI ON
96	<b>FUELCODE</b>	Char	1	293	FUEL CODE
97	WGTCDTR	Num	3	294	TRUCK WEIGHT CODE
98	VEHTYPE	Char	1	297	TYPE OF VEHICLE
99	WHLDRWHL	Num	3	298	NUMBER WHEELS/NUMBER OF DRIVE WHEELS
100	DAYRUNLT	Char	1	301	DAYLIGHT RUNNING LIGHTS

----Sort Information----

PSU CASENO VEHNO

Sortedby: Validated: YES Character Set: ANSI

#### The SAS System

### CONTENTS PROCEDURE

Data Set Name: NASS95.0A Observations: 10507 Member Type: DATA Vari abl es: 80 Engi ne: V610 Indexes: 0 9:08 Friday, October 11, 1996 Created: Observation Length: 243 Last Modified: 9:08 Friday, October 11, 1996 Deleted Observations: 0 Protection: Compressed: NO Data Set Type: Sorted: YES Label:

-----Engine/Host Dependent Information----

Data Set Page Size:7680Number of Data Set Pages:341File Format:607First Data Page:2Max Obs per Page:31Obs in First Data Page:20

-----Alphabetic List of Variables and Attributes-----

#	Vari abl e	Туре	Len	Pos	Label
 1	ABELTAVL	Num	3	0	AUTOMATIC BELT SYSTEM AVAILABILITY/FUNC
2	ABELTUSE	Num	3	3	AUTOMATIC BELT (PASSIVE) SYSTEM USE
3	ABELTYPE	Num	3	6	AUTOMATIC (PASSIVE) BELT SYSTEM TYPE
4	ABLTFAI L	Num	3	9	AUTOMATIC (PASSIVE) BELT SYSTEM FAILURE
5	ABLTPROP	Num	3	12	PROPER USE OF AUTO (PASSIVE) BELT SYSTEM
6	AGE	Num	3	15	AGE OF OCCUPANT
7	BAGAVAI L	Num	3	18	AIR BAG SYSTEM AVAILABILITY
54	BAGAVOTH	Num	3	160	OTHER FRONTAL AIR BAG AVAILABILITY/FUNCT
8	BAGAVRPT	Num	3	21	POLICE REPORTED AIRBAG AVAILABILITY/FUNC
21	BAGCDC	Num	3	61	CDC FOR AIR BAG DEPLOYMENT IMPACT
28	BAGCONOT	Num	3	82	AIR BAG CONTACTED BY ANOTHER OCCUPANT
11	BAGDAMAG	Num	3	30	WAS THERE DAMAGE TO THE AIR BAG
67	BAGDAMS0	Num	3	202	SOURCE OF AIR BAG DAMAGE
9	BAGDEPLY	Num	3	24	AIR BAG SYSTEM DEPLOYED
55	BAGDEPOT	Num	3	163	OTHER AIR BAG SYSTEM DEPLOYMENT
10	BAGEVENT	Num	3	27	AIR BAG DEPLOYMENT ACCIDENT EVENT SEQUEN
12	BAGFAI L	Num	3	33	AIR BAG SYSTEM FAILURE
35	BAGFLDAM	Num	3	103	WERE AIR BAG MODULE COVER FLAPS DAMAGED
36	BAGFLOPN	Num	3	106	DID AIR BAG MODULE COVER FLAPS OPEN AT D
43	BAGMAI NT	Num	3	127	PRIOR MAINTENANCE/SERVICE ON AIR BAG
13	BAGTETHR	Num	3	36	WAS THE AIR BAG TETHERED
14	BAGTYPE	Num	3	39	TYPE OF AIR BAG
72	BAGVENTS	Num	3	215	DID THE AIR BAG HAVE VENT PORTS
15	BELTANCH	Num	3	42	SHOULDER BELT UPPER ANCHORAGE ADJUSTMENT
57	BELTS0U	Num	3	169	PRIMARY SOURCE OF BELT USE DETERMINATION
80	BI CARB	Num	3	240	ARTERIAL BLOOD GASES (ABG) HCO3
79	BLOOD	Num	3	237	WAS THE OCCUPANT GIVEN BLOOD?
16	CASEI D	Char	4	45	CASE NUMBER - STRATUM
17	CASENO	Num	3	49	CASE SEQUENCE NUMBER
18	CAUSE1	Num	3	52	1ST MEDICALLY REPORTED CAUSE OF DEATH
19	CAUSE2	Num	3	55	2ND MEDICALLY REPORTED CAUSE OF DEATH
20	CAUSE3	Num	3	58	3RD MEDICALLY REPORTED CAUSE OF DEATH
22	CHHARNES	Num	3	64	CHILD SAFETY SEAT HARNESS USAGE
23	CHMAKE	Num	3	67	CHILD SAFETY SEAT MAKE/MODEL
24	CHORI ENT	Num	3	70	CHILD SAFETY SEAT ORIENTATION
25	CHSHI ELD	Num	3	73	CHILD SAFETY SEAT SHIELD USAGE
26	CHTETHER	Num	3	76	CHILD SAFETY SEAT TETHER USAGE
27	СНТҮРЕ	Num	3	79	TYPE OF CHILD SAFETY SEAT
29	DEATH	Num	3	85	TIME TO DEATH
30	DVBAG	Num	3	88	LONGITUDINAL COMPONENT OF DELTA V FOR AI
	D 1 D 1 L U			30	LONG TODANIE COMPONENT OF PERINT TOWN

91

**EJECTION AREA** 

31

**EJCTAREA** 

Num

3

32	<b>EJCTMED</b>	Num	3	94	EJECTION MEDIUM
33	EJECTI ON	Num	3	97	EJECTI ON
34	ENTRAP	Num	3	100	ENTRAPMENT
51	EYEWEAR	Num	3	151	WAS THE OCCUPANT WEARING EYE-WEAR
78	GLASGOW	Num	3	234	GLASGOW COMA SCALE (GCS) SCORE
37	HEADREST	Num	3	109	HEAD RESTRAINT TYPE/DAMAGE BY OCCUPANT
38	HEI GHT	Num	3	112	HEIGHT OF OCCUPANT
39	HOSPSTAY	Num	3	115	HOSPITAL STAY
40	I NJNUM	Num	3	118	NUMBER RECORDED INJURIES THIS OCCUPANT
41	INJSEV	Num	3	121	INJURY SEVERITY (POLICE RATING)
42	ISS	Num	3	124	INJURY SEVERITY SCORE
44	MAIS	Num	3	130	MAXIMUM KNOWN OCCUPANT AIS
45	MANAVAI L	Num	3	133	MANUAL BELT SYSTEM AVAILABILITY
46	MANFAI L	Num	3	136	MANUAL BELT FAILURE MODE DURING ACCIDENT
47	MANPROPR	Num	3	139	PROPER USE OF MANUAL BELTS
48	MANUSE	Num	3	142	MANUAL BELT SYSTEM USE
50	MEDFACI L	Num	3	148	TYPE MEDICAL FACILITY INITIAL TREATMENT
49	MEDSTA	Num	3	145	MEDIUM STATUS (PRIOR TO IMPACT)
52	OCCMOBIL	Num	3	154	OCCUPANT MOBILITY
53	OCCNO	Num	3	157	OCCUPANT NUMBER
<b>56</b>	PARUSE	Num	3	166	POLICE REPORTED RESTRAINT USE
58	POSTURE	Num	3	172	OCCUPANT' S POSTURE
<b>59</b>	PREVACC	Num	3	175	HAD VEHICLE BEEN IN PREVIOUS ACCIDENTS
60	PSU	Num	3	178	PRIMARY SAMPLING UNIT NUMBER
61	RATWGT	Num	6	181	RATIO INFLATION FACTOR
62	ROLE	Num	3	187	OCCUPANT' S ROLE
63	SEATPERF	Num	3	190	SEAT PERFORMANCE (THIS POSITION)
64	SEATP0S	Num	3	193	OCCUPANT' S SEAT POSITION
70	SEATRACK	Num	3	209	SEAT TRACK ADJUSTED POSITION PRIOR TO IM
65	SEATTYPE	Num	3	196	SEAT TYPE (THIS OCCUPANT POSITION)
66	SEX	Num	3	199	OCCUPANT' S SEX
68	STBACI NC	Num	3	205	SEAT BACK INCLINE PRIOR AND POST IMPACT
77	STORI ENT	Num	3	231	SEAT ORIENTATION (THIS OCCUPANT POS.)
69	STRATI F	Char	1	208	CASE STRATUM
71	TREATMNT	Num	3	212	TREATMENT - MORTALITY
74	VEHNO	Num	3	222	VEHI CLE NUMBER
73	VERSI ON	Num	4	218	VERSION NUMBER
75	WEI GHT	Num	3	225	OCCUPANT' S WEIGHT
76	WORKDAYS	Num	3	228	WORKING DAYS LOST

