

Large Truck Crash Causation Study

Codebook



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TABLE OF CONTENTS

Introduction	1
Case selection and sampling weights.....	1
Structure of data files	2
Sources of Data	3
Documentation provided by codebook.....	4
Airbags Data Set.....	5
Brakes Data Set.....	12
CargoShiftAssessments Data Set.....	18
CDCCrush Data Set.....	26
Crash Data Set.....	40
CrashAssessment Data Set.....	49
CrashDiscussion Data Set.....	58
DMVViolation Data Set	59
DriverAssessment Data Set.....	66
DriverDecisionAggression Data Set.....	84
DriverDrugs Data Set.....	94
DriverHealth Data Set	96
DriverRecognitionDistraction Data Set	104
DriverSleep Data Set	112
Environment Data Set.....	125
Events Data Set	138
FactorAssessment Data Set	144
GeneralVehicle Data Set	164
HazMat Data Set.....	196
HazMatinsp Data Set.....	198
Injuries Data Set.....	200
JackknifeAssessments Data Set.....	209
MCMISdriverData Data Set	214
MCMISviolation Data Set.....	218
NonMotorists Data Set.....	221
Occupants Data Set.....	230
Overview Data Set.....	256
PARViolations Data Set	272
SaferAuthorityStatus Data Set.....	275
SaferCarrier Data Set.....	276
SaferCrashSummary Data Set	284
SaferDriverCrashReport Data Set	287
SaferDriverInspection Data Set	297
SaferDriverViolation Data Set.....	303
SaferInspectionsSummary Data Set.....	305
SaferInsurance Data Set.....	314
SaferReview Data Set.....	317
SafeStat Data Set	320
TruckExterior Data Set.....	326
TruckInspection Data Set.....	337
TruckUnits Data Set.....	339
VehicleEvents Data Set	354

VehicleExterior Data Set.....	360
Generalized Estimated Sampling Errors.....	375
Index.....	379

Introduction

This report documents the September 30, 2005, version of the Large Truck Crash Causation Study (LTCCS) data set. The U.S. Department of Transportation's (DOT) Federal Motor Carrier Safety Administration (FMCSA) and National Highway Traffic Safety Administration (NHTSA) conducted a multiyear, nationwide study of factors that contribute to truck crashes. The goal of the LTCCS is to identify countermeasures to reduce the number and severity of truck crashes. This report summarizes all the information in each of the 43 data files that comprise the LTCCS data set.

Case selection and sampling weights

The LTCCS was conducted at 24 data collection sites in 17 States by researchers from NHTSA's National Automotive Sampling System (NASS) and State truck inspectors. Data were collected on crashes from 2001 through 2003. Crashes were sampled for the LTCCS in two stages. The sampling structure used the existing structure of NHTSA's National Automotive Sampling System Crashworthiness Data System (NASS CDS). That is, cases were sampled from sites that are part of the NASS CDS system. The first stage of sampling is the selection of primary sampling units (PSUs), which are geographic areas. The PSUs were sampled from 12 "strata," which were larger geographic areas classified by four geographic regions (northeast, midwest, south, and west) and three categories of population density (central city, large county, and group of counties). Two PSUs were sampled from each of the 12 strata, to make 24 sampling sites.

The second stage of sampling is to select crashes occurring within each sampled PSU. Crashes were eligible for sampling if they met the following two criteria:

1. The crash involved at least one large truck, defined as a truck with a gross vehicle weight rating (GVWR) of 10,001 pounds or more.
2. The crash involved at least one fatality, incapacitating, or non-incapacitating but evident injury.

Injuries were classified using the KABCOU injury severity scale. Table 1 shows the available levels. In that scale, crashes eligible for sampling included a "K," "A," or "B" injury.

Table 1 KABCOU Injury Scale

Code	Definition
K	Fatal injury
A	Incapacitating Injury
B	Non-Incapacitating Injury
C	Possible Injury
O	No Injury
U	Unknown

In each data file, the variables PSU and PSUstrata identify the PSU and PSU selection stratum respectively, and the variable RATWeight contains the correct case weight to produce nationally representative estimates. The *Large Truck Crash Causation Study Analytical Users Manual* provides a complete description of the sample design and calculation of sampling weights. The data files provided here include both cases with valid, nonzero weights and cases with zero weights. The cases with zero weights either are from the pilot phase of the project or are cases that were sampled but later found to not meet the selection criteria. They are included for clinical analysis or as anecdotal data. They should not be included in estimates of nationally-representative results. In most software systems that support the use of a weighting variable, these cases will be dropped from a weighted (nationally-representative) analysis since the weight variable, RATWeight, is set to zero for the nonsample cases.

Structure of data files

The LTCCS data is supplied in 43 data sets. The data were originally collected using a complex relational data system, and then formatted into analysis data sets which preserve many aspects of the original relational design. Table 2 identifies the data files, the level at which the data in each file were collected, and the variable names that can be used to uniquely identify a record in each data file. The “level” at which the data are recorded simply corresponds to the entity each record in the particular data file pertains to. Some files have one record per crash, one record per vehicle, or one record per driver. Other data files contain information at a more detailed level and may have multiple records per vehicle. For example, the *Brakes* data file includes one record for each axle on the truck combination. Since truck combinations sampled for the LTCCS included up to 11 axles, some trucks have eleven records in the *Brakes* file.

Table 2 LTCCS Data Files

Data set name	# records	# records with nonzero weights	Level	Unique record identifier
AIRBAGS	857	797	Airbag	CaselD, VehicleNumber, AirbagNumber
BRAKES	5,283	4,798	Brake	CaselD, VehicleNumber, and Axle
CRASH	1,070	963	Crash	CaselD
DRIVERDRUGS	1,458	1,330	Drug	CaselD, VehicleNumber and DrugName
EVENTS	2,777	2,535	Event	CaselD and EventSequence
HAZMAT	57	51	Hazardous material	CaselD, VehicleNumber and Material
HAZMATINSP	4,107	3,517	Hazardous material inspection	CaselD, VehicleNumber and HMIInspection
CDCCRUSH	3,973	3,630	Impact	CaselD, VehicleNumber, EventNumber and ImpactNumber or CaselD, VehicleNumber, EventNumber and PositionNumber
INJURIES	8,937	8,295	Injury	CaselD, VehicleNumber, OccupantNumber, and InjuryNumber
SAFERDRIVERINSPECTION	795	778	Inspection	CaselD, VehicleNumber, and SDIDate
NONMOTORISTS	53	41	Nonmotorist	CaselD and NonMotoristNumber
OCCUPANTS	3,014	2,761	Occupant	CaselD, VehicleNumber and OccupantNumber
VEHICLEEXTERIOR	921	838	Passenger vehicle	CaselD and VehicleNumber
SAFERDRIVERCRASH-REPORT	215	213	Previous crash	CaselD, VehicleNumber, and SCDDate
SAFERREVIEW	1,581	1,480	Review	CaselD, VehicleNumber and ReviewDate
TRUCKEXTERIOR	1,241	1,123	Truck	CaselD and VehicleNumber
TRUCKUNITS	2,179	1,972	Truck unit	CaselD, VehicleNumber and TUNPosition
CARGOSHIFTASSESSMENTS	2,284	2,078	Vehicle	CaselD and VehicleNumber
CRASHASSESSMENT	2,284	2,078	Vehicle	CaselD and VehicleNumber
CRASHDISCUSSION	2,284	2,078	Vehicle	CaselD and VehicleNumber
ENVIRONMENT	2,284	2,078	Vehicle	CaselD and VehicleNumber
FACTORASSESSMENT	2,284	2,078	Vehicle	CaselD and VehicleNumber
GENERALVEHICLE	2,284	2,078	Vehicle	CaselD and VehicleNumber
JACKKNIFEASSESSMENTS	2,284	2,078	Vehicle	CaselD and VehicleNumber
OVERVIEW	2,284	2,078	Vehicle	CaselD and VehicleNumber

Data set name	# records	# records with nonzero weights	Level	Unique record identifier
VEHICLEEVENTS	2,284	2,078	Vehicle	CaseID and VehicleNumber
DRIVERASSESSMENT	2,284	2,078	Vehicle/Driver	CaseID and VehicleNumber
DRIVERDECISION-AGGRESSION	2,284	2,078	Vehicle/Driver	CaseID and VehicleNumber
DRIVERHEALTH	2,284	2,078	Vehicle/Driver	CaseID and VehicleNumber
DRIVERRECOGNITION-DISTRACTION	2,284	2,078	Vehicle/Driver	CaseID and VehicleNumber
DRIVERSLEEP	2,284	2,078	Vehicle/Driver	CaseID and VehicleNumber
MCMISDRIVERDATA	1,016	927	Vehicle/Driver	CaseID and VehicleNumber
SAFERAUTHORITYSTATUS	605	560	Vehicle/Driver	CaseID and VehicleNumber
SAFERCARRIER	796	742	Vehicle/Driver	CaseID and VehicleNumber
SAFERINSPECTIONS-SUMMARY	796	742	Vehicle/Driver	CaseID and VehicleNumber
SAFERINSURANCE	605	560	Vehicle/Driver	CaseID and VehicleNumber
SAFESTAT	1,882	1,787	Vehicle/Driver	CaseID and VehicleNumber
DMVVIOLATION	4,712	4,277	Violation	CaseID, VehicleNumber, and ViolationNumber
MCMISVIOLATION	4,309	3,907	Violation	CaseID, VehicleNumber and Code
PARVIOLATIONS	1,945	1,816	Violation	CaseID, VehicleNumber and PARViolationCode
SAFERDRIVERVIOLATION	643	643	Violation	CaseID and VehicleNumber*
TRUCKINSPECTION	3,241	3,008	Violation	CaseID, VehicleNumber, TINPosition and TINViolationCode
SAFERCRASHSUMMARY	2,784	2,596	Year	CaseID, VehicleNumber and SCSYear

* One record per violation but no unique record identifier.

The identifier variables can be used to link the data sets together to permit analyses that use information from more than one data set. A unique CaseID variable is assigned to each crash. Within each crash, each vehicle is assigned a unique value, stored in the VehicleNumber variable. A unique OccupantNumber is assigned to each occupant of a specific vehicle. Thus, the combination of CaseID, VehicleNumber, and OccupantNumber uniquely identifies a specific individual. To link information on drivers in the *DriverAssessment* file to vehicle characteristics in the *GeneralVehicle* file, one would join records that match on CaseID and VehicleNumber.

Sources of Data

The information in most of the data files was collected by NHTSA researchers and State truck inspectors at the crash scene and in subsequent investigation and assessment. Data in some of the data files was linked in from administrative data sets.

Data in two data sets, *MCMISDriverData* and *MCMISDriverViolation* were linked in from the Motor Carrier Management Information System (MCMIS) Crash and MCMIS Inspection files, respectively. The MCMIS Crash file contains records of crashes reported by the States. All crashes must be reported that include either a truck with a GVWR over 10,000 pounds or a gross combination weight rating over 10,000 pounds, or a bus designed to transport more than eight people including the driver, or a vehicle displaying a hazardous materials placard, and the crash includes either a fatality, a person injured and transported for immediate medical attention, or a vehicle towed due to disabling damage. All such crashes must be reported by the States to the MCMIS Crash file, though it is known that during the data collection phase of the LTCCS, a significant number of qualifying crashes were not reported. The MCMIS Inspection file includes records of all vehicle inspections conducted by FMCSA, including roadside inspections, compliance reviews, and other inspections.

Data in ten data sets, all of which are named with the prefix SAFER-, are linked in from the FMCSA's Safety and Fitness Electronic Records System database. The SAFER system is used to evaluate the fitness of motor carriers subject to FMCSA regulation and contains information on the carrier's fitness status, historical information on previous crashes, inspections, violations, and previous safety reviews of the carrier. The data files contain only records of cases that could be matched to records in the SAFER system. Information about prior crashes and violations can also be found in the *GeneralVehicle* data file and the *DMVViolation* data file.

Documentation provided by codebook

This codebook provides a complete listing of every variable and every code level in each data file (except for the record identifier variables that are repeated in each data file). For each variable in a data file, the codebook provides the distribution of records, the code values stored in the data file, the label associated with each code value, the data storage type, the storage length of the variable, and the format entry, if any. The codebook documents all records in the file. The records are not weighted but are raw counts of the number of records. The data files include both the pilot and nonsample records, which have a zero for the RATWeight variable, and case records, which have a valid RATWeight greater than zero.

Variable Name		② Format	③ Type	④ Length
BrakeType ①		ML538F	Numeric	8
Definition: Documents the type of brake system present at a particular axle.				
N ⑤	Prcnt	⑥ Code	⑦ Label	
4,910	92.9	1	Air	
205	3.9	2	Hydraulic	
40	0.8	3	Electric	
128	2.4	9	Unknown	

Figure 1 Codebook Listing Example

Figure 1 provides an example of an entry for the BrakeType variable in the Brakes data file.

1. The name of the variable in the SAS file.
2. The name of the format associated with the variable. This format is stored in the FORMATS.SASB7CAT file that is supplied along with the SAS data files. Not all variables have associated formats in the FORMATS.SASB7CAT file.
3. The storage type of the variable. Data are stored either as Numeric or Char (character) data.
4. The storage length in bytes for the variable. Storage of numeric variables range in length from three to eight bytes. Character variable storage lengths vary between one and 21,000, which is used to store the researcher's case narrative in the CrashDiscussion data file.
5. The frequency distribution (N) and percentage distribution (Prcnt) of the code levels recorded for each variable.
6. The code value stored in the data file. This is the actual value stored. In the case of Char variables that do not have an associated format, the codebook shows asterisks (*) for the code that is stored, and the stored character string is shown as the Label.
7. The label for each code value.

Codebook - Airbags Data Set

Airbags Data Set

The Airbags data set contains all the airbag-related information for each of the vehicles involved in the crash. This material is provided as one record per airbag.

The Airbags data set contains the variables CaseID, PSU, PSUStrat, RATWeight, VehicleNumber and AirbagNumber. AirbagNumber is assigned to each airbag in the vehicle. Each record is uniquely identified by CaseID, VehicleNumber and AirbagNumber. CaseID and VehicleNumber should be used to merge the Airbag data set with vehicle level data sets. CaseID, VehicleNumber and AIROccupantNumber should be used to merge the Airbags data set with the Occupant data set.

Variable Name	Format	Type	Length
AirbagNumber	BEST8	Numeric	8

Definition: Identifies the number of the airbag in the vehicle.

N	Prcnt	Code	Label
586	68.4	1	1
227	26.5	2	2
23	2.7	3	3
14	1.6	4	4
2	0.2	5	5
2	0.2	6	6
1	0.1	7	7
1	0.1	8	8
1	0.1	9	9

Variable Name	Format	Type	Length
OccupantNumber	OT54F	Numeric	8

Definition: Represents the occupant associated with this air bag, identified by their occupant number.

N	Prcnt	Code	Label
648	75.6	1	1
133	15.5	2	2
76	8.9	99	Unknown

Variable Name	Format	Type	Length
SeatRow1	OT60F	Numeric	8

Definition: Identifies an air bag deployment that occurred in the first row of seats in the vehicle.

N	Prcnt	Code	Label
855	99.8	1	First row
2	0.2	9	Unknown

Codebook - Airbags Data Set

Variable Name	Format	Type	Length
SeatLocation1	OT61F	Numeric	8

Definition: Identifies the seat location in the first row of the vehicle where an air bag deployment occurred.

N	Prcnt	Code	Label
648	75.6	1	First location
207	24.2	3	Third location
2	0.2	9	Unknown

Variable Name	Format	Type	Length
SeatRow2	OT60F	Numeric	8

Definition: Identifies an air bag deployment that occurred in the second row of seats in the vehicle.

N	Prcnt	Code	Label
6	0.7	1	First row
851	99.3	9	Unknown

Variable Name	Format	Type	Length
SeatLocation2	OT61F	Numeric	8

Definition: Identifies the seat location in the second row of the vehicle where an air bag deployment occurred.

N	Prcnt	Code	Label
5	0.6	1	First location
1	0.1	3	Third location
851	99.3	9	Unknown

Variable Name	Format	Type	Length
AirbagLocation	ML92F	Numeric	8

Definition: Identifies the location of a particular air bag.

N	Prcnt	Code	Label
578	67.4	1	Steering Wheel Hub
116	13.5	2	Top Instrument Panel
74	8.6	3	Mid Instrument Panel
2	0.2	4	Bottom Instrument Panel
33	3.9	5	Seat Back
9	1.1	6	Door
5	0.6	7	Roof Side Rail
1	0.1	98	Other
39	4.6	99	Unknown

Codebook - Airbags Data Set

Variable Name	Format	Type	Length
AirbagStatus	ML91F	Numeric	8

Definition: Documents the availability of the air bag.

N	Prcnt	Code	Label
782	91.2	1	Airbag Available
1	0.1	3	Airbag not reinstalled
74	8.6	9	Unknown if airbag available for this crash

Variable Name	Format	Type	Length
AirbagType	ML211F	Numeric	8

Definition: Describes the type of air bag present.

N	Prcnt	Code	Label
311	36.3	1	Orig. man. installed sys.
2	0.2	3	Replacement Air Bag
520	60.7	4	Unknown Type
1	0.1	8	No air bag available
23	2.7	9	Unknown

Variable Name	Format	Type	Length
Depowered	ML291F	Numeric	8

Definition: Indicates whether or not the vehicle was equipped with a redesigned air bag for this location. Redesigned air bags include second-generation air bags, next-generation air bags, Air Bag II, advanced air bags, and other innovative systems that have been developed to make use of air bag protection technology.

N	Prcnt	Code	Label
373	43.5	0	Not Redesigned
381	44.5	1	Redesigned
24	2.8	2	Advanced (specify)
1	0.1	70	No air bag available for this crash
78	9.1	99	Unknown

Variable Name	Format	Type	Length
Deployment	ML212F	Numeric	8

Definition: Describes when in the crash sequence the air bag deployed.

N	Prcnt	Code	Label
383	44.7	1	Deployed during crash (as a result of impact)
4	0.5	3	Deployed, details unknown

Codebook - Airbags Data Set

N	Prcnt	Code	Label
2	0.2	4	Deployed as a result of a non-collision event during accident
425	49.6	7	Not deployed
1	0.1	70	No airbag functional for this crash
42	4.9	99	Unknown if deployed

Variable Name	Format	Type	Length
AirbagFailure	ML160F	Numeric	8

Definition: Documents whether or not something abnormal has occurred to the air bag system. It may not necessarily mean that the air bag system was defective.

N	Prcnt	Code	Label
746	87.0	0	No
7	0.8	1	Yes (specify)
1	0.1	70	Airbag not available
9	1.1	79	Unknown if available
94	11.0	99	Unknown

Variable Name	Format	Type	Length
SwitchType	ML489F	Numeric	8

Definition: Describes the type of air bag cutoff switch present in the vehicle.

N	Prcnt	Code	Label
766	89.4	0	None present
14	1.6	1	Originally equipped
1	0.1	3	Switch present, type unknown
76	8.9	9	Unknown if switch present

Variable Name	Format	Type	Length
SwitchStatus	ML490F	Numeric	8

Definition: Describes the status of the airbag cutoff switch at the time of the crash.

N	Prcnt	Code	Label
12	1.4	0	Switch On/Automatic
766	89.4	7	None present
51	6.0	8	Unknown if switch present
28	3.3	9	Switch status unknown

Codebook - Airbags Data Set

Variable Name	Format	Type	Length
FlapsOpen	ML164F	Numeric	8

Definition: Documents whether or not the air bag properly opened at its tear points. A designated tear point is a weakened area of the flap material designed to allow the air bag easy escape from its storage area during deployment. Some air bags in the seat cushion and seat back may not have cover flaps, but will deploy through a seam that separates during the air bag deployment.

N	Prcnt	Code	Label
5	0.6	0	No
322	37.6	1	Yes
419	48.9	60	Not deployed
10	1.2	69	Unknown if deployed
1	0.1	70	No airbag available for this crash
10	1.2	79	Unknown
90	10.5	99	Unknown if flaps/seams opened at tear points

Variable Name	Format	Type	Length
FlapsDamaged	ML163F	Numeric	8

Definition: Indicates whether or not the air bag cover flaps sustained damage during deployment. Normal separation/tearing at the designated tear points does not constitute damage.

N	Prcnt	Code	Label
316	36.9	0	No
6	0.7	1	Yes (specify)
419	48.9	60	Not deployed
10	1.2	69	Unknown if deployed
1	0.1	70	No airbag available for this crash
105	12.3	99	Unknown if airbag module cover flaps opened at tear points

Variable Name	Format	Type	Length
AirbagDamage	ML158F	Numeric	8

Definition: Documents any damage to the air bag during the crash sequence.

N	Prcnt	Code	Label
295	34.4	0	Not Damaged
1	0.1	1	Ruptured
4	0.5	2	Cut
9	1.1	3	Torn
1	0.1	4	Punctured
4	0.5	5	Burned
2	0.2	6	Abraded
419	48.9	60	Not deployed

Codebook - Airbags Data Set

N	Prcnt	Code	Label
17	2.0	69	Unknown if deployed
1	0.1	70	No airbag available for this crash
2	0.2	88	Other damage (specify)
1	0.1	95	Damaged, details unknown
101	11.8	99	Deployed, unknown if damaged

Variable Name	Format	Type	Length
DamageSource	ML223F	Numeric	8

Definition: Documents the source of damage to the air bag during the crash sequence. This variable is related to the variable "Was There Damage To The Air Bag?"

N	Prcnt	Code	Label
3	0.4	5	Fire in vehicle
1	0.1	6	Thermal burns
8	0.9	7	Windshield
3	0.4	8	Rescue or emergency efforts
295	34.4	50	Not Damaged
65	7.6	59	Deployed, unknown if damaged
419	48.9	60	Not deployed
17	2.0	69	Unknown if deployed
1	0.1	70	No airbag available for this crash
2	0.2	88	Other damage source (specify)
43	5.0	99	Damaged, unknown source

Variable Name	Format	Type	Length
PriorCrashes	ML215F	Numeric	8

Definition: Documents whether the vehicle had been in any previous crashes (that may or may not have involved air bag deployment).

N	Prcnt	Code	Label
148	17.3	1	No previous crashes
6	0.7	2	Previous crash(es) without deployment(s)
1	0.1	3	One previous crash with deployment
3	0.4	8	Previous crashes, unknown deployment status
699	81.6	9	Unknown

Codebook - Airbags Data Set

Variable Name	Format	Type	Length
PriorMaintenance	ML165F	Numeric	8

Definition: Indicates whether or not the air bag had received any maintenance or service work prior to the crash.

N	Prcnt	Code	Label
138	16.1	0	No
719	83.9	9	Unknown

Variable Name	Format	Type	Length
CDC	ML162F	Numeric	8

Definition: Indicates the CDC's delta V rating for the impact associated with this air bag's deployment.

N	Prcnt	Code	Label
270	31.5	1	Highest Delta V
41	4.8	2	Second Highest Delta V
1	0.1	3	Other delta V (specify)
5	0.6	9	Unknown
413	48.2	60	Not deployed
17	2.0	69	Unknown if deployed
1	0.1	70	No airbag available for this crash
109	12.7	99	Deployed, unknown event

Variable Name	Format	Type	Length
ContactOther	ML214F	Numeric	8

Definition: Documents whether another occupant (besides the intended occupant) contacted this particular air bag.

N	Prcnt	Code	Label
336	39.2	0	No
4	0.5	1	Yes (specify)
419	48.9	60	Not deployed
10	1.2	69	Unknown if deployed
1	0.1	70	Airbag not functional (disconnected or not reinstalled)
15	1.8	79	Unknown
72	8.4	99	Deployed, unknown if other occupant contact to airbag

Codebook - Brakes Data Set

Brakes Data Set

The Brakes data set contains information about the brake equipment on the vehicles. It is broken out by axle, which becomes part of the unique key of this data set. This material is provided as one record per axle for each truck involved in the crash for which brakes have been coded.

The Brakes data set contains the variables CaseID, PSU, PSUStrat, RATWeight, and VehicleNumber. CaseID, VehicleNumber, and Axle uniquely identify each record in this data set. CaseID and VehicleNumber should be used to merge the Brakes data set with vehicle level data sets.

Variable Name	Format	Type	Length
Axle	BEST8	Numeric	8

Definition: Identifies the axle to which the brake information is related.

N	Prcnt	Code	Label
1,186	22.4	1	1
1,186	22.4	2	2
1,032	19.5	3	3
891	16.9	4	4
791	15.0	5	5
87	1.6	6	6
49	0.9	7	7
30	0.6	8	8
15	0.3	9	9
8	0.2	10	10
8	0.2	11	11

Variable Name	Format	Type	Length
BrakeType	ML538F	Numeric	8

Definition: Documents the type of brake system present at a particular axle.

N	Prcnt	Code	Label
4,910	92.9	1	Air
205	3.9	2	Hydraulic
40	0.8	3	Electric
128	2.4	9	Unknown

Codebook - Brakes Data Set

Variable Name	Format	Type	Length
BRAPosition	OT4F	Numeric	8

Definition: Identifies on which unit of the truck configuration a particular axle is located.

N	Prcnt	Code	Label
3,215	60.9	1	First Unit
1,623	30.7	2	Second Unit
120	2.3	3	Third Unit
325	6.2	9	Unknown

Variable Name	Format	Type	Length
ABSInstalled	ML535F	Numeric	8

Definition: Indicates whether or not ABS is available at a particular axle.

N	Prcnt	Code	Label
2,537	48.0	0	No
1,588	30.1	1	Yes
1,158	21.9	99	Unknown

Variable Name	Format	Type	Length
ABSFunctional	ML536F	Numeric	8

Definition: Indicates whether or not the ABS is functioning properly at a particular axle.

N	Prcnt	Code	Label
2,270	43.0	0	No
1,192	22.6	1	Yes
1,821	34.5	99	Unknown

Variable Name	Format	Type	Length
AdjustorType	ML537F	Numeric	8

Definition: Indicates the type of brake adjustment system that is present at a particular axle.

N	Prcnt	Code	Label
1,616	30.6	1	Man
2,405	45.5	2	Auto
1,262	23.9	99	Unknown

Codebook - Brakes Data Set

	Format	Type	Length
ChamberSize	OT5F14.2	Numeric	8

Definition: Documents the size of the brake chamber for the braking system at a particular axle.

N	Prcnt	Code	Label
1	0.0	1.83	1.83
3	0.1	2.06	2.06
1	0.0	10.8	10.80
1	0.0	11.43	11.43
2	0.0	13.3	13.30
2	0.0	13.34	13.34
12	0.2	14.45	14.45
6	0.1	14.5	14.50
35	0.7	16.19	16.19
21	0.4	16.2	16.20
6	0.1	16.27	16.27
3	0.1	16.5	16.50
200	3.8	17.2	17.20
12	0.2	17.21	17.21
399	7.6	17.22	17.22
1	0.0	17.7	17.70
2	0.0	18	18.00
2	0.0	18.3	18.30
2	0.0	18.33	18.33
187	3.5	18.34	18.34
66	1.2	18.4	18.40
5	0.1	20	20.00
3	0.1	20.5	20.50
151	2.9	20.55	20.55
1,892	35.8	20.56	20.56
868	16.4	20.6	20.60
2	0.0	20.64	20.64
3	0.1	22.86	22.86
6	0.1	22.9	22.90
5	0.1	24	24.00
2	0.0	27.94	27.94
47	0.9	30	30.00
1	0.0	30.48	30.48
5	0.1	38.1	38.10
3	0.1	40.64	40.64
17	0.3	41.9	41.90
9	0.2	41.91	41.91

Codebook - Brakes Data Set

N	Prcnt	Code	Label
10	0.2	45.7	45.70
3	0.1	45.72	45.72
2	0.0	50.8	50.80
4	0.1	60.96	60.96
18	0.3	76.2	76.20
263	5.0	8887	Not Applicable
515	9.7	9994	Not Examined
485	9.2	9999	Unknown

Variable Name	Format	Type	Length
ChamberType	ML539F	Numeric	8

Definition: Documents the type of chamber for a braking system at a particular axle.

N	Prcnt	Code	Label
1	0.0	1	A 6-15/16 1-3/8
4	0.1	3	C 8-1/16 1-3/4
1	0.0	8	C-6 4-1/2 1-1/4
4	0.1	9	C-9 5-1/4 1-3/8
20	0.4	10	C-12 5-11/16 1-3/8
55	1.0	11	C-16 6-3/8 1-3/4
623	11.8	12	C-20 6-25/32 1-3/4
241	4.6	13	C-24 7-7/32 1-3/4
3,024	57.2	14	C-30 8-3/32 2
10	0.2	15	C-36 9 2-1/4
2	0.0	16	D-30 8-1/8 2-1/4
4	0.1	17	DISC NA
28	0.5	18	ELEC NA
156	3.0	19	HYDR NA
2	0.0	20	L-16 6-3/8 2.0
13	0.2	21	L-20 6-25/32 2.0
22	0.4	22	L-24 7-7/32 2.0
5	0.1	23	L-24* 7-7/32 2.5
68	1.3	24	L-30 8-3/32 2.5
1	0.0	25	MM 8-1/8 2-1/4
1	0.0	29	R-20 5-15/16 2
6	0.1	30	R-24 6-13/32 2
2	0.0	31	R-30 7-1/16 2-1/4
27	0.5	34	WEDG 5/16 5/16
43	0.8	88	Not Applicable
920	17.4	99	Unknown

Codebook - Brakes Data Set

Variable Name	Format	Type	Length
StrokeType	ML531F	Numeric	8

Definition: Indicates whether a particular chamber type is categorized as long or short.

N	Prcnt	Code	Label
218	4.1	1	Long
3,738	70.8	2	Short
822	15.6	3	Not Examined
505	9.6	9	Unknown

Variable Name	Format	Type	Length
LeftLength	OT6F14.2	Numeric	8

Definition: Documents the length (in centimeters) of the left brake chamber at a particular axle. This value is measured and provided by the FMCSA Truck Inspector.

N	Prcnt	Code	Label
7	0.1	0	0.00
20	0.4	0.13	0.13
2	0.0	0.16	0.16
1	0.0	0.19	0.19
1	0.0	0.24	0.24
4	0.1	0.25	0.25
11	0.2	0.32	0.32
2	0.0	0.35	0.35
1	0.0	0.40	0.40
1	0.0	0.48	0.48

1	0.0	10.48	10.48
1	0.0	12.90	12.90
3	0.1	13.96	13.96
1	0.0	14.52	14.52
1	0.0	15.32	15.32
1	0.0	16.13	16.13
265	5.0	8887	Not Applicable
68	1.3	9992	Inoperable
965	18.3	9994	Not Examined
167	3.2	9999	Unknown

Codebook - Brakes Data Set

Variable Name	Format	Type	Length
RightLength	OT6F14.2	Numeric	8

Definition: Documents the length (in centimeters) of the right brake chamber at a particular axle. This value is measured and provided by the FMCSA Truck Inspector.

N	Prcnt	Code	Label
8	0.2	0	0.00
1	0.0	0.01	0.01
21	0.4	0.13	0.13
3	0.1	0.16	0.16
1	0.0	0.19	0.19
4	0.1	0.25	0.25
2	0.0	0.29	0.29
12	0.2	0.32	0.32
2	0.0	0.35	0.35
2	0.0	0.40	0.40

1	0.0	13.96	13.96
1	0.0	14.28	14.28
1	0.0	14.52	14.52
2	0.0	14.59	14.59
1	0.0	15.32	15.32
1	0.0	16.13	16.13
263	5.0	8887	Not Applicable
60	1.1	9992	Inoperable
963	18.2	9994	Not Examined
165	3.1	9999	Unknown

Codebook - CargoShiftAssessments Data Set

CargoShiftAssessments Data Set

The CargoShiftAssessments data set contains detailed information on cargo shift events for all vehicles in the crash. Cargo shift is a pre-crash event. One record of this information is stored for each vehicle.

The CargoShiftAssessments data set contains the variables CaseID, PSU, PSUStrat, RATWeight, and VehicleNumber. CaseID and VehicleNumber uniquely identify each record in this data set and should be used to merge the CargoShiftAssessments data set with other vehicle level data sets. This data set also contains the following variables:

Variable Name	Format	Type	Length
ACSType	ML1609F	Numeric	8

Definition: Documents the occurrence of a precrash cargo shift and the type of freight that shifted. The cargo shift must occur prior to any impact event.

N	Prcnt	Code	Label
909	39.8	0	No pre-crash cargo shift
5	0.2	2	Bulk freight (containerized)
10	0.4	3	Bulk freight (not containerized)
14	0.6	4	Large objects (solids)
10	0.4	6	Tank - liquids
1,300	56.9	77	Not applicable
4	0.2	88	Other (specify)
32	1.4	99	Unknown

Variable Name	Format	Type	Length
ACSLocation	ML1607F	Numeric	8

Definition: Establishes the vehicle location at the start of the cargo shift sequence.

N	Prcnt	Code	Label
909	39.8	0	No pre-crash event
40	1.8	1	On roadway
2	0.1	2	On shoulder
1	0.0	3	On roadside
1,297	56.8	7	Not applicable
35	1.5	9	Unknown

Codebook - CargoShiftAssessments Data Set

Variable Name	Format	Type	Length
MovementCount	BEST8	Numeric	8

Definition: Documents the number of circumstances that were identified in which the cargo shift event occurred. This variable refers to the movements of the vehicle prior to the cargo shift.

N	Prcnt	Code	Label
2,241	98.1	0	0
6	0.3	1	1
27	1.2	2	2
9	0.4	3	3
1	0.0	4	4

Variable Name	Format	Type	Length
CauseCount	AP2U	Numeric	8

Definition: Documents the number of circumstances associated with a cargo shift that were coded for this vehicle. Refers to the possible causes of the cargo shift.

N	Prcnt	Code	Label
2,241	98.1	0	0
31	1.4	1	1
8	0.4	2	2
2	0.1	3	3
2	0.1	99	99

Variable Name	Format	Type	Length
ACSSpillage	ML1608F	Numeric	8

Definition: Establishes the occurrence of cargo spillage during the precrash phase.

N	Prcnt	Code	Label
909	39.8	0	No pre-crash cargo shift
10	0.4	1	Yes (specify)
34	1.5	2	No
1,295	56.7	7	Not applicable
36	1.6	9	Unknown

Codebook - CargoShiftAssessments Data Set

Variable Name	Format	Type	Length
ACSConstant	AP1U	Numeric	8

Definition: Establishes whether or not the driver is attempting to maintain a constant velocity at the time that the cargo begins to shift. (This variable was originally an attribute choice under the variable "Circumstances In Which Event Occurred.")

N	Prcnt	Code	Label
2,265	99.2	0	Absent
19	0.8	1	Present

Variable Name	Format	Type	Length
ACSCurve	AP1U	Numeric	8

Definition: Establishes whether or not the driver is traversing a curve at the time that the cargo begins to shift. (This variable was originally an attribute choice under the variable "Circumstances In Which Event Occurred.")

N	Prcnt	Code	Label
2,254	98.7	0	Absent
30	1.3	1	Present

Variable Name	Format	Type	Length
ACSTurn	AP1U	Numeric	8

Definition: Establishes whether or not the driver is attempting to turn at the time that the cargo begins to shift. (This variable was originally an attribute choice under the variable "Circumstances In Which Event Occurred.")

N	Prcnt	Code	Label
2,276	99.6	0	Absent
8	0.4	1	Present

Variable Name	Format	Type	Length
ACSLightBraking	AP1U	Numeric	8

Definition: Establishes whether or not the driver is decelerating using light braking effort at the time that the cargo begins to shift. While the term "light braking" is a subjective evaluation, it generally implies that the level of braking is less than the level typically associated with a normal traffic stop. (This variable was originally an attribute choice under the variable "Circumstances In Which Event Occurred.")

N	Prcnt	Code	Label
2,282	99.9	0	Absent
2	0.1	1	Present

Codebook - CargoShiftAssessments Data Set

Variable Name	Format	Type	Length
ACSAccelerating	AP1U	Numeric	8

Definition: Establishes whether or not the driver is accelerating at the time that the cargo begins to shift. (This variable was originally an attribute choice under the variable "Circumstances In Which Event Occurred.")

N	Prcnt	Code	Label
2,280	99.8	0	Absent
4	0.2	1	Present

Variable Name	Format	Type	Length
ACSAvoidance	AP1U	Numeric	8

Definition: Establishes whether or not the driver initiates a precrash avoidance maneuver at or prior to the time that the cargo begins to shift. (This variable was originally an attribute choice under the variable "Circumstances In Which Event Occurred.")

N	Prcnt	Code	Label
2,277	99.7	0	Absent
7	0.3	1	Present

Variable Name	Format	Type	Length
OtherMovement	AP1U	Numeric	8

Definition: Establishes whether or not the driver/vehicle action or velocity is not described by the other cargo shift occurrence variables. (This variable was originally an attribute choice under the variable "Circumstances In Which Event Occurred" and was the "Other (specify):" attribute choice.)

N	Prcnt	Code	Label
2,279	99.8	0	Absent
5	0.2	1	Present

Variable Name	Format	Type	Length
ACSDecelerating	AP1U	Numeric	8

Definition: Establishes whether or not the driver is decelerating and decelerates solely by reducing throttle input at the time that the cargo begins to shift. (This variable was originally an attribute choice under the variable "Circumstances In Which Event Occurred.")

N	Prcnt	Code	Label
2,284	100.0	0	Absent

Codebook - CargoShiftAssessments Data Set

Variable Name	Format	Type	Length
ACSModerateBraking	AP1U	Numeric	8

Definition: Establishes whether or not the driver is decelerating using a moderate level of braking effort at the time that the cargo begins to shift. A moderate level of braking effort generally implies that the level of braking effort is similar to the level typically associated with a normal traffic stop. (This variable was originally an attribute choice under the variable "Circumstances In Which Event Occurred.")

N	Prcnt	Code	Label
2,281	99.9	0	Absent
3	0.1	1	Present

Variable Name	Format	Type	Length
ACSHeavyBraking	AP1U	Numeric	8

Definition: Establishes whether or not the driver is decelerating using a heavy level of braking effort (e.g. panic stop) at the time that the cargo begins to shift. The vehicle will typically experience wheel "lock-up" in this circumstance; however, wheel lock is not a requirement for using this designation. (This variable was originally an attribute choice under the variable "Circumstances In Which Event Occurred.")

N	Prcnt	Code	Label
2,277	99.7	0	Absent
7	0.3	1	Present

Variable Name	Format	Type	Length
ACSStraight	AP1U	Numeric	8

Definition: Establishes whether or not the driver is traversing a straight roadway segment at the time that the cargo begins to shift. (This variable was originally an attribute choice under the variable "Circumstances In Which Event Occurred.")

N	Prcnt	Code	Label
2,278	99.7	0	Absent
6	0.3	1	Present

Codebook - CargoShiftAssessments Data Set

Variable Name	Format	Type	Length
ImproperGeneralLoading	AP1U	Numeric	8

Definition: Establishes whether or not the cargo shift is associated with improper loading of general freight cargo. Usually, the cargo is not properly balanced during the loading process (e.g. large boxes on top of small boxes, inappropriate gaps between cargo units, etc.). This element is also used when the freight is not properly distributed over the length of the cargo area. (This variable was originally an attribute choice under the variable "Cargo Shift Associated With.")

N	Prcnt	Code	Label
2,282	99.9	0	Absent
2	0.1	1	Present

Variable Name	Format	Type	Length
ImproperBulkLoading	AP1U	Numeric	8

Definition: Establishes whether or not the cargo shift is associated with improper loading of bulk freight cargo. Usually, the cargo consists of one or several large items that are not properly balanced. (This variable was originally an attribute choice under the variable "Cargo Shift Associated With.")

N	Prcnt	Code	Label
2,281	99.9	0	Absent
3	0.1	1	Present

Variable Name	Format	Type	Length
SparseTieDowns	AP1U	Numeric	8

Definition: Establishes whether or not the cargo shift is associated with an inadequate number of tie downs used. This circumstance is most typically associated with bulk freight items. (This variable was originally an attribute choice under the variable "Cargo Shift Associated With.")

N	Prcnt	Code	Label
2,268	99.3	0	Absent
16	0.7	1	Present

Variable Name	Format	Type	Length
WeakTieDowns	AP1U	Numeric	8

Definition: Establishes whether or not the cargo shift is associated with inadequate strength of the tie downs that are used. This circumstance is most typically associated with bulk freight items. (This variable was originally an attribute choice under the variable "Cargo Shift Associated With.")

N	Prcnt	Code	Label
2,275	99.6	0	Absent
9	0.4	1	Present

Codebook - CargoShiftAssessments Data Set

Variable Name	Format	Type	Length
OtherSolids	AP1U	Numeric	8

Definition: Establishes whether or not the cargo shift (solid freight) is associated with a specific factor that is not covered under the loading or securement variables. (This variable was originally an attribute choice under the variable "Cargo Shift Associated With.")

N	Prcnt	Code	Label
2,273	99.5	0	Absent
11	0.5	1	Present

Variable Name	Format	Type	Length
Sloshing	AP1U	Numeric	8

Definition: Establishes whether or not the cargo shift (liquids) is associated with liquid slosh due to the truck carrying less than a full load. This affects vehicle stability. (This variable was originally an attribute choice under the variable "Cargo Shift Associated With.")

N	Prcnt	Code	Label
2,274	99.6	0	Absent
10	0.4	1	Present

Variable Name	Format	Type	Length
BaffleFailure	AP1U	Numeric	8

Definition: Establishes whether or not the cargo shift (liquids) is associated with a baffle failure that affects vehicle stability. (This variable was originally an attribute choice under the variable "Cargo Shift Associated With.")

N	Prcnt	Code	Label
2,284	100.0	0	Absent

Variable Name	Format	Type	Length
CompartmentFailure	AP1U	Numeric	8

Definition: Establishes whether or not the cargo shift (liquids) is associated with a failure of a partition for at least one of the vehicle's compartments. This failure subsequently affects vehicle stability. (This variable was originally an attribute choice under the variable "Cargo Shift Associated With.")

N	Prcnt	Code	Label
2,284	100.0	0	Absent

Codebook - CargoShiftAssessments Data Set

Variable Name	Format	Type	Length
TankFailure	AP1U	Numeric	8

Definition: Establishes whether or not the cargo shift (liquids) is associated with a tank failure (e.g. seam failure). The failure may or may not affect vehicle stability. (This variable was originally an attribute choice under the variable "Cargo Shift Associated With.")

N	Prcnt	Code	Label
2,284	100.0	0	Absent

Variable Name	Format	Type	Length
OtherLiquids	AP1U	Numeric	8

Definition: Establishes whether or not the cargo shift (liquid freight) is associated with a specific factor that is not covered under the other liquid cargo shift variables. (This variable was originally an attribute choice under the variable "Cargo Shift Associated With.")

N	Prcnt	Code	Label
2,284	100.0	0	Absent

Variable Name	Format	Type	Length
OtherCargos	AP1U	Numeric	8

Definition: Establishes whether or not the cargo type is neither solid nor liquid (e.g. grains, bulk powders, etc.) and the vehicle experiences a cargo shift. (This variable was originally an attribute choice under the variable "Cargo Shift Associated With.")

N	Prcnt	Code	Label
2,282	99.9	0	Absent
2	0.1	1	Present

Variable Name	Format	Type	Length
UnknownCause	AP1U	Numeric	8

Definition: Establishes whether or not there is insufficient information to determine if a cargo shift occurred. (This variable was originally an attribute choice under the variable "Cargo Shift Associated With.")

N	Prcnt	Code	Label
2,282	99.9	0	Absent
2	0.1	1	Present

Codebook - CDCCrush Data Set

CDCCrush Data Set

The CDCCrush data set contains detailed information about the crush profile for each impact, coded to a vehicle damaged in the crash. This material is provided as one record per unit/event/deformation location for any vehicle involved in the crash.

The CDCCrush data set contains the variables CaseID, PSU, PSUStrat, RATWeight, VehicleNumber, EventNumber and ImpactNumber. EventNumber identifies a particular event in a sequence in the accident. ImpactNumber identifies each particular impact in the crush profile for a vehicle. CaseID, VehicleNumber, EventNumber and ImpactNumber uniquely identify each record in this data set. (Each record can also be uniquely identified by CaseID, VehicleNumber, EventNumber and PositionNumber.) CaseID and EventNumber should be used to merge the CDCCrush data set with the Events data set. CaseID and VehicleNumber should be used to merge the CDCCrush data set with vehicle level data sets. CaseID, VehicleNumber and PositionNumber should be used to merge the CDCCrush data set with the TruckUnits data set.

Variable Name	Format	Type	Length
EventNumber	BEST8	Numeric	8

Definition: Identifies a particular event in a sequence in the accident.

N	Prcnt	Code	Label
1,742	43.8	1	1
986	24.8	2	2
530	13.3	3	3
295	7.4	4	4
163	4.1	5	5
103	2.6	6	6
55	1.4	7	7
29	0.7	8	8
17	0.4	9	9
11	0.3	10	10
5	0.1	11	11
7	0.2	12	12
5	0.1	13	13
5	0.1	14	14
1	0.0	15	15
1	0.0	16	16
1	0.0	19	19
1	0.0	20	20
2	0.1	21	21
2	0.1	22	22
1	0.0	23	23
2	0.1	24	24
2	0.1	25	25
1	0.0	26	26
1	0.0	27	27
1	0.0	32	32

Codebook - CDCCrush Data Set

N	Prcnt	Code	Label
1	0.0	33	33
1	0.0	34	34
1	0.0	39	39
1	0.0	41	41

Variable Name	Format	Type	Length
PositionNumber	BEST8	Numeric	8

Definition: Identifies the unit number on the vehicle associated with a CDC/TDC. For example, a truck-trailer's power unit would be Position Number "1," and the first trailer would be Position Number "2." A passenger vehicle would be assigned Position Number "1."

N	Prcnt	Code	Label
3,433	86.4	1	1
514	12.9	2	2
26	0.7	3	3

Variable Name	Format	Type	Length
DCType	\$1	Char	1

Definition: Indicates whether the deformation classification is related to a car or a truck.

N	Prcnt	Code	Label
3,973	100.0	T	T

Variable Name	Format	Type	Length
ObjectContactClass	ML33F	Numeric	8

Definition: Describes the category of object involved in a particular impact to a vehicle.

N	Prcnt	Code	Label
2,617	65.9	1	Vehicle
480	12.1	2	Noncollision
726	18.3	3	Collision with Fixed Object
141	3.5	5	Collision with Nonfixed Object
3	0.1	6	Unknown event or object
6	0.2	7	Other event (specify)

Codebook - CDCCrush Data Set

Variable Name	Format	Type	Length
CDCObjectContact	ML34F	Numeric	8

Definition: Identifies the object that was contacted for this event/impact.

N	Prcnt	Code	Label
1,791	45.1	1	Vehicle#1
406	10.2	2	Vehicle#2
206	5.2	3	Vehicle#3
121	3.0	4	Vehicle#4
41	1.0	5	Vehicle#5
29	0.7	6	Vehicle#6
6	0.2	7	Vehicle#7
1	0.0	18	Vehicle#18
2	0.1	19	Vehicle#19
5	0.1	21	Vehicle#21
2	0.1	22	Vehicle#22
3	0.1	24	Vehicle#24
1	0.0	27	Vehicle#27
2	0.1	28	Vehicle#28
1	0.0	30	Vehicle#30
312	7.9	31	Overturn->rollover(excludes end-over-end)
126	3.2	34	Jackknife
29	0.7	35	Other intraunit damage (specify)
13	0.3	38	Other noncollision (specify)
13	0.3	41	Tree(<= 10 cm in diameter)
43	1.1	42	Tree(> 10 cm in diameter)
9	0.2	43	Shrubbery or bush
23	0.6	44	Embankment
24	0.6	45	Breakaway pole or post (any diameter)
34	0.9	50	Nonbreakaway pole or post (<=10cm in diameter)
38	1.0	51	Nonbreakaway pole or post(>10 cm but <= 30 cm in diameter)
13	0.3	52	Nonbreakaway pole or post(>30 cm in diameter)
6	0.2	53	Nonbreakaway pole or post(diameter unknown)
189	4.8	54	Concrete traffic barrier
6	0.2	55	Impact attenuator
157	4.0	56	Other traffic barrier(includes guardrail) (specify)
32	0.8	57	Fence
18	0.5	58	Wall
4	0.1	59	Building
14	0.4	60	Ditch or culvert
19	0.5	61	Ground
2	0.1	62	Fire hydrant

Codebook - CDCCrush Data Set

N	Prcnt	Code	Label
27	0.7	63	Curb
30	0.8	64	Bridge
24	0.6	68	Other fixed object (specify)
1	0.0	69	Unknown fixed object
23	0.6	70	Pass. car,light truck,van,or other vehicle not in-transport
1	0.0	71	Medium/heavy truck or bus not in-transport
38	1.0	72	Pedestrian
8	0.2	73	Cyclist or cycle
1	0.0	75	Vehicle occupant
1	0.0	76	Animal
8	0.2	77	Train
4	0.1	78	Trailer, disconnected in transport
36	0.9	79	Object fell from vehicle in-transport
21	0.5	88	Other nonfixed object (specify)
6	0.2	98	Other event (specify)
3	0.1	99	Unknown event or object

Variable Name	Format	Type	Length
ForceDirection	BEST8	Numeric	8

Definition: Indicates the direction of force exerted upon the vehicle by an object. If the force is applied directly upon the center of the front bumper, the force of direction is said to be "0." The direction of force rotates to the right around the vehicle in increments of 10 degrees, circling around the vehicle until it returns to the front (360 degrees). This value is used to create the variable "Clock Force."

N	Prcnt	Code	Label
658	16.6	0	0
220	5.5	10	10
110	2.8	20	20
104	2.6	30	30
27	0.7	40	40
31	0.8	50	50
21	0.5	60	60
39	1.0	70	70
54	1.4	80	80
118	3.0	90	90
33	0.8	100	100
21	0.5	110	110
18	0.5	120	120
5	0.1	130	130
13	0.3	140	140
27	0.7	150	150

Codebook - CDCCrush Data Set

N	Prcnt	Code	Label
56	1.4	160	160
99	2.5	170	170
305	7.7	180	180
85	2.1	190	190
57	1.4	200	200
20	0.5	210	210
24	0.6	220	220
11	0.3	230	230
13	0.3	240	240
15	0.4	250	250
27	0.7	260	260
129	3.2	270	270
60	1.5	280	280
31	0.8	290	290
40	1.0	300	300
20	0.5	310	310
34	0.9	320	320
76	1.9	330	330
120	3.0	340	340
306	7.7	350	350
575	14.5	888	888
371	9.3	999	999

Variable Name

ClockForce

Format

BEST8

Type

Numeric

Length

8

Definition: Identifies the direction from which the principal force is applied for a particular impact. The direction of force is based on the face of a clock (e.g. an impact to the front bumper is classified as "12") and is the first two columns of each impact's CDC/TDC.