# -----Variables Ordered by Position-----

#	Vari abl e	Type	Len	Pos	Label
1	ABELTAVL	Num	3	0	AUTOMATIC BELT SYSTEM AVAILABILITY/FUNC
2	ABELTUSE	Num	3	3	AUTOMATIC BELT (PASSIVE) SYSTEM USE
3	ABELTYPE	Num	3	6	AUTOMATIC (PASSIVE) BELT SYSTEM TYPE
4	ABLTFAI L	Num	3	9	AUTOMATIC (PASSIVE) BELT SYSTEM FAILURE
5	ABLTPROP	Num	3	12	PROPER USE OF AUTO (PASSIVE) BELT SYSTEM
6	AGE	Num	3	15	AGE OF OCCUPANT
7	BAGAVAI L	Num	3	18	AIR BAG SYSTEM AVAILABILITY
8	BAGAVRPT	Num	3	21	POLICE REPORTED AIRBAG AVAILABILITY/FUNC
9	BAGDEPLY	Num	3	24	AIR BAG SYSTEM DEPLOYED
10	BAGEVENT	Num	3	27	AIR BAG DEPLOYMENT ACCIDENT EVENT SEQUEN
11	BAGDAMAG	Num	3	30	WAS THERE DAMAGE TO THE AIR BAG
12	BAGFAI L	Num	3	33	AIR BAG SYSTEM FAILURE
13	BAGTETHR	Num	3	36	WAS THE AIR BAG TETHERED
14	BAGTYPE	Num	3	39	TYPE OF AIR BAG
15	BELTANCH	Num	3	42	SHOULDER BELT UPPER ANCHORAGE ADJUSTMENT
16	CASEI D	Char	4	45	CASE NUMBER - STRATUM
17	CASENO	Num	3	49	CASE SEQUENCE NUMBER
18	CAUSE1	Num	3	52	1ST MEDICALLY REPORTED CAUSE OF DEATH
19	CAUSE2	Num	3	55	2ND MEDICALLY REPORTED CAUSE OF DEATH
20	CAUSE3	Num	3	58	3RD MEDICALLY REPORTED CAUSE OF DEATH
21	BAGCDC	Num	3	61	CDC FOR AIR BAG DEPLOYMENT IMPACT

22	CHHARNES	Num	3	64	CHILD SAFETY SEAT HARNESS USAGE
23	CHMAKE	Num	3	67	CHILD SAFETY SEAT MAKE/MODEL
24	CHORI ENT	Num	3	70	CHILD SAFETY SEAT ORIENTATION
25	CHSHI ELD	Num	3	73	CHILD SAFETY SEAT SHIELD USAGE
26	CHTETHER	Num	3	76	CHILD SAFETY SEAT TETHER USAGE
27	СНТҮРЕ	Num	3	79	TYPE OF CHILD SAFETY SEAT
28	BAGCONOT	Num	3	82	AIR BAG CONTACTED BY ANOTHER OCCUPANT
29	DEATH	Num	3	85	TIME TO DEATH
30	DVBAG	Num	3	88	LONGITUDINAL COMPONENT OF DELTA V FOR AI
31 32	EJCTAREA EJCTMED	Num	3 3	91 94	EJECTION AREA EJECTION MEDIUM
32 33	EJCTMED EJECTION	Num	3 3	94 97	EJECTION MEDIUM EJECTION
აა 34	EJECTI ON ENTRAP	Num Num	3 3	100	EJECTION ENTRAPMENT
3 <del>4</del> 35	BAGFLDAM	Num	3	103	WERE AIR BAG MODULE COVER FLAPS DAMAGED
36	BAGFLOPN	Num	3	106	DID AIR BAG MODULE COVER FLAPS OPEN AT D
37	HEADREST	Num	3	100	HEAD RESTRAINT TYPE/DAMAGE BY OCCUPANT
38	HEI GHT	Num	3	112	HEIGHT OF OCCUPANT
39	HOSPSTAY	Num	3	115	HOSPITAL STAY
40	INJNUM	Num	3	118	NUMBER RECORDED INJURIES THIS OCCUPANT
41	INJSEV	Num	3	121	INJURY SEVERITY (POLICE RATING)
42	ISS	Num	3	124	INJURY SEVERITY SCORE
43	BAGMAI NT	Num	3	127	PRIOR MAINTENANCE/SERVICE ON AIR BAG
44	MAIS	Num	3	130	MAXIMUM KNOWN OCCUPANT AIS
45	MANAVAI L	Num	3	133	MANUAL BELT SYSTEM AVAILABILITY
46	MANFAI L	Num	3	136	MANUAL BELT FAILURE MODE DURING ACCIDENT
47	MANPROPR	Num	3	139	PROPER USE OF MANUAL BELTS
48	MANUSE	Num	3	142	MANUAL BELT SYSTEM USE
49	MEDSTA	Num	3	145	MEDIUM STATUS (PRIOR TO IMPACT)
50	MEDFACI L	Num	3	148	TYPE MEDICAL FACILITY INITIAL TREATMENT
51	EYEWEAR	Num	3	151	WAS THE OCCUPANT WEARING EYE-WEAR
52	OCCMOBIL	Num	3	154	OCCUPANT MOBILITY
53	OCCNO	Num	3	157	OCCUPANT NUMBER
54	BAGAVOTH	Num	3	160	OTHER FRONTAL AIR BAG AVAILABILITY/FUNCT
55	BAGDEPOT	Num	3	163	OTHER AIR BAG SYSTEM DEPLOYMENT
56	PARUSE	Num	3	166	POLICE REPORTED RESTRAINT USE
57	BELTSOU POSTUPE	Num	3	169	PRIMARY SOURCE OF BELT USE DETERMINATION
58	POSTURE	Num	3	172	OCCUPANT'S POSTURE HAD VEHICLE BEEN IN PREVIOUS ACCIDENTS
59	PREVACC PSU	Num	3	175	PRIMARY SAMPLING UNIT NUMBER
60 61	RATWGT	Num Num	3 6	178 181	RATIO INFLATION FACTOR
62	ROLE	Num	3	187	OCCUPANT' S ROLE
63	SEATPERF	Num	3	190	SEAT PERFORMANCE (THIS POSITION)
64	SEATPOS	Num	3	193	OCCUPANT' S SEAT POSITION
65	SEATTYPE	Num	3	196	SEAT TYPE (THIS OCCUPANT POSITION)
66	SEX	Num	3	199	OCCUPANT' S SEX
67	BAGDAMSO	Num	3	202	SOURCE OF AIR BAG DAMAGE
68	STBACI NC	Num	3	205	SEAT BACK INCLINE PRIOR AND POST IMPACT
69	STRATI F	Char	1	208	CASE STRATUM
70	SEATRACK	Num	3	209	SEAT TRACK ADJUSTED POSITION PRIOR TO IM
71	TREATMNT	Num	3	212	TREATMENT - MORTALITY
72	BAGVENTS	Num	3	215	DID THE AIR BAG HAVE VENT PORTS
73	VERSI ON	Num	4	218	VERSION NUMBER
74	VEHNO	Num	3	222	VEHI CLE NUMBER
75	WEI GHT	Num	3	225	OCCUPANT' S WEIGHT
76	WORKDAYS	Num	3	228	WORKING DAYS LOST
77	STORI ENT	Num	3	231	SEAT ORIENTATION (THIS OCCUPANT POS.)
78	GLASGOW	Num	3	234	GLASGOW COMA SCALE (GCS) SCORE
79	BLOOD	Num	3	237	WAS THE OCCUPANT GIVEN BLOOD?
80	BI CARB	Num	3	240	ARTERIAL BLOOD GASES (ABG) HCO3

----Sort Information----

Sortedby: PSU CASENO VEHNO OCCNO

Validated: YES Character Set: ANSI

29638 Data Set Name: NASS95.0I Observations: Vari abl es: Member Type: DATA 23 Indexes: Engi ne: V610 0 Created: 9:08 Friday, October 11, 1996 Observation Length: 66 Last Modified: 9:09 Friday, October 11, 1996 Deleted Observations: 0 Protection: Compressed: NO Data Set Type: Sorted: YES Label:

-----Engine/Host Dependent Information-----

Data Set Page Size: 4096
Number of Data Set Pages: 487
File Format: 607
First Data Page: 1
Max Obs per Page: 61
Obs in First Data Page: 13

-----Alphabetic List of Variables and Attributes-----

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#	Vari abl e	Type	Len	Pos	Label
1	AIS	Num	3	0	A. I. S. SEVERITY
2	ASPECT90	Num	3	3	ASPECT90
22	BODYREG	Char	1	64	BODY REGION
3	<b>CASEI D</b>	Char	4	6	CASE NUMBER - STRATUM
4	<b>CASENO</b>	Num	3	10	CASE SEQUENCE NUMBER
5	DIRINJ	Num	3	13	DIRECT/INDIRECT INJURY
6	I NJLEVEL	Num	3	16	INJURY LEVEL
7	I NJNO	Num	3	19	INJURY NUMBER
8	I NJSOU	Num	3	22	INJURY SOURCE
9	I NTRUNO	Num	3	25	OCCUPANT AREA INTRUSION NO.
23	LESI ON	Char	1	65	LESION (A. I. S 0. I. C.)
10	OCCNO	Num	3	28	OCCUPANT NUMBER
11	PSU	Num	3	31	PRIMARY SAMPLING UNIT NUMBER
12	RATWGT	Num	6	34	RATIO INFLATION FACTOR
13	REGION90	Num	3	40	BODY REGION (O.I.C A.I.S.)
14	SOUCON	Num	3	43	
15	SOUDAT	Num	3	46	SOURCE OF INJURY DATA
16	STRATI F	Char	1	49	CASE STRATUM
17	STRUSPEC	Num	3	50	SPECIFIC ANATOMIC STRUCTURE
18	STRUTYPE	Num	3	53	TYPE OF ANATOMIC STRUCTURE
21	SYSORG	Char	1	63	SYSTEM/ORGAN (O. I. C A. I. S.)
20	VEHNO	Num	3	60	VEHI CLE NUMBER
19	VERSI ON	Num	4	56	VERSION NUMBER

## CONTENTS PROCEDURE

-----Variables Ordered by Position-----

#	Vari abl e	Type	Len	Pos	Label
1	AIS	Num	3	0	A. I. S. SEVERITY
2	ASPECT90	Num	3	3	ASPECT90
3	CASEI D	Char	4	6	CASE NUMBER - STRATUM
4	CASENO	Num	3	10	CASE SEQUENCE NUMBER
5	DIRINJ	Num	3	13	DIRECT/INDIRECT INJURY
6	I NJLEVEL	Num	3	16	INJURY LEVEL
7	INJNO	Num	3	19	INJURY NUMBER
8	I NJSOU	Num	3	22	INJURY SOURCE
9	I NTRUNO	Num	3	25	OCCUPANT AREA INTRUSION NO.
10	OCCNO	Num	3	28	OCCUPANT NUMBER
11	PSU	Num	3	31	PRIMARY SAMPLING UNIT NUMBER
12	RATWGT	Num	6	34	RATIO INFLATION FACTOR
13	REGI ON90	Num	3	40	BODY REGION (O. I. C A. I. S.)

14	SOUCON	Num	3	43	INJURY SOURCE CONFIDENCE LEVEL
15	SOUDAT	Num	3	46	SOURCE OF INJURY DATA
16	STRATI F	Char	1	49	CASE STRATUM
17	STRUSPEC	Num	3	50	SPECIFIC ANATOMIC STRUCTURE
18	STRUTYPE	Num	3	53	TYPE OF ANATOMIC STRUCTURE
19	VERSI ON	Num	4	<b>56</b>	VERSION NUMBER
20	VEHNO	Num	3	60	VEHI CLE NUMBER
21	SYSORG	Char	1	63	SYSTEM/ORGAN (O. I. C A. I. S.)
22	BODYREG	Char	1	64	BODY REGION
23	LESI ON	Char	1	65	LESION (A. I. S 0. I. C.)

----Sort Information----

Sortedby: PSU CASENO VEHNO OCCNO INJNO

Validated: YES Character Set: ANSI

#### CONTENTS PROCEDURE

Data Set Name: NASS95. PERS\_PRO Observations: 15354 Vari abl es: Member Type: DATA 7 Engi ne: V610 Indexes: 0 9:06 Friday, October 11, 1996 Created: Observation Length: 94 Last Modified: 9:07 Friday, October 11, 1996 Deleted Observations: 0 NO Protection: Compressed: Data Set Type: YES Sorted: Label:

-----Engine/Host Dependent Information-----

Data Set Page Size: 4096
Number of Data Set Pages: 358
File Format: 607
First Data Page: 1
Max Obs per Page: 43
Obs in First Data Page: 30

-----Alphabetic List of Variables and Attributes-----

#	Vari abl e	Type	Len	Pos	Label
 	CACEID				CACE NUMBER CERATIVA
6	CASEI D	Char	4	87	CASE NUMBER - STRATUM
3	CASENO	Num	3	80	CASE SEQUENCE NUMBER
5	LI NENO	Num	3	84	LINE NUMBER
2	PSU	Num	3	77	PRIMARY SAMPLING UNIT NUMBER
4	STRATI F	Char	1	83	CASE STRATUM
1	TEXT	Char	77	0	SUMMARY TEXT
7	VERSI ON	Num	3	91	VERSION NUMBER

## CONTENTS PROCEDURE

-----Variables Ordered by Position-----

#	Vari abl e	Type	Len	Pos	Label
1	TEXT	Char	77	0	SUMMARY TEXT
2	PSU	Num	3	77	PRIMARY SAMPLING UNIT NUMBER
3	<b>CASENO</b>	Num	3	80	CASE SEQUENCE NUMBER
4	STRATI F	Char	1	83	CASE STRATUM
5	LI NENO	Num	3	84	LINE NUMBER
6	CASEI D	Char	4	87	CASE NUMBER - STRATUM
7	VERSI ON	Num	3	91	VERSION NUMBER

----Sort Information----

Sortedby: PSU CASENO LINENO

Validated: YES Character Set: ANSI

#### CONTENTS PROCEDURE

Data Set Name: NASS95. TYP\_ACC Observations: 4552 Member Type: DATA Vari abl es: 7 Engi ne: V610 Indexes: 0 9:05 Friday, October 11, 1996 Observation Length: 47 Created: Last Modified: 9:05 Friday, October 11, 1996 Deleted Observations: 0 NO Protection: Compressed: Data Set Type: Sorted: YES Label:

-----Engine/Host Dependent Information-----

Data Set Page Size: 4096
Number of Data Set Pages: 54
File Format: 607
First Data Page: 1
Max Obs per Page: 86
Obs in First Data Page: 61

-----Alphabetic List of Variables and Attributes-----

#	Vari abl e	Type	Len	Pos	Label
 6	CASEI D	Char	4	40	CASE NUMBER - STRATUM
3	CASENO	Num	3	33	CASE SEQUENCE NUMBER
5	LI NENO	Num	3	37	LINE NUMBER
2	PSU	Num	3	30	PRIMARY SAMPLING UNIT NUMBER
4	STRATI F	Char	1	36	CASE STRATUM
1	TEXT	Char	30	0	SUMMARY TEXT
7	VERSI ON	Num	3	44	VERSION NUMBER

## CONTENTS PROCEDURE

-----Variables Ordered by Position-----

#	Vari abl e	Type	Len	Pos	Label
 1	TEXT	Char	30	0	SUMMARY TEXT
2	PSU	Num	3	30	PRIMARY SAMPLING UNIT NUMBER
3	CASENO	Num	3	33	CASE SEQUENCE NUMBER
4	STRATI F	Char	1	36	CASE STRATUM
5	LINENO	Num	3	37	LINE NUMBER
6	CASEID	Char	4	40	CASE NUMBER - STRATUM
7	VERSI ON	Num	3	44	VERSION NUMBER

----Sort Information----

Sortedby: PSU CASENO LINENO

Validated: YES Character Set: ANSI

Data Set Name: NASS95. VE Observations: 5648 Vari abl es: Member Type: DATA 61 V610 Indexes: Engi ne: 0 9:07 Friday, October 11, 1996 Created: Observation Length: 175 Last Modified: 9:07 Friday, October 11, 1996 Deleted Observations: 0 Protection: Compressed: NO Data Set Type: Sorted: YES Label:

-----Engine/Host Dependent Information----

Data Set Page Size: 5632
Number of Data Set Pages: 178
File Format: 607
First Data Page: 2
Max Obs per Page: 32
Obs in First Data Page: 18