N	Prcnt	Code	Label
575	14.5	0	0
233	5.9	1	1
86	2.2	2	2
200	5.0	3	3
43	1.1	4	4
96	2.4	5	5
483	12.2	6	6
101	2.5	7	7
37	0.9	8	8
213	5.4	9	9
88	2.2	10	10
223	5.6	11	11

Codebook - CDCCrush Data Set

N	Prcnt	Code	Label
1,166	29.3	12	12
149	3.8	13	13
3	0.1	26	26
4	0.1	32	32
1	0.0	46	46
3	0.1	52	52
3	0.1	61	61
2	0.1	63	63
1	0.0	64	64
1	0.0	66	66
1	0.0	68	68
2	0.1	69	69
2	0.1	70	70
7	0.2	71	71
5	0.1	81	81
5	0.1	82	82
3	0.1	83	83
1	0.0	86	86
1	0.0	88	88
1	0.0	89	89
1	0.0	90	90
10	0.3	92	92
223	5.6	99	99

Variable Name

Format Type Length

OverrideDesc

ML82F Numeric 8

Definition: Indicates that this vehicle overrode or underrode another vehicle. "Override" is coded when this vehicle overrides (i.e. goes on top of) the bumper of another vehicle, and "underride" is coded when this vehicle underrides (i.e. goes below) the bumper of another vehicle. For override/underride in combination cases (CDS/Truck cases), the attribute "Medium/heavy truck or bus override" is used.

N	Prcnt	Code	Label
3,374	84.9	1	None
3	0.1	2	Override
4	0.1	3	Underride
88	2.2	4	Medium/heavy truck or bus over
130	3.3	11	Underride, compartment intrusion
77	1.9	12	Underride, no compartment intrusion
6	0.2	13	Underride, compartment intrusion unknown
229	5.8	14	Override, motor vehicle in transport

Codebook - CDCCrush Data Set

N	Prcnt	Code	Label
7	0.2	15	Override, motor vehicle not in transport
55	1.4	16	Unknown

Variable Name	Format	Type	Length
DeformLocation	\$OT8F	Char	1

Definition: Documents the initial plane of contact to the vehicle and represents the general area of the vehicle. This is the third column in a coded CDC/TDC.

N	Prcnt	Code	Label
43	1.1	9	Unknown
528	13.3	B	Back of unit w/ cargo area
42	1.1	C	Rear of cab
21	0.5	D	Back - rear of tractor
1,538	38.7	F	Front
838	21.1	L	Left Side
712	17.9	R	Right Side
157	4.0	T	Top
48	1.2	U	Undercarriage
46	1.2	V	Front of cargo area

Variable Name	Format	Type	Length
DeformLong	\$50	Char	50

Definition: Documents the lateral or longitudinal area of the vehicle that contains the contact deformation. This is the fourth column in a coded CDC/TDC.

N	Prcnt	Code	Label
370	9.3	*	9 Unknown
13	0.3	*	B Rear Section
102	2.6	*	B Side Rear - left or right
69	1.7	*	B Side rear of cab to rear of trailer/cargo area
24	0.6	*	C Center - front or rear
76	1.9	*	D Distributed - (F+P+B)
1,250	31.5	*	D Distributed - side or end
6	0.2	*	F Front Section
61	1.5	*	F Side Front - frontof windshield
81	2.0	*	F Side Front - left or right
20	0.5	*	K Side(P + W)
373	9.4	*	L Left - front or rear
12	0.3	*	P Center Section
63	1.6	*	P Side cab
53	1.3	*	P Side center section L or R

Codebook - CDCCrush Data Set

N	Prcnt	Code	Label
310	7.8	*	R Right - front or rear
14	0.4	*	S Side(F + P + W)
299	7.5	*	T Trailer
37	0.9	*	W Side rear of cab to rear of tractor
397	10.0	*	Y Side (F + P) OR End (L + C)
18	0.5	*	Y Side Front/Center Section (F+P)
315	7.9	*	Z Side (P + B) OR End (C + R)
10	0.3	*	Z Side Center/Rear Section(P+B)

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Variable Name	Format	Type	Length
DeformVertical	\$50	Char	50

Definition: Documents either the vertical or lateral area of the vehicle that contains the contact deformation. The vertical location is used for vertical planes (F, B, L, R) and the lateral location is used for horizontal planes (T, U). This is the fifth column in a coded CDC/TDC.

N	Prcnt	Code	Label
388	9.8	*	9 Unknown
450	11.3	*	A All
453	11.4	*	A Top to Bottom of vehicle / no wheels
20	0.5	*	B Belt Line and above
5	0.1	*	C Center
108	2.7	*	D Distributed
958	24.1	*	E Everything below belt line
846	21.3	*	E belt line and below
133	3.3	*	F Belt line/below on trailer
42	1.1	*	G Belt line and above
30	0.8	*	H Top of frame to top
49	1.2	*	H Top of frame to top of vehicle
40	1.0	*	L Frame -- top of frame,frame, bottom of frame
13	0.3	*	L Left
202	5.1	*	L Low - top of frame, frame, and bottom of frame
60	1.5	*	M Middle -- top of frame to belt line or hood
10	0.3	*	R Right
5	0.1	*	T Everything above cab
16	0.4	*	T Trailer
122	3.1	*	W Below undercarriage level (wheels and tires only)
16	0.4	*	Y Left and Center (L+C)
7	0.2	*	Z Right and Center(R+C)

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Codebook - CDCCrush Data Set

Variable Name	Format	Type	Length
DeformDistribution	\$OT7F	Char	1

Definition: Documents the general type of damage distribution for the impact. This classification provides a qualitative description of the type of damage sustained by the vehicle. This is the sixth column of a coded CDC/TDC.

N	Prcnt	Code	Label
461	11.6	9	Unknown
34	0.9	A	Overhanging Structure
230	5.8	E	Corner
4	0.1	K	Conversion in Impact Type
190	4.8	N	Narrow Impact Area
314	7.9	O	Rollover (include side)
11	0.3	R	Override
196	4.9	S	Sideswipe
22	0.6	U	No residual deformation
2,511	63.2	W	Wide Impact Area

Variable Name	Format	Type	Length
DeformExtent	\$OT9F	Char	10

Definition: Documents the extent of damage for the impact. The extent of residual deformation is classified using a nine-zone extent system. Extent is a mathematical determination of which zone the crush extends into, beginning with Zone "1." This is the seventh column of a coded CDC/TDC.

N	Prcnt	Code	Label
457	11.5	0A	0A
67	1.7	0B	0B
17	0.4	0C	0C
13	0.3	0D	0D
10	0.3	0X	0X
47	1.2	Eight	Eight
94	2.4	Five	Five
158	4.0	Four	Four
118	3.0	Nine	Nine
1,069	26.9	One	One
98	2.5	Seven	Seven
127	3.2	Six	Six
413	10.4	Three	Three
623	15.7	Two	Two
662	16.7	Unknown	Unknown

Codebook - CDCCrush Data Set

Variable Name	Format	Type	Length
DeformCode	\$15	Char	15

Definition: Identifies the direction from which the principal force is applied for a particular impact. The direction of force is based on the face of a clock (e.g. an impact to the front bumper is classified as "12") and is the first two columns of each impact's CDC/TDC.

N	Prcnt	Code	Label
4	0.1	*	00999999
1	0.0	*	00999O03
1	0.0	*	00999O99
2	0.1	*	009T9999
1	0.0	*	00B9990A
3	0.1	*	00B99999
1	0.0	*	00BDAW03
1	0.0	*	00BDAW99
1	0.0	*	00BDEW99
1	0.0	*	00BDFW0A

1	0.0	*	99RW9999
1	0.0	*	99RYAN01
1	0.0	*	99RZEW09
1	0.0	*	99RZEW99
1	0.0	*	99TDDW08
1	0.0	*	99U99901
1	0.0	*	99U99999
1	0.0	*	99UT9W99
1	0.0	*	99V99999
1	0.0	*	99VT990X

Note: Asterisk in code column indicates that stored value is the same as the value in the label column.

Variable Name	Format	Type	Length
ImpactNumber	BEST8	Numeric	8

Definition: Identifies each particular impact in the crush profile for a vehicle.

N	Prcnt	Code	Label
1,799	45.3	1	1
831	20.9	2	2
374	9.4	3	3
153	3.9	4	4
50	1.3	5	5
23	0.6	6	6
12	0.3	7	7
5	0.1	8	8
726	18.3	9	9

Codebook - CDCCrush Data Set

Variable Name	Format	Type	Length
DamageLocation	\$50	Char	50

Definition: Describes the location of the direct damage on the vehicle for each impact. This information is used to determine the CDC/TDC for the impact.

N	Prcnt	Code	Label
1	0.0	*	#3 axle left wheel
1	0.0	*	#4 and #5 left side wheels
1	0.0	*	#4 inside wheel right
1	0.0	*	#4 outside wheel right
1	0.0	*	-begins LF corner inward
1	0.0	*	0 TO 120 CM FROM RIGHT REAR BC
1	0.0	*	0 TO 140 CM FROM RIGHT REAR BC
1	0.0	*	0 TO 170 FROM FRT LEFT BC
1	0.0	*	0 TO 70 CM FROM FRONT RIGHT BC
1	0.0	*	0-110 CM FORWARD FRT AXLE

1	0.0	*	wheel/axle damage
4	0.1	*	whole front
2	0.1	*	whole front bumper
1	0.0	*	whole front end
1	0.0	*	whole left side and roof
1	0.0	*	whole left side of vehicle
1	0.0	*	whole rear bumper guard
1	0.0	*	whole right side
1	0.0	*	whole underguard
1	0.0	*	windshield

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Variable Name	Format	Type	Length
FieldLocation	\$50	Char	50

Definition: Describes the location of the Field L on the vehicle. Field L represents direct and induced deformation. This information is used to determine the CDC/TDC for the impact.

N	Prcnt	Code	Label
1	0.0	*	#3 axle left wheel
1	0.0	*	#4 & #5 left side wheels
1	0.0	*	#4 inside wheel right
1	0.0	*	#4 outside wheel right
1	0.0	*	#7 right tire
1	0.0	*	-----

Codebook - CDCCrush Data Set

N	Prcnt	Code	Label
1	0.0	*	0-110 CM FORWARD FRT AXLE
1	0.0	*	0-110 CM FWD FRT AXLE
1	0.0	*	0-290 CM BEHIND FRT AXLE
1	0.0	*	0-60CM FROM RT RR CORNER OF TRAILER

2	0.1	*	whole front
11	0.3	*	whole front bumper
2	0.1	*	whole front end
1	0.0	*	whole left side and roof
1	0.0	*	whole left side of vehicle
1	0.0	*	whole rear
2	0.1	*	whole rear bumper
1	0.0	*	whole rear bumper guard
1	0.0	*	whole right side
1	0.0	*	whole underguard

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Variable Name	Format	Type	Length
MaxCrushLocation	\$50	Char	50

Definition: Describes the location in the crush profile of the maximum crush of this impact to the vehicle. This information is used to determine the CDC/TDC for the impact.

N	Prcnt	Code	Label
1	0.0	*	#
1	0.0	*	#3 axle left wheel
1	0.0	*	#4 left outside wheel
1	0.0	*	#5 axle
1	0.0		-
10	0.3	*	--
11	0.3	*	---
4	0.1	*	----
1	0.0	*	-----
1	0.0	*	-----

1	0.0	*	whole front bumper
1	0.0	*	windshield header 90cm left of rt A pillar
1	0.0	*	xxx
5	0.1	*	zone 1
8	0.2	*	zone 2
8	0.2	*	zone 3
3	0.1	*	zone 4
1	0.0	*	zone 5

Codebook - CDCCrush Data Set

N	Prcnt	Code	Label
2	0.1	*	zone 6
1	0.0	*	zone 9

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Variable Name	Format	Type	Length
CDCCategory	ML119F	Numeric	8

Definition: Describes the information provided by columns 3-7 in a coded CDC/TDC.

N	Prcnt	Code	Label
1,194	30.1	1	Side
1,832	46.1	2	End
133	3.3	3	Top (specify)
44	1.1	4	Under (specify)
724	18.2	97	Not Applicable
46	1.2	99	Unknown

Variable Name	Format	Type	Length
CDCWidth	BEST8	Numeric	8

Definition: Indicates the direct damage width in centimeters. This is a measured value on the vehicle that is used in determining the CDC/TDC for this impact/event.

N	Prcnt	Code	Label
2	0.1	0	0
2	0.1	1	1
2	0.1	3	3
1	0.0	4	4
5	0.1	5	5
3	0.1	6	6
7	0.2	7	7
3	0.1	8	8
2	0.1	9	9
17	0.4	10	10

1	0.0	2200	2200
1	0.0	2225	2225
1	0.0	2249	2249
1	0.0	2250	2250
1	0.0	2260	2260
1	0.0	2280	2280
2	0.1	2300	2300
1	0.0	2615	2615

Codebook - CDCCrush Data Set

N	Prcnt	Code	Label
728	18.3	9997	9997
1,253	31.5	9999	9999

Codebook - Crash Data Set

Crash Data Set

The Crash data set contains all details that are related to the crash itself, and not individual vehicles involved in the crash. There is one record per crash. The fields contained in this data set cover all the higher-level aspects of each case, such as highest injury severities.

The Crash data set contains the variables CaseID, PSU, PSUStrat and RATWeight. CaseID uniquely identifies each record in this data set and should be used to merge the Crash data set with other data sets.

Variable Name	Format	Type	Length
CrashDate	\$10	Char	10

Definition: Identifies the date of the crash.

N	Prcnt	Code	Label
25	2.3	*	2001-01-01
19	1.8	*	2001-02-01
31	2.9	*	2001-03-01
29	2.7	*	2001-04-01
30	2.8	*	2001-05-01
38	3.6	*	2001-06-01
25	2.3	*	2001-07-01
31	2.9	*	2001-08-01
25	2.3	*	2001-09-01
42	3.9	*	2001-10-01

38	3.6	*	2003-03-01
33	3.1	*	2003-04-01
31	2.9	*	2003-05-01
31	2.9	*	2003-06-01
31	2.9	*	2003-07-01
22	2.1	*	2003-08-01
19	1.8	*	2003-09-01
30	2.8	*	2003-10-01
21	2.0	*	2003-11-01
26	2.4	*	2003-12-01

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Codebook - Crash Data Set

Variable Name	Format	Type	Length
CrashTime	\$6	Char	6

Definition: Identifies the time of day of the crash.

N	Prcnt	Code	Label
1	0.1	*	00:03
1	0.1	*	00:08
1	0.1	*	00:10
1	0.1	*	00:15
2	0.2	*	00:20
2	0.2	*	00:25
1	0.1	*	00:29
1	0.1	*	00:30
1	0.1	*	00:31
1	0.1	*	00:35

1	0.1	*	22:45
3	0.3	*	22:52
2	0.2	*	22:55
1	0.1	*	23:00
1	0.1	*	23:11
1	0.1	*	23:25
3	0.3	*	23:30
1	0.1	*	23:55
1	0.1	*	23:57
1	0.1	*	23:58

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Variable Name	Format	Type	Length
VehicleCount	BEST8	Numeric	8

Definition: Documents the total number of vehicles that were involved in the crash. This includes all CDS, non-CDS, in-transport, and not in-transport vehicles.

N	Prcnt	Code	Label
273	25.5	1	1
545	50.9	2	2
164	15.3	3	3
53	5.0	4	4
21	2.0	5	5
10	0.9	6	6
2	0.2	7	7
1	0.1	8	8
1	0.1	30	30

Codebook - Crash Data Set

Variable Name	Format	Type	Length
TruckCount	BEST8	Numeric	8

Definition: Represents the total number of heavy trucks involved in the crash.

N	Prcnt	Code	Label
937	87.6	1	1
109	10.2	2	2
14	1.3	3	3
6	0.6	4	4
4	0.4	5	5

Variable Name	Format	Type	Length
CarCount	BEST8	Numeric	8

Definition: Represents the total number of passenger vehicles involved in the crash.

N	Prcnt	Code	Label
343	32.1	0	0
543	50.7	1	1
127	11.9	2	2
40	3.7	3	3
8	0.7	4	4
6	0.6	5	5
1	0.1	6	6
1	0.1	7	7
1	0.1	28	28

Variable Name	Format	Type	Length
NonMotoristCount	BEST8	Numeric	8

Definition: Identifies the number of nonmotorists involved in the crash.

N	Prcnt	Code	Label
1,025	95.8	0	0
42	3.9	1	1
2	0.2	2	2
1	0.1	7	7

Codebook - Crash Data Set

Variable Name	Format	Type	Length
CrashType	\$50	Char	50

Definition: This variable is a combination of two variables separated by "--". The first is a description of the overall crash scenario. The second is a general description of the crash configuration.

N	Prcnt	Code	Label
1	0.1	*	--
1	0.1	*	Angle -- Vehicle to vehicle
1	0.1	*	Bus / Tractor Trailer -- Rear End
1	0.1	*	CAR VS. TRUCK -- SIDE IMPACT
1	0.1	*	CAR / CAR / TRUCK -- MULTIPLE IMPACTS
1	0.1	*	CAR / TRUCK -- HEAD-ON
1	0.1	*	CAR VS DUMP TRUCK -- TURN INTO PATH
1	0.1	*	CAR VS Tractor trailer -- sideswipe same direction
1	0.1	*	CAR, PICK UP, TRACTOR TRAILER -- MUTIPLE IMPACTS
1	0.1	*	CAR/ STRAIGHT TRUCK TRAILER -- REAREND

1	0.1	*	vehicle to vechile -- angle/sideswipe
4	0.4	*	vehicle to vehicle -- angle
1	0.1	*	vehicle to vehicle -- angle / sideswipe
1	0.1	*	vehicle to vehicle -- angle/ sideswipe
2	0.2	*	vehicle to vehicle -- angle/sideswipe
1	0.1	*	vehicle to vehicle -- noncollision
3	0.3	*	vehicle to vehicle -- rear end
1	0.1	*	vehicle to vehicle -- rear-end
1	0.1	*	vehicle to vehicle -- rollover
1	0.1	*	vehicleta object -- Angle/sideswipe

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Variable Name	Format	Type	Length
CrashPARSevCode	OT10F	Numeric	8

Definition: Represents the highest injury severity rating in the case, as determined by police on the Police Accident Report (PAR).

N	Prcnt	Code	Label
18	1.7	0	O - No injury
128	12.0	1	C - Possible injury
339	31.7	2	B - Non-incapacitating injury
336	31.4	3	A - Incapacitating injury
238	22.2	4	K - Killed
7	0.7	5	U - Injury, severity unknown

Codebook - Crash Data Set

N	Prcnt	Code	Label
3	0.3	6	Died prior to crash
1	0.1	9	Unknown

Variable Name	Format	Type	Length
CrashRESsevCode	OT10F	Numeric	8

Definition: Represents the highest injury severity rating in the case, as determined by injury coding and case narratives. This code is based on occupant medical records and/or case narratives and may differ from the police-reported injury severity code.

N	Prcnt	Code	Label
15	1.4	0	O - No injury
6	0.6	1	C - Possible injury
499	46.6	2	B - Non-incapacitating injury
303	28.3	3	A - Incapacitating injury
242	22.6	4	K - Killed
1	0.1	5	U - Injury, severity unknown
4	0.4	6	Died prior to crash

Variable Name	Format	Type	Length
Summary	\$15000	Char	15000

Definition: The researcher's description of the crash events/sequence.

N	Prcnt	Code	Label
1	0.1	*	A 1999 Mack CL713 straight dump truck was traveling east in
1	0.1	*	A 2001 Mitsubishi Eclipse, vehicle one, was traveling south on a
1	0.1	*	A 3-vehicle collision occurred in mid June at approximately 1700
1	0.1	*	A 6.8 Richter scale level earthquake had struck the surrounding
1	0.1	*	A collision involving a car and a truck occurred on an urban
1	0.1	*	A collision involving five vehicles occurred during a weekend
1	0.1	*	A collision involving four vehicles occurred at 1040 hours on an
1	0.1	*	A collision involving four vehicles occurred at 1220 hours on a
1	0.1	*	A collision involving four vehicles occurred in the northbound
1	0.1	*	A collision involving four vehicles occurred on a divided six-lane

1	0.1	*	Vehicle two, a 2000 Freightliner, was traveling west in lane three
1	0.1	*	Vehicles 1 and 3 were traveling north in lane one on a dry,
1	0.1	*	Vehicles 1, 2 & 3 were traveling south on a 3 lane, 1 way divided
1	0.1	*	Vehicles 1, 2 and 3 were all traveling west in lane 3 of a 3-lane
1	0.1	*	Vehicles 1, 2, and 3 were stopped facing southbound in lane 3 of
1	0.1	*	Vehicles one and two were traveling southbound on a 55mph,
1	0.1	*	Vehicles one and two were traveling southbound on a wet and

Codebook - Crash Data Set

N	Prcnt	Code	Label
1	0.1	*	Vehicles one, two, and three were southbound in lane 3 of a
1	0.1	*	Vehicles' one, two and three were all traveling east on a three
1	0.1	*	Vehicles' one, two and three were all traveling west on a 4-lane

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Variable Name	Format	Type	Length
Day	OT11F	Numeric	8

Definition: Identifies the day of the week that the crash occurred.

N	Prcnt	Code	Label
40	3.7	1	Sunday
182	17.0	2	Monday
205	19.2	3	Tuesday
203	19.0	4	Wednesday
190	17.8	5	Thursday
183	17.1	6	Friday
67	6.3	7	Saturday

Variable Name	Format	Type	Length
CollisionType	OT70F	Numeric	8

Definition: Describes the type of vehicles involved in the crash using the following vehicle classifications. These classifications are "strung together" to indicate the number and type of each vehicle involved in the crash.

N	Prcnt	Code	Label
5	0.5	1	BUS-TRUCK
1	0.1	2	CAR-BUS-TRUCK
1	0.1	3	CAR-CAR-CAR-CAR-TRUCK
2	0.2	4	CAR-CAR-CAR-OLV-TRUCK
2	0.2	5	CAR-CAR-CAR-PICKUP-TRUCK
6	0.6	6	CAR-CAR-CAR-TRUCK
1	0.1	7	CAR-CAR-CAR-TRUCK-TRUCK
1	0.1	8	CAR-CAR-LIGHT TRUCK-TRUCK
1	0.1	9	CAR-CAR-LIGHT TRUCK-TRUCK-TRUCK
2	0.2	10	CAR-CAR-OLV-TRUCK
2	0.2	11	CAR-CAR-PICKUP-TRUCK
37	3.5	12	CAR-CAR-TRUCK
3	0.3	13	CAR-CAR-TRUCK-TRUCK
2	0.2	14	CAR-CAR-TRUCK-TRUCK-TRUCK
1	0.1	15	CAR-CAR-VAN-PICKUP-TRUCK
4	0.4	16	CAR-CAR-VAN-TRUCK
1	0.1	17	CAR-CAR-VAN-TRUCK-TRUCK

Codebook - Crash Data Set

N	Prcnt	Code	Label
4	0.4	18	CAR-LIGHT TRUCK-TRUCK
5	0.5	19	CAR-OLV-OLV-TRUCK
2	0.2	20	CAR-OLV-PICKUP-TRUCK
1	0.1	21	CAR-OLV-PICKUP-TRUCK-TRUCK
17	1.6	22	CAR-OLV-TRUCK
1	0.1	23	CAR-OLV-TRUCK-MCYCLE
3	0.3	24	CAR-OLV-TRUCK-TRUCK
3	0.3	25	CAR-OLV-VAN-TRUCK
1	0.1	26	CAR-OLV-VAN-TRUCK-TRUCK
1	0.1	27	CAR-PICKUP-PICKUP-TRUCK
23	2.1	28	CAR-PICKUP-TRUCK
1	0.1	29	CAR-PICKUP-TRUCK-TRUCK
303	28.3	30	CAR-TRUCK
2	0.2	31	CAR-TRUCK-MCYCLE
26	2.4	32	CAR-TRUCK-TRUCK
1	0.1	33	CAR-TRUCK-TRUCK-MCYCLE
4	0.4	34	CAR-TRUCK-TRUCK-TRUCK
1	0.1	35	CAR-TRUCK-TRUCK-TRUCK-TRUCK
3	0.3	36	CAR-VAN-PICKUP-TRUCK
1	0.1	37	CAR-VAN-PICKUP-TRUCK-TRUCK
10	0.9	38	CAR-VAN-TRUCK
2	0.2	39	CAR-VAN-TRUCK-TRUCK
1	0.1	40	CAR-VAN-VAN-VAN-TRUCK
1	0.1	41	LIGHT TRUCK-TRUCK
1	0.1	42	LIGHT TRUCK-TRUCK-TRUCK
14	1.3	43	MULTI VEHICLE
2	0.2	44	OLV-OLV-TRUCK
1	0.1	45	OLV-PICKUP-PICKUP-TRUCK-TRUCK
4	0.4	46	OLV-PICKUP-TRUCK
55	5.1	47	OLV-TRUCK
5	0.5	48	LV-TRUCK-TRUCK
2	0.2	49	OLV-TRUCK-TRUCK-TRUCK
1	0.1	50	OLV-VAN-PICKUP-TRUCK
5	0.5	51	OLV-VAN-TRUCK
1	0.1	52	PICKUP-PICKUP-PICKUP-TRUCK
4	0.4	53	PICKUP-PICKUP-TRUCK
79	7.4	54	PICKUP-TRUCK
10	0.9	55	PICKUP-TRUCK-TRUCK
1	0.1	56	PICKUP-TRUCK-TRUCK-TRUCK-TRUCK
273	25.5	57	TRUCK
7	0.7	58	TRUCK-MCYCLE
2	0.2	59	TRUCK-OTHER
44	4.1	60	TRUCK-TRUCK

Codebook - Crash Data Set

N	Prcnt	Code	Label
1	0.1	61	TRUCK-TRUCK-MHOME
5	0.5	62	TRUCK-TRUCK-TRUCK
3	0.3	63	TRUCK-TRUCK-TRUCK-TRUCK
3	0.3	64	TRUCK-TRUCK-TRUCK-TRUCK-TRUCK
2	0.2	65	VAN-PICKUP-TRUCK
50	4.7	66	VAN-TRUCK
1	0.1	67	VAN-TRUCK-MCYCLE
1	0.1	68	VAN-TRUCK-TRUCK
2	0.2	69	VAN-VAN-TRUCK
2	0.2	70	VAN-VAN-TRUCK-TRUCK

Variable Name	Format	Type	Length
Treatment	ML2065F	Numeric	8

Definition: Represents the highest level of treatment of any occupant in the case.

N	Prcnt	Code	Label
122	11.4	0	No treatment
20	1.9	1	Dead on Arrival (DOA) at hospital
30	2.8	2	Dead prior to Admission
379	35.4	3	Hospitalization
457	42.7	4	Transported and released
13	1.2	5	Treatment at scene - non-transported
15	1.4	6	Treatment later
22	2.1	7	Transported to a medical facility-unknown if treated
3	0.3	8	Treatment - other (specify)
9	0.8	9	Unknown

Variable Name	Format	Type	Length
OCCFatality	ML4211F	Numeric	8

Definition: Documents if there were any occupant fatalities in the case.

N	Prcnt	Code	Label
850	79.4	0	Not Fatal
206	19.3	1	Fatal
12	1.1	2	Fatal - ruled disease (specify)
2	0.2	9	Unknown

Codebook - Crash Data Set

Variable Name	Format	Type	Length
CRAAlcohol	ML642F	Numeric	8

Definition: Documents whether or not alcohol was involved in the crash.

N	Prcnt	Code	Label
91	8.5	1	Yes
852	79.6	2	No
127	11.9	9	Unknown

Variable Name	Format	Type	Length
AnyDrugsCrash	ML642F	Numeric	8

Definition: Documents whether or not any drugs (legal or illegal) were present or involved in the crash.

N	Prcnt	Code	Label
610	57.0	1	Yes
460	43.0	2	No

Codebook - CrashAssessment Data Set

CrashAssessment Data Set

The CrashAssessment data set contains assessment information for each vehicle and driver involved in the crash. One record of this information exists for each vehicle.

The CrashAssessment data set contains the variables CaseID, PSU, PSUStrat, RATWeight, and VehicleNumber. CaseID and VehicleNumber uniquely identify each record in this data set and should be used to merge the CrashAssessment data set with other vehicle level data sets.

Variable Name	Format	Type	Length
PreEventMovement	ML657F	Numeric	8

Definition: Establishes the subject vehicle's pre-critical event movement pattern. The pre-event movement pattern is usually described as the point which both precedes the critical precrash envelope and which precedes vehicle motions that place the involved vehicle(s) on an imminent collision path.

N	Prcnt	Code	Label
24	1.1	0	No driver present
1,141	50.0	1	Going Straight
155	6.8	2	Decelerating in traffic lane
33	1.4	3	Accelerating in traffic lane
14	0.6	4	Starting in traffic lane
296	13.0	5	Stopped in traffic lane
53	2.3	6	Passing or overtaking another vehicle
3	0.1	7	Disabled or parked in travel lane
15	0.7	10	Turning right
36	1.6	11	Turning left
3	0.1	12	Making a U-turn
7	0.3	13	Backing up (other than for parking position)
274	12.0	14	Negotiating a curve
86	3.8	15	Changing lanes
17	0.7	16	Merging
63	2.8	17	Successful avoidance maneuver to a previous critical event
26	1.1	98	Other (specify)
38	1.7	99	Unknown

Variable Name	Format	Type	Length
ACRCriticalEvent	ML654F	Numeric	8

Definition: Identifies the event which made the crash imminent (i.e. something occurred which made the collision inevitable). A precrash critical event is coded for each vehicle in the crash and documents the circumstances leading to this vehicle's first impact in the crash sequence.

N	Prcnt	Code	Label
13	0.6	1	Blow out/flat tire, (specify blow out/flat,location/make)
7	0.3	3	Disabling vehicle failure (e.g, wheel fell off) Specify:
5	0.2	4	Non-disabling vehicle problem (e.g., hood flew up) Specify:

Codebook - CrashAssessment Data Set

N	Prcnt	Code	Label
16	0.7	5	Poor road conditions(Puddle,pot hole,ice,etc.) Specify:
122	5.3	6	Traveling too fast for conditions
12	0.5	7	Jackknife Event
26	1.1	8	Other cause of control loss (specify)
13	0.6	9	Unknown cause of control loss
131	5.7	10	Over the lane line on left side of travel lane
63	2.8	11	Over the lane line on right side of travel lane
42	1.8	12	Off the edge of the road on the left side
83	3.6	13	Off the edge of the road on the right side
1	0.0	14	End departure
76	3.3	15	Turning left at intersection
22	1.0	16	Turning right at interesection
76	3.3	17	Crossing over (passing through) intersection
7	0.3	18	This vehicle decelerating
119	5.2	50	Other vehicle stopped
79	3.5	51	Travelling in same direction with low steady speed
82	3.6	52	Travelling in same direction while decelerating
252	11.0	53	Traveling in same direction with higher speed
30	1.3	54	Traveling in opposite direction
2	0.1	55	In crossover
2	0.1	56	Backing
1	0.0	59	Unknown travel direction of other motor vehicle in lane
91	4.0	60	From adjacent lane (same direction) - over left lane line
95	4.2	61	From adjacent lane (same direction -over right lane line
110	4.8	62	From opposite direction-over left lane line
2	0.1	63	From opposite direction -over right lane line
4	0.2	65	From crossing street, turning into same direction
68	3.0	66	From crossing street, across path
22	1.0	67	From crossing street ,turning into opposite direction
2	0.1	70	From driveway,turning into same direction
4	0.2	71	From driveway, across path
5	0.2	72	From driveway, turning into oppsite direction
1	0.0	74	From enterance to limited access highway
26	1.1	80	Pedestrian in roadway
1	0.0	81	Pedestrain approaching roadway
7	0.3	83	Pedalcyclist or other nonmotorist in roadway (specify):
1	0.0	87	Animal in roadway
16	0.7	90	Object in roadway
41	1.8	98	Other (Specify)
14	0.6	100	Cargo Shift
492	21.5	125	Not involved first harmful event

Codebook - CrashAssessment Data Set

Variable Name	Format	Type	Length
CriticalEventCat	ML4123F	Numeric	8

Definition: Groups the individual attributes of the Critical Precrash Event into categories. These categories are helpful in deciding the critical precrash event.

N	Prcnt	Code	Label
228	10.0	1	This vehicle loss of control
501	21.9	2	This vehicle traveling
567	24.8	3	Other motor vehicle in lane
404	17.7	4	Other motor vehicle encroaching into lane
34	1.5	5	Pedestrian, pedacyclist, or other nonmotorist
17	0.7	6	Object or animal
41	1.8	7	Other (specify)
492	21.5	9	This vehicle not involved in first harmful event

Variable Name	Format	Type	Length
ACRReason	ML655F	Numeric	8

Definition: Establishes the critical reason for the occurrence of the critical event. The critical reason is the immediate reason for this event and is often the last failure in the causal chain (i.e. closest in time to the critical precrash event). Although the critical reason is an important part of the description of crash events, it is not the cause of the crash nor does it imply the assignment of fault.

N	Prcnt	Code	Label
1,229	53.8	0	Critical event not coded to this vehicle
59	2.6	100	Sleep, that is, actually asleep
40	1.8	101	Heart attack or other physical impairment of the ability to act
3	0.1	108	Other critical non-performance (specify)
6	0.3	109	Unknown critical non-performance
59	2.6	110	Inattention (i.e., daydreaming)
43	1.9	111	Internal distraction
28	1.2	112	External distraction
138	6.0	113	Inadequate surveillance (e.g., failed to look, looked but did not
3	0.1	118	Other recognition error (specify)
53	2.3	119	Unknown recognition error
69	3.0	120	Too fast for conditions to be able to respond to unexpected
2	0.1	121	Too slow for traffic stream
36	1.6	122	Misjudgment of gap or other's speed
34	1.5	123	Following too closely to respond to unexpected actions
22	1.0	124	False assumption of other road user's actions
44	1.9	125	Illegal maneuver
6	0.3	127	Inadequate evasive action, e.g. braking only, not braking and
23	1.0	128	Aggressive driving behavior
20	0.9	138	Other decision error (specify)
3	0.1	139	Unknown decision error

Codebook - CrashAssessment Data Set

N	Prcnt	Code	Label
63	2.8	140	Too fast for curve/turn
1	0.0	141	Panic/Freezing
40	1.8	142	Overcompensation
38	1.7	143	Poor directional control e.g., failing to control vehicle with skill
2	0.1	149	Unknown performance error
98	4.3	199	Type of driver error unknown
16	0.7	200	Tires/wheels failed
8	0.4	201	Brakes failed
1	0.0	202	Steering failed
17	0.7	203	Cargo shifted
1	0.0	204	Trailer attachment failed
2	0.1	205	Suspension failed
1	0.0	208	Body, doors, hood failed
2	0.1	298	Other vehicle failure (specify)
1	0.0	299	Unknown vehicle failures
1	0.0	500	Signs/signals missing
1	0.0	504	View obstructed by other vehicles
1	0.0	505	Road design - roadway geometry (e.g., ramp curvature)
1	0.0	507	Road design - other
20	0.9	509	Slick roads (low friction road surface due to ice, loose debris, any
1	0.0	518	Other highway-related condition (specify)
1	0.0	522	Fog
2	0.1	523	Wind gust
7	0.3	530	Glare
18	0.8	540	Degraded braking capability
3	0.1	541	Transmission/engine failure
17	0.7	999	Unknown reason for critical event

Variable Name

ReasonCat

Format

OT1F

Type

Numeric

Length

8

Definition: Groups the attributes for the variable Critical Reason for the Critical Event variable into categories.

N	Prcnt	Code	Label
1,229	53.8	0	No Driver Error
108	4.7	1	Physical Driver Factor
324	14.2	2	Driver Recognition Factor
322	14.1	3	Driver Decision Factor
179	7.8	4	Driver Performance Factor
70	3.1	5	Vehicle Related Factor
25	1.1	6	Environment - Highway

Codebook - CrashAssessment Data Set

N	Prcnt	Code	Label
10	0.4	7	Environment - Weather
17	0.7	99	Unknown Reason

Variable Name	Format	Type	Length
ACRAvoidance	ML656F	Numeric	8

Definition: Documents the driver's actions initiated in response to the realization of impending danger. Attempted avoidance maneuvers are movements/actions initiated by the subject driver, within the crucial crash envelope, in response to a critical precrash event. Attempted avoidance maneuvers occur after the driver has realization of an impending danger.

N	Prcnt	Code	Label
24	1.1	0	No driver present
1,219	53.4	1	No avoidance maneuver
137	6.0	2	Braking (no lockup)
219	9.6	3	Braking (lockup)
13	0.6	4	Braking (lockup unknown)
61	2.7	6	Steering left
72	3.2	7	Steering right
106	4.6	8	Braking and steering left
128	5.6	9	Braking and steering right
21	0.9	10	Accelerating
8	0.4	11	Accelerating and steering left
10	0.4	12	Accelerating and steering right
115	5.0	98	Other action (specify)
151	6.6	99	Unknown

Variable Name	Format	Type	Length
ACRStability	ML659F	Numeric	8

Definition: Focuses upon this vehicle's dynamics after the critical event. The purpose of this variable is to assess the stability of the vehicle after the critical event. The stability of the vehicle prior to an avoidance action is not considered except in the following situation: A vehicle that is out of control (e.g. yawing clockwise) prior to an avoidance maneuver is coded "Other vehicle loss of control" only if an avoidance action was taken in response to an impending danger.

N	Prcnt	Code	Label
24	1.1	0	No driver present
1,644	72.0	1	Tracking
368	16.1	2	Skidding longitudinally->rotation less than 30 degrees
59	2.6	3	Skidding laterally->clockwise rotation
72	3.2	4	Skidding laterally->counterclockwise rotation
47	2.1	8	Other vehicle loss-of-control (specify)
70	3.1	9	Pre-crash stability unknown

Codebook - CrashAssessment Data Set

Variable Name	Format	Type	Length
ACRLocation	ML658F	Numeric	8

Definition: Reports the location of the subject vehicle at the point where its pre-impact stability is determined.

N	Prcnt	Code	Label
24	1.1	0	No driver present
1,431	62.7	1	Stayed in original travel lane
521	22.8	2	Stayed on roadway but left original travel lane
10	0.4	3	Stayed on roadway, not known if left original travel lane
221	9.7	4	Departed roadway
11	0.5	5	Remained off roadway
24	1.1	6	Returned to roadway
13	0.6	7	Entered roadway
29	1.3	9	Unknown

Variable Name	Format	Type	Length
ACRRightOfWay	ML660F	Numeric	8

Definition: Establishes vehicle right-of-way characteristics, from a legal perspective, for the subject vehicle. Specifically, did this vehicle have the right-of-way?

N	Prcnt	Code	Label
581	25.4	1	Yes
401	17.6	2	No
1,295	56.7	88	Not Applicable
7	0.3	99	Unknown

Variable Name	Format	Type	Length
CrashCode	BEST8	Numeric	8

Definition: Used in categorizing the collisions of drivers involved in crashes. A collision is defined here as the first harmful event in a crash between a vehicle and some object, accompanied by property damage or human injury. The object may be another vehicle, a person, an animal, a fixed object, the road surface, or the ground. If the first collision is a rollover, the impact is with the ground or road surface. The collision may also involve plowing into soft ground, if severe deceleration results in damage or injury. A road departure without damage or injury is not defined as a collision. This variable encompasses the "Configuration" variable, which is a component of this variable.

N	Prcnt	Code	Label
18	0.8	0	0
65	2.8	1	1
43	1.9	2	2
6	0.3	3	3
1	0.0	5	5

Codebook - CrashAssessment Data Set

N	Prcnt	Code	Label
38	1.7	6	6
54	2.4	7	7
6	0.3	8	8
1	0.0	9	9
2	0.1	10	10
2	0.1	11	11
3	0.1	12	12
32	1.4	13	13
1	0.0	14	14
8	0.4	15	15
113	4.9	20	20
106	4.6	21	21
7	0.3	22	22
1	0.0	23	23
90	3.9	24	24
85	3.7	25	25
2	0.1	26	26
2	0.1	27	27
61	2.7	28	28
53	2.3	29	29
1	0.0	30	30
7	0.3	31	31
32	1.4	32	32
2	0.1	33	33
4	0.2	42	42
1	0.0	43	43
7	0.3	44	44
105	4.6	45	45
49	2.1	46	46
53	2.3	47	47
54	2.4	48	48
35	1.5	50	50
35	1.5	51	51
10	0.4	52	52
10	0.4	62	62
45	2.0	64	64
45	2.0	65	65
14	0.6	66	66
38	1.7	68	68
38	1.7	69	69
10	0.4	70	70
10	0.4	71	71
10	0.4	72	72

Codebook - CrashAssessment Data Set

N	Prcnt	Code	Label
10	0.4	73	73
2	0.1	74	74
4	0.2	76	76
4	0.2	77	77
5	0.2	78	78
5	0.2	79	79
4	0.2	80	80
4	0.2	81	81
30	1.3	82	82
30	1.3	83	83
2	0.1	84	84
31	1.4	86	86
31	1.4	87	87
38	1.7	88	88
38	1.7	89	89
6	0.3	90	90
7	0.3	92	92
4	0.2	93	93
614	26.9	98	98

Variable Name	Format	Type	Length
AccidentCat	OT2F	Numeric	8

Definition: Used in categorizing the collisions of drivers involved in crashes. A collision is defined here as the first harmful event in a crash between a vehicle and some object, accompanied by property damage or human injury. The object may be another vehicle, a person, an animal, a fixed object, the road surface, or the ground. If the first collision is a rollover, the impact is with the ground or road surface. The collision may also involve plowing into soft ground, if severe deceleration results in damage or injury. A road departure without damage or injury is not defined as a collision. This variable is part of the larger variable "Crash Type." The "Crash Type" variable is actually broken down into three components: the crash category, the crash configuration, and the accident type. This variable only deals with the configuration of the crash.

N	Prcnt	Code	Label
115	5.0	1	Right Roadside Departure
562	24.6	2	Rear-End
80	3.5	3	Head-On
118	5.2	4	Turn Across Path
144	6.3	5	Straight Paths
104	4.6	6	Same Trafficway Opposite Directions - Sideswipe/Angle
101	4.4	7	Left Roadside Departure
5	0.2	8	Same Trafficway Same Direction - Forward Impact
10	0.4	9	Same Trafficway Opposite Directions - Forward Impact
88	3.9	10	Turn Into Path
46	2.0	11	Single Driver - Forward Impact

Codebook - CrashAssessment Data Set

N	Prcnt	Code	Label
268	11.7	12	Same Trafficway Same Direction - Sideswipe/Angle
643	28.2	13	Miscellaneous

Variable Name	Format	Type	Length
ACRJackknife	AP1U	Numeric	8

Definition: Documents the presence/absence of a jackknife for this vehicle.

N	Prcnt	Code	Label
2,223	97.3	0	Absent
61	2.7	1	Present

Variable Name	Format	Type	Length
ACRCargoshift	AP1U	Numeric	8

Definition: Documents the presence/absence of a cargo shift for this vehicle.

N	Prcnt	Code	Label
2,241	98.1	0	Absent
43	1.9	1	Present

Codebook - CrashDiscussion Data Set

CrashDiscussion Data Set

The CrashDiscussion data set contains the assessment summary for each vehicle and driver in the crash. This material is provided as one record per vehicle.

The CrashDiscussion data set contains the variables CaseID, PSU, PSUStrat, RATWeight, and VehicleNumber. CaseID and VehicleNumber uniquely identify each record in this data set and should be used to merge the CrashDiscussion data set with other vehicle level data sets.

Variable Name	Format	Type	Length
Discussion	\$21000	Char	21000

Definition: The Case Summary is intended to provide a detailed description of the crash sequence including precrash vehicle movement patterns and driver precrash actions. In addition to describing crash events for each vehicle/driver, the summary is intended to provide a detailed accounting of all causal-related information for this vehicle/driver. This includes describing the critical precrash event, the critical reason for the critical event, and all critical event associated factors.

N	Prcnt	Code	Label
1	0.0	*	. Vehicle 1 was a 1988 Ford LTD Crown Victoria with 3
1	0.0	*	1999 Toyota Tacoma pickup truck The driver of the 1999 Toyota
1	0.0	*	A 2001 Freightliner Towing a van semi-trailer (Vehicle 2) and a
1	0.0	*	A 2001 Freightliner Towing a van semi-trailer (Vehicle 2) and a
1	0.0	*	A 2001 Mitsubishi Eclipse, vehicle one, was traveling south on a
1	0.0	*	A 2001 Mitsubishi Eclipse, vehicle one, was traveling south on a
1	0.0	*	A 3-vehicle collision occurred in mid June at approximately 1700
1	0.0	*	A 3-vehicle collision occurred in mid June at approximately 1700
1	0.0	*	A 3-vehicle collision occurred in mid June at approximately 1700
1	0.0	*	A collision involving four vehicles occurred at 1040 hours on an

1	0.0	*	Vehicle two is a 1998 Pontiac Grand Prix. Vehicle two was
1	0.0	*	Vehicle two was a 1983 Peterbilt conventional tractor with a
1	0.0	*	Vehicle two was a 1994 Ford medium/heavy flatbed straight
1	0.0	*	Vehicle two was a 1995 Western Star truck with a flat bed trailer
1	0.0	*	Vehicle two was a 2001 Freightliner F80 straight truck with a
1	0.0	*	Vehicle two, a 1989 Freightliner pulling one trailer, was traveling
1	0.0	*	Vehicle two, a 1995 Ford L8000 two-axle straight truck, traveling
1	0.0	*	Vehicle two, a 1999 Peterbilt tractor with one refrigerated van
1	0.0	*	Vehicle two, a 1999 single unit straight truck, was negotiating a
1	0.0	*	Vehicle two, a 1999 single unit straight truck, was negotiating a

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Codebook - DMVViolation Data Set

DMVViolation Data Set

The DMVViolation data set contains information on the driver's prior record of motor vehicle violations. One record is provided for each violation and is stored for each vehicle/driver where this information is available.

The DMVViolation data set contains the variables CaseID, PSU, PSUStrat, RATWeight, VehicleNumber and DriverNumber. CaseID and VehicleNumber should be used to merge the DMVViolation data set with vehicle level data sets. DriverNumber is used to uniquely identify each driver, however, since a driver can have more than one violation and be involved in more than one crash, this variable does not uniquely identify each record.

Variable Name	Format	Type	Length
ViolationNumber	BEST8	Numeric	8

Definition: Identifies the violation number.

N	Prcnt	Code	Label
983	20.9	1	1
728	15.4	2	2
550	11.7	3	3
437	9.3	4	4
350	7.4	5	5
285	6.0	6	6
235	5.0	7	7
189	4.0	8	8
148	3.1	9	9
121	2.6	10	10

5	0.1	29	29
4	0.1	30	30
3	0.1	31	31
3	0.1	32	32
2	0.0	33	33
1	0.0	34	34
1	0.0	35	35
1	0.0	36	36
1	0.0	37	37
1	0.0	38	38

Codebook - DMVViolation Data Set

Variable Name	Format	Type	Length
LicState	\$2	Char	2

Definition: Identifies the State in which the driver's (driving) license was issued.

N	Prcnt	Code	Label
567	12.0	*	AL
1	0.0	*	AR
129	2.7	*	CA
280	5.9	*	CO
8	0.2	*	DE
334	7.1	*	FL
135	2.9	*	GA
10	0.2	*	IA
3	0.1	*	ID
68	1.4	*	IL
195	4.1	*	IN
3	0.1	*	KS
4	0.1	*	KY
11	0.2	*	LA
13	0.3	*	MA
263	5.6	*	MD
7	0.1	*	ME
292	6.2	*	MI
15	0.3	*	MN
1	0.0	*	MO
13	0.3	*	MS
2	0.0	*	MT
442	9.4	*	NC
27	0.6	*	NE
456	9.7	*	NJ
15	0.3	*	NM
1	0.0	*	NV
188	4.0	*	NY
120	2.5	*	OH
25	0.5	*	OK
9	0.2	*	OR
388	8.2	*	PA
80	1.7	*	SC
189	4.0	*	TN
222	4.7	*	TX
1	0.0	*	UK
12	0.3	*	UT

Codebook - DMVViolation Data Set

N	Prcnt	Code	Label
14	0.3	*	VA
140	3.0	*	WA
12	0.3	*	WI
10	0.2	*	WV
7	0.1	*	WY

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Variable Name	Format	Type	Length
CitDate	\$10	Char	10

Definition: Identifies the date that the driver received a citation for a particular violation.

N	Prcnt	Code	Label
1	0.0	*	1962-04-01
1	0.0	*	1963-11-01
1	0.0	*	1965-03-01
1	0.0	*	1965-05-01
1	0.0	*	1966-02-01
1	0.0	*	1966-08-01
1	0.0	*	1967-11-01
2	0.0	*	1968-06-01
1	0.0	*	1969-09-01
1	0.0	*	1969-10-01

8	0.2	*	2003-04-01
21	0.4	*	2003-05-01
22	0.5	*	2003-06-01
15	0.3	*	2003-07-01
11	0.2	*	2003-08-01
6	0.1	*	2003-09-01
16	0.3	*	2003-10-01
6	0.1	*	2003-11-01
5	0.1	*	2003-12-01
3	0.1	*	9999-99-99

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Codebook - DMVViolation Data Set

Variable Name	Format	Type	Length
ConvDate	\$10	Char	10

Definition: Identifies the date that the driver was convicted of a particular violation.