-----Alphabetic List of Variables and Attributes-----

#	Vari abl e	Туре	Len	Pos	Label
 1	ACCSEQ1	Num	3	0	ACCI DENT EVENT SEQUENCE (HI GHEST)
2	ACCSEQ2	Num	3	3	ACCIDENT EVENT SEQUENCE (2ND HIGHEST)
3	ALTVEH	Num	3	6	MULTI-STAGE MANUFACTURED/CERT. ALT. VEH.
5	CASEI D	Char	4	12	CASE NUMBER - STRATUM
6	CASENO	Num	3	16	CASE SEQUENCE NUMBER
7	DI RDAMW	Num	3	19	DIRECT DAMAGE WIDTH
8	DOCCDC	Num	3	22	CDCs DOCUMENTED BUT NOT CODED ON FILE?
17	DOF1	Num	3	49	DIRECTION OF FORCE (HIGHEST)
18	DOF2	Num	3	52	DIRECTION OF FORCE (2ND HIGHEST)
9	DVC1	Num	3	25	CRUSH PROFILE C1 (HIGHEST)
10	DVC2	Num	3	28	CRUSH PROFILE C2 (HIGHEST)
11	DVC3	Num	3	31	CRUSH PROFILE C3 (HIGHEST)
12	DVC4	Num	3	34	CRUSH PROFILE C4 (HIGHEST)
13	DVC5	Num	3	37	CRUSH PROFILE C5 (HIGHEST)
14	DVC6	Num	3 3	40	CRUSH PROFILE C6 (HIGHEST)
15 16	DVD DVL	Num	ა 3	43 46	CRUSH PROFILE D (HIGHEST) CRUSH PROFILE L (HIGHEST)
20	EXTENT1	Num Num	3	58	DEFORMATION EXTENT (HIGHEST)
20 21	EXTENT1 EXTENT2	Num	3	61	DEFORMATION EXTENT (IN GHEST)
24	FIRE	Num	3	70	FIRE OCCURRENCE
25	FI REORI G	Num	3	73	ORIGIN OF FIRE
22	FUELCAP1	Num	3	64	LOCATION OF FUEL TANK-1 FILLER CAP
23	FUELCAP2	Num	3	67	LOCATION OF FUEL TANK-2 FILLER CAP
26	FUELDAM1	Num	3	76	DAMAGE TO FUEL TANK-1
27	FUELDAM2	Num	3	79	DAMAGE TO FUEL TANK-2
36	FUELEAK1	Num	3	102	LEAKAGE LOCATION OF FUEL SYSTEM 1
37	FUELEAK2	Num	3	105	LEAKAGE LOCATION OF FUEL SYSTEM 2
38	FUELGT2	Num	3	108	EQUIPPED WITH MORE THAN TWO FUEL TANKS
30	FUELLOC1	Num	3	84	LOCATION OF FUEL TANK-1
31	FUELLOC2	Num	3	87	LOCATION OF FUEL TANK-2
32	FUELTNK1	Num	3	90	TYPE OF FUEL TANK-1
33	FUELTNK2	Num	3	93	TYPE OF FUEL TANK-2
34	FUELTYP1	Num	3	96	FUEL TYPE-1
35	FUELTYP2	Num	3	99	FUEL TYPE-2
28	GAD1	Char	1	82	DEFORMATION LOCATION (HIGHEST)
29	GAD2	Char	1	83	DEFORMATION LOCATION (2ND HIGHEST)
39	OBJCONT1	Num	3	111	OBJECT CONTACTED (HIGHEST)
40	OBJCONT2	Num	3	114	OBJECT CONTACTED (2ND HIGHEST)
4	ORI GAVTW	Num	3	9	ORIGINAL AVERAGE TRACK WIDTH
41	PSU	Num	3	117	PRIMARY SAMPLING UNIT NUMBER
42	RATWGT	Num	6	120	RATIO INFLATION FACTOR
43	SDVC1	Num	3	126	CRUSH PROFILE C1 (2ND HIGHEST)
44	SDVC2	Num	3	129	CRUSH PROFILE C2 (2ND HIGHEST)
45	SDVC3	Num	3	132	CRUSH PROFILE C3 (2ND HIGHEST)

46	SDVC4	Num	3	135	CRUSH PROFILE C4 (2ND HIGHEST)
47	SDVC5	Num	3	138	CRUSH PROFILE C5 (2ND HIGHEST)
48	SDVC6	Num	3	141	CRUSH PROFILE C6 (2ND HIGHEST)
49	SDVD	Num	3	144	CRUSH PROFILE D (2ND HIGHEST)
50	SDVL	Num	3	147	CRUSH PROFILE L (2ND HIGHEST)
51	SHL1	Char	1	150	SPECIFIC LONGITUDINAL LOCATION (HIGHEST)
<b>52</b>	SHL2	Char	1	151	SPECIFIC LONGITUDINAL LOC. (2ND HIGHEST)
53	STRATI F	Char	1	152	CASE STRATUM
<b>54</b>	SVL1	Char	1	153	SPECIFIC VERTICAL LOCATION (HIGHEST)
55	SVL2	Char	1	154	SPECIFIC VERTICAL LOCATION (2ND HIGHEST)
<b>56</b>	TDD1	Char	1	155	TYPE OF DAMAGE DISTRIBUTION (HIGHEST)
57	TDD2	Char	1	156	TYPE OF DAMAGE DISTRIBUTION (2ND HIGHEST)
58	TOWRES	Num	3	157	RESEARCHER ASSESSMNT VEHICLE DISPOSITION
19	UNDENDW	Num	3	55	UNDEFORMED END WIDTH
<b>59</b>	VEHNO	Num	3	160	VEHI CLE NUMBER
60	VERSI ON	Num	4	163	VERSION NUMBER
61	WHEELBAS	Num	8	167	ORIGINAL WHEELBASE

# -----Variables Ordered by Position-----

#	#	Vari abl e	Туре	Len	Pos	Label
		ACCSEQ1	Num	3	0	ACCIDENT EVENT SEQUENCE (HIGHEST)
		-	Num	3	3	ACCIDENT EVENT SEQUENCE (2ND HIGHEST)
		ALTVEH	Num	3	6	MULTI-STAGE MANUFACTURED/CERT. ALT. VEH.
		ORI GAVTW	Num	3	9	ORIGINAL AVERAGE TRACK WIDTH
		CASEI D	Char	4	12	CASE NUMBER - STRATUM
		CASENO	Num	3	16	CASE SEQUENCE NUMBER
		DI RDAMW	Num	3	19	DI RECT DAMAGE WI DTH
		DOCCDC	Num	3	22	CDCs DOCUMENTED BUT NOT CODED ON FILE?
		DVC1	Num	3	25	CRUSH PROFILE C1 (HIGHEST)
10		DVC2	Num	3	28	CRUSH PROFILE C2 (HIGHEST)
11		DVC3	Num	3	31	CRUSH PROFILE C3 (HIGHEST)
12		DVC4	Num	3	34	CRUSH PROFILE C4 (HIGHEST)
13		DVC5	Num	3	37	CRUSH PROFILE C5 (HIGHEST)
14		DVC6	Num	3	40	CRUSH PROFILE C6 (HIGHEST)
15		DVD	Num	3	43	CRUSH PROFILE D (HIGHEST)
16		DVL DOE1	Num	3	46	CRUSH PROFILE L (HIGHEST)
17		DOF1	Num	3	49	DIRECTION OF FORCE (HIGHEST)
18		DOF2	Num	3	52	DIRECTION OF FORCE (2ND HIGHEST)
19		UNDENDW	Num	3	55 50	UNDEFORMED END WIDTH
20		EXTENT1	Num	3	58	DEFORMATION EXTENT (HIGHEST) DEFORMATION EXTENT (2ND HIGHEST)
21 22		EXTENT2	Num	3 3	61 64	LOCATION OF FUEL TANK-1 FILLER CAP
23		FUELCAP1 FUELCAP2	Num Num	3	6 <del>4</del> 67	LOCATION OF FUEL TANK-1 FILLER CAP
23 24		FUELCAPZ FIRE	Num	3	70	FIRE OCCURRENCE
25 25		FIREORIG	Num	3	70 73	ORIGIN OF FIRE
26 26			Num	3	73 76	DAMAGE TO FUEL TANK-1
27		FUELDAM1 FUELDAM2	Num	3	76 79	DAMAGE TO FUEL TANK-1
28		GAD1	Char	3 1	79 82	DEFORMATION LOCATION (HIGHEST)
29		GAD1 GAD2	Char	1	83	DEFORMATION LOCATION (IN GREST)  DEFORMATION LOCATION (2ND HIGHEST)
30		GAD2 FUELLOC1	Num	3	84	LOCATION OF FUEL TANK-1
31		FUELLOC2	Num	3	87	LOCATION OF FUEL TANK-1 LOCATION OF FUEL TANK-2
32		FUELTNK1	Num	3	90	TYPE OF FUEL TANK-1
33		FUELTNK1	Num	3	93	TYPE OF FUEL TANK-2
34		FUELTYP1	Num	3	96	FUEL TYPE-1
35		FUELTYP2	Num	3	99	FUEL TYPE-2
36		FUELEAK1	Num	3	102	LEAKAGE LOCATION OF FUEL SYSTEM-1
37		FUELEAK1	Num	3	105	LEAKAGE LOCATION OF FUEL SYSTEM 2
38		FUELGT2	Num	3	103	EQUIPPED WITH MORE THAN TWO FUEL TANKS
39		OBJCONT1	Num	3	111	OBJECT CONTACTED (HIGHEST)
40		OBJCONT2	Num	3	114	OBJECT CONTACTED (IN THE ST)  OBJECT CONTACTED (2ND HIGHEST)
41		PSU	Num	3	117	PRIMARY SAMPLING UNIT NUMBER
42		RATWGT	Num	6	120	RATIO INFLATION FACTOR
43		SDVC1	Num	3	126	CRUSH PROFILE C1 (2ND HIGHEST)
70	J	00101	11 dill	J	120	ONCON INCITED OF (AND INCIDENT)