N	Prcnt	Code	Label
1	0.0	*	1963-12-01
1	0.0	*	1965-03-01
1	0.0	*	1965-07-01
1	0.0	*	1966-02-01
1	0.0	*	1966-09-01
1	0.0	*	1967-12-01
1	0.0	*	1968-06-01
1	0.0	*	1968-07-01
1	0.0	*	1969-10-01
1	0.0	*	1969-11-01

22	0.5	*	2003-09-01
20	0.4	*	2003-10-01
11	0.2	*	2003-11-01
10	0.2	*	2003-12-01
6	0.1	*	2004-01-01
11	0.2	*	2004-02-01
11	0.2	*	2004-03-01
2	0.0	*	2004-05-01
1	0.0	*	2004-07-01
24	0.5	*	9999-99-99

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Variable Name	Format	Type	Length
ACDcode	\$5	Char	5

Definition: Represents Department Of Motor Vehicle (DMV) violation codes.

N	Prcnt	Code	Label
635	13.5	*	
1	0.0	*	???
4	0.1	*	A04
2	0.0	*	A08
15	0.3	*	A10
1	0.0	*	A11
5	0.1	*	A12
49	1.0	*	A20
44	0.9	*	A21

Codebook - DMVViolation Data Set

N	Prcnt	Code	Label
2	0.0	*	A22

83	1.8	*	S94
2	0.0	*	S95
30	0.6	*	S96
1	0.0	*	SC2
1	0.0	*	SP
3	0.1	*	SP3
5	0.1	*	U01
1	0.0	*	U07
1	0.0	*	U25
10	0.2	*	W10

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Variable Name	Format	Type	Length
ACDdetail	\$75	Char	75

Definition: The 5-digit code that provides further detail of the ACD code.

N	Prcnt	Code	Label
2,788	59.2	*	
103	2.2	*	0
1	0.0	*	00
167	3.5	*	00000
1	0.0	*	00054
1	0.0	*	05015
2	0.0	*	05021
1	0.0	*	15020
1	0.0	*	19
1	0.0	*	20030

8	0.2	*	S11
21	0.4	*	S15
1	0.0	*	S16
15	0.3	*	S51
28	0.6	*	S61
2	0.0	*	S71
79	1.7	*	S93
13	0.3	*	S94
2	0.0	*	S95
2	0.0	*	U06

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Codebook - DMVViolation Data Set

Variable Name	Format	Type	Length
DriverNumber	BEST8	Numeric	8

Definition Uniquely identifies each driver, however, since a driver can have more than one violation and be involved in more than one crash, this variable does not uniquely identify each record.

N	Prcnt	Code	Label
1	0.0	1	1
1	0.0	6	6
1	0.0	7	7
4	0.1	10	10
5	0.1	13	13
1	0.0	14	14
3	0.1	15	15
1	0.0	18	18
4	0.1	19	19
13	0.3	20	20

1	0.0	11319	11319
5	0.1	11320	11320
2	0.0	11322	11322
6	0.1	11338	11338
13	0.3	11339	11339
3	0.1	11343	11343
1	0.0	11351	11351
1	0.0	11352	11352
1	0.0	11356	11356
1	0.0	11359	11359

Variable Name	Format	Type	Length
ViolDescription	\$75	Char	75

Definition: Describes each violation and corresponds to the ACD Code.

N	Prcnt	Code	Label
646	13.7	*	
33	0.7	*	"EXCEED/VIOLATING SIZE, WEIGHT,/PASSENGER//CARGO
1	0.0	*	"FT OBEY RAILROAD GATES,SIGNS/SIGNALS"
2	0.0	*	"IMPR LANE/LOCATION - ROAD SHOULDER,
42	0.9	*	"MISSING,DEFACED,/OBSCURED LIC PLATES"
1	0.0	*	"MV IN MANUFACTUR,DISTRIBUTE,/DISPENSE A
2	0.0	*	"RECKLESS, CARELESS,/NEGLIGENT DRIVE"
21	0.4	*	"SHOW/USE IMPROPERLY-REG,PLATES,DECAL/STICKER"
21	0.4	*	"SPILLING, DRAGGING, UNSECURED/UNSAFE LOAD"
15	0.3	*	"STOP,STAND,/PARK WHERE PROHIBITED/IMPROPER"

Codebook - DMVViolation Data Set

N	Prcnt	Code	Label
1	0.0	*	TOWING/PUSHING VEH IMPROPERLY
1	0.0	*	TRANSPORTING LIQUOR ILLEGALLY
1	0.0	*	UNAUTH USE OF A VEH/TAKE VEH W/O OWNER CONSENT
51	1.1	*	UNSAFE CONDITION OF VEH
96	2.0	*	UNSAFE OPERATION
10	0.2	*	USE OF EQUIP PROHIBITED BY LAW
3	0.1	*	USE OF RADAR/LASER DETECTOR PROHIBITED BY LAW
1	0.0	*	VEH HOMICIDE
6	0.1	*	VIOLATE RESTRICTIONS OF DRIVER LIC
10	0.2	*	WITHDRAWAL (REASON NOT SPECIFIED)

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Codebook - DriverAssessment Data Set

DriverAssessment Data Set

The DriverAssessment data set contains assessment information on the driver regarding level of attention, behavior, mental or emotional state prior to the crash. One record of this information exists for each vehicle/driver.

The DriverAssessment data set contains the variables CaseID, PSU, PSUStrat, RATWeight, and VehicleNumber. CaseID and VehicleNumber uniquely identify each record in this data set and should be used to merge the DriverAssessment data set with other vehicle level data sets.

Variable Name	Format	Type	Length
SightLine	ML867F	Numeric	8

Definition: Establishes the driver's sight line to the other vehicle in terms of being clear or being obstructed in some manner.

N	Prcnt	Code	Label
1,957	85.7	1	Yes
12	0.5	2	No, view obstructed by roadway curvature or grade
5	0.2	3	No, view obstructed by roadside appurtenance
42	1.8	4	No, view obstructed by intervening vehicle
225	9.9	7	Not applicable
23	1.0	8	Other (specify)
20	0.9	9	Unknown

Variable Name	Format	Type	Length
Obscured	ML730F	Numeric	8

Definition: Establishes the driver's view of the other vehicle in terms of having a clear view or having a view that is obscured in some manner.

N	Prcnt	Code	Label
5	0.2	1	Yes, obscured by solar glare
1	0.0	2	Yes, obscured by headlight glare
20	0.9	4	Yes, obscured by dark (nighttime) viewing conditions
1,960	85.8	5	No
222	9.7	7	Not applicable
50	2.2	8	Yes, obscured by other condition (specify)
26	1.1	9	Unknown

Codebook - DriverAssessment Data Set

Variable Name	Format	Type	Length
StopRequired	ML748F	Numeric	8

Definition: Establishes if this driver is required to stop prior to entering an intersection, initiating a turn, or prior to the crash.

N	Prcnt	Code	Label
247	10.8	1	Yes, traffic control device (TCD)
203	8.9	2	Yes, other reason (specify)
76	3.3	3	Yes, yield right of way requirement
1,726	75.6	5	No
24	1.1	7	No driver present
8	0.4	9	Unknown

Variable Name	Format	Type	Length
TimeStopped	ML749F	Numeric	8

Definition: Establishes the period of time the driver was stopped prior to entering an intersection, initiating a turn, or prior to the crash.

N	Prcnt	Code	Label
105	4.6	0	Traveling at constant velocity
130	5.7	1	Decelerated, did not stop
9	0.4	2	Rolling stop prior to proceeding
8	0.4	3	Stopped < 1 second prior to proceeding
13	0.6	4	Stopped 1-2 seconds prior to proceeding
18	0.8	5	Stopped 3-5 seconds prior to proceeding
132	5.8	6	Stopped more then 5 seconds prior to proceeding
24	1.1	7	No driver present
1,734	75.9	8	Not required to stop
111	4.9	9	Unknown

Variable Name	Format	Type	Length
Focused	ML729F	Numeric	8

Definition: Documents the circumstance where the driver focuses on an extraneous location after initially checking for approaching traffic.

N	Prcnt	Code	Label
176	7.7	1	Yes (specify)
616	27.0	2	No
1,124	49.2	7	Not applicable
368	16.1	9	Unknown

Codebook - DriverAssessment Data Set

Variable Name	Format	Type	Length
ADRWorkSchedule	AP1U	Numeric	8

Definition: Establishes whether or not the driver's sleep pattern is primarily related to his/her work schedule. (This variable was originally an attribute choice under the variable "Driver's Hours of Main Sleep Related To.")

N	Prcnt	Code	Label
838	36.7	0	Absent
1,446	63.3	1	Present

Variable Name	Format	Type	Length
SocialSchedule	AP1U	Numeric	8

Definition: Establishes whether or not the driver's sleep pattern is related to a social schedule. (This variable was originally an attribute choice under the variable "Driver's Hours Of Main Sleep Related To.")

N	Prcnt	Code	Label
2,137	93.6	0	Absent
147	6.4	1	Present

Variable Name	Format	Type	Length
PersonalProblems	AP1U	Numeric	8

Definition: Establishes whether or not the driver's sleep pattern is primarily related to a set of personal problems. (This variable was originally an attribute choice under the variable "Driver's Hours Of Main Sleep Related To.")

N	Prcnt	Code	Label
2,281	99.9	0	Absent
3	0.1	1	Present

Variable Name	Format	Type	Length
FamilyProblems	AP1U	Numeric	8

Definition: Establishes whether or not the driver's sleep pattern is related to problems of other family members or to interpersonal relationships between the driver and other family members. (This variable was originally an attribute choice under the variable "Driver's Hours Of Main Sleep Related To.")

N	Prcnt	Code	Label
2,278	99.7	0	Absent
6	0.3	1	Present

Codebook - DriverAssessment Data Set

Variable Name	Format	Type	Length
Illness	AP1U	Numeric	8

Definition: Establishes whether or not the driver's sleep pattern is related to illness. The illness may involve either the driver or other family members. (This variable was originally an attribute choice under the variable "Driver's Hours Of Main Sleep Related To.")

N	Prcnt	Code	Label
2,273	99.5	0	Absent
11	0.5	1	Present

Variable Name	Format	Type	Length
NoDriverPresent	AP1U	Numeric	8

Definition: Establishes whether or not there was a driver present in the driver's seated position at the time of the crash. (This variable was originally an attribute choice under the variable "Driver's Hours Of Main Sleep Related To.")

N	Prcnt	Code	Label
2,259	98.9	0	Absent
25	1.1	1	Present

Variable Name	Format	Type	Length
ADROtherFactor	AP1U	Numeric	8

Definition: Establishes whether or not the driver's sleep pattern is related to a factor not described by the other sleep pattern variables. (This variable was originally an attribute choice under the variable "Driver's Hours Of Main Sleep Related To" and was the "Other (specify):" attribute choice.)

N	Prcnt	Code	Label
2,234	97.8	0	Absent
50	2.2	1	Present

Variable Name	Format	Type	Length
UnknownFactor	AP1U	Numeric	8

Definition: Establishes whether or not the driver's sleep pattern was related to an unknown factor. (This variable was originally an attribute choice under the variable "Driver's Hours Of Main Sleep Related To" and was the "Unknown" attribute choice.)

N	Prcnt	Code	Label
1,655	72.5	0	Absent
629	27.5	1	Present

Codebook - DriverAssessment Data Set

Variable Name	Format	Type	Length
AlcoholUse	ML869F	Numeric	8

Definition: Establishes the presence of alcohol for this driver.

N	Prcnt	Code	Label
2,040	89.3	0	No alcohol use
63	2.8	91	AC test performed, results positive
22	1.0	92	Field observation of NASS researcher
16	0.7	93	AC test performed, results negative
10	0.4	96	None given
82	3.6	97	AC test performed, results unknown
24	1.1	98	No driver present
27	1.2	99	Unknown

Variable Name	Format	Type	Length
AlcoholTest	OT64F	Numeric	8

Definition: Records the results of an alcohol test (either blood alcohol test or Breathalyzer test) in percent times 100.

N	Prcnt	Code	Label
464	20.3	0	0
1	0.0	1	1
1	0.0	3	3
1	0.0	10	10
1	0.0	15	15
1	0.0	16	16
1	0.0	40	40
1	0.0	60	60
1	0.0	68	68
1	0.0	70	70
2	0.1	76	76
1	0.0	79	79
1	0.0	80	80
2	0.1	100	100
1	0.0	107	107
2	0.1	110	110
1	0.0	118	118
3	0.1	120	120
1	0.0	129	129
2	0.1	130	130
1	0.0	140	140
2	0.1	150	150
1	0.0	160	160

Codebook - DriverAssessment Data Set

N	Prcnt	Code	Label
3	0.1	170	170
1	0.0	180	180
1	0.0	190	190
1	0.0	193	193
1	0.0	198	198
1	0.0	200	200
4	0.2	210	210
3	0.1	220	220
1	0.0	221	221
1	0.0	223	223
1	0.0	228	228
3	0.1	230	230
1	0.0	240	240
1	0.0	252	252
1	0.0	254	254
1	0.0	264	264
1	0.0	280	280
1	0.0	290	290
1	0.0	292	292
2	0.1	320	320
1	0.0	321	321
1	0.0	350	350
1	0.0	362	362
1	0.0	369	369
24	1.1	8887	No driver present
1,593	69.7	9998	None
140	6.1	9999	Unknown

Variable Name

TestSource

Format	Type	Length
ML3451F	Numeric	8

Definition: Documents the source of the BAC test results.

N	Prcnt	Code	Label
1,559	68.3	0	No BAC test/Not applicable
215	9.4	1	Police reported
84	3.7	2	Company reported
24	1.1	6	No driver present
377	16.5	8	Other (specify)
25	1.1	9	Unknown

Codebook - DriverAssessment Data Set

Variable Name	Format	Type	Length
TestDelay	\$OT65F	Char	5

Definition: Documents the time delay between the crash and the time the BAC test is administered.

N	Prcnt	Code	Label
9	0.4	*	00:00
1	0.0	*	00:25
1	0.0	*	00:28
1	0.0	*	00:29
2	0.1	*	00:30
1	0.0	*	00:31
1	0.0	*	00:33
2	0.1	*	00:36
1	0.0	*	00:37
1	0.0	*	00:39

1	0.0	*	39:14
1	0.0	*	47:10
1	0.0	*	55:00
1	0.0	*	58:48
1	0.0	*	68:12
1	0.0	*	68:30
1	0.0	*	70:30
24	1.1	97:97	No driver present
1,632	71.5	98:98	No BAC Test
325	14.2	99:99	Unknown

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Variable Name	Format	Type	Length
ADRDrugTest	ML870F	Numeric	8

Definition: Documents the administration of a drug test for this driver.

N	Prcnt	Code	Label
575	25.2	0	No drug use
267	11.7	5	Test performed, results negative
86	3.8	91	Test performed, results positive
1,207	52.8	96	None given
81	3.5	97	Test performed, results unknown
24	1.1	98	No driver present
44	1.9	99	Unknown

Codebook - DriverAssessment Data Set

Variable Name	Format	Type	Length
Fatigue	ML662F	Numeric	8

Definition: Assesses driver fatigue at the time of the crash. The assessment is based on an evaluation of the driver's current and preceding sleep schedules, current and preceding work schedules, and a variety of other fatigue-related factors including recreational and non-work activities.

N	Prcnt	Code	Label
1,374	60.2	0	Driver not fatigued
216	9.5	1	Driver fatigued
24	1.1	8	No driver present
670	29.3	9	Unknown if driver fatigued

Variable Name	Format	Type	Length
Upset	ML752F	Numeric	8

Definition: Establishes whether or not the driver was upset prior to the crash and the specific reason for this emotional state.

N	Prcnt	Code	Label
1,543	67.6	0	Not upset
8	0.4	1	Preceding argument with spouse
4	0.2	2	Preceding argument with other family member
12	0.5	3	Preceding argument with other individual (specify)
7	0.3	4	Related to financial problems
9	0.4	5	Related to family problems
24	1.1	7	No driver present
17	0.7	8	Other source (specify)
660	28.9	9	Unknown

Variable Name	Format	Type	Length
Hurrying	ML732F	Numeric	8

Definition: Establishes if the driver was in a hurry prior to crash occurrence. Assessments of this type are reflected in the driver's precrash driving behavior (e.g. speeding, sudden starts/stops, weaving in and out of traffic, etc.)

N	Prcnt	Code	Label
1,523	66.7	0	Not in a hurry
21	0.9	1	Due to work-related schedule
4	0.2	2	Late for business appointment
5	0.2	3	Late for social appointment
13	0.6	4	Late for start of work shift/start of school classes
3	0.1	5	Normal driving pattern
24	1.1	7	No driver present

Codebook - DriverAssessment Data Set

N	Prcnt	Code	Label
24	1.1	8	Other reason (specify)
667	29.2	9	Unknown

Variable Name	Format	Type	Length
Emotional	ML865F	Numeric	8

Definition: Establishes if there were other emotional factors relevant to this driver's precrash behavior.

N	Prcnt	Code	Label
1,556	68.1	0	No other emotional factors
18	0.8	1	Driver clinically depressed
9	0.4	2	Driver has a diagnosed psychosis (specify)
24	1.1	7	No driver present
23	1.0	8	Other factors (specify)
654	28.6	9	Unknown

Variable Name	Format	Type	Length
KnewVehicle	ML753F	Numeric	8

Definition: Establishes driver familiarity with the vehicle being operated at the time of the crash.

N	Prcnt	Code	Label
50	2.2	1	First time driving this vehicle
62	2.7	2	Had driven this vehicle 2-5 times in the past six months
40	1.8	3	Had driven this vehicle 6-10 times in the past six months
1,387	60.7	4	Had driven this vehicle more than 10 times in the past six months
24	1.1	7	No driver present
721	31.6	9	Unknown

Variable Name	Format	Type	Length
KnewRoad	ML747F	Numeric	8

Definition: Establishes the driver's familiarity with the approach to the crash site.

N	Prcnt	Code	Label
111	4.9	1	First time driving on this roadway
196	8.6	2	Rarely drives on this roadway
151	6.6	3	Drives on this roadway once per month
105	4.6	4	Drives on this roadway several times per month
421	18.4	5	Drives on this roadway weekly
632	27.7	6	Drives on this roadway daily
24	1.1	7	No driver present

Codebook - DriverAssessment Data Set

N	Prcnt	Code	Label
57	2.5	8	Other frequency (specify)
587	25.7	9	Unknown

Variable Name	Format	Type	Length
WorkPressureCount	AP3U	Numeric	8

Definition: A count of the number of work pressure variables. This includes attributes from the original variable "Driver Under Work-Related Pressure," which were broken out into individual variables.

N	Prcnt	Code	Label
1,512	66.2	0	0
104	4.6	1	1
14	0.6	2	2
24	1.1	7	7
630	27.6	99	Unknown

Variable Name	Format	Type	Length
NewPosition	AP1U	Numeric	8

Definition: Establishes whether or not the driver was under pressure from his/her employer as a result of learning a new position in his/her primary work place. (This variable was originally an attribute choice under the variable "Driver Under Work-Related Pressure.")

N	Prcnt	Code	Label
2,266	99.2	0	Absent
18	0.8	1	Present

Variable Name	Format	Type	Length
ShippingDeadline	AP1U	Numeric	8

Definition: Establishes whether or not the driver experienced work pressure as a result of being under time-related pressures associated with production/shipping deadlines. (This variable was originally an attribute under the variable "Driver Under Work-Related Pressure.")

N	Prcnt	Code	Label
2,280	99.8	0	Absent
4	0.2	1	Present

Codebook - DriverAssessment Data Set

Variable Name	Format	Type	Length
EXPWorkSchedule	AP1U	Numeric	8

Definition: Establishes whether or not the driver was experiencing any pressure on the job as it relates to his/her work schedule. (This variable was originally an attribute choice under the variable "Driver Under Work-Related Pressure.")

N	Prcnt	Code	Label
2,257	98.8	0	Absent
27	1.2	1	Present

Variable Name	Format	Type	Length
Quotas	AP1U	Numeric	8

Definition: Establishes whether or not the driver experienced any work pressure with regard to additional production or sales requirements. (This variable was originally an attribute choice under the variable "Driver Under Work-Related Pressure.")

N	Prcnt	Code	Label
2,283	100.0	0	Absent
1	0.0	1	Present

Variable Name	Format	Type	Length
ExtraLoads	AP1U	Numeric	8

Definition: Establishes whether or not the driver was under pressure from his/her employer to accept loads with little or no advance notice. (This variable was originally an attribute choice under the variable "Driver Under Work-Related Pressure.")

N	Prcnt	Code	Label
2,275	99.6	0	Absent
9	0.4	1	Present

Variable Name	Format	Type	Length
Demoted	AP1U	Numeric	8

Definition: Establishes whether or not the driver had recently been forced to accept a demotion and/or pay decrease. (This variable was originally an attribute choice under the variable "Driver Under Work-Related Pressure.")

N	Prcnt	Code	Label
2,283	100.0	0	Absent
1	0.0	1	Present

Codebook - DriverAssessment Data Set

Variable Name	Format	Type	Length
SelfInducedIllegal	AP1U	Numeric	8

Definition: Establishes whether or not the driver experienced self-induced work pressure, as opposed to employer-induced pressure. The driver was pressuring himself to do things that are considered illegal (e.g. a truck driver continuing to drive even though he knows he is over his allowed driving hours). (This variable was originally an attribute choice under the variable "Work-Related Pressure" in the electronic data system, but was not found on the paper version of the Crash Event Assessment Form.)

N	Prcnt	Code	Label
2,272	99.5	0	Absent
12	0.5	1	Present

Variable Name	Format	Type	Length
SelfInducedOther	AP1U	Numeric	8

Definition: Establishes whether or not the driver experienced self-induced work pressure, as opposed to employer-induced pressure. (This variable was originally an attribute choice under the variable "Work-Related Pressure" in the electronic data system, but was not found on the paper version of the Crash Event Assessment Form.)

N	Prcnt	Code	Label
2,246	98.3	0	Absent
38	1.7	1	Present

Variable Name	Format	Type	Length
OtherPressure	AP1U	Numeric	8

Definition: Establishes whether or not the driver experienced any work-related pressure that was not captured under other work-pressure variables. (This variable was originally an attribute choice under the variable "Driver Under Work-Related Pressure" and was the "Other (specify)" attribute choice).

N	Prcnt	Code	Label
2,262	99.0	0	Absent
22	1.0	1	Present

Variable Name	Format	Type	Length
ComfortCount	AP2U	Numeric	8

Definition: Establishes the total number of attributes coded for the variable "Other Factor Types," which had to do with a driver's comfort with traffic conditions and the vehicle.

N	Prcnt	Code	Label
1,558	68.2	0	0
69	3.0	1	1
3	0.1	2	2

Codebook - DriverAssessment Data Set

N	Prcnt	Code	Label
24	1.1	7	No Driver Present
630	27.6	9	Unknown

Variable Name	Format	Type	Length
TrafficDensity	AP1U	Numeric	8

Definition: Establishes whether or not the driver was uncomfortable with the surrounding traffic densities. The densities are usually very high as might be associated with rush hour traffic. (This variable was originally an attribute choice under the variable "Other Factor Types," which had to do with driver experience.)

N	Prcnt	Code	Label
2,279	99.8	0	Absent
5	0.2	1	Present

Variable Name	Format	Type	Length
TrafficSpeed	AP1U	Numeric	8

Definition: Establishes whether or not the driver was uncomfortable with the general speed of surrounding traffic. The discomfort is typically associated with the driver feeling that surrounding traffic is moving too fast. (This variable was originally an attribute choice under the variable "Other Factor Types," which had to do with driver experience.)

N	Prcnt	Code	Label
2,283	100.0	0	Absent
1	0.0	1	Present

Variable Name	Format	Type	Length
ADRTrafficFlow	AP1U	Numeric	8

Definition: Establishes whether or not the driver was uncomfortable with the general flow of surrounding traffic. (This variable was originally an attribute choice under the variable "Other Factor Types," which had to do with driver experience.)

N	Prcnt	Code	Label
2,283	100.0	0	Absent
1	0.0	1	Present

Codebook - DriverAssessment Data Set

Variable Name	Format	Type	Length
VehicleLoad	AP1U	Numeric	8

Definition: Establishes whether or not the driver was uncomfortable with either the vehicle or the load. (This variable was originally an attribute choice under the variable “Other Factor Types,” which had to do with driver experience.)

N	Prcnt	Code	Label
2,247	98.4	0	Absent
37	1.6	1	Present

Variable Name	Format	Type	Length
OtherComfortFactor	AP1U	Numeric	8

Definition: Establishes whether or not the driver had an “other” experience/exposure factor that was relevant to the crash that was not described by the other comfort variables. (This variable was originally an attribute choice under the variable “Other Factor Types,” was the “Other (specify)” attribute choice.)

N	Prcnt	Code	Label
2,253	98.6	0	Absent
31	1.4	1	Present

Variable Name	Format	Type	Length
LoadPressure	ML736F	Numeric	8

Definition: Documents the circumstance where the driver is under some pressure from the carrier to accept additional loads.

N	Prcnt	Code	Label
1,007	44.1	0	Not under pressure to accept loads
1	0.0	1	Accept unscheduled loads on scheduled trip
2	0.1	2	Accept additional loads on unscheduled trip
2	0.1	3	Accept unscheduled loads on short notice scheduled trip
12	0.5	4	Accept additional loads when over allowable driving hours
1,018	44.6	7	Not applicable
23	1.0	8	Other load factors (specify)
219	9.6	9	Unknown

Codebook - DriverAssessment Data Set

Variable Name	Format	Type	Length
WorkFatigueCount	AP4U	Numeric	8

Definition: A count of the number of work fatigue-related variables. This includes attributes from the original variable "Under Pressure to Operate Even if Fatigued," which were broken out into individual variables.

N	Prcnt	Code	Label
1,016	44.5	0	0
35	1.5	1	1
2	0.1	2	2
1,007	44.1	7	Not applicable
224	9.8	9	Unknown

Variable Name	Format	Type	Length
ScheduledExtensions	AP1U	Numeric	8

Definition: Establishes whether or not the driver experienced work pressure due to his/her carrier scheduling trips in a manner that requires extended work shifts to complete. (This variable was originally an attribute under the variable "Under Pressure to Operate Even if Fatigued.")

N	Prcnt	Code	Label
2,272	99.5	0	Absent
12	0.5	1	Present

Variable Name	Format	Type	Length
RotatingShift	AP1U	Numeric	8

Definition: Establishes whether or not the driver experienced work pressure due to his/her carrier scheduling trips in a manner that requires the driver to work rotating shift schedules with an associated rotating sleep pattern. (This variable was originally an attribute choice under the variable "Under Pressure to Operate Even if Fatigued.")

N	Prcnt	Code	Label
2,281	99.9	0	Absent
3	0.1	1	Present

Codebook - DriverAssessment Data Set

Variable Name	Format	Type	Length
UnscheduledExtensions	AP1U	Numeric	8

Definition: Establishes whether or not the driver experienced work pressure due to his/her carrier pressing the driver to accept unscheduled loads/trips that require the driver to operate while fatigued. (This variable was originally an attribute under the variable "Under Pressure to Operate Even if Fatigued.")

N	Prcnt	Code	Label
2,277	99.7	0	Absent
7	0.3	1	Present

Variable Name	Format	Type	Length
NoApplicableFatigue	AP1U	Numeric	8

Definition: Originally an attribute choice under the variable "Under Pressure to Operate Even if Fatigued" (a carrier-related variable).

N	Prcnt	Code	Label
1,277	55.9	0	Absent
1,007	44.1	1	Present

Variable Name	Format	Type	Length
OtherFatigue	AP1U	Numeric	8

Definition: Establishes whether or not the driver experienced any pressure by the carrier to operate even if fatigued when that pressure did not fit under other fatigue variables. (This variable was originally an attribute choice under the variable "Under Pressure to Operate Even If Fatigued" and was the "Other (specify)" attribute choice.)

N	Prcnt	Code	Label
2,267	99.3	0	Absent
17	0.7	1	Present

Variable Name	Format	Type	Length
OtherPressureCount	AP4U	Numeric	8

Definition: Establishes the number of "other" pressures specified in the "Other Work Pressure" variable.

N	Prcnt	Code	Label
1,004	44.0	0	0
47	2.1	1	1
5	0.2	2	2
1,009	44.2	7	Not applicable
219	9.6	9	Unknown

Codebook - DriverAssessment Data Set

Variable Name	Format	Type	Length
ShortNoticeTrips	AP1U	Numeric	8

Definition: Establishes whether or not the driver was required by his/her carrier to accept short notice trips. (This variable was originally an attribute choice under variable "Other Relation Factor Types.")

N	Prcnt	Code	Label
2,268	99.3	0	Absent
16	0.7	1	Present

Variable Name	Format	Type	Length
FillInTrips	AP1U	Numeric	8

Definition: Establishes whether or not the driver was under pressure by his/her carrier to fill in for other drivers (i.e. perform extra work) when other drivers are absent.

N	Prcnt	Code	Label
2,278	99.7	0	Absent
6	0.3	1	Present

Variable Name	Format	Type	Length
UnpaidLoading	AP1U	Numeric	8

Definition: Establishes whether or not the driver was required by his/her carrier to complete uncompensated loading/unloading activities. (This variable was originally an attribute choice under variable "Other Relation Factor Types.")

N	Prcnt	Code	Label
2,274	99.6	0	Absent
10	0.4	1	Present

Variable Name	Format	Type	Length
VariableCompensation	AP1U	Numeric	8

Definition: Establishes whether or not the driver is compensated in accordance with a variable compensation package such that the driver is not paid on a consistent basis. (This variable was originally an attribute choice under variable "Other Relation Factor Types.")

N	Prcnt	Code	Label
2,284	100.0	0	Absent

Codebook - DriverAssessment Data Set

Variable Name	Format	Type	Length
NoApplicableRelations	AP1U	Numeric	8

Definition: Originally an attribute choice under the variable “Other Relation Factor Types” (a carrier-related variable).

N	Prcnt	Code	Label
1,275	55.8	0	Absent
1,009	44.2	1	Present

Variable Name	Format	Type	Length
OtherRelations	AP1U	Numeric	8

Definition: Establishes whether or not there were other carrier relation factors not captured in other carrier relation variables that may have had a bearing on crash occurrence. (This variable was originally an attribute choice under the variable “Other Relation Factor Types,” and was the “Other (specify)” attribute choice).

N	Prcnt	Code	Label
2,259	98.9	0	Absent
25	1.1	1	Present

Codebook - DriverDecisionAggression Data Set

DriverDecisionAggression Data Set

The DriverDecisionAggression data set contains a variety of data supporting the analyst's assessment. It focuses particularly on the driver's decisions and aggressive behavior. One record of this information exists for each vehicle/driver.

The DriverDecisionAggression data set contains the variables CaseID, PSU, PSUStrat, RATWeight, and VehicleNumber. CaseID and VehicleNumber uniquely identify each record in this data set and should be used to merge the DriverDecisionAggression data set with other vehicle level data sets.

Variable Name	Format	Type	Length
Speeding	ML727F	Numeric	8

Definition: Documents reasons given by the driver for traveling at his/her pre-crash travel speed. This variable is only relevant in the circumstance where the driver had been assessed as traveling too fast for conditions.

N	Prcnt	Code	Label
1,726	75.6	0	No traveling too fast factors
19	0.8	1	Keeping up with traffic
131	5.7	2	Did not realize caution required
194	8.5	3	Other reason (specify)
24	1.1	7	No driver present
190	8.3	9	Unknown

Variable Name	Format	Type	Length
Tailgating	ML720F	Numeric	8

Definition: Documents reasons given by the driver for traveling with less than the recommended gap interval to traffic forward of the driver's position.

N	Prcnt	Code	Label
2,080	91.1	0	No following too closely factors
17	0.7	1	Rush hour, heavy traffic
12	0.5	2	Keeping up with traffic
29	1.3	3	Did not realize too close
5	0.2	4	Always drive at this gap distance
24	1.1	7	No driver present
22	1.0	8	Other (specify)
95	4.2	9	Unknown

Codebook - DriverDecisionAggression Data Set

Variable Name	Format	Type	Length
Misjudgment	ML863F	Numeric	8

Definition: Documents the involvement of a decision error in which the subject driver either misjudges the gap distance to the other vehicle or misjudges the velocity of the other vehicle.

N	Prcnt	Code	Label
2,061	90.2	0	No misjudgment factors
18	0.8	1	Misjudgment of gap distance
33	1.4	2	Misjudgment of velocity of other vehicle
25	1.1	3	Misjudgment of both factors
24	1.1	7	No driver present
123	5.4	9	Unknown

Variable Name	Format	Type	Length
Approach	ML864F	Numeric	8

Definition: Establishes the direction from which the misjudged vehicle was approaching this driver's position.

N	Prcnt	Code	Label
2,060	90.2	0	No misjudgment factors
9	0.4	1	Left
5	0.2	2	Right
67	2.9	3	Forward direction (i.e. 170-190 degrees opposed)
2	0.1	4	Left forward direction (i.e. 120-169 degrees opposed)
3	0.1	5	Right forward direction (i.e. 191-240 degrees opposed)
15	0.7	6	Rear
24	1.1	7	No driver present
99	4.3	9	Unknown

Variable Name	Format	Type	Length
ADATravelSpeed	OT14F	Numeric	8

Definition: Documents the travel speed of this driver as reported on the police report (kph).

N	Prcnt	Code	Label
220	9.6	0	0
1	0.0	5	5
15	0.7	8	8
4	0.2	11	11
2	0.1	13	13
27	1.2	16	16
1	0.0	19	19
1	0.0	20	20

Codebook - DriverDecisionAggression Data Set

N	Prcnt	Code	Label
1	0.0	22	22
1	0.0	23	23

1	0.0	126	126
5	0.2	129	129
1	0.0	137	137
1	0.0	145	145
1	0.0	153	153
1	0.0	156	156
1	0.0	161	161
1	0.0	177	177
1	0.0	241	241
1,406	61.6	9999	Unknown

Variable Name	Format	Type	Length
ADAPostedSpeed	OT14F	Numeric	8

Definition: Establishes the pre-crash roadway's posted speed limit (kph).

N	Prcnt	Code	Label
6	0.3	0	0
1	0.0	16	16
4	0.2	24	24
4	0.2	32	32
44	1.9	40	40
58	2.5	48	48
174	7.6	56	56
135	5.9	64	64
278	12.2	72	72
163	7.1	80	80
694	30.4	89	89
236	10.3	97	97
344	15.1	105	105
99	4.3	113	113
31	1.4	121	121
13	0.6	9999	Unknown

Codebook - DriverDecisionAggression Data Set

Variable Name	Format	Type	Length
Assumption	ML724F	Numeric	8

Definition: Identifies false assumptions on the part of this driver with respect to other driver's actions or intended actions.

N	Prcnt	Code	Label
1,959	85.8	0	No false assumption factors
1	0.0	1	Assumed that other driver would merge without stopping
2	0.1	2	Assumed that other driver would turn without stopping
24	1.1	3	Assumed that other driver would continue to proceed
37	1.6	4	Assumed that other driver would yield right-of-way
24	1.1	7	No driver present
19	0.8	8	Other false assumption (specify)
218	9.5	9	Unknown

Variable Name	Format	Type	Length
Evasion	ML723F	Numeric	8

Definition: Establishes inadequate evasive actions on the part of this driver. This variable does not deal with legal requirements and the final assessment may be subjective.

N	Prcnt	Code	Label
2,044	89.5	0	No inadequate evasive action factors
26	1.1	1	Insufficient steering inputs
23	1.0	2	Insufficient braking inputs
40	1.8	3	Combination of insufficient steering and braking inputs
24	1.1	4	No driver present
33	1.4	8	Other inadequate evasive action (specify)
94	4.1	9	Unknown

Variable Name	Format	Type	Length
ADAOtherFactor	ML739F	Numeric	8

Definition: Establishes decision factors relevant to this crash that are not described in the other decision variables.

N	Prcnt	Code	Label
1,923	84.2	0	No other decision factors
3	0.1	1	Crossed with obstructed view
3	0.1	2	Turned with obstructed view
4	0.2	3	Stopped when not required
25	1.1	4	Proceeded with insufficient clearance
2	0.1	5	Turned without signaling
24	1.1	7	No driver present

Codebook - DriverDecisionAggression Data Set

N	Prcnt	Code	Label
112	4.9	8	Other decision error (specify)
188	8.2	9	Unknown

Variable Name	Format	Type	Length
ManeuverCount	AP2U	Numeric	8

Definition: Establishes the total number of illegal maneuvers conducted by this driver.

N	Prcnt	Code	Label
2,014	88.2	0	0
188	8.2	1	1
4	0.2	2	2
23	1.0	7	No Driver Present
55	2.4	9	Unknown

Variable Name	Format	Type	Length
CrossedLine	AP1U	Numeric	8

Definition: Documents whether or not the driver crosses full barrier lines to execute, or while executing, a passing maneuver. (This variable was originally an attribute choice under the variable "Illegal Maneuver.")

N	Prcnt	Code	Label
2,279	99.8	0	Absent
5	0.2	1	Present

Variable Name	Format	Type	Length
Undertaking	AP1U	Numeric	8

Definition: Documents whether or not the driver drives off the travel lane(s) to pass on the right (i.e. driver moves on to shoulder area to execute the passing maneuver). (This variable was originally an attribute choice under the variable "Illegal Maneuver.")

N	Prcnt	Code	Label
2,280	99.8	0	Absent
4	0.2	1	Present

Codebook - DriverDecisionAggression Data Set

Variable Name	Format	Type	Length
WrongTurnLane	AP1U	Numeric	8

Definition: Documents whether or not the driver executes a turn from the wrong lane (i.e. driver turns left from the right lane or turns right from the left lane of a multi-lane roadway). (This variable was originally an attribute choice under the variable "Illegal Maneuver.")

N	Prcnt	Code	Label
2,274	99.6	0	Absent
10	0.4	1	Present

Variable Name	Format	Type	Length
IllegalUTurn	AP1U	Numeric	8

Definition: Documents whether or not the driver initiates a U-turn in an area where these turns are not permitted. (This variable was originally an attribute choice under the variable "Illegal Maneuver.")

N	Prcnt	Code	Label
2,279	99.8	0	Absent
5	0.2	1	Present

Variable Name	Format	Type	Length
RanLights	AP1U	Numeric	8

Definition: Documents whether or not the driver does not stop for a displayed red traffic signal phase or does not stop for a stop sign. (This variable was originally an attribute choice under the variable "Illegal Maneuver.")

N	Prcnt	Code	Label
2,202	96.4	0	Absent
82	3.6	1	Present

Variable Name	Format	Type	Length
WrongWay	AP1U	Numeric	8

Definition: Documents whether or not the driver travels the wrong way on a one-way roadway. (This variable was originally an attribute choice under the variable "Illegal Maneuver.")

N	Prcnt	Code	Label
2,276	99.6	0	Absent
8	0.4	1	Present

Codebook - DriverDecisionAggression Data Set

Variable Name	Format	Type	Length
OtherManeuver	AP1U	Numeric	8

Definition: Documents whether or not the driver initiates an illegal maneuver that is not described in the other illegal maneuver variables. (This variable was originally an attribute choice under the variable "Illegal Maneuver" and was the "Other Illegal Maneuver (specify):" attribute.)

N	Prcnt	Code	Label
2,202	96.4	0	Absent
82	3.6	1	Present

Variable Name	Format	Type	Length
AggressionCount	AP3U	Numeric	8

Definition: Establishes the total number of aggressive behaviors exhibited by this driver.

N	Prcnt	Code	Label
1,985	86.9	0	0
119	5.2	1	1
28	1.2	2	2
1	0.0	3	3
24	1.1	77	No Driver Present
127	5.6	99	Unknown

Variable Name	Format	Type	Length
SpeedingBehavior	AP1U	Numeric	8

Definition: Documents whether or not the driver exhibited aggressive behavior in terms of exceeding the speed limit by a minimum of 5 MPH (8.05 kmph) and the vehicle's speed has a bearing on subsequent crash events. A degree of caution is required when assigning this element. Specifically, to be considered as a valid aggressive driving element, the act of speeding should pose some risk to surrounding traffic. If, for example, the driver is speeding in a stream of traffic, this act poses a risk to surrounding traffic. On the other hand, a driver who is speeding late at night, on a rural highway with no surrounding traffic, does not pose a risk to others and should not be considered as driving aggressively. (This variable was originally an attribute choice under the variable "Aggressive Driving Behavior.")

N	Prcnt	Code	Label
2,170	95.0	0	Absent
114	5.0	1	Present

Codebook - DriverDecisionAggression Data Set

Variable Name	Format	Type	Length
TailgatingBehavior	AP1U	Numeric	8

Definition: Documents whether or not the driver exhibited aggressive behavior in terms of traveling in close proximity to a vehicle forward of his/her position. While the exact gap interval that qualifies for this assignment will vary with the velocity of the traffic stream, the interval should be sufficiently small/short to preclude the following vehicle/driver from executing a safe stop in an emergency stop circumstance. (This variable was originally an attribute choice under the variable "Aggressive Driving Behavior.")

N	Prcnt	Code	Label
2,277	99.7	0	Absent
7	0.3	1	Present

Variable Name	Format	Type	Length
Weaving	AP1U	Numeric	8

Definition: Documents whether or not the driver exhibited aggressive behavior in terms of weaving in and out of traffic to pass slower-moving vehicles. While drivers engaging in this activity typically exceed the speed limit, speeding is not required for valid use of this element. (This variable was originally an attribute choice under the variable "Aggressive Driving Behavior.")

N	Prcnt	Code	Label
2,263	99.1	0	Absent
21	0.9	1	Present

Variable Name	Format	Type	Length
LightViolations	AP1U	Numeric	8

Definition: Documents whether or not the driver exhibited aggressive behavior in terms of violating a displayed red signal phase or stop sign. Deliberate violation of a yield sign is captured under the "Other Aggressive Behavior" variable. (This variable was originally an attribute choice under the variable "Aggressive Driving Behavior.")

N	Prcnt	Code	Label
2,269	99.3	0	Absent
15	0.7	1	Present

Codebook - DriverDecisionAggression Data Set

Variable Name	Format	Type	Length
RapidAcceleration	AP1U	Numeric	8

Definition: Documents whether or not the driver exhibited aggressive behavior in terms of engaging in these activities in a repeating fashion (i.e. braking late for a TCD and then accelerating rapidly away from that location and repeating this behavior at the next TCD). This behavior pattern is often associated with being in a hurry or being late for some engagement. (This variable was originally an attribute choice under the variable "Aggressive Driving Behavior.")

N	Prcnt	Code	Label
2,279	99.8	0	Absent
5	0.2	1	Present

Variable Name	Format	Type	Length
Honking	AP1U	Numeric	8

Definition: Documents whether or not the driver exhibited aggressive behavior in terms of repeatedly honking the vehicle's horn at surrounding traffic to gain a time/space advantage. (This variable was originally an attribute choice under the variable "Aggressive Driving Behavior.")

N	Prcnt	Code	Label
2,283	100.0	0	Absent
1	0.0	1	Present

Variable Name	Format	Type	Length
Flashing	AP1U	Numeric	8

Definition: Documents whether or not the driver exhibited aggressive behavior in terms of repeatedly flashing the vehicle's lights in an attempt to have traffic forward of this vehicle's position move either to the right or left so that this vehicle can "get by." (This variable was originally an attribute choice under the variable "Aggressive Driving Behavior.")

N	Prcnt	Code	Label
2,283	100.0	0	Absent
1	0.0	1	Present

Variable Name	Format	Type	Length
ObsceneGestures	AP1U	Numeric	8

Definition: Documents whether or not the driver exhibited aggressive behavior in terms of making obscene gestures at other drivers. (This variable was originally an attribute choice under the variable "Aggressive Driving Behavior.")

N	Prcnt	Code	Label
2,284	100.0	0	Absent

Codebook - DriverDecisionAggression Data Set

Variable Name	Format	Type	Length
BlockingOthers	AP1U	Numeric	8

Definition: Documents whether or not the driver exhibited aggressive behavior in terms of using his/her vehicle to physically obstruct the path of another vehicle by pulling in front of that vehicle. In addition to physically blocking the path, the subject driver typically slows to force the other driver to take evasive action (e.g. steering, and/or braking actions). (This variable was originally an attribute choice under the variable "Aggressive Driving Behavior.")

N	Prcnt	Code	Label
2,281	99.9	0	Absent
3	0.1	1	Present

Variable Name	Format	Type	Length
OtherAggression	AP1U	Numeric	8

Definition: Documents whether or not the driver exhibited aggressive behavior that is not described by the other aggressive driving behavior variables. (This variable was originally an attribute choice under the variable "Aggressive Driving Behavior" and was the "Other (specify)" attribute choice.)

N	Prcnt	Code	Label
2,273	99.5	0	Absent
11	0.5	1	Present

Variable Name	Format	Type	Length
AggressionReason	ML2477F	Numeric	8

Definition: Establishes the reason for the aggressive driving behaviors reported in the corresponding variables.

N	Prcnt	Code	Label
1,985	86.9	0	No aggressive driving behaviors
6	0.3	1	Anger
2	0.1	2	Frustration
10	0.4	3	Always drive this way
24	1.1	77	No driver present
19	0.8	88	Other (specify)
238	10.4	99	Unknown

Codebook - DriverDrugs Data Set

DriverDrugs Data Set

The DriverDrugs data set contains information supporting the analyst's assessment on the driver's use of any drug prior to the crash. One record of this information exists for each drug.

The DriverDrugs data set contains the variables CaseID, PSU, PSUStrat, RATWeight, and VehicleNumber. CaseID, VehicleNumber and DrugName uniquely identify each record in this data set. CaseID and VehicleNumber should be used to merge the DriverDrugs data set with vehicle level data sets.

Variable Name	Format	Type	Length
DrugType	OT15F	Numeric	8

Definition: Establishes the type of drug specified in the Drug Name variable.

N	Prcnt	Code	Label
994	68.2	1	Prescription
361	24.8	2	Over the counter
103	7.1	3	Illegal

Variable Name	Format	Type	Length
DrugName	\$50	Char	50

Definition: Name of drug(s) used – includes illegal drugs, over-the-counter drugs, and prescription drugs.

N	Prcnt	Code	Label
1	0.1	*	Accolate
5	0.3	*	Accupril
3	0.2	*	Accupril-BP
2	0.1	*	Acetaminophen/ Codeine
3	0.2	*	Aciphex
2	0.1	*	Actifed
6	0.4	*	Actos
1	0.1	*	Adalat CC
1	0.1	*	Advair
28	1.9	*	Advil

1	0.1	*	Zestoretic
9	0.6	*	Zestril
5	0.3	*	Ziac
2	0.1	*	Zithromax
13	0.9	*	Zocor
15	1.0	*	Zoloft
1	0.1	*	Zovirax
2	0.1	*	Zyban

Codebook - DriverDrugs Data Set

N	Prcnt	Code	Label
1	0.1	*	Zyprexa
11	0.8	*	Zyrtec

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Variable Name	Format	Type	Length
DriverReported	OT16F	Numeric	8

Definition: Establishes whether or not the drug usage was reported by the driver.

N	Prcnt	Code	Label
951	65.2	1	No
507	34.8	2	Yes

Variable Name	Format	Type	Length
TestResult	OT63F	Numeric	8

Definition: Documents the results of drug tests performed on the driver.

N	Prcnt	Code	Label
1	0.1	0.03	0.03
1	0.1	0.05	0.05
1	0.1	0.09	0.09
1	0.1	0.38	0.38
1	0.1	0.45	0.45
1	0.1	0.76	0.76
1	0.1	0.83	0.83
1	0.1	8	8
1	0.1	34	34
2	0.1	50	50
1	0.1	90	90
1	0.1	106	106
1	0.1	550	550
1	0.1	99995	None given
1,353	92.8	99996	Legal Drug, Test Results Not Collected
35	2.4	99997	Drug Test Positive, Measured Value Unknown
55	3.8	99999	Unknown

Codebook - DriverHealth Data Set

DriverHealth Data Set

The DriverHealth data set contains a variety of data supporting the analyst's assessment. It focuses particularly on the area of driver health. One record of this information exists for each vehicle/driver.

The DriverHealth data set contains the variables CaseID, PSU, PSUStrat, RATWeight, and VehicleNumber. CaseID and VehicleNumber uniquely identify each record in this data set and should be used to merge the DriverHealth data set with other vehicle level data sets.

Variable Name	Format	Type	Length
ADHCorrectedVision	OT18F	Numeric	8

Definition: Documents the driver's corrected vision level.

N	Prcnt	Code	Label
5	0.2	2015	2015
252	11.0	2020	2020
1	0.0	2025	2025
12	0.5	2030	2030
8	0.4	2040	2040
1	0.0	2045	2045
3	0.1	2060	2060
1	0.0	2738	2738
1	0.0	3025	3025
1	0.0	4030	4030
1	0.0	5030	5030
29	1.3	9797	No Test Given
7	0.3	9898	Not Applicable
1,962	85.9	9999	Unknown

Variable Name	Format	Type	Length
IllnessFactorCount	AP2U	Numeric	8

Definition: Documents the number of illness factors coded for this driver.

N	Prcnt	Code	Label
1,670	73.1	0	0
68	3.0	1	1
1	0.0	2	2
24	1.1	7	No Driver Present
521	22.8	9	Unknown

Codebook - DriverHealth Data Set

Variable Name	Format	Type	Length
HeartAttack	AP1U	Numeric	8

Definition: Establishes whether or not the driver experienced a heart attack prior to the crash event. (This variable was originally an attribute choice under the variable "Illness.")

N	Prcnt	Code	Label
2,272	99.5	0	Absent
12	0.5	1	Present

Variable Name	Format	Type	Length
EpilepticSeizure	AP1U	Numeric	8

Definition: Establishes whether or not the driver experienced an epileptic seizure prior to the crash event. (This variable was originally an attribute choice under the variable "Illness.")

N	Prcnt	Code	Label
2,282	99.9	0	Absent
2	0.1	1	Present

Variable Name	Format	Type	Length
OtherSeizure	AP1U	Numeric	8

Definition: Establishes whether or not the driver experienced a seizure prior to the crash event that was not related to epilepsy. (This variable was originally an attribute choice under the variable "Illness.")

N	Prcnt	Code	Label
2,280	99.8	0	Absent
4	0.2	1	Present

Variable Name	Format	Type	Length
DiabeticBlackout	AP1U	Numeric	8

Definition: Establishes whether or not the driver experienced a blackout prior to the crash event and that this event can be traced to a medically diagnosed diabetic condition (e.g. driver blacks out as a result of insulin shock). (This variable was originally an attribute choice under the variable "Illness.")

N	Prcnt	Code	Label
2,279	99.8	0	Absent
5	0.2	1	Present

Codebook - DriverHealth Data Set

Variable Name	Format	Type	Length
OtherBlackout	AP1U	Numeric	8

Definition: Establishes whether or not the driver experienced a blackout prior to the crash event and that this event is not related to a diabetic condition. (This variable was originally an attribute choice under the variable "Illness.")

N	Prcnt	Code	Label
2,277	99.7	0	Absent
7	0.3	1	Present

Variable Name	Format	Type	Length
ColdFlu	AP1U	Numeric	8

Definition: Establishes whether or not the driver is operating the vehicle while experiencing severe cold/flu symptoms which influence his/her driving performance. (This variable was originally an attribute choice under the variable "Illness.")

N	Prcnt	Code	Label
2,280	99.8	0	Absent
4	0.2	1	Present

Variable Name	Format	Type	Length
OtherIllness	AP1U	Numeric	8

Definition: Establishes whether or not the driver experiences an illness or physical symptoms that are not described under the other illness variables. (This variable was originally an attribute choice under the variable "Illness" and was the "Other (specify)" attribute.)

N	Prcnt	Code	Label
2,248	98.4	0	Absent
36	1.6	1	Present

Variable Name	Format	Type	Length
NormalVision	AP1U	Numeric	8

Definition: Establishes whether or not the driver wears corrective lenses to improve vision levels. (This variable was originally an attribute choice under the variable "Vision.")

N	Prcnt	Code	Label
1,278	56.0	0	Absent
1,006	44.0	1	Present

Codebook - DriverHealth Data Set

Variable Name	Format	Type	Length
LegallyBlind	AP1U	Numeric	8

Definition: Establishes whether or not the driver has been diagnosed with an uncorrected vision level that exceeds 20/2800. (This variable was originally an attribute choice under the variable "Vision.")

N	Prcnt	Code	Label
2,284	100.0	0	Absent

Variable Name	Format	Type	Length
Myopic	AP1U	Numeric	8

Definition: Establishes whether or not the driver wears corrective lenses (including contact lenses) to compensate for a near-sighted condition. (This variable was originally an attribute choice under the variable "Vision.")

N	Prcnt	Code	Label
1,991	87.2	0	Absent
293	12.8	1	Present

Variable Name	Format	Type	Length
Hyperopic	AP1U	Numeric	8

Definition: Establishes whether or not the driver wears corrective lenses (including contact lenses) to compensate for a far-sighted condition. (This variable was originally an attribute choice under the variable "Vision.")

N	Prcnt	Code	Label
2,159	94.5	0	Absent
125	5.5	1	Present

Variable Name	Format	Type	Length
Glaucoma	AP1U	Numeric	8

Definition: Establishes whether or not the driver has been diagnosed as having glaucoma. (This variable was originally an attribute choice under the variable "Vision.")

N	Prcnt	Code	Label
2,284	100.0	0	Absent

Codebook - DriverHealth Data Set

Variable Name	Format	Type	Length
ColorBlind	AP1U	Numeric	8

Definition: Establishes whether or not the driver has been diagnosed as being color blind. (This variable was originally an attribute choice under the variable "Vision.")

N	Prcnt	Code	Label
2,284	100.0	0	Absent

Variable Name	Format	Type	Length
Astigmatic	AP1U	Numeric	8

Definition: Establishes whether or not the driver has been diagnosed as having astigmatism. (This variable was originally an attribute choice under the variable "Vision.")

N	Prcnt	Code	Label
2,259	98.9	0	Absent
25	1.1	1	Present

Variable Name	Format	Type	Length
OtherVision	AP1U	Numeric	8

Definition: Establishes whether or not the driver has a vision problem that is not described by the other vision variables. (This variable was originally an attribute choice under the variable "Vision" and was the "Other (specify)" attribute.)

N	Prcnt	Code	Label
2,073	90.8	0	Absent
211	9.2	1	Present

Variable Name	Format	Type	Length
UnknownVision	AP1U	Numeric	8

Definition: Establishes whether or not the driver was coded as "Vision problem unknown." This code is used when there is insufficient information to determine if the driver has a vision related problem/deficiency. (This variable was originally an attribute choice under the variable "Vision" and was the "Unknown" attribute.)

N	Prcnt	Code	Label
1,671	73.2	0	Absent
613	26.8	1	Present

Codebook - DriverHealth Data Set

Variable Name	Format	Type	Length
OtherFactorCount	AP2U	Numeric	8

Definition: Documents the number of other physical factors coded to this driver.

N	Prcnt	Code	Label
1,468	64.3	0	0
136	6.0	1	1
16	0.7	2	2
1	0.0	3	3
24	1.1	7	No Driver Present
639	28.0	9	Unknown

Variable Name	Format	Type	Length
NoFactors	AP1U	Numeric	8

Definition: Documents whether or not there were no other physical factors coded to this driver.

N	Prcnt	Code	Label
817	35.8	0	Absent
1,467	64.2	1	Present

Variable Name	Format	Type	Length
HearingImpairment	AP1U	Numeric	8

Definition: Establishes whether or not the driver has a diagnosed hearing impairment. (This variable was originally an attribute choice under the variable "Other Physical Factors.")

N	Prcnt	Code	Label
2,249	98.5	0	Absent
35	1.5	1	Present

Variable Name	Format	Type	Length
Prosthesis	AP1U	Numeric	8

Definition: Establishes whether or not the driver is wearing a prosthesis. (This variable was originally an attribute choice under the variable "Other Physical Factors.")

N	Prcnt	Code	Label
2,283	100.0	0	Absent
1	0.0	1	Present

Codebook - DriverHealth Data Set

Variable Name	Format	Type	Length
Paraplegia	AP1U	Numeric	8

Definition: Establishes whether or not the driver has paralysis of the lower limbs. (This variable was originally an attribute choice under the variable "Other Physical Factors.")

N	Prcnt	Code	Label
2,284	100.0	0	Absent

Variable Name	Format	Type	Length
StrenuousRecreation	AP1U	Numeric	8

Definition: Establishes whether or not the driver participates in strenuous recreational activities during the seven day interval preceding the crash. (This variable was originally an attribute choice under the variable "Other Physical Factors.")

N	Prcnt	Code	Label
2,240	98.1	0	Absent
44	1.9	1	Present

Variable Name	Format	Type	Length
StrenuousNonWork	AP1U	Numeric	8

Definition: Establishes whether or not the driver participates/engages in strenuous non-work activities (e.g. household chores) during the seven day interval preceding the crash. (This variable was originally an attribute choice under the variable "Other Physical Factors.")

N	Prcnt	Code	Label
2,243	98.2	0	Absent
41	1.8	1	Present

Variable Name	Format	Type	Length
SleepApnea	AP1U	Numeric	8

Definition: Establishes whether or not the driver has an obstructive sleep apnea disorder. (This variable was originally an attribute choice under the variable "Other Physical Factors.")

N	Prcnt	Code	Label
2,262	99.0	0	Absent
22	1.0	1	Present

Codebook - DriverHealth Data Set

Variable Name	Format	Type	Length
OtherFactorPhysical	AP1U	Numeric	8

Definition: Establishes whether or not the driver has a relevant physical factor that is not described in the other physical factor variables. (This variable was originally an attribute choice under the variable "Other Physical Factors" and was the "Other (specify)" attribute choice.)

N	Prct	Code	Label
2,256	98.8	0	Absent
28	1.2	1	Present

Codebook - DriverRecognitionDistraction Data Set

DriverRecognitionDistraction Data Set

The DriverRecognitionDistraction data set contains a variety of data supporting the analyst's assessment. It focuses particularly on the driver's recognition and distraction. One record of this information exists for each vehicle/driver.

The DriverRecognitionDistraction data set contains the variables CaseID, PSU, PSUStrat, RATWeight, and VehicleNumber. CaseID and VehicleNumber uniquely identify each record in this data set and should be used to merge the DriverRecognitionDistraction data set with other vehicle level data sets.

Variable Name	Format	Type	Length
Inattention	ML734F	Numeric	8

Definition: Documents driver inattention (i.e. focusing on internal thought processes) and the nature of the involved thought processes.

N	Prcnt	Code	Label
1,551	67.9	0	No Inattention Factors
11	0.5	1	Personal problem
18	0.8	2	Family problem
4	0.2	3	Financial problem
9	0.4	4	Preceding argument
11	0.5	5	Future event (vacation, wedding, etc.)
24	1.1	7	No driver present
118	5.2	8	Other (specify)
538	23.6	9	Unknown

Variable Name	Format	Type	Length
Conversation	ML721F	Numeric	8

Definition: Documents driver participation in conversation. The conversation can be associated with a variety of sources including conversing with passengers, talking on a cell phone, or talking on a CB radio.

N	Prcnt	Code	Label
1,929	84.5	0	Not conversing
33	1.4	1	Conversing with passenger
9	0.4	2	Talking on phone
12	0.5	3	Talking on CB radio
24	1.1	7	No driver present
1	0.0	8	Other (specify)
276	12.1	9	Unknown

Codebook - DriverRecognitionDistraction Data Set

Variable Name	Format	Type	Length
Subject	ML737F	Numeric	8

Definition: Documents the nature of the conversation the driver is involved in during the pre-crash phase.

N	Prcnt	Code	Label
1,926	84.3	0	Not conversing
13	0.6	1	Business
8	0.4	2	Social
6	0.3	3	Family matter
1	0.0	4	Argument
24	1.1	7	No driver present
16	0.7	8	Other (specify)
290	12.7	9	Unknown

Variable Name	Format	Type	Length
Conversant	ML2462F	Numeric	8

Definition: Documents the relationship between the driver and the person the driver was conversing with during the immediate pre-crash phase.

N	Prcnt	Code	Label
1,932	84.6	0	Not conversing
6	0.3	1	No relation/stranger
13	0.6	2	Business
8	0.4	3	Social (friend)
3	0.1	4	Boyfriend/girlfriend
8	0.4	5	Husband/wife
2	0.1	6	Driver/co-driver
12	0.5	7	Parent/child
24	1.1	77	No driver present
8	0.4	88	Other (specify)
268	11.7	99	Unknown

Codebook - DriverRecognitionDistraction Data Set

Variable Name	Format	Type	Length
OutsideLocation	ML743F	Numeric	8

Definition: Documents the location of the exterior factor with respect to the driver's location at the time the distraction first occurred.

N	Prcnt	Code	Label
1,608	70.4	0	No exterior factors
47	2.1	1	Forward
33	1.4	2	Forward, left
29	1.3	3	Forward, right
18	0.8	4	Left
18	0.8	5	Right
21	0.9	6	Rearward
24	1.1	7	No driver present
12	0.5	8	Other (specify)
474	20.8	9	Unknown

Variable Name	Format	Type	Length
ADDSurveillance	ML750F	Numeric	8

Definition: Establishes inadequate surveillance behavior on the part of the driver of this vehicle.

N	Prcnt	Code	Label
1,634	71.5	0	No additional surveillance factors
83	3.6	1	Failed to look far enough ahead
11	0.5	2	Failed to look to either side ahead
65	2.8	3	Failed to look to side
16	0.7	4	Failed to look to rear (mirrors)
4	0.2	5	Failed to look other (specify)
82	3.6	6	Looked, but did not see
24	1.1	77	No driver present
10	0.4	88	Other (specify)
355	15.5	99	Unknown

Codebook - DriverRecognitionDistraction Data Set

Variable Name	Format	Type	Length
Tracking	ML751F	Numeric	8

Definition: Establishes how the driver tracked the exterior factor when this factor is located behind the vehicle.

N	Prcnt	Code	Label
1,608	70.4	0	No exterior factors
71	3.1	1	Turned head
3	0.1	2	Used rearview mirror
20	0.9	3	Used side mirror
24	1.1	7	No driver present
1	0.0	8	Other (specify)
557	24.4	9	Unknown

Variable Name	Format	Type	Length
ADDRecognition	ML745F	Numeric	8

Definition: Establishes the occurrence of other recognition factors related to this driver.

N	Prcnt	Code	Label
1,788	78.3	0	No other recognition factors
17	0.7	1	Impending problem masked by traffic flow pattern
27	1.2	2	Driver focused on extraneous vehicle
71	3.1	3	Other recognition error (specify)
24	1.1	7	No driver present
357	15.6	9	Unknown

Variable Name	Format	Type	Length
InteriorDistractionCount	AP2U	Numeric	8

Definition: Documents the number of interior distractions that were coded for this driver.

N	Prcnt	Code	Label
1,671	73.2	0	0
60	2.6	1	1
24	1.1	7	No Driver Present
529	23.2	9	Unknown

Codebook - DriverRecognitionDistraction Data Set

Variable Name	Format	Type	Length
OccupantMovement	AP1U	Numeric	8

Definition: Documents whether or not the driver is distracted by other occupants in the vehicle. (This variable was originally an attribute choice under the variable "Other Non-Driving Activities," which had to do with distractions internal to the vehicle.)

N	Prcnt	Code	Label
2,283	100.0	0	Absent
1	0.0	1	Present

Variable Name	Format	Type	Length
ADDialingPhone	AP1U	Numeric	8

Definition: Documents whether or not the driver is distracted as a result of either dialing or hanging up a phone during the pre-crash phase. (This variable was originally an attribute choice under the variable "Other Non-Driving Activities," which had to do with distractions internal to the vehicle.)

N	Prcnt	Code	Label
2,284	100.0	0	Absent

Variable Name	Format	Type	Length
ADDadjustingRadio	AP1U	Numeric	8

Definition: Documents whether or not the driver is distracted as a result of attempting to adjust the sound system controls during the pre-crash phase. (This variable was originally an attribute choice under the variable "Other Non-Driving Activities," which had to do with distractions internal to the vehicle.)

N	Prcnt	Code	Label
2,281	99.9	0	Absent
3	0.1	1	Present

Variable Name	Format	Type	Length
OtherControls	AP1U	Numeric	8

Definition: Documents whether or not the driver is distracted as a result of attempting to adjust the heat, vent or air conditioning controls during the pre-crash phase. This category also includes attempted adjustments to other OEM and after-market controls. (This variable was originally an attribute choice under the variable "Other Non-Driving Activities," which had to do with distractions internal to the vehicle.)

N	Prcnt	Code	Label
2,283	100.0	0	Absent
1	0.0	1	Present

Codebook - DriverRecognitionDistraction Data Set

Variable Name	Format	Type	Length
FloorRetrieval	AP1U	Numeric	8

Definition: Documents whether or not the driver is distracted as a result of trying to retrieve an object from either the floor or seat while driving. The objects in this category include everything with the exception of items related to smoking or eating, which are addressed in the “Other” category. (This variable was originally an attribute choice under the variable “Other Non-Driving Activities,” which had to do with distractions internal to the vehicle.)

N	Prcnt	Code	Label
2,273	99.5	0	Absent
11	0.5	1	Present

Variable Name	Format	Type	Length
OtherRetrieval	AP1U	Numeric	8

Definition: Documents whether or not the driver is distracted as a result of trying to retrieve an object from a location other than the floor or seat while driving. Again, the objects in this category include everything with the exception of items related to smoking or eating, which are addressed in the “Other” category. (This variable was originally an attribute choice under the variable “Other Non-Driving Activities,” which had to do with distractions internal to the vehicle.)

N	Prcnt	Code	Label
2,283	100.0	0	Absent
1	0.0	1	Present

Variable Name	Format	Type	Length
OtherInternal	AP1U	Numeric	8

Definition: Documents whether or not the driver is distracted by internal factors not described in the other variables. Examples include smoking, eating, drinking, and reading-related activities. (This variable was originally an attribute choice under the variable “Other Non-Driving Activities,” and was the “Other (specify)” attribute choice.)

N	Prcnt	Code	Label
2,241	98.1	0	Absent
43	1.9	1	Present

Codebook - DriverRecognitionDistraction Data Set

Variable Name	Format	Type	Length
ExteriorDistractionCount	AP2U	Numeric	8

Definition: Documents the number of exterior distractions that were coded for this driver.

N	Prcnt	Code	Label
1,609	70.4	0	0
173	7.6	1	1
7	0.3	2	2
24	1.1	7	No Driver Present
471	20.6	9	Unknown

Variable Name	Format	Type	Length
ADDPreviousCrash	AP1U	Numeric	8

Definition: Documents whether or not the driver removes his/her focus from the driving task to look at a previous crash (i.e. rubbernecking). (This variable was originally an attribute choice under the variable "Exterior Factors" and had to do with the driver focusing on factors that were exterior to the vehicle.)

N	Prcnt	Code	Label
2,264	99.1	0	Absent
20	0.9	1	Present

Variable Name	Format	Type	Length
ApproachingTraffic	AP1U	Numeric	8

Definition: Documents whether or not the driver removes his/her focus from the driving task to look at approaching traffic either in an adjoining lane or across a median area. (This variable was originally an attribute choice under the variable "Exterior Factors" and had to do with the driver focusing on factors that were exterior to the vehicle.)

N	Prcnt	Code	Label
2,248	98.4	0	Absent
36	1.6	1	Present

Variable Name	Format	Type	Length
StreetAddress	AP1U	Numeric	8

Definition: Documents whether or not the driver removes his/her focus from the driving task to search for a street address (usually searching for a specific building number). (This variable was originally an attribute choice under the variable "Exterior Factors" and had to do with the driver focusing on factors that were exterior to the vehicle.)

N	Prcnt	Code	Label
2,278	99.7	0	Absent
6	0.3	1	Present

Codebook - DriverRecognitionDistraction Data Set

Variable Name	Format	Type	Length
ExternalPerson	AP1U	Numeric	8

Definition: Documents whether or not the driver removes his/her focus from the driving task to look at a person who is exterior to this vehicle. The person can be a pedestrian, bicyclist, skater, and an occupant of another vehicle or even a person in a building. (This variable was originally an attribute choice under the variable "Exterior Factors" and had to do with the driver focusing on factors that were exterior to the vehicle.)

N	Prcnt	Code	Label
2,278	99.7	0	Absent
6	0.3	1	Present

Variable Name	Format	Type	Length
Building	AP1U	Numeric	8

Definition: Documents whether or not the driver removes his/her focus from the driving task to look at a building (usually as a result of seeing a feature of interest). (This variable was originally an attribute choice under the variable "Exterior Factors" and had to do with the driver focusing on factors that were exterior to the vehicle.)

N	Prcnt	Code	Label
2,282	99.9	0	Absent
2	0.1	1	Present

Variable Name	Format	Type	Length
UnspecifiedExternal	AP1U	Numeric	8

Definition: Documents whether or not the driver removes his/her focus from the driving task to focus on something exterior to the vehicle, but there is insufficient information to determine the direction or the specific object that is being examined. (This variable was originally an attribute choice under the variable "Exterior Factors" and had to do with the driver focusing on factors that were exterior to the vehicle.)

N	Prcnt	Code	Label
2,281	99.9	0	Absent
3	0.1	1	Present

Variable Name	Format	Type	Length
OtherExternal	AP1U	Numeric	8

Definition: Documents whether or not the driver was distracted by something that is exterior to the vehicle and that is not adequately described by the other variables. (This variable was originally an attribute choice under the variable "Exterior Factors" and was the "Other (specify)" attribute choice.)

N	Prcnt	Code	Label
2,170	95.0	0	Absent
114	5.0	1	Present

Codebook - DriverSleep Data Set

DriverSleep Data Set

The DriverSleep data set contains a variety of data supporting the analyst's assessment. It focuses particularly on the area of driver sleep patterns and fatigue. One record of this information exists for each vehicle/driver.

The DriverSleep data set contains the variables CaseID, PSU, PSUStrat, RATWeight, and VehicleNumber. CaseID and VehicleNumber uniquely identify each record in this data set and should be used to merge the DriverSleep data set with other vehicle level data sets.

Variable Name	Format	Type	Length
LastSleepHours	\$OT19F	Char	10

Definition: Represents the number of hours the driver slept (most recent sleep interval).

N	Prcnt	Code	Label
1	0.0	*	00:20
5	0.2	*	01:00
6	0.3	*	01:30
1	0.0	*	01:45
16	0.7	*	02:00
5	0.2	*	02:30
12	0.5	*	03:00
6	0.3	*	03:30
18	0.8	*	04:00
10	0.4	*	04:30

2	0.1	*	12:15
6	0.3	*	12:30
6	0.3	*	13:00
3	0.1	*	13:30
1	0.0	*	13:45
4	0.2	*	14:00
3	0.1	*	16:00
1	0.0	*	22:30
24	1.1	97:97	No driver present
726	31.8	99:99	Unknown

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Codebook - DriverSleep Data Set

Variable Name	Format	Type	Length
LastSleepStart	\$OT19F	Char	10

Definition: The time of day (military time) that the driver began his/her last sleep interval.

N	Prcnt	Code	Label
49	2.1	*	00:00
1	0.0	*	00:01
1	0.0	*	00:15
11	0.5	*	00:30
32	1.4	*	01:00
3	0.1	*	01:30
1	0.0	*	01:45
13	0.6	*	02:00
8	0.4	*	02:30
1	0.0	*	02:45

89	3.9	*	22:30
2	0.1	*	22:45
177	7.7	*	23:00
3	0.1	*	23:15
36	1.6	*	23:30
1	0.0	*	23:40
2	0.1	*	23:45
1	0.0	*	23:59
24	1.1	97:97	No driver present
788	34.5	99:99	Unknown

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Variable Name	Format	Type	Length
LastSleepEnd	\$OT19F	Char	10

Definition: The time of day (military time) that the driver awoke from his/her last sleep interval.

N	Prcnt	Code	Label
16	0.7	*	00:00
2	0.1	*	00:30
2	0.1	*	00:45
13	0.6	*	01:00
1	0.0	*	01:10
2	0.1	*	01:15
1	0.0	*	01:25
10	0.4	*	01:30
1	0.0	*	01:40

Codebook - DriverSleep Data Set

N	Prcnt	Code	Label
2	0.1	*	01:45

3	0.1	*	21:30
10	0.4	*	22:00
2	0.1	*	22:15
5	0.2	*	22:30
1	0.0	*	22:45
5	0.2	*	23:00
2	0.1	*	23:15
2	0.1	*	23:30
24	1.1	97:97	No driver present
777	34.0	99:99	Unknown

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Variable Name	Format	Type	Length
HoursSinceSleep	\$OT19F	Char	10

Definition: Represents the number of hours that have passed since the driver has awoken from his/her last sleep interval.

N	Prcnt	Code	Label
1	0.0	*	00:08
1	0.0	*	00:10
2	0.1	*	00:15
3	0.1	*	00:21
1	0.0	*	00:22
1	0.0	*	00:23
1	0.0	*	00:29
3	0.1	*	00:30
3	0.1	*	00:35
2	0.1	*	00:36

1	0.0	*	20:30
1	0.0	*	20:35
1	0.0	*	22:00
1	0.0	*	22:15
2	0.1	*	22:30
1	0.0	*	36:51
1	0.0	*	38:36
24	1.1	97:97	No driver present
1	0.0	98:98	Not applicable
774	33.9	99:99	Unknown

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Codebook - DriverSleep Data Set

Variable Name	Format	Type	Length
MainSleepHours	\$OT19F	Char	10

Definition: If the driver's last sleep interval was less than 4 hours, this is the number of hours that the driver slept in his/her previous sleep interval where that interval was greater than 4 hours (i.e. "main" sleep interval).

N	Prcnt	Code	Label
1	0.0	*	02:00
1	0.0	*	02:30
2	0.1	*	03:00
1	0.0	*	03:30
1	0.0	*	04:00
1	0.0	*	04:30
1	0.0	*	04:45
4	0.2	*	05:00
6	0.3	*	06:00
1	0.0	*	06:30

1	0.0	*	09:15
1	0.0	*	09:30
4	0.2	*	10:00
1	0.0	*	10:30
1	0.0	*	11:00
1	0.0	*	11:30
2	0.1	*	12:00
24	1.1	97:97	No driver present
1,482	64.9	98:98	Not applicable
735	32.2	99:99	Unknown

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Variable Name	Format	Type	Length
MainSleepStart	\$OT19F	Char	10

Definition: The time of day (military time) that the driver's main sleep interval began. This variable should be coded when the driver's last sleep interval was less than 4 hours.

N	Prcnt	Code	Label
3	0.1	*	00:00
1	0.0	*	01:00
2	0.1	*	02:00
1	0.0	*	03:30
1	0.0	*	04:30
1	0.0	*	05:00
2	0.1	*	06:00
1	0.0	*	06:30

Codebook - DriverSleep Data Set

N	Prcnt	Code	Label
1	0.0	*	07:30
1	0.0	*	09:00

3	0.1	*	21:00
2	0.1	*	21:30
3	0.1	*	22:00
1	0.0	*	22:30
3	0.1	*	23:00
1	0.0	*	23:15
1	0.0	*	23:30
24	1.1	97:97	No driver present
1,482	64.9	98:98	Not applicable
737	32.3	99:99	Unknown

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Variable Name	Format	Type	Length
MainSleepEnd	\$OT19F	Char	10

Definition: The time of day (military time) that the driver's main sleep interval ended. This variable should be coded when the driver's last sleep interval was less than 4 hours.

N	Prcnt	Code	Label
1	0.0	*	00:00
2	0.1	*	02:00
1	0.0	*	03:00
1	0.0	*	03:30
4	0.2	*	04:00
3	0.1	*	04:30
1	0.0	*	05:30
4	0.2	*	06:00
2	0.1	*	06:30
2	0.1	*	07:00

3	0.1	*	12:00
2	0.1	*	14:00
1	0.0	*	14:30
2	0.1	*	15:00
2	0.1	*	19:30
1	0.0	*	20:45
1	0.0	*	21:00
24	1.1	97:97	No driver present
1,482	64.9	98:98	Not applicable
736	32.2	99:99	Unknown

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Codebook - DriverSleep Data Set

Variable Name	Format	Type	Length
HoursDriving	\$OT19F	Char	10

Definition: Represents the number of hours the driver has been driving since he/she last had a break of at least 8 hours.

N	Prcnt	Code	Label
1	0.0	*	00:00
1	0.0	*	00:01
1	0.0	*	00:04
4	0.2	*	00:05
3	0.1	*	00:08
14	0.6	*	00:10
1	0.0	*	00:12
1	0.0	*	00:13
1	0.0	*	00:14
26	1.1	*	00:15

1	0.0	*	15:15
1	0.0	*	16:00
1	0.0	*	16:30
1	0.0	*	18:00
1	0.0	*	18:30
1	0.0	*	19:30
1	0.0	*	24:00
24	1.1	97:97	No driver present
845	37.0	98:98	Not applicable
479	21.0	99:99	Unknown

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Variable Name	Format	Type	Length
ADSHoursOnDuty	\$OT19F	Char	10

Definition: Represents the number of hours the driver has been on duty since he/she last had a break of at least 8 hours.

N	Prcnt	Code	Label
65	2.8	*	00:00
1	0.0	*	00:01
1	0.0	*	00:05
2	0.1	*	00:08
7	0.3	*	00:10
1	0.0	*	00:13
13	0.6	*	00:15
1	0.0	*	00:16

Codebook - DriverSleep Data Set

N	Prcnt	Code	Label
1	0.0	*	00:18
1	0.0	*	00:19

2	0.1	*	15:00
1	0.0	*	16:30
1	0.0	*	17:30
1	0.0	*	18:00
1	0.0	*	19:00
2	0.1	*	19:30
2	0.1	*	20:00
24	1.1	97:97	No driver present
707	31.0	98:98	Not applicable
415	18.2	99:99	Unknown

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Variable Name	Format	Type	Length
WeekLongest	\$OT19F	Char	10

Definition: Represents the number of hours the driver worked on his/her longest workday in the 7-day interval preceding the crash.

N	Prcnt	Code	Label
2	0.1	*	04:00
2	0.1	*	04:30
7	0.3	*	05:00
3	0.1	*	05:30
18	0.8	*	06:00
3	0.1	*	06:15
5	0.2	*	06:30
80	3.5	*	07:00
1	0.0	*	07:10
1	0.0	*	07:15

13	0.6	*	13:00
3	0.1	*	13:30
1	0.0	*	13:45
9	0.4	*	14:00
5	0.2	*	15:00
3	0.1	*	16:00
1	0.0	*	17:00
1	0.0	*	20:00
24	1.1	97:97	No driver present
793	34.7	99:99	Unknown

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Codebook - DriverSleep Data Set

Variable Name	Format	Type	Length
WeekShortest	\$OT19F	Char	10

Definition: Represents the number of hours the driver worked on his/her shortest workday in the 7-day interval preceding the crash.

N	Prcnt	Code	Label
1	0.0	*	00:30
5	0.2	*	01:00
4	0.2	*	01:30
34	1.5	*	02:00
4	0.2	*	02:30
33	1.4	*	03:00
2	0.1	*	03:30
72	3.2	*	04:00
1	0.0	*	04:15
8	0.4	*	04:30

1	0.0	*	09:45
19	0.8	*	10:00
1	0.0	*	10:30
1	0.0	*	11:00
1	0.0	*	11:30
1	0.0	*	12:00
1	0.0	*	13:45
1	0.0	*	14:00
24	1.1	97:97	No driver present
810	35.5	99:99	Unknown

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Variable Name	Format	Type	Length
WeekAverage	\$OT19F	Char	10

Definition: Represents the average number of hours the driver worked per day in the 7-day interval preceding the crash.

N	Prcnt	Code	Label
15	0.7	*	04:00
2	0.1	*	04:30
24	1.1	*	05:00
10	0.4	*	05:30
91	4.0	*	06:00
1	0.0	*	06:20
39	1.7	*	06:30
1	0.0	*	06:40

Codebook - DriverSleep Data Set

N	Prcnt	Code	Label
5	0.2	*	06:45
210	9.2	*	07:00

3	0.1	*	10:30
11	0.5	*	11:00
1	0.0	*	11:25
1	0.0	*	11:30
5	0.2	*	12:00
1	0.0	*	13:00
1	0.0	*	13:45
1	0.0	*	14:30
24	1.1	97:97	No driver present
768	33.6	99:99	Unknown

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Variable Name	Format	Type	Length
Rotation	ML674F	Numeric	8

Definition: Establishes the occurrence of a rotating sleep period (i.e. beginning of sleep interval changes during the period).

N	Prcnt	Code	Label
126	5.5	1	Yes
1,451	63.5	2	No
24	1.1	7	No driver present
683	29.9	9	Unknown

Variable Name	Format	Type	Length
HoursWorked	\$OT19F	Char	10

Definition: Represents the number of hours the driver worked on the day of the crash.

N	Prcnt	Code	Label
237	10.4	*	00:00
1	0.0	*	00:01
1	0.0	*	00:03
2	0.1	*	00:05
2	0.1	*	00:08
7	0.3	*	00:10
1	0.0	*	00:13
9	0.4	*	00:15
1	0.0	*	00:16
1	0.0	*	00:18

Codebook - DriverSleep Data Set

N	Prcnt	Code	Label
1	0.0	*	14:45
1	0.0	*	14:50
3	0.1	*	15:00
1	0.0	*	16:30
1	0.0	*	16:48
1	0.0	*	18:00
1	0.0	*	19:00
24	1.1	97:97	No driver present
124	5.4	98:98	Not applicable
730	32.0	99:99	Unknown

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Variable Name	Format	Type	Length
ADSLongestDay	\$OT19F	Char	10

Definition: The number of hours the driver slept in the 7-day interval preceding the crash that represents his/her longest interval of daily sleep.

N	Prcnt	Code	Label
25	1.1	*	00:00
1	0.0	*	02:00
1	0.0	*	02:45
7	0.3	*	03:00
1	0.0	*	03:30
9	0.4	*	04:00
3	0.1	*	04:30
1	0.0	*	04:38
14	0.6	*	05:00
1	0.0	*	05:30

1	0.0	*	16:48
3	0.1	*	17:00
6	0.3	*	18:00
1	0.0	*	18:18
1	0.0	*	18:30
1	0.0	*	19:00
1	0.0	*	20:00
1	0.0	*	24:00
24	1.1	97:97	No driver present
134	5.9	98:98	Not applicable
701	30.7	99:99	Unknown

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Codebook - DriverSleep Data Set

Variable Name	Format	Type	Length
ADSShortestDay	\$OT19F	Char	10

Definition: The number of hours the driver slept in the 7-day interval preceding the crash that represents his/her shortest interval of daily sleep.

N	Prcnt	Code	Label
164	7.2	*	00:00
2	0.1	*	00:10
6	0.3	*	00:15
10	0.4	*	00:30
2	0.1	*	00:45
15	0.7	*	01:00
3	0.1	*	01:15
1	0.0	*	01:21
2	0.1	*	01:25
6	0.3	*	01:30

3	0.1	*	13:00
1	0.0	*	13:30
2	0.1	*	14:00
1	0.0	*	14:30
1	0.0	*	15:00
2	0.1	*	18:00
1	0.0	*	24:00
24	1.1	97:97	No driver present
134	5.9	98:98	Not applicable
729	31.9	99:99	Unknown

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Variable Name	Format	Type	Length
ADSAverageDay	\$OT19F	Char	10

Definition: Represents the average number of hours the driver slept per day in the 7-day interval preceding the crash.

N	Prcnt	Code	Label
26	1.1	*	00:00
1	0.0	*	00:45
1	0.0	*	01:06
3	0.1	*	02:00
2	0.1	*	02:45
11	0.5	*	03:00
1	0.0	*	03:25
2	0.1	*	03:30
1	0.0	*	03:50

Codebook - DriverSleep Data Set

N	Prcnt	Code	Label
1	0.0	*	03:57

7	0.3	*	13:00
5	0.2	*	13:30
6	0.3	*	14:00
1	0.0	*	14:30
1	0.0	*	15:00
2	0.1	*	18:00
1	0.0	*	24:00
24	1.1	97:97	No driver present
138	6.0	98:98	Not applicable
704	30.8	99:99	Unknown

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Variable Name	Format	Type	Length
LastWeekHours	\$OT20F	Char	10

Definition: Represents the total number of hours that the driver worked on his primary job during the 7-day interval preceding the crash.

N	Prcnt	Code	Label
24	1.1	*	00:00
1	0.0	*	00:30
1	0.0	*	02:45
1	0.0	*	03:00
1	0.0	*	04:00
1	0.0	*	04:38
1	0.0	*	05:00
1	0.0	*	05:30
4	0.2	*	06:00
1	0.0	*	06:30

1	0.0	*	79:30
2	0.1	*	80:00
1	0.0	*	82:00
1	0.0	*	84:00
1	0.0	*	90:00
1	0.0	*	91:00
1	0.0	*	97:15
24	1.1	97:97	No driver present
134	5.9	98:98	Not applicable
756	33.1	99:99	Unknown

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Codebook - DriverSleep Data Set

Variable Name	Format	Type	Length
LastWeekMoonlight	\$OT19F	Char	10

Definition: Represents the number of hours the driver worked on his/her second job during the 7-day interval preceding the crash.

N	Prcnt	Code	Label
11	0.5	*	00:00
1	0.0	*	00:05
1	0.0	*	05:00
2	0.1	*	06:00
1	0.0	*	09:00
5	0.2	*	10:00
1	0.0	*	10:50
1	0.0	*	12:00
2	0.1	*	14:00
1	0.0	*	15:00

2	0.1	*	32:00
1	0.0	*	35:00
1	0.0	*	38:00
2	0.1	*	40:00
1	0.0	*	45:00
1	0.0	*	54:00
1	0.0	*	57:00
24	1.1	97:97	No driver present
1,637	71.7	98:98	Not applicable
573	25.1	99:99	Unknown

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Codebook - Environment Data Set

Environment Data Set

The Environment data set contains information on the physical parameters of the roadway in the vicinity of the crash, any adverse weather conditions, how the driver was operating the vehicle and any distraction information if applicable. One record of this information is stored for each vehicle.

The Environment data set contains the variables CaseID, PSU, PSUStrat, RATWeight, and VehicleNumber. CaseID and VehicleNumber uniquely identify each record in this data set and should be used to merge the Environment data set with other vehicle level data sets.

Variable Name	Format	Type	Length
RoadRelation	ML519F	Numeric	8

Definition: Describes the characteristics of this vehicle's roadway environment just prior to the critical precrash event.

N	Prcnt	Code	Label
2,199	96.3	1	On roadway
49	2.1	2	Shoulder
9	0.4	3	Median
22	1.0	4	Roadside
2	0.1	5	Outside right-of-way
3	0.1	8	Gore

Variable Name	Format	Type	Length
Junction	ML1422F	Numeric	8

Definition: Describes this vehicle's roadway as it relates to a junction. A junction is, in general, the area formed by the connection of two roadways. It includes (1) all at-grade intersections, (2) connections between a driveway access or alley access and a roadway that is not a driveway access or an alley access, (3) connections between two alley accesses or driveway accesses, or (4) a connection between a driveway and an alley access. An interchange is an area around a grade separation that involves at least two trafficways. Included within its boundaries are: (1) all ramps that connect the roadways, and (2) each roadway entering or leaving the interchange to a point 30 meters (100 feet) beyond the gore or curb return at the outermost ramp connection for the roadway. Included within an interchange area are intersections, driveway accesses, and roadway sections that are non-junction.

N	Prcnt	Code	Label
1,336	58.5	1	Non-junction
314	13.7	2	Intersection
159	7.0	3	Intersection related
79	3.5	4	Driveway, alley access, etc.
215	9.4	5	Entrance/exit ramp related
10	0.4	6	Rail grade crossing
7	0.3	7	In crossover
161	7.0	15	Other location in interchange
3	0.1	99	Unknown

Codebook - Environment Data Set

Variable Name	Format	Type	Length
Interchange	ML1136F	Numeric	8

Definition: Determines whether or not the crash involved an interchange. An interchange is an area around a grade separation that involves at least two trafficways. Included within its boundaries are: (1) all ramps that connect the roadways, and (2) each roadway entering or leaving the interchange to a point 30 meters (100 feet) beyond the gore or curb return at the outermost ramp connection for the roadway. Included within an interchange area are intersections, driveway accesses, and roadway sections that are non-junction.

N	Prcnt	Code	Label
1,903	83.3	0	No
378	16.5	1	Yes
3	0.1	9	Unknown

Variable Name	Format	Type	Length
ENVTrafficFlow	ML149F	Numeric	8

Definition: Describes the flow of traffic as specified by the design of the roadway just prior to the critical precrash event.

N	Prcnt	Code	Label
448	19.6	1	Divided trafficway-median strip without positive barrier
989	43.3	2	Divided trafficway-median strip with positive barrier
154	6.7	3	One way traffic
662	29.0	4	Not physically divided (two way traffic)
31	1.4	5	Not physically divided with two-way left turn lane

Variable Name	Format	Type	Length
FlowRestriction	ML520F	Numeric	8

Definition: Identifies preexisting trafficway flow restrictions that hindered the general flow of traffic in some way. Selection of specific attributes does not imply that the restriction contributed to crash causation.

N	Prcnt	Code	Label
1,824	79.9	0	No restrictions
152	6.7	1	Work zone
59	2.6	3	Prior crash
197	8.6	4	Congestion
52	2.3	8	Other (Specify)

Codebook - Environment Data Set

Variable Name	Format	Type	Length
IntersectionType	ML1421F	Numeric	8

Definition: Defines the intersection type for those crashes that occur in an intersection or are intersection-related. For example, if there is a stream of traffic stopped on the approach to an intersection and a vehicle at the rear of this traffic stream is struck in the rear by a second vehicle, the crash is considered intersection-related and intersection type is coded for this crash.

N	Prcnt	Code	Label
1,735	76.0	0	Non-intersection (and not intersection related)
214	9.4	1	Signalized cross intersection
14	0.6	2	Cross intersection with right turn lane(s) and stop control on minor street
29	1.3	3	Cross intersection with left turn lane(s) and stop control on minor street
16	0.7	4	Cross intersection with left/right turn lane(s) and stop control on minor
106	4.6	5	Cross intersection with no turning lanes and stop control on minor street
20	0.9	6	Signalized Tee intersection
23	1.0	7	Tee intersection with turn lanes and stop control on minor street
73	3.2	8	Tee intersection with no turn lanes and stop control on minor street
51	2.2	88	Other (specify)
3	0.1	99	Unknown

Variable Name	Format	Type	Length
TravelLanes	ML275F	Numeric	8

Definition: Establishes the number of travel lanes that existed for this vehicle prior to the critical precrash event. The attribute related to this variable is determined from the same roadway that was used to determine the variable "Trafficway Flow." If traffic flows in both directions and is undivided, the number of lanes in both directions is indicated. If the trafficway is divided into two or more roadways, only the number of lanes for the roadway on which this vehicle was traveling is indicated. If turn bays, acceleration, deceleration, or center two-way left turn lanes exist and are physically located within the cross section of the roadway and these lanes are the most representative of the driver's environment just prior to the critical precrash event, then they are included in the number of lanes.

N	Prcnt	Code	Label
65	2.8	1	One
817	35.8	2	Two
498	21.8	3	Three
508	22.2	4	Four
280	12.3	5	Five
89	3.9	6	Six
25	1.1	7	Seven or more
2	0.1	9	Unknown

Codebook - Environment Data Set

Variable Name	Format	Type	Length
AccessControl	ML522F	Numeric	8

Definition: Describes the level of control maintained for vehicles attempting to enter/exit the roadway. The attribute is determined for the same roadway as described in the variable "Number Of Travel Lanes."

N	Prcnt	Code	Label
1,393	61.0	1	Full control
890	39.0	2	No control
1	0.0	3	Other (Specify)

Variable Name	Format	Type	Length
Signage	ML523F	Numeric	8

Definition: Describes the general class of roadway by noting the type of route signing. The attribute is determined for the same roadway described in the variable "Number Of Travel Lanes."

N	Prcnt	Code	Label
1,156	50.6	1	Interstate
216	9.5	2	U.S. highway
425	18.6	3	State highway
170	7.4	4	County road
50	2.2	5	Township
247	10.8	6	Municipality
7	0.3	7	Frontage road
13	0.6	8	Other (Specify)

Variable Name	Format	Type	Length
FunctionalClass	ML524F	Numeric	8

Definition: This variable is based upon the Federal Highway Administration's classification system for identifying a roadway functional system. The basic functional systems are: (1) rural areas, (2) urbanized areas, and (3) small urban areas (under 50,000 in population). Each system is comprised of various functional categories.

N	Prcnt	Code	Label
236	10.3	1	Rural principal arterial - Interstate
186	8.1	2	Rural principal arterial - other
133	5.8	3	Rural minor arterial
65	2.8	4	Rural major collector
57	2.5	5	Rural minor collector
65	2.8	6	Rural local
14	0.6	7	Rural unknown
921	40.3	8	Urban principal arterial - Interstate
160	7.0	9	Urban principal arterial - Freeways and Expressways

Codebook - Environment Data Set

N	Prcnt	Code	Label
194	8.5	10	Urban principal arterial - other
97	4.2	11	Urban minor arterial
44	1.9	12	Urban collector
104	4.6	13	Urban local
8	0.4	99	Unknown

Variable Name

Daylight

Format Type Length
ML154F Numeric 8

Definition: Establishes the light conditions of the roadway at the time of the crash and represents both ambient and artificial sources of light.

N	Prcnt	Code	Label
1,701	74.5	1	Daylight
225	9.9	2	Dark
256	11.2	3	Dark, but lighted
84	3.7	4	Dawn
18	0.8	5	Dusk

Variable Name

TrafficControl

Format Type Length
ML2771F Numeric 8

Definition: Documents the above-ground traffic control(s) that regulate vehicular traffic in the vehicle's environment just prior to this vehicle's critical precrash event. The attribute is determined for the same roadway that is used to define the variable "Trafficway Flow."

N	Prcnt	Code	Label
1,699	74.4	0	No Control Devices
122	5.3	1	Control signal (on colors) w/pedestrian signal
124	5.4	2	Control signal (on colors) w/o pedestrian signal
6	0.3	3	Control signal (on colors) unknown pedestrian signal
24	1.1	4	Flashing control signal
5	0.2	5	Flashing beacon
1	0.0	6	Flashing highway signal, unknown or other
10	0.4	7	Lane use control signal
4	0.2	8	Other highway signal
74	3.2	20	Stop sign
7	0.3	21	Yield sign
41	1.8	22	Other regulatory sign
1	0.0	31	School advance or crossing sign
108	4.7	40	Warning sign
10	0.4	50	Office, crossing guard, flagman, etc
5	0.2	60	Gates (active)
2	0.1	61	Flashing lights (active)

Codebook - Environment Data Set

N	Prcnt	Code	Label
5	0.2	70	Cross-bucks (passive)
33	1.4	98	Other (specify)
3	0.1	99	Unknown

Variable Name	Format	Type	Length
Railroad	OT23F	Numeric	8

Definition: Establishes whether or not a railroad-crossing device was present at the time of the crash.

N	Prcnt	Code	Label
2,236	97.9	0	No
12	0.5	1	Yes
36	1.6	2	Unknown

Variable Name	Format	Type	Length
Functioning	ML276F	Numeric	8

Definition: Establishes whether or not the traffic control device that was identified in the variable "Traffic Control Device" was functioning properly (as it was designed to function).

N	Prcnt	Code	Label
1,668	73.0	0	No traffic control device
6	0.3	1	Traffic control device not functioning (specify)
550	24.1	2	Traffic control device functioning properly
60	2.6	9	Unknown

Variable Name	Format	Type	Length
RoadwayClass	ML1434F	Numeric	8

Definition: Designates the class of roadway within rural and urban categories. The "urban" designation includes urbanized and small urban areas (under 50,000 in population). In general, the "freeways" designation includes freeways, expressways, thruways, and other controlled-access roadway segments.

N	Prcnt	Code	Label
105	4.6	1	Rural Freeway (> 4 lanes)
172	7.5	2	Rural Freeway (<= 4 lanes)
81	3.5	3	Rural multi-lane divided, non-Freeway
87	3.8	4	Rural multi-lane undivided, non-Freeway
306	13.4	5	Rural two-lane road
6	0.3	6	Rural unknown
871	38.1	7	Urban Freeway (> 4 lanes)
214	9.4	8	Urban Freeway (<= 4 lanes)
152	6.7	9	Urban multi-lane divided, non-Freeway

Codebook - Environment Data Set

N	Prcnt	Code	Label
146	6.4	10	Urban multi-lane undivided, non-Freeway
140	6.1	11	Urban two-lane road
3	0.1	12	Urban unknown
1	0.0	99	Unknown

Variable Name	Format	Type	Length
RoadAlignment	ML206F	Numeric	8

Definition: Describes the alignment of the roadway just prior to the vehicle's critical precrash event. This element is determined from the same roadway that was used to determine the variable "Trafficway Flow."

N	Prcnt	Code	Label
1,764	77.2	1	Straight
291	12.7	2	Curve right
229	10.0	3	Curve left

Variable Name	Format	Type	Length
RoadProfile	ML146F	Numeric	8

Definition: Establishes the grade of the roadway just prior to the vehicle's critical precrash event. To determine the grade, the vertical measurement is divided by the horizontal value; the result is a percentage value of the grade. This element is determined from the same roadway that was used to determine the variable "Trafficway Flow."

N	Prcnt	Code	Label
1,590	69.6	1	Level
299	13.1	2	Uphill grade (>2%)
43	1.9	3	Hill crest
321	14.1	4	Downhill grade (>2%)
10	0.4	5	Sag
21	0.9	9	Unknown

Variable Name	Format	Type	Length
RoadSurface	ML147F	Numeric	8

Definition: Describes the surface type of the roadway just prior to the vehicle's critical precrash event. This element is determined from the same roadway that was used to determine the variable "Trafficway Flow."

N	Prcnt	Code	Label
569	24.9	1	Concrete
1,706	74.7	2	Bituminous (asphalt)
3	0.1	4	Slag, gravel, or stone
1	0.0	5	Dirt

Codebook - Environment Data Set

N	Prcnt	Code	Label
3	0.1	8	Other (Specify)
2	0.1	9	Unknown

Variable Name	Format	Type	Length
SurfaceCondition	ML207F	Numeric	8

Definition: Describes the condition of the surface of the roadway just prior to the vehicle's critical precrash event. This element is determined from the same roadway that was used to determine the variable "Trafficway Flow."

N	Prcnt	Code	Label
1,850	81.0	1	Dry
361	15.8	2	Wet
22	1.0	3	Snow or slush
36	1.6	4	Ice
15	0.7	8	Other (Specify)

Variable Name	Format	Type	Length
SurfaceDefect	ML525F	Numeric	8

Definition: Describes the presence of any surface defects of the roadway just prior to the vehicle's critical precrash event, regardless of the relative contribution of the defect(s) to crash causation. This element is determined from the same roadway that was used to determine the variable "Number Of Travel Lanes."

N	Prcnt	Code	Label
2,273	99.5	0	No defects noted
11	0.5	1	Defect noted (specify)

Variable Name	Format	Type	Length
DesignDefect	ML526F	Numeric	8

Definition: Identifies design deficiencies of the roadway as they relate to established AASHTO standards.

N	Prcnt	Code	Label
2,225	97.4	0	No deficiencies notes
3	0.1	1	Inappropriate signage speeds
1	0.0	2	Insufficient crown
6	0.3	3	Excessive crown
1	0.0	4	Insufficient super-elevation
3	0.1	5	Excessive super-elevation
19	0.8	6	Excessive curvature
15	0.7	7	No shoulder/ Breakdown lane

Codebook - Environment Data Set

N	Prcnt	Code	Label
8	0.4	8	Other (specify)
3	0.1	9	Unknown

Variable Name	Format	Type	Length
ShoulderType	ML1436F	Numeric	8

Definition: Establishes stabilized shoulder presence at the crash site and the type of available shoulder surface. A shoulder is defined as that part of a trafficway that is (1) contiguous with the roadway for emergency use, (2) for accommodation of stopped road vehicles, and (3) for lateral support of the roadway structure.

N	Prcnt	Code	Label
551	24.1	0	No stabilized shoulder
209	9.2	1	Concrete
1,439	63.0	2	Bituminous (asphalt)
58	2.5	4	Slag, gravel, or stone
11	0.5	5	Dirt
12	0.5	8	Other (specify)
4	0.2	9	Unknown

Variable Name	Format	Type	Length
ShoulderWidth	OT22F	Numeric	8

Definition: Establishes the width of the stabilized shoulder available to this vehicle. To qualify as a stabilized shoulder, the measured shoulder width must exceed two feet (0.61 meters).