44	SDVC2	Num	3	129	CRUSH PROFILE C2 (2ND HIGHEST)
			-		`
45	SDVC3	Num	3	132	CRUSH PROFILE C3 (2ND HIGHEST)
46	SDVC4	Num	3	135	CRUSH PROFILE C4 (2ND HIGHEST)
47	SDVC5	Num	3	138	CRUSH PROFILE C5 (2ND HIGHEST)
48	SDVC6	Num	3	141	CRUSH PROFILE C6 (2ND HIGHEST)
49	SDVD	Num	3	144	CRUSH PROFILE D (2ND HIGHEST)
50	SDVL	Num	3	147	CRUSH PROFILE L (2ND HIGHEST)
51	SHL1	Char	1	150	SPECIFIC LONGITUDINAL LOCATION (HIGHEST)
<b>52</b>	SHL2	Char	1	151	SPECIFIC LONGITUDINAL LOC. (2ND HIGHEST)
53	STRATI F	Char	1	152	CASE STRATUM
<b>54</b>	SVL1	Char	1	153	SPECIFIC VERTICAL LOCATION (HIGHEST)
<b>55</b>	SVL2	Char	1	154	SPECIFIC VERTICAL LOCATION (2ND HIGHEST)
<b>56</b>	TDD1	Char	1	155	TYPE OF DAMAGE DISTRIBUTION (HIGHEST)
57	TDD2	Char	1	156	TYPE OF DAMAGE DISTRIBUTION (2ND HIGHEST)
<b>58</b>	TOWRES	Num	3	157	RESEARCHER ASSESSMNT VEHICLE DISPOSITION
<b>59</b>	VEHNO	Num	3	160	VEHI CLE NUMBER
60	VERSI ON	Num	4	163	VERSION NUMBER
61	WHEELBAS	Num	8	167	ORIGINAL WHEELBASE

----Sort Information----

PSU CASENO VEHNO

Sortedby: Validated: YES Character Set: ANSI

Data Set Name: NASS95. VEH\_PRO Observations: 12412 Vari abl es: Member Type: DATA 7 Engi ne: V610 Indexes: 0 Created: 9:06 Friday, October 11, 1996 Observation Length: 95 Last Modified: 9:06 Friday, October 11, 1996 Deleted Observations: 0 Protection: Compressed: NO Sorted: Data Set Type: YES Label:

-----Engine/Host Dependent Information----

Data Set Page Size: 4096
Number of Data Set Pages: 296
File Format: 607
First Data Page: 1
Max Obs per Page: 42
Obs in First Data Page: 30

-----Alphabetic List of Variables and Attributes-----

#	Vari abl e	Туре	Len	Pos	Label
 6	CASEI D	Char	4	 88	CASE NUMBER - STRATUM
3	CASENO	Num	3	81	CASE SEQUENCE NUMBER
5	LINENO	Num	3	85	LINE NUMBER
2	PSU	Num	3	78	PRIMARY SAMPLING UNIT NUMBER
4	STRATI F	Char	1	84	CASE STRATUM
1	TEXT	Char	78	0	SUMMARY TEXT
7	VERSI ON	Num	3	92	VERSION NUMBER

## CONTENTS PROCEDURE

-----Variables Ordered by Position-----

#	Vari abl e	Type	Len	Pos	Label
1	TEXT	Char	78	0	SUMMARY TEXT
2	PSU	Num	3	78	PRIMARY SAMPLING UNIT NUMBER
3	<b>CASENO</b>	Num	3	81	CASE SEQUENCE NUMBER
4	STRATI F	Char	1	84	CASE STRATUM
5	LI NENO	Num	3	85	LINE NUMBER
6	<b>CASEI D</b>	Char	4	88	CASE NUMBER - STRATUM
7	<b>VERSION</b>	Num	3	92	VERSION NUMBER

----Sort Information----

Sortedby: PSU CASENO LINENO

Validated: YES Character Set: ANSI

Data Set Name: NASS95. VI 5070 Observations: Member Type: DATA Vari abl es: 101 Engi ne: V610 Indexes: 0 Created: 9:07 Friday, October 11, 1996 Observation Length: 306 Last Modified: 9:08 Friday, October 11, 1996 Deleted Observations: 0 Protection: Compressed: NO Data Set Type: Sorted: YES Label:

---- Engine/Host Dependent Information----

Data Set Page Size: 9216
Number of Data Set Pages: 171
File Format: 607
First Data Page: 2
Max Obs per Page: 30
Obs in First Data Page: 17

-----Alphabetic List of Variables and Attributes-----

Vari abl e **Type** Len Pos Label **50** ADAPTEQ 3 147 ADAPTIVE (ASSISTIVE) DRIVING EQUIPMENT Num 51 BOLSTDEF Num 3 150 KNEE BOLSTER DEFORMED - OCCUPANT CONTACT TYPE OF KNEE BOLSTER COVERING 101 **BOLSTYPE** Num 3 303 1 **CASEID** Char 4 0 CASE NUMBER - STRATUM 2 **CASENO** Num 3 4 CASE SEQUENCE NUMBER **54** CDRI R1 3 159 1ST DOMINANT CRUSH DIRECTION Num 58 CDRI R2 3 171 2ND DOMINANT CRUSH DIRECTION Num 62 CDRI R3 Num 3 183 3RD DOMINANT CRUSH DIRECTION 66 CDRI R4 Num 3 195 4TH DOMINANT CRUSH DIRECTION 70 CDRI R5 Num 3 207 5TH DOMINANT CRUSH DIRECTION 74 CDRI R6 Num 3 219 6TH DOMINANT CRUSH DIRECTION 7TH DOMINANT CRUSH DIRECTION 78 CDRI R7 Num 3 231 8TH DOMINANT CRUSH DIRECTION 82 CDRI R8 Num 3 243 86 CDRI R9 Num 3 255 9TH DOMINANT CRUSH DIRECTION 90 CDRI R10 Num 3 267 10TH DOMINANT CRUSH DIRECTION 3 TELESCOPING STEERING COLUMN ADJUSTMENT 99 COLMTELE Num 297 3 100 COLMITI LT Num 300 TILT STEERING COLUMN ADJUSTMENT 52 COLUMTYP 3 153 STEERING COLUMN TYPE Num 3 **FAI LLF** 3 7 LF DAMAGE/FAILURE ASSOCIATED W Num **FAI LLR** 4 Num 3 10 LR DAMAGE/FAILURE - OPENING IN COLLISION 5 **FAILRF** Num 3 13 RF DAMAGE/FAILURE - OPENING IN COLLISION RR DAMAGE/FAILURE - OPENING IN COLLISION 6 **FAILRR** Num 3 16 7 **FAILTG** Num 3 19 TG DAMAGE/FAILURE - OPENING IN COLLISION 8 GLI MPBL 3 22 BL GLAZING DAMAGE FROM IMPACT FORCES Num 9 GLI MPLF 3 25 LF GLAZING DAMAGE FROM IMPACT FORCES Num 10 GLI MPLR Num 3 28 LR GLAZING DAMAGE FROM IMPACT FORCES 11 GLI MPOTH Num 3 31 OTHER GLAZING DAMAGE FROM IMPACT FORCES RF GLAZING DAMAGE FROM IMPACT FORCES 12 GLI MPRF Num 3 34 RR GLAZING DAMAGE FROM IMPACT FORCES 13 GLI MPRR Num 3 37 14 GLI MPRUF 3 40 ROOF GLAZING DAMAGE FROM IMPACT FORCES Num 15 GLI MPWS 3 43 WS GLAZING DAMAGE FROM IMPACT FORCES Num 16 GLOCCBL Num 3 46 BL GLAZING DAMAGE FROM OCCUPANT CONTACT LF GLAZING DAMAGE FROM OCCUPANT CONTACT 17 **GLOCCLF** Num 3 49 LR GLAZING DAMAGE FROM OCCUPANT CONTACT 18 **GLOCCLR** 3 52 Num OTHER GLAZING DAMAGE FROM OCC. CONTACT 19 **GLOCCOTH** 3 55 Num RF GLAZING DAMAGE FROM OCCUPANT CONTACT 20 GLOCCRF 3 58 Num 21 GLOCCRR Num 3 61 RR GLAZING DAMAGE FROM OCCUPANT CONTACT 22 **GLOCCRUF** Num 3 64 ROOF GLAZING DAMAGE FROM OCC. CONTACT WS GLAZING DAMAGE FROM OCCUPANT CONTACT 23 **GLOCCWS** Num 3 67 DID GLOVE COMPARTMENT DOOR OPEN 53 **GLOVOPEN** Num 3 156 BL WINDOW PRECRASH GLAZING STATUS 24 GLPREBL Num 3 70 25 **GLPRELF** Num 3 73 LF WINDOW PRECRASH GLAZING STATUS 26 **GLPRELR** Num 3 76 LR WINDOW PRECRASH GLAZING STATUS