N	Prcnt	Code	Label
551	24.1	0	No stabilized shoulder
106	4.6	1	< 1 meter
351	15.4	2	> 1 <= 2 meters
685	30.0	3	> 2 <= 3 meters
521	22.8	4	> 3 meters
70	3.1	9	Unknown

Variable Name	Format	Type	Length
RumbleStrip	ML1435F	Numeric	8

Definition: Establishes the presence of a rumble strip, the type of rumble strip, and whether or not the rumble strip was involved in the pre-crash circumstances in terms of this vehicle either departing or not departing the roadway.

N	Prcnt	Code	Label
1,990	87.1	0	No rumble strip present
14	0.6	1	Raised rumble strip/no pre-crash departure
2	0.1	2	Raised rumble strip/partial pre-crash departure

Codebook - Environment Data Set

N	Prcnt	Code	Label
1	0.0	3	Raised rumble strip/full pre-crash departure
209	9.2	4	Depressed rumble strip/no pre-crash departure
27	1.2	5	Depressed rumble strip/partial pre-crash departure
33	1.4	6	Depressed rumble strip/full pre-crash departure
8	0.4	9	Unknown

Variable Name	Format	Type	Length
SightLineRestriction	ML1439F	Numeric	8

Definition: Establishes sight line restrictions for the driver of this vehicle after measuring the sight distance and comparing it to AASHTO standards. This determination is based on recommended sight distances as established by AASHTO. For safety on a highway, the roadway designer must provide sight distance of sufficient length that drivers can control the operation of their vehicle to avoid striking an unexpected object on the travel way.

N	Prcnt	Code	Label
2,237	97.9	1	No
27	1.2	2	Yes (specify)
20	0.9	9	Unknown

Variable Name	Format	Type	Length
SightLineDistance	OT52F	Numeric	8

Definition: The measured sight line distance (in meters) represents the distance along the roadway that an object of specified height is continuously visible to the driver. This distance is dependent on the height of the driver's eye above the road surface, the specified object height above the road surface, and the height of sight obstructions within the line of sight.

N	Prcnt	Code	Label
1	0.0	15	15
1	0.0	54	54
1	0.0	64	64
2	0.1	78	78
3	0.1	84	84
1	0.0	85	85
3	0.1	120	120
1	0.0	145	145
4	0.2	150	150
1	0.0	160	160
2	0.1	196	196
2,237	97.9	8887	No sight line restriction, this vehicle
20	0.9	9997	Unknown if sight line restricted, this vehicle
7	0.3	9999	Sight line restriction this vehicle, actual distance not measured.

Codebook - Environment Data Set

Variable Name	Format	Type	Length
AASHTODistance	OT51F	Numeric	8

Definition: Identifies the AASHTO-recommended sight distance (in meters) for the roadway on which the crash occurred. This variable will have a value attached to it when a sight line restriction is suspected and the actual sight distance is measured. The sight distance as measured is then compared to the recommended sight distance for that situation.

N	Prcnt	Code	Label
1	0.0	47	47
1	0.0	78	78
1	0.0	82	82
3	0.1	83	83
2	0.1	93	93
1	0.0	109	109
1	0.0	110	110
1	0.0	122	122
1	0.0	130	130
4	0.2	150	150
1	0.0	168	168
2	0.1	174	174
1	0.0	197	197
2	0.1	208	208
2,238	98.0	8887	No sight line restriction, this vehicle
20	0.9	9997	Unknown if sight line restricted, this vehicle
4	0.2	9999	Sight line restriction this vehicle, recommended distance

Variable Name	Format	Type	Length
ENVNoConditions	AP1U	Numeric	8

Definition: Documents whether or not there were no adverse atmospheric-related driving conditions just prior to the critical event. (This variable was originally an attribute choice under the variable "Atmospheric Conditions.")

N	Prcnt	Code	Label
358	15.7	0	Absent
1,926	84.3	1	Present

Variable Name	Format	Type	Length
ENVRain	AP1U	Numeric	8

Definition: Documents whether or not it was raining just prior to the critical event. (This variable was originally an attribute choice under the variable "Atmospheric Conditions.")

N	Prcnt	Code	Label
2,029	88.8	0	Absent
255	11.2	1	Present

Codebook - Environment Data Set

Variable Name	Format	Type	Length
ENVSnow	AP1U	Numeric	8

Definition: Documents whether or not it was snowing just prior to the critical event. (This variable was originally an attribute choice under the variable "Atmospheric Conditions.")

N	Prcnt	Code	Label
2,242	98.2	0	Absent
42	1.8	1	Present

Variable Name	Format	Type	Length
ENVFog	AP1U	Numeric	8

Definition: Documents whether or not fog was present just prior to the critical event. (This variable was originally an attribute choice under the variable "Atmospheric Conditions.")

N	Prcnt	Code	Label
2,243	98.2	0	Absent
41	1.8	1	Present

Variable Name	Format	Type	Length
ENVWindGusts	AP1U	Numeric	8

Definition: Documents whether or not heavy wind gusts were present just prior to the critical event. (This variable was originally an attribute choice under the variable "Atmospheric Conditions.")

N	Prcnt	Code	Label
2,279	99.8	0	Absent
5	0.2	1	Present

Variable Name	Format	Type	Length
ENVHail	AP1U	Numeric	8

Definition: Documents whether or not hail was falling just prior to the critical event. (This variable was originally an attribute choice under the variable "Atmospheric Conditions.")

N	Prcnt	Code	Label
2,284	100.0	0	Absent

Codebook - Environment Data Set

Variable Name	Format	Type	Length
ENVSleet	AP1U	Numeric	8

Definition: Documents whether or not sleet (frozen or partially frozen raindrops) was falling just prior to the critical event. (This variable was originally an attribute choice under the variable "Atmospheric Conditions.")

N	Prcnt	Code	Label
2,280	99.8	0	Absent
4	0.2	1	Present

Variable Name	Format	Type	Length
ENVDust	AP1U	Numeric	8

Definition: Documents whether or not heavy dust (with corresponding limited visibility) was present just prior to the critical event. (This variable was originally an attribute choice under the variable "Atmospheric Conditions.")

N	Prcnt	Code	Label
2,284	100.0	0	Absent

Variable Name	Format	Type	Length
ENVOtherConditions	AP1U	Numeric	8

Definition: Documents whether or not there were other adverse atmospheric-related driving conditions present just prior to the critical event that were not identified in the other atmospheric condition variables. (This variable was originally an attribute choice under the variable "Atmospheric Conditions.")

N	Prcnt	Code	Label
2,265	99.2	0	Absent
19	0.8	1	Present

Codebook – Events Data Set

Events Data Set

The Events data set contains all details that describe the events occurring during the crash. A record exists for each crash event.

The Events data set contains the variables CaseID, PSU, PSUStrat, RATWeight, VehicleNumber and EventSequence. EventSequence identifies a particular event in a sequence in the accident. CaseID and EventSequence uniquely identify each record in this data set. CaseID and EventSequence should be used to merge the Events data set with the CDCCrush data set. CaseID and VehicleNumber should be used to merge the Events data set with vehicle level data sets.

Variable Name	Format	Type	Length
Stratum	\$2	Char	2

Definition: Stratum is the letter identifying the CDS sampling classification to which the case is assigned.

N	Prcnt	Code	Label
45	1.6	*	A
143	5.1	*	B
10	0.4	*	C
13	0.5	*	D
6	0.2	*	E
6	0.2	*	F
2	0.1	*	G
2	0.1	*	H
47	1.7	*	J
118	4.2	*	K
2,385	85.9	*	S

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Variable Name	Format	Type	Length
EventSequence	BEST8	Numeric	8

Definition Identifies a particular event in a sequence of the accident.

N	Prcnt	Code	Label
1,070	38.5	1	1
709	25.5	2	2
419	15.1	3	3
231	8.3	4	4
126	4.5	5	5
76	2.7	6	6
47	1.7	7	7
27	1.0	8	8
14	0.5	9	9
11	0.4	10	10
7	0.3	11	11

Codebook – Events Data Set

N	Prcnt	Code	Label
5	0.2	12	12
4	0.1	13	13
3	0.1	14	14
2	0.1	15	15
1	0.0	16	16
1	0.0	17	17
1	0.0	18	18
1	0.0	19	19
1	0.0	20	20
1	0.0	21	21
1	0.0	22	22
1	0.0	23	23
1	0.0	24	24
1	0.0	25	25
1	0.0	26	26
1	0.0	27	27
1	0.0	28	28
1	0.0	29	29
1	0.0	30	30
1	0.0	31	31
1	0.0	32	32
1	0.0	33	33
1	0.0	34	34
1	0.0	35	35
1	0.0	36	36
1	0.0	37	37
1	0.0	38	38
1	0.0	39	39
1	0.0	40	40
1	0.0	41	41

Variable Name	Format	Type	Length
ClassVehicle	ML31F	Numeric	8

Definition: Describes the class of vehicle for the first vehicle listed on the Case Form Events tab. This represents the same attribute as that found in the General Vehicle Data Set (“Class Of Vehicle” variable) and that found in the Vehicle Exterior Data Set (“Class Of Vehicle” variable). This classification is based on the size of the vehicle.

N	Prcnt	Code	Label
192	6.9	1	Subcompact/mini (wheelbase < 254 cm)
304	10.9	2	Compact (wheelbase >= 254 but < 265 cm)
295	10.6	3	Intermediate (wheelbase >= 265 but < 278 cm)

Codebook – Events Data Set

N	Prcnt	Code	Label
90	3.2	4	Full Size (wheelbase >= 278 but < 291 cm)
30	1.1	5	Largest (wheelbase >= 291 cm)
14	0.5	9	Unknown passenger car size
136	4.9	14	Compact utility vehicle
21	0.8	15	Large utility vehicle (<= 4,536 kgs GVWR)
7	0.3	16	Utility station wagon (<= 4,536 kgs GVWR)
1	0.0	19	Unknown utility type
82	3.0	20	Minivan (<= 4,536 kgs GVWR)
55	2.0	21	Large van (<= 4,536 kgs GVWR)
3	0.1	28	Other van type (<= 4,536 kgs GVWR)
1	0.0	29	Unknown van type (<= 4,536 kgs GVWR)
91	3.3	30	Compact pickup truck (<= 4,536 kgs GVWR)
127	4.6	31	Large pickup truck (<= 4,536 kgs GVWR)
2	0.1	38	Other pickup truck type (<= 4,536 kgs GVWR)
9	0.3	45	Other light truck (<= 4,536 kgs GVWR)
3	0.1	58	Other bus (>4,536 kgs GVWR)
358	12.9	60	Truck (>4,536 kgs GVWR)
41	1.5	67	Tractor without trailer
901	32.4	68	Tractor-trailer(s)
2	0.1	78	Unknown medium/heavy truck type
12	0.4	80	Motored cycle

Variable Name

DamageArea

Format

\$OT24F

Type

Char

Length

1

Definition: Describes the general area of damage on the first vehicle.

N	Prcnt	Code	Label
20	0.7	9	Unknown
172	6.2	B	Back/Bk of unit with cargo area=rear of trailer of straight truck
1	0.0	C	Rear of cab
9	0.3	D	Back (rear of tractor)
1,216	43.8	F	Front
504	18.1	L	Left Side
168	6.0	N	Noncollision
496	17.9	R	Right Side
149	5.4	T	Top
33	1.2	U	Undercarriage
9	0.3	V	Front of cargo area

Codebook – Events Data Set

Variable Name	Format	Type	Length
EVEObjectContact	ML34F	Numeric	8

Definition: Describes the object or vehicle that was contacted by each vehicle in the case.

N	Prcnt	Code	Label
180	6.5	1	Vehicle#1
779	28.1	2	Vehicle#2
252	9.1	3	Vehicle#3
80	2.9	4	Vehicle#4
40	1.4	5	Vehicle#5
15	0.5	6	Vehicle#6
1	0.0	7	Vehicle#7
5	0.2	8	Vehicle#8
1	0.0	11	Vehicle#11
2	0.1	13	Vehicle#13
2	0.1	14	Vehicle#14
2	0.1	16	Vehicle#16
2	0.1	17	Vehicle#17
2	0.1	18	Vehicle#18
1	0.0	19	Vehicle#19
1	0.0	20	Vehicle#20
1	0.0	23	Vehicle#23
1	0.0	25	Vehicle#25
1	0.0	26	Vehicle#26
2	0.1	27	Vehicle#27
1	0.0	28	Vehicle#28
5	0.2	30	Vehicle#30
313	11.3	31	Overturn->rollover(excludes end-over-end)
1	0.0	32	Rollover->end-over-end
66	2.4	33	Fire or explosion
67	2.4	34	Jackknife
19	0.7	35	Other intraunit damage (specify)
1	0.0	36	Noncollision injury
15	0.5	38	Other noncollision (specify)
14	0.5	41	Tree(<= 10 cm in diameter)
44	1.6	42	Tree(> 10 cm in diameter)
9	0.3	43	Shrubbery or bush
23	0.8	44	Embankment
24	0.9	45	Breakaway pole or post (any diameter)
34	1.2	50	Nonbreakaway pole or post (<=10cm in diameter)
38	1.4	51	Nonbreakaway pole or post(>10 cm but <= 30 cm in diameter)
13	0.5	52	Nonbreakaway pole or post(>30 cm in diameter)

Codebook – Events Data Set

N	Prcnt	Code	Label
6	0.2	53	Nonbreakaway pole or post(diameter unknown)
195	7.0	54	Concrete traffic barrier
6	0.2	55	Impact attenuator
163	5.9	56	Other traffic barrier(includes guardrail) (specify)
31	1.1	57	Fence
20	0.7	58	Wall
4	0.1	59	Building
14	0.5	60	Ditch or culvert
20	0.7	61	Ground
2	0.1	62	Fire hydrant
27	1.0	63	Curb
30	1.1	64	Bridge
24	0.9	68	Other fixed object (specify)
1	0.0	69	Unknown fixed object
23	0.8	70	Pass. car,light truck,van,or other vehicle not in-transport
1	0.0	71	Medium/heavy truck or bus not in-transport
39	1.4	72	Pedestrian
9	0.3	73	Cyclist or cycle
2	0.1	75	Vehicle occupant
1	0.0	76	Animal
8	0.3	77	Train
4	0.1	78	Trailer, disconnected in transport
39	1.4	79	Object fell from vehicle in-transport
26	0.9	88	Other nonfixed object (specify)
14	0.5	98	Other event (specify)
11	0.4	99	Unknown event or object

Variable Name	Format	Type	Length
ClassVehicle2	ML31F	Numeric	8

Definition: Describes the class of vehicle for the second vehicle listed on the Case Form Events tab (if the collision was between two vehicles). This represents the same attribute as that found in the General Vehicle Data Set (“Class Of Vehicle” variable) and that found in the Vehicle Exterior Data Set (“Class Of Vehicle” variable). This classification is based on the size of the vehicle.

N	Prcnt	Code	Label
1,401	50.5	0	Not a motor vehicle
56	2.0	1	Subcompact/mini (wheelbase < 254 cm)
77	2.8	2	Compact (wheelbase >= 254 but < 265 cm)
59	2.1	3	Intermediate (wheelbase >= 265 but < 278 cm)
23	0.8	4	Full Size (wheelbase >= 278 but < 291 cm)
14	0.5	5	Largest (wheelbase >= 291 cm)
8	0.3	9	Unknown passenger car size

Codebook – Events Data Set

N	Prcnt	Code	Label
56	2.0	14	Compact utility vehicle
6	0.2	15	Large utility vehicle (<= 4,536 kgs GVWR)
7	0.3	16	Utility station wagon (<= 4,536 kgs GVWR)
28	1.0	20	Minivan (<= 4,536 kgs GVWR)
14	0.5	21	Large van (<= 4,536 kgs GVWR)
1	0.0	24	Van Based school bus (<= 4,536 kgs GVWR)
1	0.0	28	Other van type (<= 4,536 kgs GVWR)
18	0.6	30	Compact pickup truck (<= 4,536 kgs GVWR)
48	1.7	31	Large pickup truck (<= 4,536 kgs GVWR)
1	0.0	39	Unknown pick up truck (<=4,536 kgs GVWR)
6	0.2	45	Other light truck (<= 4,536 kgs GVWR)
1	0.0	48	Unknown light truck type (<= 4,536 kgs GVWR)
1	0.0	50	School bus (excludes van based)(>4,536 kgs GVWR)
4	0.1	58	Other bus (>4,536 kgs GVWR)
254	9.1	60	Truck (>4,536 kgs GVWR)
32	1.2	67	Tractor without trailer
648	23.3	68	Tractor-trailer(s)
4	0.1	78	Unknown medium/heavy truck type
1	0.0	79	Unknown light/medium/heavy truck type
5	0.2	80	Motored cycle
3	0.1	90	Other vehicle

Variable Name	Format	Type	Length
DamageArea2	\$OT24F	Char	1

Definition: Describes the general area of damage on the second vehicle (if the collision was between two vehicles).

N	Prcnt	Code	Label
919	33.1	0	Not a motor vehicle
3	0.1	9	Unknown
389	14.0	B	Back/Bk of unit with cargo area=rear of trailer of straight truck
15	0.5	D	Back (rear of tractor)
400	14.4	F	Front
314	11.3	L	Left Side
482	17.4	N	Noncollision
213	7.7	R	Right Side
14	0.5	T	Top
21	0.8	U	Undercarriage
7	0.3	V	Front of cargo area

Codebook – FactorAssessment Data Set

FactorAssessment Data Set

The FactorAssessment data set contains a variety of data supporting the analyst's assessment. It focuses particularly on roadway, environment, and vehicle-related factors. One record of this information exists for each vehicle.

The FactorAssessment data set contains the variables CaseID, PSU, PSUStrat, RATWeight, and VehicleNumber. CaseID and VehicleNumber uniquely identify each record in this data set and should be used to merge the FactorAssessment data set with other vehicle level data sets.

Variable Name	Format	Type	Length
NoTraffic	AP1U	Numeric	8

Definition: Establishes whether or not there are no traffic flow interruption factors relevant to the crash. (This variable was originally an attribute choice under the variable "Traffic Flow Interruption Factors.")

N	Prcnt	Code	Label
755	33.1	0	Absent
1,529	66.9	1	Present

Variable Name	Format	Type	Length
AFTPreviousCrash	AP1U	Numeric	8

Definition: Establishes whether or not traffic flow at the crash site is interrupted by a previous crash located near this site. (This variable was originally an attribute choice under the variable "Traffic Flow Interruption Factors.")

N	Prcnt	Code	Label
2,167	94.9	0	Absent
117	5.1	1	Present

Variable Name	Format	Type	Length
ConstructionZone	AP1U	Numeric	8

Definition: Establishes whether or not traffic flow at the crash site is interrupted as a result of the crash site being located in a construction work zone. (This variable was originally an attribute choice under the variable "Traffic Flow Interruption Factors.")

N	Prcnt	Code	Label
2,084	91.2	0	Absent
200	8.8	1	Present

Codebook – FactorAssessment Data Set

Variable Name	Format	Type	Length
EmergencyVehicle	AP1U	Numeric	8

Definition: Establishes whether or not traffic flow at the crash site is interrupted as a result of an emergency vehicle approaching from either direction. (This variable was originally an attribute choice under the variable “Traffic Flow Interruption Factors.”)

N	Prcnt	Code	Label
2,270	99.4	0	Absent
14	0.6	1	Present

Variable Name	Format	Type	Length
RushHour	AP1U	Numeric	8

Definition: Establishes whether or not traffic flow at the crash site is interrupted as a result of rush hour traffic congestion. (This variable was originally an attribute choice under the variable “Traffic Flow Interruption Factors.”)

N	Prcnt	Code	Label
2,065	90.4	0	Absent
219	9.6	1	Present

Variable Name	Format	Type	Length
OtherTraffic	AP1U	Numeric	8

Definition: Establishes whether or not traffic flow at the crash site is interrupted as a result of a factor not described in the other traffic flow variables. (This variable was originally an attribute choice under the variable “Traffic Flow Interruption Factors” and was the “Other (specify):” attribute choice.)

N	Prcnt	Code	Label
2,024	88.6	0	Absent
260	11.4	1	Present

Variable Name	Format	Type	Length
OtherTrafficSpecify	\$50	Char	50

Definition: Documents the “specify” text that was included where the “Other Traffic Flow Interruption” variable (above) was coded as being present for this driver.

N	Prcnt	Code	Label
2,024	88.6	*	
1	0.0	*	A bicycle had fallen off of a police vehicle and wa
2	0.1	*	A surrogate interview with the passenger of vehicl
3	0.1	*	As v3 came to rest, it blocked all 3 travel lanes
1	0.0	*	As v3 came to rest, it blocked all 3 travel lanes.
4	0.2	*	Congested traffic not during rush hour. Unknown r

Codebook – FactorAssessment Data Set

N	Prcnt	Code	Label
2	0.1	*	Congested traffic, not during rush hour. Reason f
1	0.0	*	Congested traffic, reason unknown.
4	0.2	*	Congested traffic, unknown reason for the congesti
3	0.1	*	Congested traffic, unknown reason.

1	0.0	*	traffic stopped to allow non-contact vehicle with
1	0.0	*	travelling in a school zone with pedestrians on th
1	0.0	*	truck (V2) created traffic flow interruption
1	0.0	*	truck blocked travel lanes
1	0.0	*	truck blocking travel lanes
1	0.0	*	truck was stopped, blocking sole northbound lane o
1	0.0	*	vehicle in his traffic lane stopped to turn left a
1	0.0	*	vehicle one (police car with lights activated) leg
2	0.1	*	vehicle two was backing into roadway without a fla
1	0.0	*	vehicles stopped in lane

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Variable Name	Format	Type	Length
VehicleDefectCount	AP3U	Numeric	8

Definition: Documents the total number of vehicle condition-related factors coded to this vehicle.

N	Prcnt	Code	Label
1,652	72.3	0	0
383	16.8	1	1
107	4.7	2	2
32	1.4	3	3
6	0.3	4	4
1	0.0	6	6
103	4.5	99	Unknown

Variable Name	Format	Type	Length
LoadObstructedView	AP1U	Numeric	8

Definition: Establishes whether or not the driver experiences a view obstruction that is related to the vehicle's load. Typically in this circumstance, the obstruction is related to oversize cargo. Less frequently occurring however, is the circumstance where the obstruction is related to improper loading of the cargo. Both of these situations are included in this designation. (This variable was originally an attribute choice under the variable "Vehicle Condition Related Factors.")

N	Prcnt	Code	Label
2,284	100.0	0	Absent

Codebook – FactorAssessment Data Set

Variable Name	Format	Type	Length
DesignedObstructedView	AP1U	Numeric	8

Definition: Establishes whether or not the driver experiences a view obstruction that is related to vehicle design (e.g. view blocked by upper A-pillar). (This variable was originally an attribute choice under the variable “Vehicle Condition Related Factors.”)

N	Prcnt	Code	Label
2,272	99.5	0	Absent
12	0.5	1	Present

Variable Name	Format	Type	Length
OtherViewObstruction	AP1U	Numeric	8

Definition: Establishes whether or not the driver experiences a view obstruction that is related to a factor not described in the other view obstruction variables. (This variable was originally an attribute choice under the variable “Vehicle Condition Related Factors.”)

N	Prcnt	Code	Label
2,274	99.6	0	Absent
10	0.4	1	Present

Variable Name	Format	Type	Length
TireFailure	AP1U	Numeric	8

Definition: Establishes whether or not the vehicle experiences a tire malfunction (e.g. blowout, airout, etc.) during the precrash phase. (This variable was originally an attribute choice under the variable “Vehicle Condition Related Factors.”)

N	Prcnt	Code	Label
2,264	99.1	0	Absent
20	0.9	1	Present

Variable Name	Format	Type	Length
BrakeFailure	AP1U	Numeric	8

Definition: Establishes whether or not the vehicle experiences a braking system malfunction during the precrash phase. NOTE: Degraded braking performance (i.e. out-of-adjustment) is coded under the “Brakes Out-Of-Adjustment” variable. (This variable was originally an attribute choice under the variable “Vehicle Condition Related Factors.”)

N	Prcnt	Code	Label
2,272	99.5	0	Absent
12	0.5	1	Present

Codebook – FactorAssessment Data Set

Variable Name	Format	Type	Length
TransmissionFailure	AP1U	Numeric	8

Definition: Establishes whether or not the vehicle experiences a transmission malfunction during the precrash phase. (This variable was originally an attribute choice under the variable “Vehicle Condition Related Factors.”)

N	Prcnt	Code	Label
2,257	98.8	0	Absent
27	1.2	1	Present

Variable Name	Format	Type	Length
EngineProblem	AP1U	Numeric	8

Definition: Establishes whether or not the vehicle experiences an engine-related problem during the precrash phase. Examples of engine-related problems include stalling, missing, and throttle problems. (This variable was originally an attribute choice under the variable “Vehicle Condition Related Factors.”)

N	Prcnt	Code	Label
2,276	99.6	0	Absent
8	0.4	1	Present

Variable Name	Format	Type	Length
OtherDefect	AP1U	Numeric	8

Definition: Establishes whether or not the vehicle experiences a problem/exhibits a condition during the precrash phase that is relevant to crash occurrence, but is not described by other vehicle condition variables. (This variable was originally an attribute choice under the variable “Vehicle Condition Related Factors” and was the “Other (specify):” attribute choice.)

N	Prcnt	Code	Label
2,271	99.4	0	Absent
13	0.6	1	Present

Variable Name	Format	Type	Length
OtherDefectSpecify	\$50	Char	50

Definition: Documents the “specify” text that was included where the “Other Vehicle Condition” variable (above) was coded as being present for this driver.

N	Prcnt	Code	Label
2,271	99.4	*	
1	0.0	*	Driver had stopped to find the source of a dash li
1	0.0	*	Driver said he was going slow (7-10 MPH) to save h
1	0.0	*	Intersecting cracks in windshield
1	0.0	*	Per driver, the speedometer not working.

Codebook – FactorAssessment Data Set

N	Prcnt	Code	Label
1	0.0	*	Valve operating the dump trailer became engaged.
1	0.0	*	Vehicle decelerated on interstate for an unknown m
1	0.0	*	air conditioner not working
1	0.0	*	airline rubbing on deck between tractor and traile
1	0.0	*	hood flew up; caused previous crash
1	0.0	*	hood latch failure
1	0.0	*	out of gas
1	0.0	*	tailgate not secured
1	0.0	*	trailer damaged, top piece loose

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Variable Name	Format	Type	Length
TireDeficiency	AP1U	Numeric	8

Definition: Establishes whether or not the vehicle had a tire deficiency prior to the crash event (e.g. low tread depth on one or more tires).

N	Prcnt	Code	Label
2,213	96.9	0	Absent
71	3.1	1	Present

Variable Name	Format	Type	Length
BrakesOutOfAdjustment	AP1U	Numeric	8

Definition: Establishes whether or not any of the vehicle's brakes were out-of-adjustment during the precrash phase. This variable applies only to heavy trucks.

N	Prcnt	Code	Label
2,060	90.2	0	Absent
224	9.8	1	Present

Variable Name	Format	Type	Length
BrakesInoperative	AP1U	Numeric	8

Definition: Establishes whether or not any of the vehicle's brakes were inoperative during the precrash phase. This variable applies only to heavy trucks.

N	Prcnt	Code	Label
2,258	98.9	0	Absent
26	1.1	1	Present

Codebook – FactorAssessment Data Set

Variable Name	Format	Type	Length
BrakesSystemDeficiency	AP1U	Numeric	8

Definition: Establishes whether or not there were any braking system deficiencies prior to the crash that are not described in the other braking variables.

N	Prcnt	Code	Label
2,145	93.9	0	Absent
139	6.1	1	Present

Variable Name	Format	Type	Length
VehicleOverweight	AP1U	Numeric	8

Definition: Establishes whether or not the vehicle was overweight prior to the precrash phase. This variable applies to heavy trucks only, and has to do with local ordinances as they relate to a truck's GVWR (gross vehicle weight rating).

N	Prcnt	Code	Label
2,246	98.3	0	Absent
38	1.7	1	Present

Variable Name	Format	Type	Length
VehicleLightingDeficiency	AP1U	Numeric	8

Definition: Establishes whether or not the vehicle had a lighting system deficiency during the precrash phase (e.g. a turn signal or headlight out).

N	Prcnt	Code	Label
2,245	98.3	0	Absent
39	1.7	1	Present

Variable Name	Format	Type	Length
CargoLoadSecurement	AP1U	Numeric	8

Definition: Establishes whether or not the vehicle's cargo was improperly secured prior to the crash event.

N	Prcnt	Code	Label
2,254	98.7	0	Absent
30	1.3	1	Present

Codebook – FactorAssessment Data Set

Variable Name	Format	Type	Length
SuspensionFrameDeficiency	AP1U	Numeric	8

Definition: Establishes whether or not the vehicle had a suspension or frame deficiency prior to the crash event.

N	Prcnt	Code	Label
2,264	99.1	0	Absent
20	0.9	1	Present

Variable Name	Format	Type	Length
TowingUnitProblem	AP1U	Numeric	8

Definition: Establishes whether or not there was a problem with the towing unit of an articulated vehicle (this variable usually applies only to trucks).

N	Prcnt	Code	Label
2,273	99.5	0	Absent
11	0.5	1	Present

Variable Name	Format	Type	Length
ReflectiveTapeMissingObscured	AP1U	Numeric	8

Definition: Establishes whether or not the vehicle's reflective tape was missing or obscured in some manner. This variable only applies to heavy trucks and has to do with FMCSA reflective tape requirements.

N	Prcnt	Code	Label
2,277	99.7	0	Absent
7	0.3	1	Present

Variable Name	Format	Type	Length
FuelSystemProblem	AP1U	Numeric	8

Definition: Establishes whether or not the vehicle experienced a problem that is related to its fuel system during the precrash phase.

N	Prcnt	Code	Label
2,280	99.8	0	Absent
4	0.2	1	Present

Codebook – FactorAssessment Data Set

Variable Name	Format	Type	Length
ExhaustLeak	AP1U	Numeric	8

Definition: Establishes whether or not the vehicle experienced an exhaust leak during the precrash phase.

N	Prcnt	Code	Label
2,277	99.7	0	Absent
7	0.3	1	Present

Variable Name	Format	Type	Length
SteeringWheelProblem	AP1U	Numeric	8

Definition: Establishes whether or not the vehicle experienced a steering-related problem during the precrash phase.

N	Prcnt	Code	Label
2,276	99.6	0	Absent
8	0.4	1	Present

Variable Name	Format	Type	Length
MedianWidth	OT21F	Numeric	8

Definition: Documents the measured median width (in meters) when a roadway geometry factor has been identified involving a crossover. This value is provided when the “Roadway Geometry” variable is coded as being present.

N	Prcnt	Code	Label
7	0.3	8887	Not applicable
2,277	99.7	9999	Unknown

Variable Name	Format	Type	Length
AFTCurveRadius	OT21F14.1	Numeric	8

Definition: Documents the measured radius of curvature (in meters) for the roadway on which the crash occurred. This value is specified when the “Roadway Geometry (Curve)” variable is coded as being present.

N	Prcnt	Code	Label
1	0.0	22.1	22.1
1	0.0	40.2	40.2
1	0.0	40.5	40.5
1	0.0	43	43.0
2	0.1	54.6	54.6
1	0.0	57.1	57.1
1	0.0	63.4	63.4

Codebook – FactorAssessment Data Set

N	Prcnt	Code	Label
1	0.0	71	71.0
1	0.0	81	81.0
1	0.0	94	94.0
1	0.0	94.3	94.3
1	0.0	94.4	94.4
2	0.1	102	102.0
1	0.0	104	104.0
1	0.0	108	108.0
1	0.0	112	112.0
1	0.0	141	141.0
1	0.0	161	161.0
1	0.0	187	187.0
1	0.0	225	225.0
2	0.1	281	281.0
3	0.1	300	300.0
1	0.0	375	375.0
2,256	98.8	9999	Unknown

Variable Name	Format	Type	Length
SightDistance	OT21F	Numeric	8

Definition: Documents the measured sight distance in meters when the “Road Sight Distance Insufficient” variable is coded as being present.

N	Prcnt	Code	Label
1	0.0	54	54
1	0.0	70	70
1	0.0	78	78
2	0.1	84	84
1	0.0	85	85
1	0.0	120	120
1	0.0	160	160
2,276	99.6	9999	Unknown

Variable Name	Format	Type	Length
AASHTORecommended	OT21F14.1	Numeric	8

Definition: Documents the AASHTO recommended sight distance in meters for this vehicle in the precrash phase. This value is specified when the “Road Sight Distance Insufficient” variable is coded as being present.

N	Prcnt	Code	Label
1	0.0	72.2	72.2
1	0.0	78	78.0

Codebook – FactorAssessment Data Set

N	Prcnt	Code	Label
1	0.0	82	82.0
1	0.0	83	83.0
2	0.1	93	93.0
1	0.0	130	130.0
1	0.0	168	168.0
2,276	99.6	9999	Unknown

Variable Name	Format	Type	Length
RoadwayFactorCount	AP3U	Numeric	8

Definition: Documents the number of roadway-related factors that were coded for this vehicle.

N	Prcnt	Code	Label
1,832	80.2	0	0
395	17.3	1	1
17	0.7	2	2
7	0.3	3	3
1	0.0	4	4
22	1.0	77	No Driver Present
10	0.4	99	Unknown

Variable Name	Format	Type	Length
SignsMissing	AP1U	Numeric	8

Definition: Documents whether or not traffic signs/signals have been removed from the designated location and are not physically present. The removal can be associated with either a repair function or vandalism. (This variable was originally an attribute choice under the variable “Roadway Related Factors.”)

N	Prcnt	Code	Label
2,265	99.2	0	Absent
19	0.8	1	Present

Variable Name	Format	Type	Length
ObjectObscured	AP1U	Numeric	8

Definition: Documents whether or not there is a view obstruction associated with roadway design including such added devices as signal boxes, signal light support poles, guardrails, and crash cushions. (This variable was originally an attribute choice under the variable “Roadway Related Factors.”)

N	Prcnt	Code	Label
2,281	99.9	0	Absent
3	0.1	1	Present

Codebook – FactorAssessment Data Set

Variable Name	Format	Type	Length
VehicleObscured	AP1U	Numeric	8

Definition: Documents whether or not the driver's view is obstructed by an intervening vehicle. (This variable was originally an attribute choice under the variable "Roadway Related Factors.")

N	Prcnt	Code	Label
2,275	99.6	0	Absent
9	0.4	1	Present

Variable Name	Format	Type	Length
RoadGeometry	AP1U	Numeric	8

Definition: Documents whether or not roadway geometry, usually in the form of a curve, is relevant to the crash. (This variable was originally an attribute choice under the variable "Roadway Related Factors.")

N	Prcnt	Code	Label
2,254	98.7	0	Absent
30	1.3	1	Present

Variable Name	Format	Type	Length
InsufficientSight	AP1U	Numeric	8

Definition: Documents whether or not the measured sight distance on this roadway does not meet the standard as specified in AASHTO. (This variable was originally an attribute choice under the variable "Roadway Related Factors.")

N	Prcnt	Code	Label
2,276	99.6	0	Absent
8	0.4	1	Present

Variable Name	Format	Type	Length
BadLaneMarkings	AP1U	Numeric	8

Definition: Documents whether or not the driver encounters difficulty as a result of lane delineation. The delineation markings in this circumstance may not be present, may be worn (i.e. reduced visibility), or may be covered in some manner (e.g. gravel, debris, etc.). (This variable was originally an attribute choice under the variable "Roadway Related Factors.")

N	Prcnt	Code	Label
2,274	99.6	0	Absent
10	0.4	1	Present

Codebook – FactorAssessment Data Set

Variable Name	Format	Type	Length
NarrowShoulders	AP1U	Numeric	8

Definition: Documents whether or not the driver experiences a problem as a result of the shoulder, which is not sufficiently wide. While circumstances will vary depending on location, shoulder width should be less than 1.5 meters to qualify for this designation. (This variable was originally an attribute choice under the variable “Roadway Related Factors.”)

N	Prcnt	Code	Label
2,279	99.8	0	Absent
5	0.2	1	Present

Variable Name	Format	Type	Length
NarrowRoad	AP1U	Numeric	8

Definition: Documents whether or not the driver experiences a problem as a result of insufficient roadway width. While circumstances will vary depending on the type of roadway, two-lane roadways should be less than 20 feet (6.1 meters) in width to qualify for this designation. (This variable was originally an attribute choice under the variable “Roadway Related Factors.”)

N	Prcnt	Code	Label
2,284	100.0	0	Absent

Variable Name	Format	Type	Length
RampSpeed	AP1U	Numeric	8

Definition: Documents whether or not the posted ramp entrance/exit speed is inappropriate. This includes circumstances where the posted speed is adequate for one class of vehicle, but is too high for another class of vehicle (e.g. adequate for automobiles, but too high for large trucks). (This variable was originally an attribute choice under the variable “Roadway Related Factors.”)

N	Prcnt	Code	Label
2,280	99.8	0	Absent
4	0.2	1	Present

Variable Name	Format	Type	Length
PoorCondition	AP1U	Numeric	8

Definition: Documents whether or not the driver encounters a problem as a result of a roadway maintenance condition. Specific areas of concern include potholes, deteriorated/broken road edges, washboard areas, and depressions where a localized area of the surface has sunk several inches or more. (This variable was originally an attribute choice under the variable “Roadway Related Factors.”)

N	Prcnt	Code	Label
2,278	99.7	0	Absent
6	0.3	1	Present

Codebook – FactorAssessment Data Set

Variable Name	Format	Type	Length
SlickSurface	AP1U	Numeric	8

Definition: Documents whether or not the driver encounters a low friction surface most commonly associated with an icy condition. There are several other circumstances that can be associated with a pronounced reduction of friction values. These include loose gravel/sand spread over a paved surface and oil build-ups. Typically, wet surfaces are not included in this designation unless moisture adds to an existing condition such as an oil build-up. (This variable was originally an attribute choice under the variable “Roadway Related Factors.”)

N	Prcnt	Code	Label
2,029	88.8	0	Absent
255	11.2	1	Present

Variable Name	Format	Type	Length
UnderWater	AP1U	Numeric	8

Definition: Documents whether or not one or more travel lane is completely covered with water. (This variable was originally an attribute choice under the variable “Roadway Related Factors.”)

N	Prcnt	Code	Label
2,282	99.9	0	Absent
2	0.1	1	Present

Variable Name	Format	Type	Length
WashedOut	AP1U	Numeric	8

Definition: Documents whether or not a portion of the roadway collapses/washes away as a result of exposure to running water. (This variable was originally an attribute choice under the variable “Roadway Related Factors.”)

N	Prcnt	Code	Label
2,284	100.0	0	Absent

Variable Name	Format	Type	Length
OtherProblem	AP1U	Numeric	8

Definition: Documents whether or not the driver encounters a roadway problem that is not described by the other roadway-related variables. (This variable was originally an attribute choice under the variable “Roadway Related Factors” and was the “Other (specify):” attribute choice.)

N	Prcnt	Code	Label
2,181	95.5	0	Absent
103	4.5	1	Present

Codebook – FactorAssessment Data Set

Variable Name	Format	Type	Length
OtherProblemSpecify	\$50	Char	50

Definition: Documents the “specify” text that was included where the “Other Roadway Related Factor” variable (above) was coded as being present for this driver.

N	Prcnt	Code	Label
2,181	95.5	*	
2	0.1	*	A right hand passing lane versus a plain T interse
1	0.0	*	Curve warning sign not posted
1	0.0	*	Debris (piece of metal) lying in roadway
1	0.0	*	Dip in road located at the end of a downhill grade
3	0.1	*	Due to ongoing construction, shoulders were being
1	0.0	*	Flatbed tarp lying in roadway (debris)
1	0.0	*	GRADE.
1	0.0	*	INSUFFICIENT DISTANCE BETWEEN R.R. TRACKS AND
1	0.0	*	Inappropriate speed advisory sign
3	0.1	*	Insufficient median width (10.1-meters) for length
1	0.0	*	Insufficient signage for curve
1	0.0	*	Lack of curve warning signs
1	0.0	*	Lack of overhead street light illumination.
1	0.0	*	Lack of street light illumination
4	0.2	*	Lane drop
5	0.2	*	Lane restriction due to construction.
1	0.0	*	Low hanging utility cable
2	0.1	*	No overhead lighting.
1	0.0	*	No overhead street lights in vicinity of crash.
1	0.0	*	No ramp speed reduction signage
1	0.0	*	No roadway overhead roadway illumination.
1	0.0	*	No signs to indicate the double s-curve
2	0.1	*	POOR ROAD DESIGN IF TRUCKS MUST CROSS
2	0.1	*	Per design standards on rural hi-speed divided hig
1	0.0	*	ROAD VIEW OBSTRUCTION DUE TO CONSTRUCTION
1	0.0	*	Road was in a work zone with cones, missing signs,
3	0.1	*	Road was wet
1	0.0	*	Roadway not illuminated with street lighting, driv
1	0.0	*	Roadway under construction.
2	0.1	*	Roadway was reportedly wet, but it was not raining
1	0.0	*	Roadway was underconstruction with no lane marking
1	0.0	*	Roadway was wet. It is also unknown if sight line
1	0.0	*	There was no improved shoulder adjacent to the rig
2	0.1	*	Though it was daytime, the inside of the tunnel wa
1	0.0	*	Unstabilized and soft shoulder
1	0.0	*	Weed covered fence blocks view of driveway

Codebook – FactorAssessment Data Set

N	Prcnt	Code	Label
2	0.1	*	entrance ramp merges from left into fast lane
2	0.1	*	exit ramp located on left
1	0.0	*	flatbed tarp lying in roadway
1	0.0	*	incorrect bridge height sign; lack of "out" once o
1	0.0	*	incorrect bridge height sign; lack of an "out" onc
2	0.1	*	incorrect overpass height sign
1	0.0	*	insufficient distance form railroad track to main
1	0.0	*	insufficient distance from northbound lane to rail
1	0.0	*	insufficient distance from railroad tracks to main
2	0.1	*	left merge into high speed lane
2	0.1	*	narrow bridge
1	0.0	*	negative superelevation.
1	0.0	*	no curve warning signs posted on this ramp. Shoul
2	0.1	*	overhead lights not working
2	0.1	*	road was wet
1	0.0	*	roadway was wet
2	0.1	*	roadway wet with heavy rain
1	0.0	*	short (3-second) left turn arrow
1	0.0	*	sight line distance barely met AASHTO requirement
1	0.0	*	stop sign with crossbucks is insufficient for a TC
2	0.1	*	through lane was snow-covered
1	0.0	*	unstabilized and soft shoulder
2	0.1	*	unusual sequencing of traffic signal
15	0.7	*	wet roadway

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Variable Name	Format	Type	Length
WeatherCount	AP2U	Numeric	8

Definition: Documents the number of weather related factors that were coded for this vehicle.

N	Prcnt	Code	Label
1,922	84.2	0	0
331	14.5	1	1
9	0.4	2	2
22	1.0	7	No Driver Present

Codebook – FactorAssessment Data Set

Variable Name	Format	Type	Length
AFTRain	AP1U	Numeric	8

Definition: Establishes whether or not it was raining at the time of the crash. (This variable was originally an attribute choice under the variable “Weather Related Factors.”)

N	Prcnt	Code	Label
2,040	89.3	0	Absent
244	10.7	1	Present

Variable Name	Format	Type	Length
AFTSnow	AP1U	Numeric	8

Definition: Establishes whether or not it was snowing at the time of the crash. (This variable was originally an attribute choice under the variable “Weather Related Factors.”)

N	Prcnt	Code	Label
2,250	98.5	0	Absent
34	1.5	1	Present

Variable Name	Format	Type	Length
AFTFog	AP1U	Numeric	8

Definition: Establishes whether or not the driver was operating in fog at the time of the crash. (This variable was originally an attribute choice under the variable “Weather Related Factors.”)

N	Prcnt	Code	Label
2,242	98.2	0	Absent
42	1.8	1	Present

Variable Name	Format	Type	Length
WindGust	AP1U	Numeric	8

Definition: Establishes whether or not a wind gust occurs prior to the crash and has some relevance to the crash. (This variable was originally an attribute choice under the variable “Weather Related Factors.”)

N	Prcnt	Code	Label
2,278	99.7	0	Absent
6	0.3	1	Present

Codebook – FactorAssessment Data Set

Variable Name	Format	Type	Length
AFTHail	AP1U	Numeric	8

Definition: Establishes whether or not the driver was operating in hail at the time of the crash. (This variable was originally an attribute choice under the variable “Weather Related Factors.”)

N	Prcnt	Code	Label
2,284	100.0	0	Absent

Variable Name	Format	Type	Length
AFTSleet	AP1U	Numeric	8

Definition: Establishes whether or not the driver was operating in sleet at the time of the crash. (This variable was originally an attribute choice under the variable “Weather Related Factors.”)

N	Prcnt	Code	Label
2,274	99.6	0	Absent
10	0.4	1	Present

Variable Name	Format	Type	Length
OtherWeather	AP1U	Numeric	8

Definition: Establishes whether or not there is a relevant weather related factor that is not described in the other weather variables. (This variable was originally an attribute choice under the variable “Weather Related Factors” and was the “Other (specify):” attribute choice.)

N	Prcnt	Code	Label
2,271	99.4	0	Absent
13	0.6	1	Present

Variable Name	Format	Type	Length
OtherWeatherSpecify	\$50	Char	50

Definition: Documents the “specify” text that was included where the “Other Weather Related Factor” variable (above) was coded as being present for this driver.

N	Prcnt	Code	Label
2,271	99.4	*	
1	0.0	*	It was cloudy outside and the roadway was wet from
1	0.0	*	Misting and roadway wet from prior rain.
1	0.0	*	Temperature at 30 degrees could have been causing
2	0.1	*	There was a prior hail storm that caused the roads
1	0.0	*	Windy conditions
1	0.0	*	misting and road wet from prior rain.

Codebook – FactorAssessment Data Set

N	Prcnt	Code	Label
4	0.2	*	rain-soaked roadway
2	0.1	*	temperature at 30 degrees could have been causing

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Variable Name	Format	Type	Length
EnvironmentCount	AP2U	Numeric	8

Definition: Documents the number of environmental factors that were coded for this vehicle.

N	Prcnt	Code	Label
2,264	99.1	0	0
15	0.7	1	1
5	0.2	9	Unknown

Variable Name	Format	Type	Length
Glare	AP1U	Numeric	8

Definition: Establishes whether or not glare in some form is relevant to the crash for this driver. Examples include headlight glare, sun glare, and reflected glare (i.e. sun reflecting off a windshield or other metal component). (This variable was originally an attribute choice under the variable “Other Environmental Factors.”)

N	Prcnt	Code	Label
2,271	99.4	0	Absent
13	0.6	1	Present

Variable Name	Format	Type	Length
BlowingDebris	AP1U	Numeric	8

Definition: Establishes whether or not this driver is exposed to some form of blowing debris. Examples include paper, cardboard boxes, and tree limbs. (This variable was originally an attribute choice under the variable “Other Environmental Factors.”)

N	Prcnt	Code	Label
2,284	100.0	0	Absent

Variable Name	Format	Type	Length
Smoke	AP1U	Numeric	8

Definition: Establishes whether or not the driver’s view is obscured by the presence of smoke (e.g. smoke from a grass fire, house fire, or forest fire). (This variable was originally an attribute choice under the variable “Other Environmental Factors.”)

N	Prcnt	Code	Label
2,284	100.0	0	Absent

Codebook – FactorAssessment Data Set

Variable Name	Format	Type	Length
AFTNoDriver	AP1U	Numeric	8

Definition: Establishes whether or not there was no driver in the driver's seated position at the time of the crash. (This variable was originally an attribute choice under the variable "Weather Related Factors.")

N	Prcnt	Code	Label
2,284	100.0	0	Absent

Variable Name	Format	Type	Length
OtherChangeSpecify	AP1U	Numeric	8

Definition: Establishes whether or not the driver experiences a problem as a result of a sudden change in ambience. (This variable was originally an attribute choice under the variable "Other Environmental Factors" and was the "Other Sudden Change In Ambience (specify):" attribute choice.)

N	Prcnt	Code	Label
2,282	99.9	0	Absent
2	0.1	1	Present

Codebook – GeneralVehicle Data Set

GeneralVehicle Data Set

The GeneralVehicle data set contains general information about the vehicle. This material is provided as one record per vehicle.

The GeneralVehicle data set contains the variables CaseID, PSU, PSUStrat, RATWeight, and VehicleNumber. CaseID and VehicleNumber uniquely identify each record in this data set and should be used to merge the GeneralVehicle data set with other vehicle level data sets.

Variable Name	Format	Type	Length
GVEMake	ML241F	Numeric	8

Definition: Identifies the vehicle make for this vehicle.

N	Prcnt	Code	Label
18	0.8	2	JEEP / KAISER-JEEP
11	0.5	6	CHRYSLER
64	2.8	7	DODGE
28	1.2	9	PLYMOUTH
2	0.1	10	EAGLE
266	11.6	12	FORD
12	0.5	13	LINCOLN
23	1.0	14	MERCURY
16	0.7	18	BUICK
18	0.8	19	CADILLAC
174	7.6	20	CHEVROLET
17	0.7	21	OLDSMOBILE
29	1.3	22	PONTIAC
73	3.2	23	GMC
10	0.4	24	SATURN
1	0.0	25	GRUMMAN
10	0.4	30	VOLKSWAGEN
3	0.1	32	AUDI
8	0.4	34	BMW
57	2.5	35	NISSAN / DATSUN
85	3.7	37	HONDA
25	1.1	38	ISUZU
16	0.7	41	MAZDA
7	0.3	42	MERCEDES BENZ
2	0.1	47	SAAB
6	0.3	48	SUBARU
96	4.2	49	TOYOTA
100	4.4	51	VOLVO
30	1.3	52	MITSUBISHI
3	0.1	53	SUZUKI
11	0.5	54	ACURA

Codebook – GeneralVehicle Data Set

N	Prcnt	Code	Label
13	0.6	55	HYUNDAI
1	0.0	56	MERKUR
5	0.2	58	INFINITI
6	0.3	59	LEXUS
1	0.0	62	LAND ROVER
6	0.3	63	KIA
4	0.2	72	HARLEY-DAVIDSON
2	0.1	73	KAWASAKI
1	0.0	79	OTHER MAKE MOTORED CYCLE
1	0.0	80	BROCKWAY
319	14.0	82	FREIGHTLINER/WHITE
177	7.7	84	INTERNATIONAL HARVESTER/NAVISTAR
154	6.7	85	KENWORTH
159	7.0	86	MACK
148	6.5	87	PETERBILT
54	2.4	98	OTHER MAKE (med/heavy truck/bus or "other")
12	0.5	99	UNKNOWN MANUFACTURER

Variable Name

GVEModel

Format	Type	Length
BEST8	Numeric	8

Definition: Identifies the vehicle model for this vehicle.