27	GLPREOTH	Num	3	79	OTHER WINDOW PRECRASH GLAZING STATUS
28	GLPRERF	Num	3	82	RF WINDOW PRECRASH GLAZING STATUS
29	GLPRERR	Num	3	85	RR WINDOW PRECRASH GLAZING STATUS
30	GLPRERUF	Num	3	88	ROOF WINDOW PRECRASH GLAZING STATUS
31	GLPREWS	Num	3	91	WS WINDOW PRECRASH GLAZING STATUS
32	GLTYPBL	Num	3	94	BL TYPE OF WINDOW/WINDSHIELD GLAZING
33	GLTYPLF	Num	3	97	LF TYPE OF WINDOW/WINDSHIELD GLAZING
34	GLTYPLR	Num	3	100	LR TYPE OF WINDOW/WINDSHIELD GLAZING
35	GLTYPOTH	Num	3	103	OTHER TYPE OF WINDOW/WINDSHIELD GLAZING
36	GLTYPRF	Num	3	106	RF TYPE OF WINDOW/WINDSHIELD GLAZING
37	GLTYPRR	Num	3	109	RR TYPE OF WINDOW/WINDSHIELD GLAZING
38	GLTYPRUF	Num	3	112	ROOF TYPE OF WINDOW/WINDSHIELD GLAZING
39	GLTYPWS	Num	3	115	WS TYPE OF WINDOW/WINDSHIELD GLAZING
56	I NCOMP1	Num	3	165	1ST INTRUDING COMPONENT
60	I NCOMP2	Num	3	177	2ND INTRUDING COMPONENT
64	I NCOMP3	Num	3	189	3RD INTRUDING COMPONENT
68	INCOMP4	Num	3	201	4TH INTRUDING COMPONENT
72	INCOMP5	Num	3	213	5TH INTRUDING COMPONENT
76	I NCOMP6	Num	3	225	6TH INTRUDING COMPONENT
80	I NCOMP7	Num	3	237	7TH INTRUDING COMPONENT
84	I NCOMP8	Num	3	249	8TH INTRUDING COMPONENT
88	INCOMP9	Num	3	261	9TH INTRUDING COMPONENT
92	INCOMP10	Num	3	273	10TH INTRUDING COMPONENT
55	I NLOC1	Num	3	162	1ST LOCATION OF INTRUSION
59	I NLOC2	Num	3	174	2ND LOCATION OF INTRUSION
63	I NLOC3	Num	3	186	3RD LOCATION OF INTRUSION
67	I NLOC4	Num	3	198	4TH LOCATION OF INTRUSION
71	I NLOC5	Num	3	210	5TH LOCATION OF INTRUSION
75 70	INLOC6	Num	3 3	222	6TH LOCATION OF INTRUSION 7TH LOCATION OF INTRUSION
79	INLOC7	Num		234	
83 87	I NLOC8 I NLOC9	Num Num	3 3	246 258	8TH LOCATION OF INTRUSION 9TH LOCATION OF INTRUSION
91	INLOC3	Num	3	270	10TH LOCATION OF INTRUSION
57	I NMAG1	Num	3	168	1ST MAGNITUDE OF INTRUSION
61	I NMAG2	Num	3	180	2ND MAGNITUDE OF INTRUSION
65	I NMAG3	Num	3	192	3RD MAGNITUDE OF INTRUSION
69	I NMAG4	Num	3	204	4TH MAGNITUDE OF INTRUSION
73	I NMAG5	Num	3	216	5TH MAGNITUDE OF INTRUSION
77	I NMAG6	Num	3	228	6TH MAGNITUDE OF INTRUSION
81	I NMAG7	Num	3	240	7TH MAGNITUDE OF INTRUSION
85	I NMAG8	Num	3	252	8TH MAGNITUDE OF INTRUSION
89	I NMAG9	Num	3	264	9TH MAGNITUDE OF INTRUSION
93	INMAG10	Num	3	276	10TH MAGNITUDE OF INTRUSION
94	ODOMETER	Num	3	279	ODOMETER READING
40	OPENLF	Num	3	118	LF DOOR, TAILGATE OR HATCH OPENING
41	OPENLR	Num	3	121	LR DOOR, TAILGATE OR HATCH OPENING
42	OPENRF	Num	3	124	RF DOOR, TAILGATE OR HATCH OPENING
43	OPENRR	Num	3	127	RR DOOR, TAILGATE OR HATCH OPENING
44	OPENTG	Num	3	130	TG DOOR, TAILGATE OR HATCH OPENING
95	PANELDAM	Num	3	282	INSTRUMENT PANEL DAMAGE - OCC. CONTACT
45	PASI NTEG	Num	3	133	PASSENGER COMPARTMENT INTEGRITY
46	PSU	Num	3	136	PRIMARY SAMPLING UNIT NUMBER
96	RATWGT	Num	6	285	RATIO INFLATION FACTOR
97	RDEFLOC	Num	3	291	LOCATION STEERING RIM/SPOKE DEFORMATION
98	RI MDEF	Num	3	294	STEERING RIM/SPOKE DEFORMATION
47	STRATI F	Char	1	139	CASE STRATUM
48	VEHNO	Num	3	140	VEHI CLE NUMBER
49	VERSI ON	Num	4	143	VERSION NUMBER