N	Prcnt	Code	Label
14	0.6	1	1
17	0.7	2	2
27	1.2	3	3
6	0.3	4	4
8	0.4	5	5
8	0.4	6	6
7	0.3	7	7
1	0.0	8	8
13	0.6	9	9
3	0.1	10	10

8	0.4	880	880
1,062	46.5	881	881
27	1.2	882	882
73	3.2	883	883
5	0.2	884	884
5	0.2	890	890
19	0.8	898	898

Codebook – GeneralVehicle Data Set

N	Prcnt	Code	Label
9	0.4	899	899
7	0.3	988	988
2	0.1	998	998

Variable Name	Format	Type	Length
GVEYear	OT28F	Numeric	8

Definition: Establishes the model year that the vehicle was manufactured.

N	Prcnt	Code	Label
1	0.0	1957	1957
1	0.0	1967	1967
1	0.0	1971	1971
1	0.0	1972	1972
1	0.0	1973	1973
3	0.1	1974	1974
1	0.0	1975	1975
5	0.2	1976	1976
2	0.1	1977	1977
7	0.3	1978	1978
13	0.6	1979	1979
5	0.2	1980	1980
9	0.4	1981	1981
8	0.4	1982	1982
13	0.6	1983	1983
28	1.2	1984	1984
35	1.5	1985	1985
31	1.4	1986	1986
51	2.2	1987	1987
60	2.6	1988	1988
85	3.7	1989	1989
88	3.9	1990	1990
70	3.1	1991	1991
89	3.9	1992	1992
97	4.2	1993	1993
135	5.9	1994	1994
146	6.4	1995	1995
150	6.6	1996	1996
157	6.9	1997	1997
194	8.5	1998	1998
201	8.8	1999	1999
244	10.7	2000	2000

Codebook – GeneralVehicle Data Set

N	Prcnt	Code	Label
171	7.5	2001	2001
93	4.1	2002	2002
64	2.8	2003	2003
9	0.4	2004	2004
15	0.7	9999	Unknown

Variable Name
GVEBodyType

Format Type Length
ML281F Numeric 8

Definition: Identifies the body type for this vehicle.

N	Prcnt	Code	Label
14	0.6	1	Convertible
124	5.4	2	2-door sedan, hardtop, coupe
40	1.8	3	3-door/2-door hatchback
397	17.4	4	4-door sedan, hardtop
12	0.5	5	5-door/4-door hatchback
16	0.7	6	Station Wagon
10	0.4	9	Unknown automobile type
105	4.6	14	Compact utility
18	0.8	15	Large utility
7	0.3	16	Utility station wagon
2	0.1	17	3-door coupe
1	0.0	19	Utility, unknown body type
65	2.8	20	Minivan
36	1.6	21	Large van
1	0.0	24	Van based school bus
2	0.1	28	Other van type
2	0.1	29	Unknown van type
62	2.7	30	Compact pickup
96	4.2	31	Large pickup
1	0.0	32	Pickup with slide-in camper
1	0.0	39	Unknown pickup style light conventional truck type
7	0.3	40	Cab chassis based
1	0.0	48	Unknown light truck type
1	0.0	50	School bus
6	0.3	58	Other bus type
3	0.1	60	Step van
56	2.5	61	Single unit straight truck(4500kg<GVWR<=8850kg)
52	2.3	62	Single unit straight truck(8850kg<GVWR<=12000kg)
229	10.0	63	Single unit straight truck (GVWR > 12,000 kgs)
14	0.6	64	Single unit straight truck (GVWR unknown)

Codebook – GeneralVehicle Data Set

N	Prcnt	Code	Label
1	0.0	65	Medium/heavy truck based motorhome
30	1.3	67	Truck-tractor with no cargo trailer
794	34.8	68	Truck-tractor pulling one trailer
58	2.5	69	Truck-tractor pulling two or more trailers
5	0.2	78	Unknown medium/heavy truck type
1	0.0	79	Unknown truck type (light/medium/heavy)
11	0.5	80	Motorcycle
1	0.0	88	Other motored cycle (minibike, motorscooter)
1	0.0	93	Construction equipment other than trucks
1	0.0	97	Other vehicle type

Variable Name	Format	Type	Length
GVEVehicleClass	ML31F	Numeric	8

Definition: Establishes the class of vehicle. This classification is largely based on size.

N	Prcnt	Code	Label
130	5.7	1	Subcompact/mini (wheelbase < 254 cm)
203	8.9	2	Compact (wheelbase >= 254 but < 265 cm)
185	8.1	3	Intermediate (wheelbase >= 265 but < 278 cm)
56	2.5	4	Full Size (wheelbase >= 278 but < 291 cm)
30	1.3	5	Largest (wheelbase >= 291 cm)
11	0.5	9	Unknown passenger car size
105	4.6	14	Compact utility vehicle
18	0.8	15	Large utility vehicle (<= 4,536 kgs GVWR)
7	0.3	16	Utility station wagon (<= 4,536 kgs GVWR)
1	0.0	19	Unknown utility type
65	2.8	20	Minivan (<= 4,536 kgs GVWR)
36	1.6	21	Large van (<= 4,536 kgs GVWR)
1	0.0	24	Van Based school bus (<= 4,536 kgs GVWR)
2	0.1	28	Other van type (<= 4,536 kgs GVWR)
2	0.1	29	Unknown van type (<= 4,536 kgs GVWR)
62	2.7	30	Compact pickup truck (<= 4,536 kgs GVWR)
96	4.2	31	Large pickup truck (<= 4,536 kgs GVWR)
1	0.0	38	Other pickup truck type (<= 4,536 kgs GVWR)
1	0.0	39	Unknown pick up truck (<=4,536 kgs GVWR)
7	0.3	45	Other light truck (<= 4,536 kgs GVWR)
1	0.0	48	Unknown light truck type (<= 4,536 kgs GVWR)
1	0.0	50	School bus (excludes van based)(>4,536 kgs GVWR)
6	0.3	58	Other bus (>4,536 kgs GVWR)
357	15.6	60	Truck (>4,536 kgs GVWR)
30	1.3	67	Tractor without trailer

Codebook – GeneralVehicle Data Set

N	Prcnt	Code	Label
850	37.2	68	Tractor-trailer(s)
5	0.2	78	Unknown medium/heavy truck type
1	0.0	79	Unknown light/medium/heavy truck type
12	0.5	80	Motored cycle
2	0.1	90	Other vehicle

Variable Name	Format	Type	Length
GVECurbWeight	OT29F	Numeric	8

Definition: Establishes the weight in kilograms of the vehicle as specified by the manufacturer.

N	Prcnt	Code	Label
1	0.0	349	349
1	0.0	696	696
1	0.0	710	710
1	0.0	820	820
1	0.0	831	831
3	0.1	885	885
1	0.0	890	890
1	0.0	893	893
1	0.0	912	912
1	0.0	921	921

1	0.0	17010	17010
1	0.0	17237	17237
1	0.0	17350	17350
1	0.0	17950	17950
1	0.0	18280	18280
1	0.0	18300	18300
1	0.0	19573	19573
1	0.0	19913	19913
1	0.0	28576	28576
201	8.8	999999	Unknown

Variable Name	Format	Type	Length
GVEWeightSource	ML282F	Numeric	8

Definition: Establishes the source for the weight of the vehicle as reported in the variable “Curb Weight.”

N	Prcnt	Code	Label
201	8.8	0	Curb weight unknown
27	1.2	1	AAMA

Codebook – GeneralVehicle Data Set

N	Prcnt	Code	Label
558	24.4	2	Automotive News
204	8.9	3	Branham Automobile Reference Book
139	6.1	4	Gasoline Truck, Import Truck, and Diesel Truck Index
55	2.4	8	Other (specify)
1,100	48.2	99	Unknown curb weight source

Variable Name	Format	Type	Length
GVECargoWeight	OT29F	Numeric	8

Definition: Documents the weight in kilograms of any cargo that is present in the vehicle at the time of the crash. This number does not include the weight of any occupants in the vehicle. For CDS vehicles that are towing a trailer, this weight represents the weight of the trailer plus its cargo. To obtain the cargo weight (only) of cargo being transported by heavy trucks, the variable CMBDCargoWeight (Total Cargo Weight) in the TruckExterior Data Set should be used.

N	Prcnt	Code	Label
919	40.2	0	0
5	0.2	1	1
6	0.3	2	2
1	0.0	3	3
39	1.7	5	5
9	0.4	7	7
26	1.1	9	9
3	0.1	10	10
16	0.7	11	11
1	0.0	13	13

1	0.0	39009	39009
1	0.0	39010	39010
1	0.0	39508	39508
1	0.0	41822	41822
1	0.0	43872	43872
1	0.0	45360	45360
1	0.0	48988	48988
1	0.0	49743	49743
1	0.0	63504	63504
449	19.7	999999	Unknown

Codebook – GeneralVehicle Data Set

Variable Name	Format	Type	Length
GVECargoSource	ML283F	Numeric	8

Definition: Establishes the source from which the value reported in the variable “Cargo Weight” was obtained.

N	Prcnt	Code	Label
447	19.6	0	Cargo weight unknown
798	34.9	1	Vehicle inspection
72	3.2	2	Interview
1	0.0	4	Tow Yard Operator
9	0.4	8	Other (specify)
957	41.9	99	Unknown cargo weight source

Variable Name	Format	Type	Length
GVEVIN	\$10	Char	10

Definition: Identifies the Vehicle Identification Number (VIN) for this vehicle.

N	Prcnt	Code	Label
1	0.0	*	107294N
1	0.0	*	10T3R0HT5T
1	0.0	*	10T3R2LA4E
1	0.0	*	10T9P1B26H
1	0.0	*	133671
1	0.0	*	1582028838
1	0.0	*	168182S
1	0.0	*	19UUA566X1
1	0.0	*	1A9TAC6M6X
1	0.0	*	1B3AP6436R

1	0.0	*	WVWMA23B4Y
1	0.0	*	WVWRB11G3K
1	0.0	*	YS3CN65M6R
1	0.0	*	YS3DD58B3V
1	0.0	*	YV1AX8842G
1	0.0	*	YV1FX8845K
1	0.0	*	YV1GA8746L
1	0.0	*	YV1LS5574W
1	0.0	*	YV1LS5826V
1	0.0	*	YV1LZ5648W

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Codebook – GeneralVehicle Data Set

Variable Name	Format	Type	Length
GVESpecialUse	ML1326F	Numeric	8

Definition: Establishes any uses for the vehicle outside of personal use.

N	Prcnt	Code	Label
1,003	43.9	0	No Special Use
5	0.2	1	Taxi
2	0.1	2	Vehicle used as a school bus
5	0.2	5	Police
2	0.1	6	Ambulance
4	0.2	9	Unknown
1,263	55.3	88	Not a light motor vehicle

Variable Name	Format	Type	Length
GVEInspection	ML177F	Numeric	8

Definition: Documents the type of inspection completed for this vehicle.

N	Prcnt	Code	Label
125	5.5	0	No Inspection
2	0.1	1	Vehicle fully repaired -no damage evident
626	27.4	2	Partial inspection (specify)
1,519	66.5	3	Complete Inspection
12	0.5	8	Non qualifying vehicle

Variable Name	Format	Type	Length
GVEInspectionDate	\$OT32F	Char	10

Definition: Documents the date that the vehicle was inspected by the researcher.

N	Prcnt	Code	Label
44	1.9	*	2001-01-01
34	1.5	*	2001-02-01
56	2.5	*	2001-03-01
59	2.6	*	2001-04-01
59	2.6	*	2001-05-01
68	3.0	*	2001-06-01
52	2.3	*	2001-07-01
58	2.5	*	2001-08-01
41	1.8	*	2001-09-01
81	3.5	*	2001-10-01
56	2.5	*	2001-11-01
39	1.7	*	2001-12-01
67	2.9	*	2002-01-01

Codebook – GeneralVehicle Data Set

N	Prcnt	Code	Label
67	2.9	*	2002-02-01
94	4.1	*	2002-03-01
84	3.7	*	2002-04-01
72	3.2	*	2002-05-01
67	2.9	*	2002-06-01
41	1.8	*	2002-07-01
68	3.0	*	2002-08-01
59	2.6	*	2002-09-01
63	2.8	*	2002-10-01
88	3.9	*	2002-11-01
52	2.3	*	2002-12-01
59	2.6	*	2003-01-01
55	2.4	*	2003-02-01
86	3.8	*	2003-03-01
62	2.7	*	2003-04-01
62	2.7	*	2003-05-01
69	3.0	*	2003-06-01
56	2.5	*	2003-07-01
45	2.0	*	2003-08-01
30	1.3	*	2003-09-01
59	2.6	*	2003-10-01
43	1.9	*	2003-11-01
48	2.1	*	2003-12-01
3	0.1	*	2004-01-01
1	0.0	*	2004-05-01
12	0.5	7777-77-77	Not qualifying vehicle
125	5.5	8888-88-88	Not inspected

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Variable Name	Format	Type	Length
GVEPARSevCode	ML196F	Numeric	8

Definition: Documents the highest injury severity code in the vehicle, as reported by police on the Police Accident Report (PAR).

N	Prcnt	Code	Label
886	38.8	0	O - No injury
296	13.0	1	C - Possible injury
430	18.8	2	B - Non-incapacitating injury
365	16.0	3	A - Incapacitating injury
214	9.4	4	K - Killed
11	0.5	5	U - Injury, severity unknown

Codebook – GeneralVehicle Data Set

N	Prcnt	Code	Label
3	0.1	6	Died prior to crash
79	3.5	9	Unknown

Variable Name	Format	Type	Length
GVERESsevCode	ML196F	Numeric	8

Definition: Documents the highest injury severity code in the vehicle, as determined by injury coding and case narratives. This code is based on information obtained from medical records and/or case narratives and may differ from the police-reported injury severity code.

N	Prcnt	Code	Label
878	38.4	0	O - No injury
40	1.8	1	C - Possible injury
754	33.0	2	B - Non-incapacitating injury
320	14.0	3	A - Incapacitating injury
221	9.7	4	K - Killed
66	2.9	5	U - Injury, severity unknown
5	0.2	6	Died prior to crash

Variable Name	Format	Type	Length
VINMake	\$OT31F	Char	10

Definition: Created by running the vehicle's Vehicle Identification Number (VIN) through the PCVINA computer program.

N	Prcnt	Code	Label
162	7.1	999999999	Unknown
10	0.4	*	ACUR
1	0.0	*	AMER
3	0.1	*	AUDI
1	0.0	*	AUTO
7	0.3	*	BMW
16	0.7	*	BUIC
17	0.7	*	CADI
152	6.7	*	CHEV
12	0.5	*	CHRY
1	0.0	*	DATS
61	2.7	*	DODG
2	0.1	*	EGIL
245	10.7	*	FORD
308	13.5	*	FRHT
10	0.4	*	GEO
55	2.4	*	GMC
4	0.2	*	HD

Codebook – GeneralVehicle Data Set

N	Prcnt	Code	Label
1	0.0	*	HINO
78	3.4	*	HOND
13	0.6	*	HYUN
4	0.2	*	INFI
169	7.4	*	INTL
25	1.1	*	ISU
17	0.7	*	JEEP
2	0.1	*	KAWK
5	0.2	*	KIA
147	6.4	*	KW
6	0.3	*	LEXS
12	0.5	*	LINC
1	0.0	*	LNDR
146	6.4	*	MACK
15	0.7	*	MAZD
22	1.0	*	MERC
1	0.0	*	MERK
7	0.3	*	MERZ
28	1.2	*	MITS
51	2.2	*	NISS
16	0.7	*	OLDS
3	0.1	*	OSHK
28	1.2	*	PLYM
28	1.2	*	PONT
137	6.0	*	PTRB
2	0.1	*	SAA
16	0.7	*	STRG
10	0.4	*	STRN
6	0.3	*	SUBA
2	0.1	*	SUZI
84	3.7	*	TOYT
8	0.4	*	VOLK
75	3.3	*	VOLV
34	1.5	*	WHGM
5	0.2	*	WHIT
13	0.6	*	WSTR

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Codebook – GeneralVehicle Data Set

Variable Name	Format	Type	Length
VINModel	\$OT31F	Char	10

Definition: Created by running the vehicle's Vehicle Identification Number (VIN) through the PCVINA computer program.

N	Prcnt	Code	Label
1	0.0	*	19E
2	0.1	*	200
7	0.3	*	20S
1	0.0	*	240
1	0.0	*	250
1	0.0	*	28S
1	0.0	*	2SE
1	0.0	*	2SS
1	0.0	*	3/5
1	0.0	*	30C

4	0.2	*	WIN
1	0.0	*	XGU
1	0.0	*	XGX
2	0.1	*	XLE
7	0.3	*	XPD
1	0.0	*	XR4
2	0.1	*	Z28
1	0.0	*	Z9B
2	0.1	*	ZCH
2	0.1	*	ZXS

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Variable Name	Format	Type	Length
VINYear	OT28F	Numeric	8

Definition: Created by running the vehicle's Vehicle Identification Number (VIN) through the PCVINA computer program.

N	Prcnt	Code	Label
8	0.4	1981	1981
8	0.4	1982	1982
11	0.5	1983	1983
26	1.1	1984	1984
34	1.5	1985	1985
31	1.4	1986	1986
46	2.0	1987	1987
58	2.5	1988	1988

Codebook – GeneralVehicle Data Set

N	Prcnt	Code	Label
81	3.5	1989	1989
83	3.6	1990	1990
67	2.9	1991	1991
86	3.8	1992	1992
94	4.1	1993	1993
125	5.5	1994	1994
142	6.2	1995	1995
147	6.4	1996	1996
148	6.5	1997	1997
190	8.3	1998	1998
197	8.6	1999	1999
236	10.3	2000	2000
163	7.1	2001	2001
88	3.9	2002	2002
63	2.8	2003	2003
7	0.3	2004	2004
145	6.3	9999	Unknown

Variable Name	Format	Type	Length
Series	\$OT66F	Char	3

Definition: Created by running the vehicle's Vehicle Identification Number (VIN) through the PCVINA computer program.

N	Prcnt	Code	Label
5	0.2	*	150
5	0.2	*	15V
1	0.0	*	211
1	0.0	*	22S
1	0.0	*	237
3	0.1	*	250
4	0.2	*	257
1	0.0	*	25B
6	0.3	*	25V
2	0.1	*	267

21	0.9	*	WGM
24	1.1	*	WIA
3	0.1	*	WLX
2	0.1	*	WSD
1	0.0	*	WWG
2	0.1	*	XLL
3	0.1	*	XLS

Codebook – GeneralVehicle Data Set

N	Prcnt	Code	Label
2	0.1	*	XSC
2	0.1	*	XTR
5	0.2	*	XWX

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Variable Name	Format	Type	Length
VINBodyType	\$OT31F	Char	10

Definition: Created by running the vehicle's Vehicle Identification Number (VIN) through the PCVINA computer program.

N	Prcnt	Code	Label
14	0.6	*	2D
38	1.7	*	2H
2	0.1	*	2L
1	0.0	*	2P
1	0.0	*	2T
12	0.5	*	2W
2	0.1	*	3C
1	0.0	*	3P
1	0.0	*	4B
26	1.1	*	4C
370	16.2	*	4D
8	0.4	*	4H
7	0.3	*	4P
98	4.3	*	4W
166	7.3	999999999	Unknown
1	0.0	*	AC
2	0.1	*	BU
20	0.9	*	CB
122	5.3	*	CC
13	0.6	*	CG
2	0.1	*	CM
96	4.2	*	CP
11	0.5	*	CV
9	0.4	*	CW
16	0.7	*	DP
712	31.2	*	DS
4	0.2	*	EC
16	0.7	*	ES
3	0.1	*	FB
3	0.1	*	FC
3	0.1	*	GL

Codebook – GeneralVehicle Data Set

N	Prcnt	Code	Label
12	0.5	*	IC
3	0.1	*	MP
3	0.1	*	MY
24	1.1	*	PC
80	3.5	*	PK
13	0.6	*	PS
2	0.1	*	RD
9	0.4	*	RS
44	1.9	*	SV
16	0.7	*	SW
33	1.4	*	TB
30	1.3	*	TL
217	9.5	*	TM
11	0.5	*	UT
4	0.2	*	VN
3	0.1	*	YY

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Variable Name	Format	Type	Length
Roof1	\$40	Char	40

Definition: Created by running the vehicle's Vehicle Identification Number (VIN) through the PCVINA computer program.

N	Prcnt	Code	Label
2	0.1	*	Manual sun/ moon roof
876	38.4	*	None/not available
3	0.1	*	Other/unknown
44	1.9	*	Power sun/moon roof
4	0.2	*	Removable panels
1	0.0	*	Removable roof
1	0.0	*	Retractable roof panel
1,353	59.2	*	Unknown

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Variable Name	Format	Type	Length
Roof2	\$40	Char	40

Definition: Created by running the vehicle's Vehicle Identification Number (VIN) through the PCVINA computer program.

N	Prcnt	Code	Label
66	2.9	*	Manual sun/ moon roof
3	0.1	*	None/not available
4	0.2	*	Other/unknown

Codebook – GeneralVehicle Data Set

N	Prcnt	Code	Label
278	12.2	*	Power sun/moon roof
10	0.4	*	Removable panels
2	0.1	*	Removable roof
1,921	84.1	*	Unknown

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Variable Name	Format	Type	Length
Roof3	\$40	Char	40

Definition: Created by running the vehicle's Vehicle Identification Number (VIN) through the PCVINA computer program.

N	Prcnt	Code	Label
3	0.1	*	Power sun/moon roof
2	0.1	*	Removable panels
2,279	99.8	*	Unknown

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Variable Name	Format	Type	Length
FrontWheelDrive	\$OT67F	Char	5

Definition: Created by running the vehicle's Vehicle Identification Number (VIN) through the PCVINA computer program.

N	Prcnt	Code	Label
1,582	69.3	8	Not Applicable/No value returned by PCVINA
145	6.3	9	Unknown
93	4.1	N	N
464	20.3	Y	Y

Variable Name	Format	Type	Length
FourWheelDrive	\$OT67F	Char	5

Definition: Created by running the vehicle's Vehicle Identification Number (VIN) through the PCVINA computer program.

N	Prcnt	Code	Label
1	0.0	*	*
1,582	69.3	8	Not Applicable/No value returned by PCVINA
145	6.3	9	Unknown
549	24.0	N	N
7	0.3	Y	Y

Codebook – GeneralVehicle Data Set

Variable Name	Format	Type	Length
GVERestraintType	\$50	Char	50

Definition: Created by running the vehicle's Vehicle Identification Number (VIN) through the PCVINA computer program.

N	Prcnt	Code	Label
147	6.4	*	Active (manual) belts
78	3.4	*	Driver front air bag/passenger side active belt
6	0.3	*	Driver front air bag/passenger side belt unknown
20	0.9	*	Driver front air bag/passenger side passive belt
36	1.6	*	Dual air bag front/active belts w/passenger side d
7	0.3	*	Dual air bags front and side/active belts w/automa
43	1.9	*	Dual air bags front and sides/active belts
2	0.1	*	Dual air bags front, head and sides/active belts
6	0.3	*	Dual air bags front, head, and side/active belts w
1	0.0	*	Dual air bags front, head, and side/active belts/r
1	0.0	*	Dual air bags front/side air bag, driver-side only
317	13.9	*	Dual front air bags/active belts
6	0.3	*	Dual front air bags/belt system unknown
1	0.0	*	Dual front air bags/passive belts
67	2.9	*	No restraint information available
77	3.4	*	Passive (automatic) belts
1,469	64.3	*	Unknown

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Variable Name	Format	Type	Length
Carburetion	\$OT66F	Char	3

Definition: Created by running the vehicle's Vehicle Identification Number (VIN) through the PCVINA computer program.

N	Prcnt	Code	Label
1	0.0	1	1
17	0.7	2	2
2	0.1	3	3
4	0.2	4	4
1,572	68.8	888	Not Applicable/No value returned by PCVINA
147	6.4	999	Unknown
522	22.9	F	F
1	0.0	J	J
1	0.0	S	S
13	0.6	T	T
4	0.2	Z	Z

Codebook – GeneralVehicle Data Set

Variable Name	Format	Type	Length
FuelType	\$15	Char	15

Definition: Created by running the vehicle's Vehicle Identification Number (VIN) through the PCVINA computer program.

N	Prcnt	Code	Label
1,169	51.2	*	Diesel
934	40.9	*	Gas
181	7.9	*	Unknown

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Variable Name	Format	Type	Length
VINWeight	BEST8	Numeric	8

Definition: Created by running the vehicle's Vehicle Identification Number (VIN) through the PCVINA computer program.

N	Prcnt	Code	Label
739	32.4	0	0
243	10.6	1	1
132	5.8	2	2
17	0.7	3	3
21	0.9	4	4
3	0.1	5	5
68	3.0	6	6
99	4.3	7	7
962	42.1	8	8

Variable Name	Format	Type	Length
VehicleType	\$20	Char	20

Definition: Created by running the vehicle's Vehicle Identification Number (VIN) through the PCVINA computer program.

N	Prcnt	Code	Label
9	0.4	*	Motorcycle
566	24.8	*	Passenger Vehicle
1,547	67.7	*	Truck
162	7.1	*	Unknown

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Codebook – GeneralVehicle Data Set

Variable Name	Format	Type	Length
WheelConfig	OT25F	Numeric	8

Definition: Created by running the vehicle's Vehicle Identification Number (VIN) through the PCVINA computer program.

N	Prcnt	Code	Label
472	20.7	42	42
152	6.7	44	44
3	0.1	62	62
895	39.2	64	64
1	0.0	66	66
4	0.2	84	84
1	0.0	86	86
756	33.1	999	Unknown

Variable Name	Format	Type	Length
DayRunningLights	\$20	Char	20

Definition: Created by running the vehicle's Vehicle Identification Number (VIN) through the PCVINA computer program.

N	Prcnt	Code	Label
699	30.6	*	Not available
49	2.1	*	Optional
154	6.7	*	Standard
1,382	60.5	*	Unknown

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Variable Name	Format	Type	Length
BaseWeight	OT28F	Numeric	8

Definition: Created by running the vehicle's Vehicle Identification Number (VIN) through the PCVINA computer program. In kilograms.

N	Prcnt	Code	Label
1	0.0	383	383
1	0.0	397	397
1	0.0	450	450
1	0.0	593	593
1	0.0	598	598
4	0.2	999	999
1	0.0	1565	1565
1	0.0	1830	1830
1	0.0	1860	1860
1	0.0	1867	1867

Codebook – GeneralVehicle Data Set

N	Prcnt	Code	Label
2	0.1	3911	3911
1	0.0	3948	3948
1	0.0	3958	3958
1	0.0	3996	3996
1	0.0	4001	4001
1	0.0	4024	4024
2	0.1	4028	4028
1	0.0	4128	4128
1	0.0	4145	4145
1,728	75.7	9999	Unknown

Variable Name	Format	Type	Length
GVEMotorcycleDisplacement	OT30F	Numeric	8

Definition: Created by running the vehicle's Vehicle Identification Number (VIN) through the PCVINA computer program.

N	Prcnt	Code	Label
2	0.1	600	600
1	0.0	700	700
1	0.0	900	900
1	0.0	1200	1200
2	0.1	1340	1340
1	0.0	1450	1450
1	0.0	1500	1500
2,272	99.5	88888887	Not applicable
3	0.1	99999999	Unknown

Variable Name	Format	Type	Length
GVETravelSpeed	OT28F	Numeric	8

Definition: Documents the travel speed (kph) of the vehicle (prior to the crash) as reported by police on the Police Accident Report (PAR).

N	Prcnt	Code	Label
220	9.6	0	0
1	0.0	5	5
15	0.7	8	8
4	0.2	11	11
2	0.1	13	13
27	1.2	16	16
1	0.0	19	19
1	0.0	20	20

Codebook – GeneralVehicle Data Set

N	Prcnt	Code	Label
1	0.0	22	22
1	0.0	23	23

2	0.1	124	124
1	0.0	126	126
5	0.2	129	129
1	0.0	137	137
1	0.0	145	145
1	0.0	153	153
1	0.0	156	156
1	0.0	161	161
1	0.0	177	177
1	0.0	241	241
1,406	61.6	9999	Unknown

Variable Name	Format	Type	Length
GVEPostedSpeed	OT28F	Numeric	8

Definition: Establishes the posted speed limit in effect for the crash location (kph).

N	Prcnt	Code	Label
6	0.3	0	0
1	0.0	16	16
4	0.2	24	24
4	0.2	32	32
44	1.9	40	40
58	2.5	48	48
174	7.6	56	56
135	5.9	64	64
278	12.2	72	72
163	7.1	80	80
694	30.4	89	89
236	10.3	97	97
344	15.1	105	105
99	4.3	113	113
31	1.4	121	121
13	0.6	9999	Unknown

Codebook – GeneralVehicle Data Set

Variable Name	Format	Type	Length
DriverPresent	ML274F	Numeric	8

Definition: Serves as a flag to identify driverless motor vehicles in-transport.

N	Prcnt	Code	Label
24	1.1	0	No Driver Present
2,260	98.9	1	Yes

Variable Name	Format	Type	Length
PARAlcoholPresent	ML191F	Numeric	8

Definition: Establishes whether or not the police report indicates that the driver had consumed an alcoholic beverage. Presence is not an indication that alcohol was in any way a cause of the crash, even though it might have been. Finding opened or unopened alcoholic beverages in the vehicle does not by itself constitute presence.

N	Prcnt	Code	Label
1,963	85.9	0	No alcohol present
67	2.9	1	Yes alcohol present
106	4.6	7	Not reported
24	1.1	8	No driver present
124	5.4	9	Unknown

Variable Name	Format	Type	Length
PARAlcoholTest	ML189F	Numeric	8

Definition: Establishes whether or not an alcohol test was administered to this driver.

N	Prcnt	Code	Label
534	23.4	0	Test Performed
2	0.1	95	Test Refused
1,520	66.5	96	None Given
121	5.3	97	BAC test performed, results unknown
24	1.1	98	No driver present
83	3.6	99	Unknown

Variable Name	Format	Type	Length
PARAlcoholTestResult	OT28F	Numeric	8

Definition: Reports the results of any analytical alcohol test conducted on the driver. Sources of information include the police report, medical records, and other official sources. (In percent times 100.)

N	Prcnt	Code	Label
457	20.0	0	0

Codebook – GeneralVehicle Data Set

N	Prcnt	Code	Label
1	0.0	1	1
1	0.0	3	3
1	0.0	10	10
1	0.0	15	15
1	0.0	16	16
1	0.0	40	40
1	0.0	60	60
1	0.0	68	68
1	0.0	70	70

1	0.0	282	282
1	0.0	290	290
1	0.0	292	292
2	0.1	320	320
1	0.0	321	321
1	0.0	350	350
1	0.0	362	362
1	0.0	369	369
24	1.1	8888	Not applicable
1,740	76.2	9999	Unknown

Variable Name
PARTestDelay

Format Type Length
\$OT62F Char 10

Definition: Documents the time delay between the time of the crash and the administration of an alcohol test.

N	Prcnt	Code	Label
1	0.0	*	00:25
1	0.0	*	00:28
1	0.0	*	00:29
2	0.1	*	00:30
1	0.0	*	00:31
1	0.0	*	00:33
2	0.1	*	00:36
1	0.0	*	00:37
1	0.0	*	00:39
1	0.0	*	00:41

1	0.0	*	39:14
1	0.0	*	47:10
1	0.0	*	48:00
1	0.0	*	55:00

Codebook – GeneralVehicle Data Set

N	Prcnt	Code	Label
1	0.0	*	58:48
1	0.0	*	68:12
1	0.0	*	68:30
1,447	63.4	97:97	Not Applicable
6	0.3	98:98	No BAC Test
547	23.9	99:99	Unknown

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Variable Name	Format	Type	Length
PARTestSource	ML1207F	Numeric	8

Definition: Establishes the source of the data provided in the variable “Alcohol Test Results.”

N	Prcnt	Code	Label
1,518	66.5	0	No BAC test/Not applicable
205	9.0	1	Police reported
72	3.2	2	Company reported
231	10.1	3	Medical Record
134	5.9	4	Autopsy
7	0.3	5	Lay Coroner
24	1.1	6	No driver present
20	0.9	8	Other (specify)
73	3.2	9	Unknown

Variable Name	Format	Type	Length
PARDrugsPresent	ML192F	Numeric	8

Definition: Establishes whether or not the police report indicated that the driver had ingested an “other” drug prior to the crash. An “other” drug includes all prescription, over-the-counter medications, as well as “illicit” (illegal) drugs. Police-reported presence of an “other” drug is not an indication that the drug usage was in any way the cause of the crash, even though it might have been. Finding other drugs in the vehicle does not by itself constitute presence.

N	Prcnt	Code	Label
1,671	73.2	0	No other drug(s) present
30	1.3	1	Yes other drug(s) present
453	19.8	7	Not reported
24	1.1	8	No driver present
106	4.6	9	Unknown

Codebook – GeneralVehicle Data Set

Variable Name	Format	Type	Length
ZipCode	\$OT33F	Char	5

Definition: Documents the 5-digit zip code for the driver's primary residence.

N	Prcnt	Code	Label
1	0.0	*	01607
1	0.0	*	02842
1	0.0	*	03431
1	0.0	*	04730
1	0.0	*	05676
1	0.0	*	06040
1	0.0	*	06812
1	0.0	*	07055
1	0.0	*	07073
1	0.0	*	07109

1	0.0	*	98901
1	0.0	*	98902
2	0.1	*	98926
1	0.0	*	98951
1	0.0	*	99114
1	0.0	*	99115
1	0.0	*	99216
1	0.0	*	99357
24	1.1	99998	No driver present
27	1.2	99999	Unknown

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Variable Name	Format	Type	Length
EthnicOrigin	ML273F	Numeric	8

Definition: Documents the self-identification of race/ethnic origin by the driver.

N	Prcnt	Code	Label
1,264	55.3	1	White (non-Hispanic)
278	12.2	2	Black (non-Hispanic)
252	11.0	3	White (Hispanic)
14	0.6	4	Black (Hispanic)
13	0.6	5	American Indian, Eskimo or Aleut
50	2.2	6	Asian or Pacific Islander
18	0.8	7	Other (specify)
24	1.1	8	No driver present
371	16.2	9	Unknown

Codebook – GeneralVehicle Data Set

Variable Name	Format	Type	Length
CMVCrashes	OT27F	Numeric	8

Definition: Reports the number of crashes this driver has been involved in while driving a Commercial Motor Vehicle (CMV) in the past 5 years, as reported by the Department of Motor Vehicles (DMV).

N	Prcnt	Code	Label
716	31.3	0	0
73	3.2	1	1
15	0.7	2	2
7	0.3	3	3
584	25.6	88	No official records found
24	1.1	97	No driver present
835	36.6	98	Not a CMV driver
30	1.3	99	Unknown

Variable Name	Format	Type	Length
CMVViolations	OT27F	Numeric	8

Definition: Reports the number of Commercial Motor Vehicle (CMV) violations received by this driver in the past 5 years, as reported by the Department of Motor Vehicles (DMV).

N	Prcnt	Code	Label
420	18.4	0	0
132	5.8	1	1
65	2.8	2	2
46	2.0	3	3
24	1.1	4	4
18	0.8	5	5
10	0.4	6	6
7	0.3	7	7
6	0.3	8	8
1	0.0	9	9
4	0.2	10	10
1	0.0	11	11
1	0.0	13	13
690	30.2	88	No official records found
24	1.1	97	No driver present
835	36.6	98	Not a CMV driver

Codebook – GeneralVehicle Data Set

Variable Name	Format	Type	Length
NonCMVCrashes	OT27F	Numeric	8

Definition: Reports the number of crashes this driver has been involved in while driving a non-commercial motor vehicle in the past 5 years, as reported by the Department of Motor Vehicles (DMV).

N	Prcnt	Code	Label
700	30.6	0	0
78	3.4	1	1
26	1.1	2	2
4	0.2	3	3
2	0.1	4	4
1	0.0	5	5
584	25.6	88	No official records found
24	1.1	97	No driver present
835	36.6	98	Not a CMV driver
30	1.3	99	Unknown

Variable Name	Format	Type	Length
NonCMVViolations	OT27F	Numeric	8

Definition: Reports the number of violations received by this driver while driving a non-commercial motor vehicle in the past 5 years, as reported by the Department of Motor Vehicles (DMV).

N	Prcnt	Code	Label
229	10.0	0	0
227	9.9	1	1
113	4.9	2	2
57	2.5	3	3
41	1.8	4	4
22	1.0	5	5
18	0.8	6	6
6	0.3	7	7
7	0.3	8	8
3	0.1	9	9
3	0.1	10	10
3	0.1	11	11
1	0.0	12	12
2	0.1	13	13
1	0.0	14	14
1	0.0	16	16
1	0.0	22	22
690	30.2	88	No official records found

Codebook – GeneralVehicle Data Set

N	Prcnt	Code	Label
24	1.1	97	No driver present
835	36.6	98	Not a CMV driver

Variable Name	Format	Type	Length
TotalCrashes	OT27F	Numeric	8

Definition: Reports the total number of crashes this driver has been involved in while driving any type of vehicle in the past 5 years, as reported by the Department of Motor Vehicles (DMV).

N	Prcnt	Code	Label
617	27.0	0	0
135	5.9	1	1
38	1.7	2	2
14	0.6	3	3
3	0.1	4	4
2	0.1	5	5
584	25.6	88	No official records found
24	1.1	97	No driver present
841	36.8	98	Not a CMV driver
26	1.1	99	Unknown

Variable Name	Format	Type	Length
GVETotalViolations	OT27F	Numeric	8

Definition: Reports the total number of violations received by this driver (both CMV and non-CMV) in the past 5 years, as reported by the Department of Motor Vehicles (DMV).

N	Prcnt	Code	Label
495	21.7	0	0
262	11.5	1	1
175	7.7	2	2
102	4.5	3	3
78	3.4	4	4
50	2.2	5	5
31	1.4	6	6
37	1.6	7	7
19	0.8	8	8
15	0.7	9	9
8	0.4	10	10
4	0.2	11	11
3	0.1	12	12
5	0.2	13	13
6	0.3	14	14

Codebook – GeneralVehicle Data Set

N	Prcnt	Code	Label
1	0.0	16	16
1	0.0	18	18
2	0.1	21	21
2	0.1	22	22
1	0.0	23	23
7	0.3	88	No official records found
24	1.1	97	No driver present
937	41.0	98	Not a CMV driver
19	0.8	99	Unknown

Variable Name	Format	Type	Length
PrevViolations	OT27F	Numeric	8

Definition: Reports the total number of violations received by this driver (both CMV and non-CMV) in the years previous to the last 5 years, as reported by the Department of Motor Vehicles (DMV).

N	Prcnt	Code	Label
368	16.1	0	0
118	5.2	1	1
71	3.1	2	2
47	2.1	3	3
35	1.5	4	4
25	1.1	5	5
10	0.4	6	6
12	0.5	7	7
5	0.2	8	8
13	0.6	9	9
4	0.2	10	10
4	0.2	11	11
4	0.2	12	12
5	0.2	13	13
3	0.1	14	14
1	0.0	15	15
2	0.1	16	16
2	0.1	17	17
2	0.1	20	20
2	0.1	21	21
1	0.0	22	22
1	0.0	26	26
690	30.2	88	No official records found
24	1.1	97	No driver present
835	36.6	98	Not a CMV driver

Codebook – GeneralVehicle Data Set

Variable Name	Format	Type	Length
UnkTypeCrashes	OT27F	Numeric	8

Definition: Reports the number of crashes this driver has been involved in while driving an unknown type vehicle in the past 5 years, as reported by the Department of Motor Vehicles (DMV).

N	Prcnt	Code	Label
15	0.7	0	0
1,406	61.6	88	No official records found
24	1.1	97	No driver present
835	36.6	98	Not a CMV driver
4	0.2	99	Unknown

Variable Name	Format	Type	Length
MCMIScrashes	OT27F	Numeric	8

Definition: Reports the number of crashes this driver has been involved in while driving a commercial motor vehicle (CMV), as reported to the Motor Carrier Management Information System (MCMIS).

N	Prcnt	Code	Label
261	11.4	0	0
292	12.8	1	1
48	2.1	2	2
5	0.2	3	3
582	25.5	88	No official records found
24	1.1	97	No driver present
1,072	46.9	98	Not a CMV driver

Variable Name	Format	Type	Length
MCMIScmvViolations	OT27F	Numeric	8

Definition: Represents the total number of types of inspection violations cited to this driver (not including local violations), as reported by the Motor Carrier Management Information System (MCMIS).

N	Prcnt	Code	Label
15	0.7	0	0
66	2.9	1	1
44	1.9	2	2
52	2.3	3	3
55	2.4	4	4
46	2.0	5	5
38	1.7	6	6
36	1.6	7	7

Codebook – GeneralVehicle Data Set

N	Prcnt	Code	Label
38	1.7	8	8
23	1.0	9	9
18	0.8	10	10
17	0.7	11	11
13	0.6	12	12
11	0.5	13	13
8	0.4	14	14
8	0.4	15	15
3	0.1	16	16
5	0.2	17	17
4	0.2	18	18
1	0.0	19	19
2	0.1	20	20
5	0.2	21	21
2	0.1	22	22
1	0.0	23	23
1	0.0	25	25
2	0.1	26	26
1	0.0	30	30
582	25.5	88	No official records found
24	1.1	97	No driver present
1,163	50.9	98	Not a CMV driver

Variable Name	Format	Type	Length
MCMIScmvNonViolations	OT27F	Numeric	8

Definition: Represents the total number of types of “local” inspection violations cited to this driver, as reported by the Motor Carrier Management Information System (MCMIS).

N	Prcnt	Code	Label
203	8.9	0	0
198	8.7	1	1
88	3.9	2	2
22	1.0	3	3
3	0.1	4	4
1	0.0	5	5
582	25.5	88	No official records found
24	1.1	97	No driver present
1,163	50.9	98	Not a CMV driver

Codebook – HazMat Data Set

HazMat Data Set

The HazMat data set contains information on hazardous material cargo for trucks carrying such material at the time of the crash. There is a record for each hazardous material.

The HazMat data set contains the variables CaseID, PSU, PSUStrat, RATWeight, and VehicleNumber. CaseID, VehicleNumber and Material uniquely identify each record in this data set. CaseID and VehicleNumber should be used to merge the HazMat data set with vehicle level data sets.

Variable Name	Format	Type	Length
Material	ML644F	Numeric	8

Definition: Establishes the type of hazardous material that the vehicle was transporting at the time of the crash, as reported by the Truck Inspector. The attributes are FMCSA-generated designations.

N	Prcnt	Code	Label
7	12.3	7	2.1 Flammable Gas
4	7.0	8	2.2 Nonflammable Gas
1	1.8	10	2.1 LPG
21	36.8	17	3 Flammable
2	3.5	20	6.1 (Liquids)
6	10.5	21	3 Combustible Liquid
1	1.8	22	4.1 Flammable Solid
1	1.8	24	4.3 Dangerous wn/Wet
1	1.8	25	5.1 Oxidizer
1	1.8	28	6.1 Zone A
7	12.3	33	8 Corrosive Material
1	1.8	34	8 (PIH) Zone A
2	3.5	36	9 Miscellaneous HM
1	1.8	37	9 (Elev Temp Materl)
1	1.8	41	9 (Hazardous Waste)

Variable Name	Format	Type	Length
Reportable	ML645F	Numeric	8

Definition: Establishes whether or not the hazardous material that was being transported was a reportable quantity, as reported by the Truck Inspector. This is an FMCSA-generated variable.

N	Prcnt	Code	Label
44	77.2	1	Yes
11	19.3	2	No
2	3.5	99	Unknown

Codebook – HazMat Data Set

Variable Name	Format	Type	Length
Waiver	ML646F	Numeric	8

Definition: Establishes whether or not the carrier had a waiver in place for the hazardous material that was being transported at the time of the crash, as reported by the Truck Inspector. This is an FMCSA-generated variable.

N	Prcnt	Code	Label
1	1.8	1	Yes
50	87.7	2	No
6	10.5	99	Unknown

HazMatInsp Data Set

The HazMatInsp data set contains information about hazardous material inspections for trucks carrying such material at the time of the crash. There is a record for each hazardous material inspection.

The HazMatInsp data set contains the variables CaseID, PSU, PSUStrat, RATWeight, and VehicleNumber. CaseID, VehicleNumber and HMIInspection uniquely identify each record in this data set. CaseID and VehicleNumber should be used to merge the HazMatInsp data set with vehicle level data sets.

Variable Name	Format	Type	Length
InspectionExists	\$3	Char	3

Definition: Establishes whether or not the truck was inspected by a certified North American Commercial Vehicle Inspector, and that an official truck inspection document exists.

N	Prcnt	Code	Label
206	5.0	N/A	N/A
2,052	50.0	NO	NO
1,849	45.0	YES	YES

Variable Name	Format	Type	Length
HMIInspection	ML641F	Numeric	8

Definition: A listing of the inspection items required by FMCSA, to be completed by the Truck Inspector, when the truck is transporting hazardous materials. This is an FMCSA-generated variable.

N	Prcnt	Code	Label
172	4.2	1	Ship paper/manifest (HA)
169	4.1	2	HM license (HB)
167	4.1	3	HW registration (HC)
170	4.1	4	Placards (HD)
168	4.1	5	Packaging (HE)
170	4.1	6	Markings (HF)
168	4.1	7	Labels (HG)
169	4.1	8	Loading/securement (HH)
168	4.1	9	Cargo/portable tanks (HI)
170	4.1	10	Safety equipment (HJ)
206	5.0	11	Not applicable
158	3.8	12	(Inspection not required)
2,052	50.0	99	Unknown

Codebook – HazMatinsp Data Set

Variable Name	Format	Type	Length
HMIViolation	ML642F	Numeric	8

Definition: Indicates whether or not the items listed in the variable “Hazardous Material Inspection” are in violation of FMCSA standards. This is an FMCSA-generated variable.

N	Prcnt	Code	Label
111	2.7	1	Yes
1,483	36.1	2	No
2,513	61.2	9	Unknown

Variable Name	Format	Type	Length
HMIOutOfService	ML642F	Numeric	8

Definition: Establishes whether or not a particular violation is classified as “out-of-service.” This variable is related to the “Violation” variable, which is related to the “Hazardous Material Inspection” variable. This is an FMCSA-generated variable.

N	Prcnt	Code	Label
39	0.9	1	Yes
1,381	33.6	2	No
2,687	65.4	9	Unknown

Variable Name	Format	Type	Length
HMIDisposition	ML640F	Numeric	8

Definition: Documents the disposition of each violation (how it was handled) by the Truck Inspector. This variable is related to the “Violation” variable, which is related to the “Hazardous Material Inspection” variable. This is an FMCSA-generated variable.

N	Prcnt	Code	Label
87	2.1	2	Towed/Escorted
3	0.1	3	Other (Specify)
1,644	40.0	8	Not Applicable
2,373	57.8	9	Unknown

Injuries Data Set

The Injuries data set contains all the injury information for occupants of vehicles involved in the crash. Each occupant injury is assigned a sequential injury number. This material is provided as one record per injury.

The Injuries data set contains the variables CaseID, PSU, PSUStrat, RATWeight, VehicleNumber, OccupantNumber and InjuryNumber. OccupantNumber is assigned to each occupant in a vehicle. InjuryNumber is assigned to each occupant's injuries. CaseID, VehicleNumber, OccupantNumber and InjuryNumber uniquely identify each record in this data set. CaseID, VehicleNumber and OccupantNumber should be used to merge the Injuries data set with the Occupant data sets.

Variable Name	Format	Type	Length
OccupantNumber	BEST8	Numeric	8

Definition: Number assigned to each occupant in a vehicle.

N	Prcnt	Code	Label
7,110	79.6	1	1
1,284	14.4	2	2
305	3.4	3	3
145	1.6	4	4
54	0.6	5	5
23	0.3	6	6
8	0.1	7	7
3	0.0	8	8
1	0.0	9	9
2	0.0	10	10
2	0.0	11	11

Variable Name	Format	Type	Length
InjuryNumber	BEST8	Numeric	8

Definition: Number assigned to each occupant's injuries.

N	Prcnt	Code	Label
1,544	17.3	1	1
1,237	13.8	2	2
964	10.8	3	3
751	8.4	4	4
580	6.5	5	5
479	5.4	6	6
391	4.4	7	7
334	3.7	8	8
294	3.3	9	9
252	2.8	10	10

Codebook – Injuries Data Set

N	Prcnt	Code	Label
8	0.1	40	40
8	0.1	41	41
7	0.1	42	42
4	0.0	43	43
4	0.0	44	44
4	0.0	45	45
3	0.0	46	46
2	0.0	47	47
1	0.0	48	48
1	0.0	49	49

Variable Name	Format	Type	Length
OINDescription	\$100	Char	100

Definition: Provides a description of each injury.