-----Variables Ordered by Position-----

#	Vari abl e	Туре	Len	Pos	Label
 _	CASEI D CASENO	Char Num			CASE NUMBER - STRATUM CASE SEQUENCE NUMBER

3	FAI LLF	Num	3	7	LF DAMAGE/FAILURE ASSOCIATED W
4	FAI LLR	Num	3	10	LR DAMAGE/FAILURE - OPENING IN COLLISION
5	FAI LRF	Num	3	13	RF DAMAGE/FAILURE - OPENING IN COLLISION
6	FAI LRR	Num	3	16	RR DAMAGE/FAILURE - OPENING IN COLLISION
7	FAI LTG	Num	3	19	TG DAMAGE/FAILURE - OPENING IN COLLISION
8	GLI MPBL	Num	3	22	BL GLAZING DAMAGE FROM IMPACT FORCES
9	GLI MPLF	Num	3	25	LF GLAZING DAMAGE FROM IMPACT FORCES
10	GLI MPLR	Num	3	28	LR GLAZING DAMAGE FROM IMPACT FORCES
11	GLI MPOTH	Num	3	31	OTHER GLAZING DAMAGE FROM IMPACT FORCES
12	GLI MPRF	Num	3	34	RF GLAZING DAMAGE FROM IMPACT FORCES
13	GLI MPRR	Num	3	37	RR GLAZING DAMAGE FROM IMPACT FORCES
14	GLI MPRUF	Num	3	40	ROOF GLAZING DAMAGE FROM IMPACT FORCES
15	GLI MPWS	Num	3	43	WS GLAZING DAMAGE FROM IMPACT FORCES
16	GLOCCBL	Num	3	46	BL GLAZING DAMAGE FROM OCCUPANT CONTACT
17	<b>GLOCCLF</b>	Num	3	49	LF GLAZING DAMAGE FROM OCCUPANT CONTACT
18	GLOCCLR	Num	3	52	LR GLAZING DAMAGE FROM OCCUPANT CONTACT
19	GLOCCOTH	Num	3	55	OTHER GLAZING DAMAGE FROM OCC. CONTACT
20	GLOCCRF	Num	3	58	RF GLAZING DAMAGE FROM OCCUPANT CONTACT
21	GLOCCRR	Num	3	61	RR GLAZING DAMAGE FROM OCCUPANT CONTACT
22	GLOCCRUF	Num	3	64	ROOF GLAZING DAMAGE FROM OCC. CONTACT
23	GLOCCWS	Num	3	67	WS GLAZING DAMAGE FROM OCCUPANT CONTACT
24	GLPREBL	Num	3	70	BL WINDOW PRECRASH GLAZING STATUS
25	GLPRELF	Num	3	73	LF WINDOW PRECRASH GLAZING STATUS
26	GLPRELR	Num	3	76	LR WINDOW PRECRASH GLAZING STATUS
27	GLPREOTH	Num	3	79	OTHER WINDOW PRECRASH GLAZING STATUS
28	GLPRERF	Num	3	82	RF WINDOW PRECRASH GLAZING STATUS
29	GLPRERR	Num	3	85	RR WINDOW PRECRASH GLAZING STATUS
30	GLPRERUF	Num	3	88	ROOF WINDOW PRECRASH GLAZING STATUS
31	GLPREWS	Num	3	91	WS WINDOW PRECRASH GLAZING STATUS
32	GLTYPBL	Num	3	94	BL TYPE OF WINDOW/WINDSHIELD GLAZING
33	GLTYPLF	Num	3	97	LF TYPE OF WINDOW/WINDSHIELD GLAZING
34	GLTYPLR	Num	3	100	LR TYPE OF WINDOW/WINDSHIELD GLAZING
35	GLTYPOTH	Num	3	103	OTHER TYPE OF WINDOW/WINDSHIELD GLAZING
36	GLTYPRF	Num	3	106	RF TYPE OF WINDOW/WINDSHIELD GLAZING
37	GLTYPRR	Num	3	109	RR TYPE OF WINDOW/WINDSHIELD GLAZING
38	GLTYPRUF	Num	3	112	ROOF TYPE OF WINDOW/WINDSHIELD GLAZING
39	GLTYPWS	Num	3	115	WS TYPE OF WINDOW/WINDSHIELD GLAZING
40	OPENLF	Num	3	118	LF DOOR, TAILGATE OR HATCH OPENING
41	OPENLR	Num	3	121	LR DOOR, TAILGATE OR HATCH OPENING
42	OPENRF	Num	3	124	RF DOOR, TAILGATE OR HATCH OPENING
43	OPENRR	Num	3	127	RR DOOR, TAILGATE OR HATCH OPENING
44	OPENTG	Num	3	130	TG DOOR, TAILGATE OR HATCH OPENING
45	<b>PASI NTEG</b>	Num	3	133	PASSENGER COMPARTMENT INTEGRITY
46	PSU	Num	3	136	PRIMARY SAMPLING UNIT NUMBER
47	STRATI F	Char	1	139	CASE STRATUM
48	VEHNO	Num	3	140	VEHI CLE NUMBER
49	VERSION	Num	4	143	VERSION NUMBER
50	ADAPTEQ	Num	3	147	ADAPTIVE (ASSISTIVE) DRIVING EQUIPMENT
51	BOLSTDEF	Num	3	150	KNEE BOLSTER DEFORMED - OCCUPANT CONTACT
52	COLUMTYP	Num	3	153	STEERING COLUMN TYPE
53	GLOVOPEN	Num	3	156	DID GLOVE COMPARTMENT DOOR OPEN
54	CDRI R1	Num	3	159	1ST DOMINANT CRUSH DIRECTION
55	I NLOC1	Num	3	162	1ST LOCATION OF INTRUSION
56	I NCOMP1	Num	3	165	1ST INTRUDING COMPONENT
57	I NMAG1	Num	3	168	1ST MAGNITUDE OF INTRUSION
58	CDRI R2	Num	3	171	2ND DOMINANT CRUSH DIRECTION
59	I NLOC2	Num	3	174	2ND LOCATION OF INTRUSION
60	INCOMP2	Num	3	177	2ND INTRUDING COMPONENT
61	I NMAG2	Num	3	180	2ND MAGNITUDE OF INTRUSION
62	CDRI R3	Num	3	183	3RD DOMINANT CRUSH DIRECTION
63	I NLOC3	Num	3	186	3RD LOCATION OF INTRUSION
64	INCOMP3	Num	3	189	3RD INTRUDING COMPONENT
65	I NMAG3	Num	3	192	3RD MAGNITUDE OF INTRUSION
66	CDRI R4	Num	3	195	4TH DOMINANT CRUSH DIRECTION
67	I NLOC4	Num	3	198	4TH LOCATION OF INTRUSION
68	I NCOMP4	Num	3	201	4TH LOCATION OF INTROSTON 4TH INTRUDING COMPONENT
69	I NMAG4	Num	3	204	4TH MAGNITUDE OF INTRUSION
70	CDRI R5	Num	3	207	5TH DOMINANT CRUSH DIRECTION
71	I NLOC5	Num	3	210	5TH LOCATION OF INTRUSION
	22000		•	~10	200.1110 OI INIMODION

72	INCOMP5	Num	3	213	5TH INTRUDING COMPONENT
73	I NMAG5	Num	3	216	5TH MAGNITUDE OF INTRUSION
74	CDRI R6	Num	3	219	6TH DOMINANT CRUSH DIRECTION
75	I NLOC6	Num	3	222	6TH LOCATION OF INTRUSION
76	INCOMP6	Num	3	225	6TH INTRUDING COMPONENT
77	I NMAG6	Num	3	228	6TH MAGNITUDE OF INTRUSION
78	CDRI R7	Num	3	231	7TH DOMINANT CRUSH DIRECTION
79	I NLOC7	Num	3	234	7TH LOCATION OF INTRUSION
80	INCOMP7	Num	3	237	7TH INTRUDING COMPONENT
81	I NMAG7	Num	3	240	7TH MAGNITUDE OF INTRUSION

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# CONTENTS PROCEDURE

#	Vari abl e	Туре	Len	Pos	Label
	CDRI R8	Num	3	243	8TH DOMINANT CRUSH DIRECTION
83	I NLOC8				8TH LOCATION OF INTRUSION
84	INCOMP8	Num			8TH INTRUDING COMPONENT
85	I NMAG8	Num	3	252	8TH MAGNITUDE OF INTRUSION
86	CDRI R9	Num	3	255	9TH DOMINANT CRUSH DIRECTION
87	I NLOC9	Num		258	9TH LOCATION OF INTRUSION
88	INCOMP9	Num	3	261	9TH INTRUDING COMPONENT
89	I NMAG9	Num	3	264	9TH MAGNITUDE OF INTRUSION
90	CDRI R10	Num	3	267	10TH DOMINANT CRUSH DIRECTION
91	INLOC10	Num	3	270	10TH LOCATION OF INTRUSION
92	INCOMP10	Num	3	273	10TH INTRUDING COMPONENT
93	INMAG10	Num	3	276	10TH MAGNITUDE OF INTRUSION
94	ODOMETER	Num	3	279	ODOMETER READING
95	PANELDAM	Num	3	282	INSTRUMENT PANEL DAMAGE - OCC. CONTACT
96	RATWGT	Num	6	285	RATIO INFLATION FACTOR
97	RDEFLOC	Num	3	291	LOCATION STEERING RIM/SPOKE DEFORMATION
98	RI MDEF	Num	3	294	STEERING RIM/SPOKE DEFORMATION
99	COLMTELE	Num	3	297	TELESCOPING STEERING COLUMN ADJUSTMENT
100	COLMTI LT	Num	3	300	TILT STEERING COLUMN ADJUSTMENT
101	BOLSTYPE	Num	3	303	TYPE OF KNEE BOLSTER COVERING

----Sort Information----

Sortedby: PSU CASENO VEHNO Validated: YES

Character Set: ANSI

# APPENDIX A

# DATA COLLECTION FORMS

(These forms can be found in the NASS Data Collection, Coding and Editing Manual)

### APPENDIX B

### CODING INFORMATION FOR VEHICLE MAKE/MODEL

(The complete codes can be found in the NASS Data Collection, Coding and Editing Manual)

The primary source of information on vehicle make and model is vehicle inspection; the VIN provides vehicle make data. Secondary sources include the police report and interviews. If the make of the vehicle is known and the model is not known, but the vehicle type (e. g., passenger car) is known, then Vehicle Model is coded as "399" (Unknown automobile). If the make of the vehicle is not known but the body type is known (e.g., a hit-and-run 2-door sedan), then Vehicle Make is coded "99" (Unknown) and Vehicle Model is coded "399" (Unknown automobile). If no information is available for a vehicle, then Vehicle Make and Body Type are coded "99" (Unknown) and Vehicle Model is coded "999" (Unknown).