N	Prcnt	Code	Label
1	0.0	*	Abdomen Laceration NFS
104	1.2	*	Abdomen Skin abrasion
1	0.0	*	Abdomen Skin avulsion blood loss > 20% by volume
126	1.4	*	Abdomen Skin contusion
2	0.0	*	Abdomen Skin laceration major
3	0.0	*	Abdomen Skin laceration minor
8	0.1	*	Acromioclavicular joint dislocation
1	0.0	*	Acromion fracture
11	0.1	*	Adrenal gland contusion NFS
2	0.0	*	Adrenal gland contusion minor

17	0.2	*	Vault skull fracture complex
1	0.0	*	Vault skull fracture massively depressed
3	0.0	*	Vena Cava laceration major
3	0.0	*	Vena Cava laceration NFS
1	0.0	*	Vena cava, inferior laceration NFS
1	0.0	*	Vulva contusion (OIS Grade I)
7	0.1	*	Wrist (carpus) joint dislocation
1	0.0	*	Wrist (carpus) joint crush
9	0.1	*	Wrist (carpus) joint sprain
11	0.1	*	Zygoma/malar fracture

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Codebook – Injuries Data Set

Variable Name	Format	Type	Length
AISCode	BEST8	Numeric	8

Definition: A listing of the Abbreviated Injury Scale (AIS) codes. The AIS is a numerical method for ranking and comparing injuries by severity.

N	Prcnt	Code	Label
95	1.1	1102021	1102021
216	2.4	1104021	1104021
16	0.2	1106001	1106001
188	2.1	1106021	1106021
4	0.0	1106042	1106042
1	0.0	1108001	1108001
2	0.0	1108021	1108021
14	0.2	1130006	1130006
8	0.1	1150999	1150999
2	0.0	1159997	1159997

6	0.1	9106001	9106001
1	0.0	9192002	9192002
10	0.1	9192023	9192023
2	0.0	9192044	9192044
1	0.0	9920001	9920001
1	0.0	9920021	9920021
1	0.0	9920163	9920163
1	0.0	9920285	9920285
11	0.1	9920305	9920305
16	0.2	9920326	9920326

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Variable Name	Format	Type	Length
Aspect	ML77F	Numeric	8

Definition: Documents the location on the body where the injury occurred.

N	Prcnt	Code	Label
469	5.2	0	Whole Region
2,284	25.6	1	Right
2,665	29.8	2	Left
738	8.3	3	Bilateral
410	4.6	4	Central
244	2.7	5	Anterior/Front/Ventral
544	6.1	6	Posterior/Back/Dorsal
566	6.3	7	Superior/Upper

Codebook – Injuries Data Set

N	Prcnt	Code	Label
681	7.6	8	Inferior/Lower
336	3.8	9	Unknown/Multiple Regions

Variable Name	Format	Type	Length
InjurySourceCat	OT35F	Numeric	8

Definition: Documents the general area of the vehicle in which the source of injury is located.

N	Prcnt	Code	Label
2,007	22.5	1	Front
700	7.8	2	Left Side
278	3.1	3	Right Side
1,086	12.2	4	Interior
178	2.0	5	Air Bag
373	4.2	6	Roof
250	2.8	7	Floor
16	0.2	8	Rear
70	0.8	10	Exterior of Occupant's Vehicle
324	3.6	11	Exterior of Other Motor Vehicle
468	5.2	12	Other Vehicle or Object in the Environment
538	6.0	13	Noncontact Injury
1,044	11.7	14	Injured, unknown source
1,605	18.0	99	Unknown

Variable Name	Format	Type	Length
InjurySource	ML73F	Numeric	8

Definition: Documents the object that caused a particular injury.

N	Prcnt	Code	Label
158	1.8	1	Windshield
9	0.1	3	Sunvisor
315	3.5	4	Steering wheel rim
12	0.1	5	Steering wheel hub/spoke
429	4.8	6	Steering wheel (combination of codes 004 and 005)
21	0.2	7	Steering column, transmission selector lever, other attachment
21	0.2	8	Cellular telephone or CB radio
493	5.5	10	Left instrument panel and below
69	0.8	11	Center instrument panel and below
166	1.9	12	Right instrument panel and below
11	0.1	13	Glove compartment door
213	2.4	14	Knee bolster
65	0.7	15	Win. incl. 1/+ :fr header,A(A1/A2)-pillar,instr. panel,mirror,or

Codebook – Injuries Data Set

N	Prcnt	Code	Label
10	0.1	16	Win. incl. 1/+:fr header,A(A1/A2)-pillar,instr. panel,or
13	0.1	17	Windshield reinforced by exterior object(specify)
2	0.0	19	Other front object(specify)
377	4.2	51	Left side interior surface, excluding hardware or armrests
95	1.1	52	Left side hardware or armrest
50	0.6	53	Left A(A1/A2)-pillar
106	1.2	54	Left B-pillar
27	0.3	56	Left side window glass
32	0.4	57	Left side window frame
11	0.1	59	Lt side win. glass incl. 1/+:frame,win.
2	0.0	60	Other left side object (specify)
149	1.7	101	Right side interior surface, excluding hardware or armrests
9	0.1	102	Right side hardware or armrest
5	0.1	103	Right A (A1/A2)-pillar
84	0.9	104	Right B-pillar
1	0.0	105	Other right pillar (specify)
16	0.2	106	Right side window glass
7	0.1	107	Right side window frame
3	0.0	108	Right side window sill
3	0.0	109	Rt side win. glass incl. 1/+:frame,win.
1	0.0	110	Other right side object (specify)
330	3.7	151	Seat, back support
581	6.5	152	Belt restraint webbing/buckle
8	0.1	153	Belt restraint B-pillar or door frame attachment point
35	0.4	155	Head restraint system
50	0.6	160	Other occupants(specify)
7	0.1	161	Interior loose objects (specify)
15	0.2	162	Child safety seat (specify)
23	0.3	163	Other interior object (specify)
18	0.2	164	Center console first row
17	0.2	167	Fold down armrest first row
42	0.5	170	Air bag-driver side
5	0.1	171	Air bag-driver side and eyewear
5	0.1	180	Air bag-passenger side
2	0.0	195	Other air bag compartment cover (specify)
107	1.2	201	Front header
10	0.1	202	Rear header
79	0.9	203	Roof left side rail
23	0.3	204	Roof right side rail
140	1.6	205	Roof or convertible top
13	0.1	206	Roof maplight/console
1	0.0	208	Roll-bar
135	1.5	251	Floor (including toe pan)

Codebook – Injuries Data Set

N	Prcnt	Code	Label
56	0.6	252	Floor or console mounted transmission lever, including console
2	0.0	253	Parking brake handle
57	0.6	254	Foot controls including parking brake
9	0.1	301	Backlight (rear window)
7	0.1	303	Other rear object(specify)
105	1.2	320	Air bag
11	0.1	321	Air bag and eyewear
1	0.0	322	Air bag and jewelry
7	0.1	325	Air bag compartment cover
20	0.2	451	Hood
2	0.0	452	Outside hardware(e.g., outside mirror, antenna)
40	0.4	453	Other exterior surface or tires (specify)
19	0.2	454	Unknown exterior objects
30	0.3	501	Front bumper
38	0.4	502	Hood edge
53	0.6	503	Other front of vehicle (specify)
3	0.0	506	Windshield, roof rail, A-pillar
46	0.5	507	Side surface
60	0.7	510	Rear surface
25	0.3	511	Undercarriage
5	0.1	512	Tires and wheels
11	0.1	513	Other exterior of other motor vehicle (specify)
42	0.5	514	Unknown exterior of other motor vehicle
339	3.8	551	Ground
2	0.0	570	Same occupant contact (specify) [ex- knee]
129	1.4	598	Other vehicle or object (specify)
48	0.5	601	Fire in vehicle
152	1.7	602	Flying glass
90	1.0	603	Other noncontact injury source (specify)
2	0.0	604	Air bag exhaust gases
246	2.8	697	Injured, unknown source
2,649	29.6	999	Unknown injury source

Codebook – Injuries Data Set

Variable Name	Format	Type	Length
IntrusionRow	ML53F	Numeric	8

Definition: Documents the seat row of the vehicle where the intrusion occurred.

N	Prcnt	Code	Label
598	6.7	1	Front Seat
34	0.4	2	Second Seat
12	0.1	3	Third Seat
8,293	92.8	99	Unknown

Variable Name	Format	Type	Length
IntrusionLocation	ML54F	Numeric	8

Definition: Describes the location within a particular seat row of the vehicle into which the intrusion occurred.

N	Prcnt	Code	Label
462	5.2	1	Left
20	0.2	2	Middle
162	1.8	3	Right
8,293	92.8	99	Unknown

Variable Name	Format	Type	Length
CrushDirection	ML60F	Numeric	8

Definition: Documents the direction of the intrusion of a particular component into the passenger compartment.

N	Prcnt	Code	Label
56	0.6	1	Vertical
309	3.5	2	Longitudinal
279	3.1	3	Lateral
8,293	92.8	9	Unknown

Variable Name	Format	Type	Length
CrushMagnitude	ML455F	Numeric	8

Definition: Documents a component's magnitude of intrusion into the passenger compartment.

N	Prcnt	Code	Label
6	0.1	0	<= 2 cms
34	0.4	1	>= 3 to < 8 cms
139	1.6	2	>= 8 to < 15 cms
160	1.8	3	>= 15 to < 30 cms

Codebook – Injuries Data Set

N	Prcnt	Code	Label
117	1.3	4	>= 30 to < 46 cms
76	0.9	5	>= 46 to < 61 cms
85	1.0	6	>= 61 cms
8,320	93.1	9	Unknown

Variable Name	Format	Type	Length
Component	OT34F	Numeric	8

Definition: Documents the vehicle component that intruded into the passenger compartment and caused a particular injury.

N	Prcnt	Code	Label
52	0.6	1	Steering Assembly
114	1.3	2	Instrument panel left
6	0.1	3	Instrument panel center
57	0.6	4	Instrument panel right
28	0.3	5	Toe pan
10	0.1	6	A (A1/A2)-pillar
58	0.6	7	B-pillar
127	1.4	11	Door panel (side)
19	0.2	12	Side panel - rear of the B-pillar
21	0.2	13	Roof (or convertible top)
1	0.0	14	Roof side rail
16	0.2	15	Windshield
14	0.2	16	Windshield header
4	0.0	18	Floor pan (includes sill)
2	0.0	19	Backlight header
34	0.4	20	Front seat back
1	0.0	25	Seat cushion
4	0.0	27	Other interior component (specify):
76	0.9	32	Other exterior object in the environment (specify):
8,293	92.8	99	Unknown

Variable Name	Format	Type	Length
InformationSource	ML76F	Numeric	8

Definition: Identifies the source of information used to complete AIS coding for each injury.

N	Prcnt	Code	Label
2,941	32.9	1	Autopsy
1,955	21.9	2	Post-ER Medical Record
2,718	30.4	8	Emergency Room Records
50	0.6	9	Private Physician

Codebook – Injuries Data Set

N	Prcnt	Code	Label
22	0.2	10	Lay Coroner
23	0.3	11	EMS Record
1,130	12.6	12	Interviewee
95	1.1	13	Police Report
3	0.0	99	Unknown

Codebook – JackknifeAssessments Data Set

JackknifeAssessments Data Set

The JackknifeAssessments data set contains jackknife information on all vehicles. This material is provided as one record per vehicle.

The JackknifeAssessments data set contains the variables CaseID, PSU, PSUStrat, RATWeight, and VehicleNumber. CaseID and VehicleNumber uniquely identify each record in this data set and should be used to merge the JackknifeAssessments data set with other vehicle level data sets.

Variable Name	Format	Type	Length
AJKType	ML1613F	Numeric	8

Definition: Establishes the type of precrash jackknife event that is experienced by the subject vehicle. In general, the type of jackknife event is determined by the unit of the articulated combination that begins to rotate first. For example, if the tractor/cab unit is the first unit to begin rotating, the event is generally considered a tractor jackknife. If, on the other hand, the trailer unit is the first unit to begin rotating, the event is generally considered to be trailer swing.

N	Prcnt	Code	Label
855	37.4	0	No pre-crash jackknife
19	0.8	1	Tractor jackknife
42	1.8	2	Trailer swing
1,366	59.8	7	Not applicable
2	0.1	9	Unknown

Variable Name	Format	Type	Length
AJKSource	ML1611F	Numeric	8

Definition: Establishes the source of the jackknife impetus.

N	Prcnt	Code	Label
851	37.3	0	No pre-crash jackknife
15	0.7	1	Steering input
12	0.5	2	Braking input
18	0.8	3	Steering and braking input
6	0.3	4	Environmental condition (specify)
1	0.0	5	Vehicle condition (specify)
1,370	60.0	7	Not applicable
9	0.4	8	Combination of sources (specify)
2	0.1	9	Unknown

Codebook – JackknifeAssessments Data Set

Variable Name	Format	Type	Length
AJKLocation	ML1612F	Numeric	8

Definition: Establishes the location of the vehicle at the start of the jackknife sequence.

N	Prcnt	Code	Label
851	37.3	0	No pre-crash event
54	2.4	1	On roadway
4	0.2	2	On shoulder
2	0.1	3	On roadside
1	0.0	4	On median
1,370	60.0	7	Not applicable
2	0.1	9	Unknown

Variable Name	Format	Type	Length
AJKDirection	ML1610F	Numeric	8

Definition: Establishes the direction of rotation of the first unit within the articulated vehicle configuration to begin jackknifing.

N	Prcnt	Code	Label
851	37.3	0	No pre-crash jackknife
33	1.4	1	Clockwise
28	1.2	2	Counterclockwise
1,364	59.7	7	Not applicable
8	0.4	9	Unknown

Variable Name	Format	Type	Length
WhileCount	BEST8	Numeric	8

Definition: Documents the number of circumstances in which the jackknife occurred that were coded to this vehicle.

N	Prcnt	Code	Label
2,224	97.4	0	0
9	0.4	1	1
24	1.1	2	2
26	1.1	3	3
1	0.0	4	4

Codebook – JackknifeAssessments Data Set

Variable Name	Format	Type	Length
AJKConstant	AP1U	Numeric	8

Definition: Establishes whether or not the driver is attempting to maintain a constant velocity at the time the vehicle begins to jackknife. (This variable was originally an attribute choice under the variable “Circumstances In Which Event Occurred.”)

N	Prcnt	Code	Label
2,266	99.2	0	Absent
18	0.8	1	Present

Variable Name	Format	Type	Length
AJKCurve	AP1U	Numeric	8

Definition: Establishes whether or not the driver is traversing a curve at the time the vehicle begins to jackknife. (This variable was originally an attribute choice under the variable “Circumstances In Which Event Occurred.”)

N	Prcnt	Code	Label
2,264	99.1	0	Absent
20	0.9	1	Present

Variable Name	Format	Type	Length
AJKTurn	AP1U	Numeric	8

Definition: Establishes whether or not the driver is attempting to turn at the time the vehicle begins to jackknife. (This variable was originally an attribute choice under the variable “Circumstances In Which Event Occurred.”)

N	Prcnt	Code	Label
2,282	99.9	0	Absent
2	0.1	1	Present

Variable Name	Format	Type	Length
AJKLightBraking	AP1U	Numeric	8

Definition: Establishes whether or not the driver is decelerating using light braking effort at the time the vehicle begins to jackknife. While the term “light braking” is a subjective evaluation, it generally implies that the level of braking effort is less than the level typically associated with a normal traffic stop. (This variable was originally an attribute choice under the variable “Circumstances In Which Event Occurred.”)

N	Prcnt	Code	Label
2,278	99.7	0	Absent
6	0.3	1	Present

Codebook – JackknifeAssessments Data Set

Variable Name	Format	Type	Length
AJKAccelerating	AP1U	Numeric	8

Definition: Establishes whether or not the driver is accelerating at the time the vehicle begins to jackknife. (This variable was originally an attribute choice under the variable “Circumstances In Which Event Occurred.”)

N	Prcnt	Code	Label
2,283	100.0	0	Absent
1	0.0	1	Present

Variable Name	Format	Type	Length
AJKAvoidance	AP1U	Numeric	8

Definition: Establishes whether or not the driver initiates a precrash avoidance maneuver at or prior to the time the vehicle begins to jackknife. (This variable was originally an attribute choice under the variable “Circumstances In Which Event Occurred.”)

N	Prcnt	Code	Label
2,255	98.7	0	Absent
29	1.3	1	Present

Variable Name	Format	Type	Length
AJKOther	AP1U	Numeric	8

Definition: Establishes whether or not the circumstance associated with the jackknife is not described by the other jackknife event variables. (This variable was originally an attribute choice under the variable “Circumstances In Which Event Occurred” and was the “Other (specify):” attribute.)

N	Prcnt	Code	Label
2,276	99.6	0	Absent
8	0.4	1	Present

Variable Name	Format	Type	Length
AJKDecelerating	AP1U	Numeric	8

Definition: Establishes whether or not the driver is decelerating and decelerates solely by reducing throttle input at the time the vehicle begins to jackknife. (This variable was originally an attribute choice under the variable “Circumstances In Which Event Occurred.”)

N	Prcnt	Code	Label
2,283	100.0	0	Absent
1	0.0	1	Present

Codebook – JackknifeAssessments Data Set

Variable Name	Format	Type	Length
AJKModerateBraking	AP1U	Numeric	8

Definition: Establishes whether or not the driver is decelerating using a moderate level of braking effort at the time the vehicle begins to jackknife. A moderate level of braking effort generally implies that the level of braking effort is similar to the level typically associated with a normal traffic stop. (This variable was originally an attribute choice under the variable “Circumstances In Which Event Occurred.”)

N	Prcnt	Code	Label
2,276	99.6	0	Absent
8	0.4	1	Present

Variable Name	Format	Type	Length
AJKHeavyBraking	AP1U	Numeric	8

Definition: Establishes whether or not the driver is decelerating using a heavy level of braking effort (e.g. panic stop) at the time the vehicle begins to jackknife. The vehicle will typically experience wheel “lock-up” in this circumstance; however, wheel lock is not a requirement for using this designation. (This variable was originally an attribute choice under the variable “Circumstances In Which Event Occurred.”)

N	Prcnt	Code	Label
2,263	99.1	0	Absent
21	0.9	1	Present

Variable Name	Format	Type	Length
AJKStraight	AP1U	Numeric	8

Definition: Establishes whether or not the driver is traversing a straight roadway segment at the time the vehicle begins to jackknife. (This variable was originally an attribute choice under the variable “Circumstances In Which Event Occurred.”)

N	Prcnt	Code	Label
2,259	98.9	0	Absent
25	1.1	1	Present

Codebook – MCMISdriverData Data Set

MCMISdriverData Data Set

The MCMISdriverData data set contains the number of prior crashes, vehicle inspections and inspection violations associated with this driver as reported by the Motor Carrier Management Information System. One record is stored for each vehicle/driver where this information is available.

The MCMISdriverData data set contains the variables CaseID, PSU, PSUStrat, RATWeight, and VehicleNumber. CaseID and VehicleNumber uniquely identify each record in this data set and should be used to merge the MCMISdriverData data set with vehicle level data sets.

Variable Name	Format	Type	Length
Crashes	OT41F	Numeric	8

Definition: Represents the total number of crashes for this driver, as reported by the Motor Carrier Management Information System (MCMIS).

N	Prcnt	Code	Label
300	29.5	0	0
363	35.7	1	1
57	5.6	2	2
6	0.6	3	3
290	28.5	99	Unknown

Variable Name	Format	Type	Length
Inspections	OT41F	Numeric	8

Definition: Represents the total number of inspections performed on a vehicle driven by this driver, as reported by the Motor Carrier Management Information System (MCMIS).

N	Prcnt	Code	Label
33	3.2	0	0
168	16.5	1	1
99	9.7	2	2
92	9.1	3	3
76	7.5	4	4
64	6.3	5	5
37	3.6	6	6
38	3.7	7	7
23	2.3	8	8
19	1.9	9	9
16	1.6	10	10
12	1.2	11	11
6	0.6	12	12
10	1.0	13	13
6	0.6	14	14
6	0.6	15	15
1	0.1	16	16

Codebook – MCMISdriverData Data Set

N	Prcnt	Code	Label
6	0.6	17	17
2	0.2	18	18
2	0.2	20	20
1	0.1	21	21
1	0.1	22	22
1	0.1	24	24
1	0.1	29	29
4	0.4	30	30
2	0.2	50	50
290	28.5	99	Unknown

Variable Name

InspDriverOOS

Format	Type	Length
OT41F	Numeric	8

Definition: Represents the total number of “driver” out-of-service violations for this driver, as reported by the Motor Carrier Management Information System (MCMIS).

N	Prcnt	Code	Label
553	54.4	0	0
126	12.4	1	1
32	3.1	2	2
7	0.7	3	3
4	0.4	4	4
2	0.2	5	5
1	0.1	8	8
1	0.1	9	9
290	28.5	99	Unknown

Variable Name

InspVehOOS

Format	Type	Length
OT41F	Numeric	8

Definition: Represents the total number of “vehicle” out-of-service violations for this driver, as reported by the Motor Carrier Management Information System (MCMIS).

N	Prcnt	Code	Label
322	31.7	0	0
242	23.8	1	1
102	10.0	2	2
34	3.3	3	3
13	1.3	4	4
3	0.3	5	5
5	0.5	6	6
4	0.4	7	7

Codebook – MCMISdriverData Data Set

N	Prcnt	Code	Label
1	0.1	8	8
290	28.5	99	Unknown

Variable Name	Format	Type	Length
LocalViols	OT41F	Numeric	8

Definition: Represents the total number of types of “local” inspection violations cited to this driver, as reported by the Motor Carrier Management Information System (MCMIS).

N	Prcnt	Code	Label
252	24.8	0	0
223	21.9	1	1
107	10.5	2	2
28	2.8	3	3
4	0.4	4	4
1	0.1	5	5
401	39.5	99	Unknown

Variable Name	Format	Type	Length
InspViols	OT41F	Numeric	8

Definition: Represents the total number of types of inspection violations cited to this driver (not including local violations), as reported by the Motor Carrier Management Information System (MCMIS).

N	Prcnt	Code	Label
20	2.0	0	0
81	8.0	1	1
53	5.2	2	2
63	6.2	3	3
67	6.6	4	4
51	5.0	5	5
45	4.4	6	6
41	4.0	7	7
45	4.4	8	8
29	2.9	9	9
21	2.1	10	10
20	2.0	11	11
16	1.6	12	12
12	1.2	13	13
10	1.0	14	14
8	0.8	15	15
5	0.5	16	16
6	0.6	17	17

Codebook – MCMISdriverData Data Set

N	Prcnt	Code	Label
6	0.6	18	18
1	0.1	19	19
3	0.3	20	20
5	0.5	21	21
2	0.2	22	22
1	0.1	23	23
1	0.1	25	25
2	0.2	26	26
1	0.1	30	30
401	39.5	99	Unknown

Codebook – MCMISviolation Data Set

MCMISviolation Data Set

The MCMISviolation data set contains information on the specific inspection violations issued to a driver for previous inspections as reported by the Motor Carrier Management Information System. One record of this information exists for each violation.

The MCMISviolation data set contains the variables CaseID, PSU, PSUStrat, RATWeight, and VehicleNumber. CaseID, VehicleNumber and Code uniquely identify each record in this data set. CaseID and VehicleNumber should be used to merge the MCMISviolation data set with the MCMISdriverData data set and vehicle level data sets.

Variable Name	Format	Type	Length
NumViols	OT41F	Numeric	8

Definition: Represents the number of violation codes cited to this driver, as reported by the Motor Carrier Management Information System (MCMIS).

N	Prcnt	Code	Label
3,199	74.2	1	1
745	17.3	2	2
187	4.3	3	3
85	2.0	4	4
48	1.1	5	5
16	0.4	6	6
11	0.3	7	7
5	0.1	8	8
5	0.1	9	9
2	0.0	10	10
2	0.0	11	11
1	0.0	13	13
1	0.0	14	14
2	0.0	99	Unknown

Variable Name	Format	Type	Length
NumOOSViols	OT41F	Numeric	8

Definition: Represents the number of out-of-service codes cited to this driver, as reported by the Motor Carrier Management Information System (MCMIS).

N	Prcnt	Code	Label
3,289	76.3	0	0
865	20.1	1	1
117	2.7	2	2
21	0.5	3	3
3	0.1	4	4
2	0.0	5	5
12	0.3	99	Unknown

Codebook – MCMISviolation Data Set

Variable Name	Format	Type	Length
Code	\$12	Char	12

Definition: Represents the violation codes cited to this driver, as reported by the Motor Carrier Management Information System (MCMIS). This coding structure was established by the Federal Motor Carrier Safety Administration.

N	Prcnt	Code	Label
6	0.1	*	107.620B
1	0.0	*	13906
1	0.0	*	171.2A
1	0.0	*	171.2B
1	0.0	*	172.201D
1	0.0	*	172.202A1
1	0.0	*	172.202A3
1	0.0	*	172.202A4
1	0.0	*	172.203A
1	0.0	*	172.304A4

193	4.5	*	396.3A1BA
14	0.3	*	396.3A1BC
1	0.0	*	396.3A1BD
21	0.5	*	396.3A1BL
22	0.5	*	396.3A1T
25	0.6	*	396.5
39	0.9	*	396.5B
2	0.0	*	396.7
1	0.0	*	397.3
2	0.0	*	399.207

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Variable Name	Format	Type	Length
ViolDesc	\$80	Char	80

Definition: Provides a description of each type of violation received by this driver.

N	Prcnt	Code	Label
64	1.5	*	10 hour rule violation
15	0.3	*	15 hour rule violation
3	0.1	*	15,20,70/80 hours of service violations (AK)
16	0.4	*	60/70 hour rule violation
1	0.0	*	Adj axle locking pin missing/disengaged
5	0.1	*	Air suspension pressure loss
52	1.2	*	Axle positioning parts defective/missing
1	0.0	*	Bolts securing cab broken/loose/missing

Codebook – MCMISviolation Data Set

N	Prcnt	Code	Label
33	0.8	*	Brake connections with leaks/constrictions
9	0.2	*	Brake hose/tube connection

2	0.0	*	Unsafe operations forbidden
4	0.1	*	Use of vision reducing matter on windows
15	0.3	*	Using or equipping a CMV with radar detector
2	0.0	*	Vehicle access requirements violations
5	0.1	*	Vehicle not placarded as required
1	0.0	*	Violating airbrake restriction
33	0.8	*	Wheel fasteners loose and/or missing
22	0.5	*	Wheel/rim cracked or broken
11	0.3	*	Windshield wipers inoperative/defective
1	0.0	*	Wrong or no id number

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Codebook – NonMotorists Data Set

NonMotorists Data Set

The NonMotorists data set contains information on nonmotorists who were involved in the crash. One record is stored for each nonmotorist.

The NonMotorists data set contains the variables CaseID, PSU, PSUStrat, RATWeight, and NonMotoristNumber. NonMotoristNumber is assigned to each non-motorist (i.e., pedestrian, pedal cyclist, etc.) involved in the crash. CaseID and NonMotoristNumber uniquely identify each record in this data set and should be used to merge the NonMotorists data set with the crash data set.

Variable Name	Format	Type	Length
ANMAge	BEST8	Numeric	8

Definition: Establishes the nonmotorist's age at the time of the crash. Age is recorded with respect to the nonmotorist's last birthday.

N	Prcnt	Code	Label
2	3.8	1	1
1	1.9	2	2
1	1.9	3	3
2	3.8	5	5
1	1.9	6	6
1	1.9	14	14
1	1.9	16	16
1	1.9	18	18
1	1.9	19	19
1	1.9	20	20
2	3.8	21	21
2	3.8	23	23
1	1.9	24	24
2	3.8	25	25
1	1.9	26	26
1	1.9	28	28
3	5.7	31	31
1	1.9	32	32
3	5.7	34	34
1	1.9	40	40
1	1.9	41	41
1	1.9	43	43
2	3.8	44	44
1	1.9	45	45
1	1.9	46	46
1	1.9	47	47
1	1.9	48	48
1	1.9	49	49
2	3.8	50	50
2	3.8	52	52

Codebook – NonMotorists Data Set

N	Prcnt	Code	Label
2	3.8	56	56
1	1.9	59	59
1	1.9	61	61
2	3.8	62	62
1	1.9	67	67
1	1.9	68	68
1	1.9	69	69
1	1.9	70	70
1	1.9	73	73

Variable Name	Format	Type	Length
ANMHeight	OT28F	Numeric	8

Definition: Establishes the height of the nonmotorist, recorded in centimeters.

N	Prcnt	Code	Label
1	1.9	122	122
1	1.9	137	137
1	1.9	152	152
3	5.7	157	157
1	1.9	163	163
6	11.3	165	165
1	1.9	166	166
6	11.3	168	168
3	5.7	170	170
1	1.9	173	173
5	9.4	175	175
2	3.8	178	178
1	1.9	180	180
5	9.4	183	183
2	3.8	185	185
1	1.9	191	191
1	1.9	203	203
12	22.6	9999	Unknown

Codebook – NonMotorists Data Set

Variable Name	Format	Type	Length
ANMWeight	OT28F	Numeric	8

Definition: Establishes the weight of the nonmotorist, recorded in kilograms.

N	Prcnt	Code	Label
1	1.9	22	22
1	1.9	34	34
1	1.9	41	41
1	1.9	54	54
1	1.9	57	57
2	3.8	59	59
2	3.8	61	61
1	1.9	62	62
2	3.8	64	64
2	3.8	66	66
2	3.8	68	68
1	1.9	71	71
1	1.9	72	72
1	1.9	74	74
2	3.8	75	75
2	3.8	77	77
1	1.9	79	79
1	1.9	82	82
1	1.9	83	83
2	3.8	84	84
1	1.9	85	85
2	3.8	86	86
1	1.9	88	88
1	1.9	91	91
1	1.9	93	93
1	1.9	95	95
1	1.9	103	103
1	1.9	104	104
1	1.9	106	106
1	1.9	109	109
1	1.9	114	114
1	1.9	116	116
1	1.9	118	118
11	20.8	9999	Unknown

Codebook – NonMotorists Data Set

Variable Name	Format	Type	Length
ANMGender	ML1052F	Numeric	8

Definition: Reports the gender of the nonmotorist.

N	Prcnt	Code	Label
38	71.7	1	Male
15	28.3	2	Female - not reported pregnant

Variable Name	Format	Type	Length
ANMType	ML1055F	Numeric	8

Definition: Establishes the specific type of nonmotorist involved in the crash.

N	Prcnt	Code	Label
44	83.0	0	Pedestrian
7	13.2	1	Pedal cyclist
2	3.8	3	Other (specify)

Variable Name	Format	Type	Length
ANMPosition	ML1050F	Numeric	8

Definition: Describes the nonmotorist's vertical orientation just prior to the nonmotorist's first avoidance action. If there was no avoidance action, this variable represents the nonmotorist's vertical orientation just prior to first impact. Individuals who are standing in a stationary position, walking, or running are all classified as standing.

N	Prcnt	Code	Label
28	52.8	1	Standing
2	3.8	2	Crouching
1	1.9	3	Kneeling
1	1.9	4	Bending at waist
1	1.9	6	Sitting
3	5.7	11	Sitting upright, pedaling/coasting
5	9.4	88	Other (specify)
12	22.6	99	Unknown

Variable Name	Format	Type	Length
Motion	ML1048F	Numeric	8

Definition: Describes the motion of the nonmotorist just prior to the nonmotorist's first avoidance action. If there was no avoidance action, this represents the nonmotorist's motion just prior to the first impact.

N	Prcnt	Code	Label
16	30.2	0	Not Moving

Codebook – NonMotorists Data Set

N	Prcnt	Code	Label
8	15.1	1	Walking slowly
1	1.9	2	Walking rapidly
6	11.3	3	Running or jogging
2	3.8	10	Pedaling at a rapid rate
1	1.9	28	Starting from a stopped position
1	1.9	30	Jumping
2	3.8	31	Falling/stumbling/rising
1	1.9	88	Other (specify)
15	28.3	99	Unknown

Variable Name	Format	Type	Length
Action	ML1038F	Numeric	8

Definition: Describes the direction of the nonmotorist's motion with respect to the vehicle, prior to the first avoidance action. If there was no avoidance action, this variable represents the nonmotorist's motion with respect to the vehicle, just prior to first impact.

N	Prcnt	Code	Label
10	18.9	0	Stopped
16	30.2	1	Crossing road, straight
4	7.5	2	Crossing road, diagonally
2	3.8	4	Moving in road with traffic (straight)
1	1.9	5	Moving in road with traffic (weaving)
1	1.9	6	Moving in road against traffic (straight)
2	3.8	8	Off road, approaching road
1	1.9	10	Off road, moving parallel
9	17.0	98	Other (specify)
7	13.2	99	Unknown

Variable Name	Format	Type	Length
Orientation	ML1042F	Numeric	8

Definition: Describes the nonmotorist's body orientation with respect to the striking vehicle prior to avoidance actions. "Facing vehicle" indicates the nonmotorist's body (chest) is facing the path of travel of the striking vehicle (which may be tracking or yawing).

N	Prcnt	Code	Label
12	22.6	1	Facing vehicle
6	11.3	2	Facing away
14	26.4	3	Left side to vehicle
5	9.4	4	Right side to vehicle
1	1.9	8	Other (specify)
15	28.3	99	Unknown

Codebook – NonMotorists Data Set

Variable Name	Format	Type	Length
SightImpaired	ML1053F	Numeric	8

Definition: Establishes nonmotorist sight impairments. An individual is considered sight impaired if the corrected vision level exceeds 20/70 on a standard measurement scale.

N	Prcnt	Code	Label
28	52.8	0	Not sight impaired
6	11.3	1	Sight impaired (specify)
19	35.8	9	Unknown

Variable Name	Format	Type	Length
SightRestricted	ML1054F	Numeric	8

Definition: Establishes nonmotorist sight restrictions with respect to the nonmotorist's pre-crash view of the striking vehicle. Specifically, did the nonmotorist have an unobstructed view regardless of whether or not the nonmotorist actually checked for approaching traffic?

N	Prcnt	Code	Label
41	77.4	0	No sight restrictions
1	1.9	7	Headlight glare
2	3.8	9	Other Obstruction (specify)
9	17.0	99	Unknown

Variable Name	Format	Type	Length
HearingImpaired	ML1045F	Numeric	8

Definition: Establishes nonmotorist hearing impairments. Total deafness is considered a hearing impairment.

N	Prcnt	Code	Label
26	49.1	0	No hearing impairment
3	5.7	1	Hearing impairment (specify)
24	45.3	9	Unknown

Variable Name	Format	Type	Length
HearingRestricted	ML1046F	Numeric	8

Definition: Establishes nonmotorist hearing restrictions. This information is important with respect to the nonmotorist hearing the approaching vehicle and/or warnings (horn) attempted by the vehicle driver.

N	Prcnt	Code	Label
32	60.4	0	No hearing restrictions
1	1.9	1	Use of radio/cassette/CD
3	5.7	8	Other (specify)
17	32.1	9	Unknown

Codebook – NonMotorists Data Set

Variable Name	Format	Type	Length
Distraction	ML1043F	Numeric	8

Definition: Documents nonmotorist pre-crash distraction as a result of engaging in a variety of activities.

N	Prcnt	Code	Label
11	20.8	0	Not distracted
1	1.9	1	Conversing with another pedal cyclist
3	5.7	4	Conversing with pedestrian
1	1.9	7	Talking on cell phone
1	1.9	11	Looking at other vehicles
6	11.3	88	Other (specify)
30	56.6	99	Unknown

Variable Name	Format	Type	Length
ANMDecision	ML1041F	Numeric	8

Definition: Documents decision errors made by the nonmotorist during the pre-crash phase.

N	Prcnt	Code	Label
18	34.0	0	No decision error involved
2	3.8	1	Assumed striking vehicle would stop/yield right-of-way
2	3.8	2	Assumed driver was aware of presence
1	1.9	4	Misjudged velocity/gap distance of vehicle
6	11.3	8	Other decision error (specify)
24	45.3	9	Unknown

Variable Name	Format	Type	Length
RiskTaking	ML1051F	Numeric	8

Definition: Documents pre-crash risk-taking behavior by the nonmotorist. This is a subjective evaluation based on the preponderance of evidence. Examples of risk-taking behavior would include crossing the street in a mid-block area without the benefit of a defined pedestrian crosswalk and associated TCD, crossing against a “Don’t Walk” pedestrian signal warning, and walking in the traffic lane.

N	Prcnt	Code	Label
23	43.4	0	Did not exhibit risk taking behavior
23	43.4	1	Exhibited risk taking behavior (specify)
7	13.2	9	Unknown

Codebook – NonMotorists Data Set

Variable Name	Format	Type	Length
ANMAvoidance	ML1040F	Numeric	8

Definition: Documents the nonmotorist's first pre-crash avoidance action. To be considered an avoidance action, the nonmotorist activity must be a conscious or instinctive action and not a kinematic response to the impact.

N	Prcnt	Code	Label
21	39.6	0	No avoidance action
1	1.9	1	Stopped (froze)
1	1.9	8	Jumped
1	1.9	10	Turned toward vehicle
1	1.9	88	Other (specify)
28	52.8	99	Unknown

Variable Name	Format	Type	Length
HandsUsed	ML1044F	Numeric	8

Definition: Describes the nonmotorist's attempted use of his or her hands in completing the avoidance action. The primary categories for attempted hand use are vaulting and bracing. These actions may or may not be successful and may or may not be appropriate. The primary factor here is nonmotorist intent.

N	Prcnt	Code	Label
17	32.1	0	Did not use hands
1	1.9	8	Other (specify)
35	66.0	9	Unknown

Variable Name	Format	Type	Length
ANMPARSevCode	ML196F	Numeric	8

Definition: Represents the police-reported injury severity code for the nonmotorist.

N	Prcnt	Code	Label
4	7.5	2	B - Non-incapacitating injury
14	26.4	3	A - Incapacitating injury
35	66.0	4	K - Killed

Codebook – NonMotorists Data Set

Variable Name	Format	Type	Length
ANMRESsevCode	ML196F	Numeric	8

Definition: Represents the nonmotorist's injury severity code, as determined by injury coding and case narratives. This code is based on occupant medical records and/or case narratives and may differ from the police-reported injury severity code.

N	Prcnt	Code	Label
1	1.9	0	O - No injury
8	15.1	2	B - Non-incapacitating injury
17	32.1	3	A - Incapacitating injury
26	49.1	4	K - Killed
1	1.9	5	U - Injury, severity unknown

Codebook – Occupants Data Set

Occupants Data Set

The Occupants data set contains all the information related to each of the occupants in the vehicles involved in the crash. Not all occupants in the vehicle are researched in detail, so for many occupant records these values are “Unknown.” This material is provided as one record per occupant.

The Occupants data set contains the variables CaseID, PSU, PSUStrat, RATWeight, VehicleNumber and OccupantNumber. OccupantNumber is assigned to each occupant in a vehicle. CaseID, VehicleNumber and OccupantNumber uniquely identify each record in this data set. CaseID and VehicleNumber should be used to merge the Occupant data set with vehicle level data sets.

Variable Name	Format	Type	Length
OccupantNumber	BEST8	Numeric	8

Definition: OccupantNumber is assigned to each occupant in a vehicle.

N	Prcnt	Code	Label
2,269	75.3	1	1
493	16.4	2	2
135	4.5	3	3
65	2.2	4	4
25	0.8	5	5
11	0.4	6	6
5	0.2	7	7
3	0.1	8	8
3	0.1	9	9
3	0.1	10	10
2	0.1	11	11

Variable Name	Format	Type	Length
OCCAge	OT28F	Numeric	8

Definition: Documents the age of the occupant at the time of the crash with respect to the occupant's last birthday.

N	Prcnt	Code	Label
8	0.3	0	0
9	0.3	1	1
8	0.3	2	2
11	0.4	3	3
16	0.5	4	4
9	0.3	5	5
11	0.4	6	6
11	0.4	7	7
11	0.4	8	8
7	0.2	9	9

Codebook – Occupants Data Set

N	Prcnt	Code	Label
5	0.2	82	82
4	0.1	83	83
3	0.1	85	85
1	0.0	86	86
2	0.1	87	87
1	0.0	88	88
1	0.0	89	89
2	0.1	90	90
1	0.0	92	92
42	1.4	9999	Unknown

Variable Name	Format	Type	Length
OCCHeight	OT28F	Numeric	8

Definition: Documents the height of the occupant to the nearest centimeter.

N	Prcnt	Code	Label
1	0.0	58	58
2	0.1	61	61
2	0.1	64	64
2	0.1	66	66
1	0.0	69	69
1	0.0	71	71
4	0.1	76	76
1	0.0	79	79
1	0.0	81	81
1	0.0	84	84

147	4.9	185	185
116	3.8	188	188
50	1.7	191	191
33	1.1	193	193
14	0.5	196	196
6	0.2	198	198
2	0.1	201	201
2	0.1	203	203
1	0.0	206	206
475	15.8	9999	Unknown

Codebook – Occupants Data Set

Variable Name	Format	Type	Length
OCCWeight	OT28F	Numeric	8

Definition: Documents the weight of the occupant to the nearest kilogram.

N	Prcnt	Code	Label
1	0.0	6	6
2	0.1	8	8
4	0.1	9	9
3	0.1	11	11
1	0.0	12	12
2	0.1	13	13
4	0.1	14	14
4	0.1	15	15
7	0.2	16	16

3	0.1	17	17
2	0.1	171	171
2	0.1	172	172
2	0.1	175	175
2	0.1	177	177
1	0.0	181	181
1	0.0	193	193
1	0.0	200	200
1	0.0	204	204
1	0.0	254	254
488	16.2	9999	Unknown

Variable Name	Format	Type	Length
OCCGender	ML87F	Numeric	8

Definition: Identifies the gender of the occupant and includes information regarding pregnancy.

N	Prcnt	Code	Label
2,272	75.4	1	Male
685	22.7	2	Female, not reported pregnant
10	0.3	3	Female, pregnant - 1st trimester (1st-3rd month)
6	0.2	4	Female, pregnant - 2nd trimester (4th-6th month)
7	0.2	5	Female, pregnant - 3rd trimester (7th-9th month)
1	0.0	6	Female, pregnant - term unknown
33	1.1	9	Unknown

Codebook – Occupants Data Set

Variable Name	Format	Type	Length
Role	ML88F	Numeric	8

Definition: Describes the role of the occupant within the vehicle – driver or passenger.

N	Prcnt	Code	Label
2,258	74.9	1	Driver
742	24.6	2	Passenger
14	0.5	9	Unknown

Variable Name	Format	Type	Length
Race	ML273F	Numeric	8

Definition: Represents the occupant's self-identification of his/her race or ethnic origin. Self-identification represents self-classification by people according to the race with which they identify themselves.

N	Prcnt	Code	Label
1,535	50.9	1	White (non-Hispanic)
345	11.4	2	Black (non-Hispanic)
360	11.9	3	White (Hispanic)
17	0.6	4	Black (Hispanic)
14	0.5	5	American Indian, Eskimo or Aleut
84	2.8	6	Asian or Pacific Islander
28	0.9	7	Other (specify)
631	20.9	9	Unknown

Variable Name	Format	Type	Length
EyeWear	ML184F	Numeric	8

Definition: Documents whether or not the occupant was wearing any type of eyewear, including contact lenses, at the time of the crash.

N	Prcnt	Code	Label
1,386	46.0	0	No
530	17.6	1	Eyeglasses/sunglasses
75	2.5	2	Contact lenses
5	0.2	3	Contact lenses w/ sunglasses
1,018	33.8	9	Unknown

Codebook – Occupants Data Set

Variable Name	Format	Type	Length
AirbagAvail	ML186F	Numeric	8

Definition: Captures what was documented on the police report regarding the availability and functioning of any air bag system.

N	Prcnt	Code	Label
1,250	41.5	0	No airbag available
852	28.3	1	Police did not indicate airbag availability/function
275	9.1	2	Deployed
313	10.4	3	Not deployed
16	0.5	4	Unknown if deployed
308	10.2	9	Police indicated 'unknown'

Variable Name	Format	Type	Length
ParBeltUsed	ML187F	Numeric	8

Definition: Captures what was documented on the police report regarding occupant use of available vehicle restraints (i.e. manual belts, child safety seat, or automatic restraints).

N	Prcnt	Code	Label
434	14.4	0	None Used
140	4.6	1	Police did not indicate belt use
20	0.7	2	Shoulder Belt
111	3.7	3	Lap Belt
1,645	54.6	4	Lap and shoulder belt
443	14.7	5	Belt used, type not specified
30	1.0	6	Child safety seat
4	0.1	8	Other type belt (specify)
187	6.2	9	Police indicated 'unknown'

Variable Name	Format	Type	Length
EjectionType	ML218F	Numeric	8

Definition: Describes the type of occupant ejection that was involved during the crash sequence. Ejection refers to the person being completely or partially thrown from the vehicle as a result of the impact or rollover.

N	Prcnt	Code	Label
2,012	66.8	0	No Ejection
53	1.8	1	Complete Ejection
49	1.6	2	Partial Ejection
1	0.0	3	Ejection, unknown degree
899	29.8	9	Unknown

Codebook – Occupants Data Set

Variable Name	Format	Type	Length
EjectionArea	ML203F	Numeric	8

Definition: Describes the general area of the vehicle from where the occupant ejection occurred during the crash sequence. Ejection refers to the person being completely or partially thrown from the vehicle as a result of the impact or rollover.

N	Prcnt	Code	Label
1,526	50.6	0	No Ejection
9	0.3	1	Windshield
42	1.4	2	Left Front
14	0.5	3	Right Front
3	0.1	4	Left Rear
4	0.1	5	Right Rear
6	0.2	6	Rear
6	0.2	7	Roof
6	0.2	8	Other area
1,398	46.4	9	Unknown

Variable Name	Format	Type	Length
Medium	ML204F	Numeric	8

Definition: Describes the component of the vehicle from which the occupant was ejected during the crash sequence. Ejection refers to the person being completely or partially thrown from the vehicle as a result of the impact or rollover.

N	Prcnt	Code	Label
1,526	50.6	0	No Ejection
18	0.6	1	Door/hatch/tailgate
1	0.0	2	Non-fixed Roof Structure
11	0.4	3	Fixed Glazing
41	1.4	4	Non-fixed Glazing (specify)
10	0.3	5	Integral Structure
5	0.2	8	Other medium (specify)
1,402	46.5	9	Unknown

Variable Name	Format	Type	Length
MediumStatus	ML219F	Numeric	8

Definition: Describes the status of the component of the vehicle from which the occupant was ejected during the crash sequence. This variable represents the status of the component immediately prior to the impact.

N	Prcnt	Code	Label
1,526	50.6	0	No Ejection
12	0.4	1	Open
60	2.0	2	Closed

Codebook – Occupants Data Set

N	Prcnt	Code	Label
11	0.4	3	Integral Structure
1,405	46.6	9	Unknown

Variable Name	Format	Type	Length
MultiEjection	ML536F	Numeric	8

Definition: Indicates whether or not there were multiple ejections associated with a particular vehicle.

N	Prcnt	Code	Label
3,014	100.0	0	No

Variable Name	Format	Type	Length
Entrapment	ML89F	Numeric	8

Definition: Documents whether or not the occupant was physically trapped inside the vehicle by an integral part of the vehicle (e.g. intruding component).

N	Prcnt	Code	Label
2,438	80.9	0	Not trapped/exit not inhibited
240	8.0	1	Trapped/pinned - mechanically restrained
145	4.8	2	Could not exit vehicle due to jammed doors, fire, etc (specify)
191	6.3	9	Unknown

Variable Name	Format	Type	Length
Mobility	ML185F	Numeric	8

Definition: Documents the mobility of the occupant (how the occupant exited the vehicle) after the crash.

N	Prcnt	Code	Label
150	5.0	0	Occupant fatal before removed from vehicle
127	4.2	1	Removed from vehicle while unconscious or not oriented to time
284	9.4	2	Removed from vehicle due to perceived serious injuries
278	9.2	3	Exited vehicle with some assistance
1,596	53.0	4	Exited vehicle under own power
58	1.9	5	Occupant fully ejected
10	0.3	8	Removed from vehicle for other reasons (specify)
511	17.0	9	Unknown

Codebook – Occupants Data Set

Variable Name	Format	Type	Length
Intrusions	BEST8	Numeric	8

Definition: Documents the number of vehicle components that intruded into the passenger compartment of the vehicle as a result of the crash.

N	Prcnt	Code	Label
2,814	93.4	0	0
12	0.4	1	1
10	0.3	2	2
19	0.6	3	3
25	0.8	4	4
16	0.5	5	5
11	0.4	6	6
10	0.3	7	7
22	0.7	8	8
8	0.3	9	9
15	0.5	10	10
3	0.1	11	11
5	0.2	12	12
6	0.2	13	13
2	0.1	14	14
11	0.4	15	15
3	0.1	16	16
2	0.1	17	17
6	0.2	18	18
3	0.1	19	19
3	0.1	20	20
2	0.1	21	21
3	0.1	22	22
1	0.0	30	30
1	0.0	31	31
1	0.0	33	33

Variable Name	Format	Type	Length
Row	OT42F	Numeric	8

Definition: Identifies in which row in the vehicle the occupant was seated.

N	Prcnt	Code	Label
2,687	89.2	1	First row
197	6.5	2	Second row
15	0.5	3	Third row
4	0.1	4	Fourth row
1	0.0	5	Fifth row

Codebook – Occupants Data Set

N	Prcnt	Code	Label
61	2.0	8	Other
49	1.6	9	Unknown

Variable Name	Format	Type	Length
OCCLocation	OT43F	Numeric	8

Definition: Identifies in which seat in the vehicle the occupant was located. This variable is used in conjunction with the variable “Row” to determine the exact seating location for a particular occupant.

N	Prcnt	Code	Label
2,342	77.7	1	First location
37	1.2	2	Second location
522	17.3	3	Third location
3	0.1	4	Fourth location
61	2.0	8	Other position
49	1.6	9	Unknown

Variable Name	Format	Type	Length
Posture	ML188F	Numeric	8

Definition: Describes the occupant’s last known position in the vehicle just prior to impact. This variable is designed to capture those instances where an occupant was not in the usual upright, forward-facing seated position prior to the crash.

N	Prcnt	Code	Label
1,954	64.8	0	Normal Posture
22	0.7	2	Lying on or across seat
2	0.1	3	Kneeling, standing or sitting in front of seat
3	0.1	4	Sitting Sideways/turned to talk with another occupant/look out rear
5	0.2	6	Lying back in a reclined seat position
7	0.2	7	Bracing with feet or hands on a surface in front of seat
2	0.1	8	In the lap of another occupant
16	0.5	10	In a Child Seat
64	2.1	88	Other posture (specify)
939	31.2	99	Unknown

Variable Name	Format	Type	Length
OCCRestraintType	ML90F	Numeric	8

Definition: Describes the type of head restraint available for a particular seating position.