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

001-397 -	Passenger vehicle (automobile)
398 -	Other automobile
399 -	Unknown automobile
401-490 -	Light trucks (including compact and large utility vehicles, utility station wagons, minivans, large vans [includes step vans and van derivatives], compact pickup trucks, and large pickup trucks)
498 -	Other light truck
499 -	Unknown light truck
701-739 -	Motored Cycles/ATCs/ATVs (including motorcycles, mopeds, minibikes, motorscooters and dirt bikes) (701 - 709 Motorcycles/Mopeds) (731 - 739 ATCs/ATVs)
798 -	Other motored cycle
799 -	Unknown motored cycle
801-890 -	Medium/heavy trucks (includes all trucks over 10,000 lbs. GVWR except some pickup type trucks under Body Type code "31" -Large pickup)
898 -	Other medium/heavy truck
899 -	Unknown medium/heavy truck
901-983 -	Buses
988 -	Other bus
989 -	Unknown bus
998 -	Other vehicle (includes construction equipment, farm vehicles and go-karts)
999 -	Unknown vehicle

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

### **Motored Cycles**

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

## All Terrain Cycles/Vehicles

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

## Trucks and Buses

- 850 M/H truck based motor home
- 881 Medium/Heavy CBE
- 882 Medium/Heavy COE/low entry
- 883 Medium/Heavy COE/high entry
- 884 Medium/Heavy Unknown engine location
- 890 Medium/Heavy COE entry position unknown
- 950 Truck based motor home
- 981 Bus conventional front engine
- 982 Bus front engine/flat front
- 983 Bus rear engine/flat front

## Other

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

## **Unknown**

- 399 Unknown automobile
- 499 Unknown light truck
- 799 Unknown motored cycle
- 899 Unknown medium/heavy truck
- 989 Unknown bus
- 999 Unknown vehicle

#### APPENDIX C

#### MISSING RECORD RULES

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

Accident Record One required for every accident.

Accident Event Record At least one required for every accident.

General Vehicle Record

Complete Record: One required for every CDS applicable vehicle (GV07=01-49).

Partial Record: One required (completed through variable GV36) for every non CDS applicable

vehicle (GV07=50-99).

Exterior Vehicle Record

Complete Record: One required for every inspected (GV67=1-3) CDS applicable vehicle (GV07=01-49)

involved in a CDC applicable event.

Partial Record: One required for every inspected CDS applicable vehicle not involved in a CDC

applicable event (variables EV04-19 will be blank).

Missing Record: (1) Not inspected (GV67=0) CDS applicable vehicle.

(2) Non CDS applicable vehicle (GV07=50-99).

Interior Vehicle Record

Complete Record: Towed (GV10=1), inspected (GV67=1-3), CDS applicable vehicle (GV07=01-49).

Missing Record: (1) Towed, not inspected (GV67=0) CDS applicable vehicle.

(2) Not towed (GV10=0 or 9) CDS applicable vehicle.

(3) Non CDS applicable vehicle (GV07=50-99).

Occupant Assessment

Complete Record: Towed (GV10=1), CDS applicable vehicle (GV07=01-49).

Missing Record: (1) Not towed (GV10=0 or 9), CDS applicable vehicle.

(2) Non CDS applicable vehicle (GV07=50-99).

Occupant Injury Record

Complete Record: Towed (GV10=1), CDS applicable vehicle (GV07=01-49) with an occupant having

a recorded injury (OA70=01-96).

Missing Record: (1) Towed, CDS applicable vehicle with occupant not having a recorded injury

(OA70=00,97,99).

(2) Not towed (GV10=0 or 9), CDS applicable vehicle.

(3) Non CDS applicable vehicle (GV07=50-99).

#### APPENDIX D

### CDC AND DELTA-V

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

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

#### Clock Direction is coded as follows:

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

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

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

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

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

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

<u>Horiz</u>	ontal Impacts	<u>Top</u>	or Undercarriage
D	Distributedside or end	D	Distributed (F+P+B)
L	Leftfront or rear	F	Front Section
C	Centerfront or rear	P	Center Section
R	Rightfront or rear	В	Rear Section
F	Side frontleft or right	Y	F+P
P	Side center sectionL or R	Z	P+B
В	Side rearleft or right	9	Unknown
Y	Side $(F + P)$ or end $(L + C)$		
Z	Side $(P + B)$ or end $(C + R)$		
9	Unknown		

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

Vertical - Front, Rear, or Side Impacts

- A All Top of frame to top Н Everything below belt line Ε G Belt line and above M Middle--top of frame to belt line or hood Frame--top of frame, frame, bottom of frame (including undercarriage) L Below undercarriage level (wheel and tires only) W 9 Unknown
- Lateral Top and Undercarriage Impacts
- D Distributed
  L Left
  C Center
  R Right
  Y Left and Center (L + C)
  Z Right and Center (R + C)
  9 Unknown

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

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

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

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

#### Delta-V.

Delta-V is defined as the vector velocity change during the collision phase of a crash or as common velocity minus approach velocity, where common velocity is the velocity of both vehicles at the instant of maximum crush:

$$Delta - V = V common - V approach$$

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

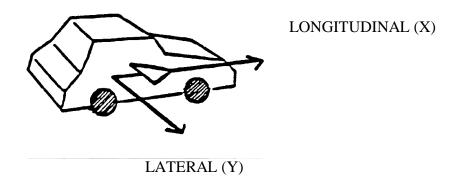


Figure D-1

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

# APPENDIX E

# **SELECTED COUNTS**

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

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

!	Total Number of Type Accident Records	4,552
!	Total Number of Accident Description Record	30,931
!	Total Number of Vehicle Profile Records	2,412
!	Total Number of Person Profile Records	5,354
!	Total Number of Accident Records	4,552
!	Total Number of Accident Event Records	8,546
!	Total Number of General Vehicle Records	7,971
!	Total Number of Exterior Vehicle Records	5,648
!	Total Number of Interior Vehicle Records	5,070
!	Total Number of Occupant Assessment Records	0,507
!	Total Number of Occupant Injury Records	29,638

### APPENDIX F - PSU DEMOGRAPHIC DATA

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

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

# PRIMARY SAMPLING UNIT (PSU) CODES AND DESCRIPTION

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

# POPULATION

			PERCENT	LAND
PSU	1990	1980	CHANGE	AREA
P02	165,304	158,158	+4.5	1131
P03	2,300,664	2,230,936	+3.1	70
P04	433,203	346,038	+25.2	641
P05	678,111	643,621	+5.4	486
P06	1,585,577	1,688,210	-6.1	136
P08	966,570	1,026,147	-5.8	672
P09	830,422	737,822	+12.6	939
P11	282,937	264,748	+6.9	710
P12	430,459	450,449	-4.4	642
P13	158,983	157,589	+0.9	507
P41	271,074	274,602	-1.3	55
P43	423,380	301,327	+40.5	854
P45	335,749	319,694	+5.0	506
P48	167,098	153,264	+9.0	1961
P49	1,006,877	904,078	+11.4	331
P72	2,783,726	3,005,072	-7.4	228
P73	475,594	522,965	-9.1	501
P74	416,444	397,038	+4.9	333
P75	441,500	374,194	+18.0	917
P76	74,778	71,348	+4.8	11219
P78	120,739	90,554	+33.3	9994
P79	4,948,333	4,149,319	+19.3	3554
P81	991,060	775,903	+27.7	2044
P82	516,259	493,846	+4.5	84
All	PSUs			
	20,804,841	19,536,922	+6.5	38,515
Tota	al U.S.			
	248,709,873	226,542,203	+9.8	3,618,770

# POPULATION BY AGE GROUP (1990)

PSU	UNDER 5	5 TO 9	10 TO 14	15 TO 19	20 TO 24
P02	11396	11045	10150	11765	12206
P03	178420	165956	164476	164977	179622
p04	28816	27497	26434	25568	24228
p05	45837	43619	39570	39910	44516
р0б	115871	104113	100472	107408	135952
P08	61325	59345	54992	54766	56554
P09	64026	58331	53667	59426	77972
P11	19160	17431	15395	24922	39623
P12	33436	33652	33493	33647	30825
P13	12854	12930	12082	11336	10353
P41	16068	14648	12681	13713	16586
P43	30174	27295	25468	29177	40887
P45	21426	21148	20155	24918	30077
P48	10818	11073	11539	15863	19330
P49	81138	70967	61951	65369	91074
P72	216468	201140	190488	200988	235616
P73	34039	37502	38942	36770	30902
P74	33314	32489	29325	28498	31740
P75	33469	34032	31125	29471	25841
P76	5771	6388	6418	5781	3973
P78	10160	10104	9608	9091	9573
P79	416258	377775	348590	364937	419299
P81	75665	74986	67462	62023	65249
P82	29269	23842	20057	25641	48364

# POPULATION BY AGE GROUP (1990) CONT.

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

# WORKERS AND MEANS OF TRANSPORTATION TO WORK

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

# HOUSING UNITS AND VEHICLE AVAILABILITY

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