N	Prcnt	Code	Label
424	14.1	1	No head restraints
1,173	38.9	2	Integral

Codebook – Occupants Data Set

N	Prcnt	Code	Label
831	27.6	3	Adjustable
1	0.0	4	Add-on
585	19.4	9	Unknown

Variable Name	Format	Type	Length
RestraintDamage	ML260F	Numeric	8

Definition: Describes any type of damage to the head restraint by the occupant at a particular seating position.

N	Prcnt	Code	Label
142	4.7	1	No head restraints
2,136	70.9	2	No damage
113	3.7	3	Damaged during crash
623	20.7	9	Unknown

Variable Name	Format	Type	Length
SeatType	ML182F	Numeric	8

Definition: Describes the type of seat available for a particular occupant position.

N	Prcnt	Code	Label
778	25.8	1	Bucket
187	6.2	2	Bucket with folding back
185	6.1	3	Bench
31	1.0	4	Bench with separate back cushions
68	2.3	5	Bench with folding back(s)
98	3.3	6	Split bench with separate back cushions
53	1.8	7	Split bench with folding back(s)
8	0.3	8	Pedestal (i.e., column supported)
169	5.6	9	Box mounted seat (i.e., van type)
894	29.7	10	Other seat type (specify)
543	18.0	99	Unknown

Variable Name	Format	Type	Length
SeatOrientation	ML180F	Numeric	8

Definition: Describes the orientation (the direction that it is facing) of a particular seat in the vehicle.

N	Prcnt	Code	Label
2,419	80.3	1	Forward facing seat
3	0.1	3	Side facing seat (inward)
1	0.0	8	Other (specify)
591	19.6	9	Unknown

Codebook – Occupants Data Set

Variable Name	Format	Type	Length
TrackPosition	ML183F	Numeric	8

Definition: Describes the seat position (on its track) at the time of impact.

N	Prcnt	Code	Label
377	12.5	1	Non-adjustable seat track
44	1.5	2	Seat at forward most track position
124	4.1	3	Seat between forward most and middle track positions
553	18.3	4	Seat at middle track position
275	9.1	5	Seat between middle and rear most track positions
455	15.1	6	Seat at rear most track position
1,186	39.3	9	Unknown

Variable Name	Format	Type	Length
SeatPerformance	ML181F	Numeric	8

Definition: Assesses the performance of the seat during the crash sequence. The attributes are indications of whether the seat failed or was deformed in any way.

N	Prcnt	Code	Label
1,959	65.0	1	No seat performance failure(s)
9	0.3	2	Seat adjusters failed
4	0.1	3	Seat back folding locks or 'seat back' failed (specify)
8	0.3	4	Seat track/anchors failed
90	3.0	5	Deformed by impact of occupant
162	5.4	6	Deformed by passenger compartment intrusion (specify)
17	0.6	7	Combination of above (specify)
12	0.4	8	Other (specify)
753	25.0	9	Unknown

Variable Name	Format	Type	Length
IntegratedRestraints	ML111F	Numeric	8

Definition: Indicates whether or not the seat belts associated with a particular seat are an integral part of the seat. In other words, the belts are a part of the seat itself.

N	Prcnt	Code	Label
2,343	77.7	0	No
31	1.0	1	Yes
640	21.2	99	Unknown

Codebook – Occupants Data Set

Variable Name	Format	Type	Length
PriorInclination	ML179F	Numeric	8

Definition: Describes the pre-crash position of the seat back for a particular seat in the vehicle and is relevant only for adjustable (reclining) seat backs.

N	Prcnt	Code	Label
586	19.4	1	Not Adjustable
736	24.4	2	Upright
871	28.9	3	Slightly Reclined
5	0.2	4	Completely Reclined
816	27.1	9	Unknown

Variable Name	Format	Type	Length
PostInclination	ML178F	Numeric	8

Definition: Describes the post-impact position of the seat back for a particular seat in the vehicle and is relevant only for adjustable (reclining) seat backs. This variable reflects the change in the seat back incline position as a result of forces upon it during the crash sequence.

N	Prcnt	Code	Label
582	19.3	1	Not Adjustable
40	1.3	11	Moved to completely rearward position
50	1.7	12	Moved to rearward midrange position
11	0.4	13	Moved to slightly rearward position
1,472	48.8	14	Retained pre-impact position
17	0.6	15	Moved to slightly forward position
11	0.4	16	Moved to forward midrange position
7	0.2	24	Moved to upright position
2	0.1	27	Moved to completely forward position
822	27.3	99	Unknown

Variable Name	Format	Type	Length
ChildSeatAvailable	ML110F	Numeric	8

Definition: Indicates whether or not a particular occupant was seated in a child safety seat.

N	Prcnt	Code	Label
2,843	94.3	0	No
31	1.0	1	Yes
140	4.6	99	Unknown

Codebook – Occupants Data Set

Variable Name	Format	Type	Length
AirbagAvailable	BEST8	Numeric	8

Definition: Identifies whether an airbag was available for a particular seating position.

N	Prcnt	Code	Label
1,966	65.2	0	0
779	25.8	1	1
269	8.9	9	9

Variable Name	Format	Type	Length
ManualBeltAvailable	ML129F	Numeric	8

Definition: Identifies the type of manual belt system available for a particular seating position.

N	Prcnt	Code	Label
112	3.7	0	None available
9	0.3	1	Belt removed/destroyed
1	0.0	2	Shoulder Belt
272	9.0	3	Lap Belt
2,369	78.6	4	Lap and shoulder belt
18	0.6	5	Belt available - type unknown
1	0.0	6	Shoulder (lap destroyed/removed)
4	0.1	8	Other Belt (specify)
228	7.6	9	Unknown

Variable Name	Format	Type	Length
ManualBeltUsed	ML499F	Numeric	8

Definition: Documents actual usage of a manual belt at a particular seating position.

N	Prcnt	Code	Label
647	21.5	0	Not Used/ not available/ removed or destroyed
2	0.1	1	Inoperative (specify)
166	5.5	3	Lap Belt
1,807	60.0	4	Lap and shoulder belt
6	0.2	5	Belt used - type unknown
6	0.2	13	Lap w/child safety seat
18	0.6	14	Lap & shoulder w/child safety seat
2	0.1	15	Belt w/child seat - type unknown
360	11.9	99	Unknown if belt used

Codebook – Occupants Data Set

Variable Name	Format	Type	Length
ManualBeltProper	ML492F	Numeric	8

Definition: Documents if the manual belt system was used as it was intended to be used (as it was designed) at a particular seating location.

N	Prcnt	Code	Label
649	21.5	0	Not equipped/not available/not used
1,256	41.7	1	Used properly
6	0.2	2	Used properly w/child seat
2	0.1	3	Improper-shoulder worn under arm
2	0.1	4	Improper-shoulder worn behind back or seat
4	0.1	6	Improper-lap belt worn on abdomen
8	0.3	8	Other improper use (specify)
1,082	35.9	9	Unknown
5	0.2	10	Used, unknown if proper

Variable Name	Format	Type	Length
ManualBeltFailure	ML500F	Numeric	8

Definition: Indicates failure of a manual belt system during the crash sequence, based on physical evidence.

N	Prcnt	Code	Label
649	21.5	0	None used / Not available
1,864	61.8	1	No manual belt failure(s)
1	0.0	5	Other anchorage separated (specify)
500	16.6	9	Unknown

Variable Name	Format	Type	Length
AnchorAdjustment	ML133F	Numeric	8

Definition: Documents the position of the adjustable upper anchorage point of the manual shoulder belt at the time of the crash.

N	Prcnt	Code	Label
401	13.3	0	No manual shoulder belt
1,643	54.5	1	None for manual shoulder belt
128	4.2	2	In full up position
126	4.2	3	In mid position
148	4.9	4	In full down position
110	3.6	5	Position unknown
458	15.2	9	Unknown if adjuster present

Codebook – Occupants Data Set

Variable Name	Format	Type	Length
PretensionerAvailable	ML1138F	Numeric	8

Definition: Identifies whether or not a seat belt pretensioner is present for a manual belt. Pretensioners are designed to take up the slack in the seat belt during a crash of sufficient deceleration. When the vehicle is involved in a collision of sufficient force, a microprocessor causes current to flow through the seat belt deployment loops to the initiator. Current passing through the initiator ignites the material in the canister, producing a rapid generation of gas. The gas produced from this reaction deploys the seat belt pretensioners and shortens the seat belt pretensioner height, which removes all of the slack in the seat belts. The seat belt pretensioners will deploy immediately before the frontal initiator (air bag) modules deploy.

N	Prcnt	Code	Label
1	0.0	1	Not reinstalled
784	26.0	2	None present
8	0.3	3	Present
2,221	73.7	9	Unknown

Variable Name	Format	Type	Length
PretensionerActuated	ML1136F	Numeric	8

Definition: Documents whether or not a manual seat belt pretensioner activated during the crash.

N	Prcnt	Code	Label
191	6.3	0	No
1	0.0	1	Yes
2,822	93.6	9	Unknown

Variable Name	Format	Type	Length
PretensionerTravel	OT36F	Numeric	8

Definition: Documents the distance (in millimeters) the pretensioner moved from its original position during the crash.

N	Prcnt	Code	Label
3,014	100.0	999	Unknown

Variable Name	Format	Type	Length
Retractor	ML1200F	Numeric	8

Definition: Describes the type of retractor associated with a particular seat belt. Retractors wind up the loose webbing of the unused 3-point safety belt, take up the slack, and provide slight tension on belts that are in use.

N	Prcnt	Code	Label
178	5.9	0	None Present
221	7.3	1	Emergency Locking Retractor (ELR)
2	0.1	2	Automatic Locking Retractor

Codebook – Occupants Data Set

N	Prcnt	Code	Label
19	0.6	3	Switchable Retractor in ELR Mode
3	0.1	4	Switchable Retractor in ALR Mode
2	0.1	5	Switchable Retractor-Unknown Mode
2,589	85.9	9	Unknown Retractor Type

Variable Name	Format	Type	Length
ManualBeltSource	ML493F	Numeric	8

Definition: Documents from where the researcher obtained the preponderance of information to make the determination that the manual belt system was used.

N	Prcnt	Code	Label
120	4.0	0	Not Equipped/Not Available/Destroyed or Rendered Inoperative
2,249	74.6	1	Vehicle Inspection
21	0.7	2	Official Injury Data
263	8.7	3	Driver/occupant interview
45	1.5	8	Other (specify)
316	10.5	9	Unknown if belt used

Variable Name	Format	Type	Length
AutoBeltAvailable	ML134F	Numeric	8

Definition: Identifies the type of automatic belt system available for a particular seating position.

N	Prcnt	Code	Label
2,712	90.0	0	Not Equipped/Not Available
67	2.2	1	Two point automatic belts
43	1.4	2	Three point automatic belts
4	0.1	3	Automatic type unknown
1	0.0	4	Automatic destroyed or rendered inoperative
187	6.2	9	Unknown

Variable Name	Format	Type	Length
AutoBeltUsed	ML44F	Numeric	8

Definition: Documents actual usage of an automatic belt at a particular seating position.

N	Prcnt	Code	Label
2,718	90.2	0	Not Equipped/Not Available/destroyed or rendered inoperative
92	3.1	1	Automatic belt in use
10	0.3	2	Not in use (manually disconnected, motorized track inoperative)
10	0.3	3	Automatic belt use unknown
184	6.1	9	Unknown

Codebook – Occupants Data Set

Variable Name	Format	Type	Length
BeltMotorized	ML7F	Numeric	8

Definition: Indicates whether the automatic belt system is motorized or non-motorized.

N	Prcnt	Code	Label
2,697	89.5	0	Not Equipped/Not Available
51	1.7	1	Non-motorized system
61	2.0	2	Motorized system
205	6.8	9	Unknown

Variable Name	Format	Type	Length
AutoBeltProper	ML135F	Numeric	8

Definition: Documents if the automatic belt system was used as it was intended to be used (as it was designed) at a particular seating location.

N	Prcnt	Code	Label
2,728	90.5	0	Not Equipped/Not Available/Not Used
62	2.1	1	Used properly
1	0.0	8	Other improper use (specify)
223	7.4	9	Unknown

Variable Name	Format	Type	Length
AutoBeltFailure	ML502F	Numeric	8

Definition: Indicates failure of an automatic belt system during the crash sequence, based on physical evidence.

N	Prcnt	Code	Label
2,728	90.5	0	Not Equipped/Not Available/Not In Use
85	2.8	1	No automatic belt failure(s)
1	0.0	4	Upper anchorage separated
1	0.0	8	Other automatic belt failure (specify)
199	6.6	9	Unknown

Variable Name	Format	Type	Length
AutoBeltSource	ML494F	Numeric	8

Definition: Documents from where the researcher obtained the preponderance of information to make the determination that the automatic belt system was used.

N	Prcnt	Code	Label
2,702	89.6	0	Not Equipped/Not Available/Destroyed or Rendered Inoperative
100	3.3	1	Vehicle Inspection
6	0.2	3	Driver/occupant interview

Codebook – Occupants Data Set

N	Prcnt	Code	Label
4	0.1	8	Other (specify)
202	6.7	9	Unknown if belt used

Variable Name	Format	Type	Length
OCCInjSeverityCode	ML196F	Numeric	8

Definition: Identifies the police-reported injury severity for a particular occupant.

N	Prcnt	Code	Label
1,168	38.8	0	O - No injury
434	14.4	1	C - Possible injury
602	20.0	2	B - Non-incapacitating injury
439	14.6	3	A - Incapacitating injury
248	8.2	4	K - Killed
24	0.8	5	U - Injury, severity unknown
3	0.1	6	Died prior to crash
96	3.2	9	Unknown

Variable Name	Format	Type	Length
Mortality	ML195F	Numeric	8

Definition: Documents whether or not the occupant died as a result of the crash (either due to injuries received during the crash or due to a physical incapacitation that led to the crash).

N	Prcnt	Code	Label
2,706	89.8	0	Not Fatal
250	8.3	1	Fatal
12	0.4	2	Fatal - ruled disease (specify)
46	1.5	9	Unknown

Variable Name	Format	Type	Length
InitialTreatment	ML194F	Numeric	8

Definition: Describes the type of medical treatment an occupant received as a result of the crash.

N	Prcnt	Code	Label
1,366	45.3	0	No treatment
41	1.4	1	Dead on Arrival (DOA) at hospital
38	1.3	2	Dead prior to Admission
452	15.0	3	Hospitalization
846	28.1	4	Transported and released
23	0.8	5	Treatment at scene - non-transported
57	1.9	6	Treatment later
92	3.1	7	Transported to a medical facility-unknown if treated

Codebook – Occupants Data Set

N	Prcnt	Code	Label
4	0.1	8	Treatment - other (specify)
95	3.2	9	Unknown

Variable Name	Format	Type	Length
InitialFacility	ML193F	Numeric	8

Definition: Describes the category of medical facility that provided initial treatment to an occupant as a result of injuries from the crash.

N	Prcnt	Code	Label
1,428	47.4	0	Not treated at a medical facility
955	31.7	1	Trauma Center
466	15.5	2	Hospital
1	0.0	3	Medical clinic
57	1.9	5	Treatment later at medical facility
1	0.0	8	Other (specify)
106	3.5	9	Unknown

Variable Name	Format	Type	Length
HospitalDays	OT41F	Numeric	8

Definition: Documents the number of days that the occupant was hospitalized (after being admitted) in a primary medical care facility.

N	Prcnt	Code	Label
2,385	79.1	0	0
114	3.8	1	1
56	1.9	2	2
53	1.8	3	3
23	0.8	4	4
23	0.8	5	5
16	0.5	6	6
17	0.6	7	7
13	0.4	8	8
9	0.3	9	9
12	0.4	10	10
8	0.3	11	11
12	0.4	12	12
3	0.1	13	13
4	0.1	14	14
4	0.1	15	15
2	0.1	16	16
1	0.0	17	17

Codebook – Occupants Data Set

N	Prcnt	Code	Label
3	0.1	18	18
5	0.2	19	19
2	0.1	20	20
2	0.1	21	21
3	0.1	22	22
1	0.0	24	24
3	0.1	26	26
3	0.1	27	27
1	0.0	28	28
1	0.0	32	32
1	0.0	35	35
3	0.1	37	37
1	0.0	39	39
1	0.0	43	43
1	0.0	44	44
1	0.0	46	46
2	0.1	61	61
225	7.5	99	Unknown

Variable Name

Format Type Length

WorkDaysLost

OT41F Numeric 8

Definition: Documents the actual number of “work” days lost due to the crash by an employed person or a full-time college student. Employed is defined to mean that the occupant was scheduled to work at least four hours on each of the days lost. The days lost need not be due to injury.

N	Prcnt	Code	Label
867	28.8	0	0
101	3.4	1	1
75	2.5	2	2
31	1.0	3	3
15	0.5	4	4
41	1.4	5	5
12	0.4	6	6
8	0.3	7	7
4	0.1	8	8
4	0.1	9	9
22	0.7	10	10
3	0.1	11	11
2	0.1	12	12
2	0.1	13	13
9	0.3	14	14

Codebook – Occupants Data Set

N	Prcnt	Code	Label
10	0.3	15	15
2	0.1	16	16
1	0.0	19	19
4	0.1	20	20
3	0.1	21	21
2	0.1	22	22
2	0.1	23	23
1	0.0	24	24
2	0.1	25	25
3	0.1	28	28
19	0.6	30	30
1	0.0	35	35
1	0.0	43	43
2	0.1	45	45
6	0.2	60	60
25	0.8	61	61
661	21.9	88	Not applicable
1,073	35.6	99	Unknown

Variable Name

DateOfDeath

Format

\$7

Type

Char

Length

7

Definition: Identifies the actual date of death for a fatally injured occupant.

N	Prcnt	Code	Label
1	0.0	*	2001-01
6	0.2	*	2001-02
6	0.2	*	2001-03
7	0.2	*	2001-04
6	0.2	*	2001-05
8	0.3	*	2001-06
5	0.2	*	2001-07
5	0.2	*	2001-08
7	0.2	*	2001-09
9	0.3	*	2001-10
7	0.2	*	2001-11
5	0.2	*	2001-12
6	0.2	*	2002-01
14	0.5	*	2002-02
13	0.4	*	2002-03
8	0.3	*	2002-04
6	0.2	*	2002-05

Codebook – Occupants Data Set

N	Prcnt	Code	Label
8	0.3	*	2002-06
5	0.2	*	2002-07
12	0.4	*	2002-08
4	0.1	*	2002-09
1	0.0	*	2002-10
13	0.4	*	2002-11
3	0.1	*	2002-12
6	0.2	*	2003-01
6	0.2	*	2003-02
11	0.4	*	2003-03
4	0.1	*	2003-04
10	0.3	*	2003-05
6	0.2	*	2003-06
3	0.1	*	2003-07
10	0.3	*	2003-08
6	0.2	*	2003-09
10	0.3	*	2003-10
5	0.2	*	2003-11
5	0.2	*	2003-12
1	0.0	*	2004-09
2,766	91.8	*	9999-99

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Variable Name	Format	Type	Length
TimeOfDeath	\$OT26F	Char	10

Definition: Identifies the actual time of death for a fatally injured occupant (military clock time).

N	Prcnt	Code	Label
1	0.0	*	00:05
1	0.0	*	00:30
1	0.0	*	00:35
1	0.0	*	00:40
1	0.0	*	01:07
2	0.1	*	01:11
2	0.1	*	01:24
1	0.0	*	01:31
1	0.0	*	01:45
1	0.0	*	01:55

1	0.0	*	22:20
1	0.0	*	22:30
1	0.0	*	22:45
1	0.0	*	22:52

Codebook – Occupants Data Set

N	Prcnt	Code	Label
1	0.0	*	22:53
1	0.0	*	23:07
1	0.0	*	23:17
1	0.0	*	23:45
3	0.1	*	23:55
2,793	92.7	99:99	Unknown

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Variable Name	Format	Type	Length
InjuryCount	BEST8	Numeric	8

Definition: Represents the total number of coded injuries (coded by the Zone Center) for a particular occupant.

N	Prcnt	Code	Label
1,470	48.8	0	0
307	10.2	1	1
273	9.1	2	2
213	7.1	3	3
171	5.7	4	4
101	3.4	5	5
88	2.9	6	6
57	1.9	7	7
40	1.3	8	8
42	1.4	9	9
31	1.0	10	10
17	0.6	11	11
20	0.7	12	12
20	0.7	13	13
25	0.8	14	14
16	0.5	15	15
12	0.4	16	16
13	0.4	17	17
3	0.1	18	18
16	0.5	19	19
6	0.2	20	20
8	0.3	21	21
5	0.2	22	22
7	0.2	23	23
4	0.1	24	24
7	0.2	25	25
1	0.0	26	26
3	0.1	27	27

Codebook – Occupants Data Set

N	Prcnt	Code	Label
3	0.1	28	28
2	0.1	29	29
6	0.2	30	30
4	0.1	31	31
2	0.1	32	32
1	0.0	33	33
1	0.0	34	34
4	0.1	35	35
2	0.1	36	36
2	0.1	38	38
3	0.1	39	39
1	0.0	41	41
3	0.1	42	42
1	0.0	45	45
1	0.0	46	46
1	0.0	47	47
1	0.0	49	49

Variable Name	Format	Type	Length
GCSScore	ML108F	Numeric	8

Definition: Documents the actual value of the initial GCS score obtained at a medical facility. The Glasgow Coma Scale assesses three neurological functions: eye opening, motor response, and verbal response. The GCS is taken from medical records.

N	Prcnt	Code	Label
991	32.9	0	Not Injured
275	9.1	1	Injured - not treated at medical facility
439	14.6	2	No GCS Score at medical facility
18	0.6	3	GCS = 3
3	0.1	4	GCS = 4
3	0.1	5	GCS = 5
4	0.1	6	GCS = 6
6	0.2	7	GCS = 7
2	0.1	8	GCS = 8
1	0.0	9	GCS = 9
3	0.1	11	GCS = 11
4	0.1	12	GCS = 12
9	0.3	13	GCS = 13
25	0.8	14	GCS = 14
673	22.3	15	GCS = 15
197	6.5	97	Injured, details unknown
361	12.0	99	Unknown if injured

Codebook – Occupants Data Set

Variable Name	Format	Type	Length
UnitsTransfused	ML466F	Numeric	8

Definition: Documents the number of blood units given to an occupant for treatment of injuries resulting from the crash.

N	Prcnt	Code	Label
2,351	78.0	0	No Blood Given
3	0.1	1	1 Unit given
13	0.4	2	2 Units given
3	0.1	3	3 Units given
10	0.3	4	4 Units given
1	0.0	5	5 Units given
3	0.1	6	6 Units given
1	0.0	8	8 Units given
1	0.0	9	9 Units given
16	0.5	10	10 or more Units given
16	0.5	97	Blood given, # units unknown
596	19.8	99	Unknown if blood given

Variable Name	Format	Type	Length
ABGTest	ML109F	Numeric	8

Definition: Documents the reported HCO₃ (bicarbonate) value obtained for this occupant. This information is found on medical records.

N	Prcnt	Code	Label
991	32.9	0	Not Injured
1,344	44.6	1	Injured, ABG not measured or reported
8	0.3	2	ABG = 2
1	0.0	9	ABG = 9
1	0.0	12	ABG = 12
1	0.0	13	ABG = 13
1	0.0	14	ABG = 14
1	0.0	15	ABG = 15
3	0.1	16	ABG = 16
1	0.0	17	ABG = 17
5	0.2	18	ABG = 18
6	0.2	19	ABG = 19
7	0.2	20	ABG = 20
5	0.2	21	ABG = 21
10	0.3	22	ABG = 22
11	0.4	23	ABG = 23
7	0.2	24	ABG = 24

Codebook – Occupants Data Set

N	Prcnt	Code	Label
7	0.2	25	ABG = 25
5	0.2	26	ABG = 26
2	0.1	27	ABG = 27
7	0.2	28	ABG = 28
2	0.1	29	ABG = 29
5	0.2	30	ABG = 30
1	0.0	32	ABG = 32
1	0.0	33	ABG = 33
14	0.5	96	ABG reported, HCO3 unknown
206	6.8	97	Injured, details unknown
361	12.0	99	Unknown if injured

Overview Data Set

The Overview data set contains a summary of factors coded to each vehicle involved in the crash. Data from select assessment variables in other data sets are provided here. This facilitates analysis of factors that may have contributed to the crash. However, it is important to note that the presence of a particular factor does not necessarily indicate causation. There is one record in the data set for each vehicle.

The Overview data set contains the variables CaseID, PSU, PSUStrat, RATWeight and VehicleNumber. CaseID and VehicleNumber uniquely identify each record in this data set and should be used to merge the Overview data set with other vehicle level data sets.

Variable Name	Format	Type	Length
OVEMake	ML241F	Numeric	8

Definition: This vehicle identifies the vehicle make for this vehicle.

N	Prcnt	Code	Label
18	0.8	2	JEEP / KAISER-JEEP
11	0.5	6	CHRYSLER
64	2.8	7	DODGE
28	1.2	9	PLYMOUTH
2	0.1	10	EAGLE
266	11.6	12	FORD
12	0.5	13	LINCOLN
23	1.0	14	MERCURY
16	0.7	18	BUICK
18	0.8	19	CADILLAC
174	7.6	20	CHEVROLET
17	0.7	21	OLDSMOBILE
29	1.3	22	PONTIAC
73	3.2	23	GMC
10	0.4	24	SATURN
1	0.0	25	GRUMMAN
10	0.4	30	VOLKSWAGEN
3	0.1	32	AUDI
8	0.4	34	BMW
57	2.5	35	NISSAN / DATSUN
85	3.7	37	HONDA
25	1.1	38	ISUZU
16	0.7	41	MAZDA
7	0.3	42	MERCEDES BENZ
2	0.1	47	SAAB
6	0.3	48	SUBARU
96	4.2	49	TOYOTA
100	4.4	51	VOLVO

Codebook – Overview Data Set

N	Prcnt	Code	Label
30	1.3	52	MITSUBISHI
3	0.1	53	SUZUKI
11	0.5	54	ACURA
13	0.6	55	HYUNDAI
1	0.0	56	MERKUR
5	0.2	58	INFINITI
6	0.3	59	LEXUS
1	0.0	62	LAND ROVER
6	0.3	63	KIA
4	0.2	72	HARLEY-DAVIDSON
2	0.1	73	KAWASAKI
1	0.0	79	OTHER MAKE MOTORED CYCLE
1	0.0	80	BROCKWAY
319	14.0	82	FREIGHTLINER/WHITE
177	7.7	84	INTERNATIONAL HARVESTER/NAVISTAR
154	6.7	85	KENWORTH
159	7.0	86	MACK
148	6.5	87	PETERBILT
54	2.4	98	OTHER MAKE (med/heavy truck/bus or "other")
12	0.5	99	UNKNOWN MANUFACTURER

Variable Name

OVEModel

Format

BEST8

Type

Numeric

Length

8

Definition: Identifies the vehicle model for this vehicle (with OVEMake).

N	Prcnt	Code	Label
14	0.6	1	1
17	0.7	2	2
27	1.2	3	3
6	0.3	4	4
8	0.4	5	5
8	0.4	6	6
7	0.3	7	7
1	0.0	8	8
13	0.6	9	9
3	0.1	10	10

8	0.4	880	880
1,062	46.5	881	881
27	1.2	882	882
73	3.2	883	883

Codebook – Overview Data Set

N	Prcnt	Code	Label
5	0.2	884	884
5	0.2	890	890
19	0.8	898	898
9	0.4	899	899
7	0.3	988	988
2	0.1	998	998

Variable Name	Format	Type	Length
OVEYear	OT28F	Numeric	8

Definition: Establishes the model year that the vehicle was manufactured.

N	Prcnt	Code	Label
1	0.0	1957	1957
1	0.0	1967	1967
1	0.0	1971	1971
1	0.0	1972	1972
1	0.0	1973	1973
3	0.1	1974	1974
1	0.0	1975	1975
5	0.2	1976	1976
2	0.1	1977	1977
7	0.3	1978	1978
13	0.6	1979	1979
5	0.2	1980	1980
9	0.4	1981	1981
8	0.4	1982	1982
13	0.6	1983	1983
28	1.2	1984	1984
35	1.5	1985	1985
31	1.4	1986	1986
51	2.2	1987	1987
60	2.6	1988	1988
85	3.7	1989	1989
88	3.9	1990	1990
70	3.1	1991	1991
89	3.9	1992	1992
97	4.2	1993	1993
135	5.9	1994	1994
146	6.4	1995	1995
150	6.6	1996	1996
157	6.9	1997	1997

Codebook – Overview Data Set

N	Prcnt	Code	Label
194	8.5	1998	1998
201	8.8	1999	1999
244	10.7	2000	2000
171	7.5	2001	2001
93	4.1	2002	2002
64	2.8	2003	2003
9	0.4	2004	2004
15	0.7	9999	Unknown

Variable Name	Format	Type	Length
OVEConfiguration	\$OT44F	Char	10

Definition: Provides a summary of the configuration of the rig. Letter codes are “strung together” (listed from left to right) to represent the order of equipment in the rig. For example, a tractor pulling two trailers connected by an A-dolly would have a configuration of “TSAS”.

N	Prcnt	Code	Label
1,043	45.7	88	Not a truck
1	0.0	ISS	ISS
22	1.0	Not Insp	Not Insp
309	13.5	R	R
20	0.9	RF	RF
24	1.1	RO	RO
1	0.0	ROO	ROO
29	1.3	T	T
6	0.3	TO	TO
773	33.8	TS	TS
1	0.0	TSA	TSA
22	1.0	TSAS	TSAS
2	0.1	TSCS	TSCS
29	1.3	TSF	TSF
2	0.1	TSXS	TSXS

Variable Name	Format	Type	Length
Movement	ML657F	Numeric	8

Definition: Establishes the subject vehicle’s pre-critical event movement pattern. The pre-event movement pattern is usually described as the point that both precedes the critical precrash envelope and that precedes vehicle motions that place the involved vehicle(s) on an imminent collision path.

N	Prcnt	Code	Label
24	1.1	0	No driver present
1,141	50.0	1	Going Straight
155	6.8	2	Decelerating in traffic lane

Codebook – Overview Data Set

N	Prcnt	Code	Label
33	1.4	3	Accelerating in traffic lane
14	0.6	4	Starting in traffic lane
296	13.0	5	Stopped in traffic lane
53	2.3	6	Passing or overtaking another vehicle
3	0.1	7	Disabled or parked in travel lane
15	0.7	10	Turning right
36	1.6	11	Turning left
3	0.1	12	Making a U-turn
7	0.3	13	Backing up (other than for parking position)
274	12.0	14	Negotiating a curve
86	3.8	15	Changing lanes
17	0.7	16	Merging
63	2.8	17	Successful avoidance maneuver to a previous critical event
26	1.1	98	Other (specify)
38	1.7	99	Unknown

Variable Name	Format	Type	Length
OVECriticalEvent	ML654F	Numeric	8

Definition: Identifies the event which made the crash imminent (i.e. something occurred which made the collision inevitable). A precrash critical event is coded for each vehicle in the crash and documents the circumstances leading to this vehicle's first impact in the crash sequence.

N	Prcnt	Code	Label
13	0.6	1	Blow out/flat tire, (specify blow out/flat,location/make)
7	0.3	3	Disabling vehicle failure (e.g, wheel fell off) Specify:
5	0.2	4	Non-disabling vehicle problem (e.g., hood flew up) Specify:
16	0.7	5	Poor road conditions(Puddle,pot hole,ice,etc.) Specify:
122	5.3	6	Traveling too fast for conditions
12	0.5	7	Jackknife Event
26	1.1	8	Other cause of control loss (specify)
13	0.6	9	Unknown cause of control loss
131	5.7	10	Over the lane line on left side of travel lane
63	2.8	11	Over the lane line on right side of travel lane
42	1.8	12	Off the edge of the road on the left side
83	3.6	13	Off the edge of the road on the right side
1	0.0	14	End departure
76	3.3	15	Turning left at intersection
22	1.0	16	Turning right at interesection
76	3.3	17	Crossing over (passing through) intersection
7	0.3	18	This vehicle decelerating
119	5.2	50	Other vehicle stopped
79	3.5	51	Travelling in same direction with low steady speed

Codebook – Overview Data Set

N	Prcnt	Code	Label
82	3.6	52	Travelling in same direction while decelerating
252	11.0	53	Traveling in same direction with higher speed
30	1.3	54	Traveling in opposite direction
2	0.1	55	In crossover
2	0.1	56	Backing
1	0.0	59	Unknown travel direction of other motor vehicle in lane
91	4.0	60	From adjacent lane (same direction) - over left lane line
95	4.2	61	From adjacent lane (same direction -over right lane line
110	4.8	62	From opposite direction-over left lane line
2	0.1	63	From opposite direction -over right lane line
4	0.2	65	From crossing street, turning into same direction
68	3.0	66	From crossing street, across path
22	1.0	67	From crossing street ,turning into opposite direction
2	0.1	70	From driveway,turning into same direction
4	0.2	71	From driveway, across path
5	0.2	72	From driveway, turning into oppsite direction
1	0.0	74	From enterance to limited access highway
26	1.1	80	Pedestrian in roadway
1	0.0	81	Pedestrain approaching roadway
7	0.3	83	Pedalcyclist or other nonmotorist in roadway (specify):
1	0.0	87	Animal in roadway
16	0.7	90	Object in roadway
41	1.8	98	Other (Specify)
14	0.6	100	Cargo Shift
492	21.5	125	Not involved first harmful event

Variable Name

OVERReason

Format Type Length
ML655F Numeric 8

Definition: Establishes the critical reason for the occurrence of the critical event. The critical reason is the immediate reason for this event and is often the last failure in the causal chain (i.e. closest in time to the critical precrash event). Although the critical reason is an important part of the description of crash events, it is not the cause of the crash nor does it imply the assignment of fault.

N	Prcnt	Code	Label
1,229	53.8	0	Critical event not coded to this vehicle
59	2.6	100	Sleep, that is, actually asleep
40	1.8	101	Heart attack or other physical impairment of the ability to act
3	0.1	108	Other critical non-performance (specify)
6	0.3	109	Unknown critical non-performance
59	2.6	110	Inattention (i.e., daydreaming)
43	1.9	111	Internal distraction
28	1.2	112	External distraction
138	6.0	113	Inadequate surveillance (e.g., failed to look, looked but did not

Codebook – Overview Data Set

N	Prcnt	Code	Label
3	0.1	118	Other recognition error (specify)
53	2.3	119	Unknown recognition error
69	3.0	120	Too fast for conditions to be able to respond to unexpected
2	0.1	121	Too slow for traffic stream
36	1.6	122	Misjudgment of gap or other's speed
34	1.5	123	Following too closely to respond to unexpected actions
22	1.0	124	False assumption of other road user's actions
44	1.9	125	Illegal maneuver
6	0.3	127	Inadequate evasive action, e.g. braking only, not braking and
23	1.0	128	Aggressive driving behavior
20	0.9	138	Other decision error (specify)
3	0.1	139	Unknown decision error
63	2.8	140	Too fast for curve/turn
1	0.0	141	Panic/Freezing
40	1.8	142	Overcompensation
38	1.7	143	Poor directional control e.g., failing to control vehicle with skill
2	0.1	149	Unknown performance error
98	4.3	199	Type of driver error unknown
16	0.7	200	Tires/wheels failed
8	0.4	201	Brakes failed
1	0.0	202	Steering failed
17	0.7	203	Cargo shifted
1	0.0	204	Trailer attachment failed
2	0.1	205	Suspension failed
1	0.0	208	Body, doors, hood failed
2	0.1	298	Other vehicle failure (specify)
1	0.0	299	Unknown vehicle failures
1	0.0	500	Signs/signals missing
1	0.0	504	View obstructed by other vehicles
1	0.0	505	Road design - roadway geometry (e.g., ramp curvature)
1	0.0	507	Road design - other
20	0.9	509	Slick roads (low friction road surface due to ice, loose debris, any
1	0.0	518	Other highway-related condition (specify)
1	0.0	522	Fog
2	0.1	523	Wind gust
7	0.3	530	Glare
18	0.8	540	Degraded braking capability
3	0.1	541	Transmission/engine failure
17	0.7	999	Unknown reason for critical event

Codebook – Overview Data Set

Variable Name	Format	Type	Length
OVEAvoidance	ML656F	Numeric	8

Definition: Attempted avoidance maneuvers are movements/actions initiated by the subject driver, within the crucial crash envelope, in response to a critical precrash event. Attempted avoidance maneuvers occur after the driver has realization of an impending danger. Documents the driver's actions initiated in response to the realization of impending danger.

N	Prcnt	Code	Label
24	1.1	0	No driver present
1,219	53.4	1	No avoidance maneuver
137	6.0	2	Braking (no lockup)
219	9.6	3	Braking (lockup)
13	0.6	4	Braking (lockup unknown)
61	2.7	6	Steering left
72	3.2	7	Steering right
106	4.6	8	Braking and steering left
128	5.6	9	Braking and steering right
21	0.9	10	Accelerating
8	0.4	11	Accelerating and steering left
10	0.4	12	Accelerating and steering right
115	5.0	98	Other action (specify)
151	6.6	99	Unknown

Variable Name	Format	Type	Length
OVEStability	ML659F	Numeric	8

Definition: The purpose of this variable is to assess the stability of the vehicle after the critical event. The stability of the vehicle prior to an avoidance action is not considered except in the following situation: A vehicle that is out of control (e.g. yawing clockwise) prior to an avoidance maneuver is coded "Other vehicle loss of control" only if an avoidance action was taken in response to an impending danger. Thus, the variable focuses upon this vehicle's dynamics after the critical event.

N	Prcnt	Code	Label
24	1.1	0	No driver present
1,644	72.0	1	Tracking
368	16.1	2	Skidding longitudinally->rotation less than 30 degrees
59	2.6	3	Skidding laterally->clockwise rotation
72	3.2	4	Skidding laterally->counterclockwise rotation
47	2.1	8	Other vehicle loss-of-control (specify)
70	3.1	9	Pre-crash stability unknown

Codebook – Overview Data Set

Variable Name	Format	Type	Length
OVELocation	ML658F	Numeric	8

Definition: Reports the location of the subject vehicle at the point where its pre-impact stability is determined.

N	Prcnt	Code	Label
24	1.1	0	No driver present
1,431	62.7	1	Stayed in original travel lane
521	22.8	2	Stayed on roadway but left original travel lane
10	0.4	3	Stayed on roadway, not known if left original travel lane
221	9.7	4	Departed roadway
11	0.5	5	Remained off roadway
24	1.1	6	Returned to roadway
13	0.6	7	Entered roadway
29	1.3	9	Unknown

Variable Name	Format	Type	Length
OVERightOfWay	ML660F	Numeric	8

Definition: Establishes vehicle right-of-way characteristics, from a legal perspective, for the subject vehicle. Specifically, did this vehicle have the right-of-way?

N	Prcnt	Code	Label
581	25.4	1	Yes
401	17.6	2	No
1,295	56.7	88	Not Applicable
7	0.3	99	Unknown

Variable Name	Format	Type	Length
OVEAccidentType	OT2F	Numeric	8

Definition: Is used in categorizing the collisions of drivers involved in crashes. A collision is defined here as the first harmful event in a crash between a vehicle and some object, accompanied by property damage or human injury. The object may be another vehicle, a person, an animal, a fixed object, the road surface, or the ground. If the first collision is a rollover, the impact is with the ground or road surface. The collision may also involve plowing into soft ground, if severe deceleration results in damage or injury. A road departure without damage or injury is not defined as a collision. This variable is part of the larger variable “Crash Type.” The “Crash Type” variable is actually broken down into three components: the crash category, the crash configuration, and the accident type. This variable only deals with the configuration of the crash.

N	Prcnt	Code	Label
115	5.0	1	Right Roadside Departure
562	24.6	2	Rear-End
80	3.5	3	Head-On
118	5.2	4	Turn Across Path

Codebook – Overview Data Set

N	Prcnt	Code	Label
144	6.3	5	Straight Paths
104	4.6	6	Same Trafficway Opposite Directions - Sideswipe/Angle
101	4.4	7	Left Roadside Departure
5	0.2	8	Same Trafficway Same Direction - Forward Impact
10	0.4	9	Same Trafficway Opposite Directions - Forward Impact
88	3.9	10	Turn Into Path
46	2.0	11	Single Driver - Forward Impact
268	11.7	12	Same Trafficway Same Direction - Sideswipe/Angle
643	28.2	13	Miscellaneous

Variable Name	Format	Type	Length
OVECrashCode	BEST8	Numeric	8

Definition: Is used in categorizing the collisions of drivers involved in crashes. A collision is defined here as the first harmful event in a crash between a vehicle and some object, accompanied by property damage or human injury. The object may be another vehicle, a person, an animal, a fixed object, the road surface, or the ground. If the first collision is a rollover, the impact is with the ground or road surface. The collision may also involve plowing into soft ground, if severe deceleration results in damage or injury. A road departure without damage or injury is not defined as a collision. This variable encompasses the “Crash Configuration” variable, which is a component of this variable.

N	Prcnt	Code	Label
18	0.8	0	0
65	2.8	1	1
43	1.9	2	2
6	0.3	3	3
1	0.0	5	5
38	1.7	6	6
54	2.4	7	7
6	0.3	8	8
1	0.0	9	9
2	0.1	10	10
2	0.1	11	11
3	0.1	12	12
32	1.4	13	13
1	0.0	14	14
8	0.4	15	15
113	4.9	20	20
106	4.6	21	21
7	0.3	22	22
1	0.0	23	23
90	3.9	24	24
85	3.7	25	25
2	0.1	26	26

Codebook – Overview Data Set

N	Prcnt	Code	Label
2	0.1	27	27
61	2.7	28	28
53	2.3	29	29
1	0.0	30	30
7	0.3	31	31
32	1.4	32	32
2	0.1	33	33
4	0.2	42	42
1	0.0	43	43
7	0.3	44	44
105	4.6	45	45
49	2.1	46	46
53	2.3	47	47
54	2.4	48	48
35	1.5	50	50
35	1.5	51	51
10	0.4	52	52
10	0.4	62	62
45	2.0	64	64
45	2.0	65	65
14	0.6	66	66
38	1.7	68	68
38	1.7	69	69
10	0.4	70	70
10	0.4	71	71
10	0.4	72	72
10	0.4	73	73
2	0.1	74	74
4	0.2	76	76
4	0.2	77	77
5	0.2	78	78
5	0.2	79	79
4	0.2	80	80
4	0.2	81	81
30	1.3	82	82
30	1.3	83	83
2	0.1	84	84
31	1.4	86	86
31	1.4	87	87
38	1.7	88	88
38	1.7	89	89
6	0.3	90	90
7	0.3	92	92

Codebook – Overview Data Set

N	Prcnt	Code	Label
4	0.2	93	93
614	26.9	98	98

Variable Name	Format	Type	Length
OVEJackKnife	AP1U	Numeric	8

Definition: Indicates whether or not a jackknife occurred for this vehicle

N	Prcnt	Code	Label
2,223	97.3	0	Absent
61	2.7	1	Present

Variable Name	Format	Type	Length
OVECargoShift	AP1U	Numeric	8

Definition: Indicates whether or not a cargo shift occurred for this vehicle.

N	Prcnt	Code	Label
2,241	98.1	0	Absent
43	1.9	1	Present

Variable Name	Format	Type	Length
OVEAlcohol	AP1U	Numeric	8

Definition: Indicates whether or not there was any alcohol involvement for this vehicle/driver.

N	Prcnt	Code	Label
2,199	96.3	0	Absent
85	3.7	1	Present

Variable Name	Format	Type	Length
AnyDrugsVeh	AP1U	Numeric	8

Definition: Indicates whether or not any drugs (either legal or illegal) were coded as present for this vehicle/driver.

N	Prcnt	Code	Label
2,198	96.2	0	Absent
86	3.8	1	Present

Codebook – Overview Data Set

Variable Name	Format	Type	Length
DriverPhysical	AP1U	Numeric	8

Definition: Indicates whether or not there were any other physical factors coded for this vehicle/driver.

N	Prcnt	Code	Label
1,520	66.5	0	Absent
764	33.5	1	Present

Variable Name	Format	Type	Length
DriverFatigue	AP1U	Numeric	8

Definition: Indicates whether or not the driver in this vehicle was coded as being fatigued at the time of the crash.

N	Prcnt	Code	Label
2,068	90.5	0	Absent
216	9.5	1	Present

Variable Name	Format	Type	Length
OVERecognition	AP1U	Numeric	8

Definition: Indicates whether or not any recognition-related factors were coded for this vehicle/driver.

N	Prcnt	Code	Label
1,803	78.9	0	Absent
481	21.1	1	Present

Variable Name	Format	Type	Length
OVEDecision	AP1U	Numeric	8

Definition: Indicates whether or not any decision-related factors were coded for this vehicle/driver.

N	Prcnt	Code	Label
1,825	79.9	0	Absent
459	20.1	1	Present

Codebook – Overview Data Set

Variable Name	Format	Type	Length
Aggression	AP1U	Numeric	8

Definition: Indicates whether or not any aggression factors were coded for this vehicle/driver.

N	Prcnt	Code	Label
2,136	93.5	0	Absent
148	6.5	1	Present

Variable Name	Format	Type	Length
OVESurveillance	AP1U	Numeric	8

Definition: Indicates whether or not any surveillance-related factors were coded for this vehicle/driver.

N	Prcnt	Code	Label
1,807	79.1	0	Absent
477	20.9	1	Present

Variable Name	Format	Type	Length
EmotionExperience	AP1U	Numeric	8

Definition: Indicates whether or not there were any emotional or experience-related factors coded for this vehicle/driver.

N	Prcnt	Code	Label
1,692	74.1	0	Absent
592	25.9	1	Present

Variable Name	Format	Type	Length
CarrierEmployer	AP1U	Numeric	8

Definition: Indicates whether or not any carrier or employer factors were coded for this vehicle/driver.

N	Prcnt	Code	Label
2,191	95.9	0	Absent
93	4.1	1	Present

Codebook – Overview Data Set

Variable Name	Format	Type	Length
Traffic	AP1U	Numeric	8

Definition: Indicates whether or not any traffic-related factors were coded for this vehicle/driver.

N	Prcnt	Code	Label
1,529	66.9	0	Absent
755	33.1	1	Present

Variable Name	Format	Type	Length
VehicleState	AP1U	Numeric	8

Definition: Indicates whether or not any vehicle-related factors (deficiencies or malfunctions) were coded for this vehicle.

N	Prcnt	Code	Label
1,752	76.7	0	Absent
532	23.3	1	Present

Variable Name	Format	Type	Length
Roadway	AP1U	Numeric	8

Definition: Indicates whether or not any roadway-related factors were coded for this vehicle/driver.

N	Prcnt	Code	Label
1,864	81.6	0	Absent
420	18.4	1	Present

Variable Name	Format	Type	Length
Weather	AP1U	Numeric	8

Definition: Indicates whether or not any weather-related factors were coded for this vehicle/driver.

N	Prcnt	Code	Label
1,944	85.1	0	Absent
340	14.9	1	Present

Variable Name	Format	Type	Length
OVEEnvironment	AP1U	Numeric	8

Definition: Indicates whether or not there were any environmental factors coded for this vehicle/driver.

N	Prcnt	Code	Label
2,269	99.3	0	Absent
15	0.7	1	Present

Codebook – Overview Data Set

Variable Name

OVESpeed

Format	Type	Length
AP1U	Numeric	8

Definition: Indicates whether or not any speed-related or gap distance-related factors were coded for this vehicle/driver.

N	Prcnt	Code	Label
1,811	79.3	0	Absent
473	20.7	1	Present

Variable Name

NonMotorist

Format	Type	Length
AP1U	Numeric	8

Definition: Indicates whether or not a nonmotorist was involved in an impact with this vehicle.

N	Prcnt	Code	Label
2,229	97.6	0	Absent
55	2.4	1	Present

Codebook – PARViolations Data Set

PARViolations Data Set

The PARViolations data set contains violations filed against the driver as a result of the crash and reported on the Police Accident Report. One record of this information is stored for each violation charged.

The PARViolations data set contains the variables CaseID, PSU, PSUStrat, RATWeight, and VehicleNumber. CaseID, VehicleNumber and PARViolationCode uniquely identify each record in this data set. CaseID and VehicleNumber should be used to merge the PARViolations data set with vehicle level data sets.

Variable Name	Format	Type	Length
PARViolationCode	BEST8	Numeric	8

Definition: Indicates violation of the Vehicle Code as charged by the investigating officer and as noted on the police report.

N	Prcnt	Code	Label
1,101	56.6	0	0
11	0.6	1	1
12	0.6	2	2
21	1.1	3	3
55	2.8	4	4
3	0.2	7	7
21	1.1	11	11
3	0.2	12	12
1	0.1	13	13
1	0.1	15	15
5	0.3	19	19
14	0.7	22	22
99	5.1	23	23
2	0.1	24	24
21	1.1	29	29
14	0.7	31	31
1	0.1	33	33
1	0.1	34	34
2	0.1	35	35
2	0.1	36	36
10	0.5	37	37
1	0.1	39	39
3	0.2	42	42
3	0.2	43	43
30	1.5	46	46
1	0.1	48	48
10	0.5	49	49
1	0.1	51	51

Codebook – PARViolations Data Set

N	Prcnt	Code	Label
12	0.6	52	52
1	0.1	53	53
24	1.2	58	58
1	0.1	59	59
33	1.7	61	61
6	0.3	62	62
2	0.1	63	63
10	0.5	69	69
19	1.0	71	71
18	0.9	72	72
77	4.0	73	73
15	0.8	74	74
15	0.8	75	75
19	1.0	76	76
11	0.6	79	79
27	1.4	81	81
79	4.1	82	82
16	0.8	83	83
23	1.2	86	86
65	3.3	89	89
1	0.1	92	92
1	0.1	93	93
10	0.5	98	98
11	0.6	99	99

Variable Name	Format	Type	Length
PARDescription	\$100	Char	100

Definition: Describes the violations charged to the driver as indicated on the police report.

N	Prcnt	Code	Label
5	0.3	*	Alcohol, drug or impairment violations, generally
79	4.1	*	Brake violations
2	0.1	*	Certain traffic to use right lane (trucks, slow-moving, etc.)
77	4.0	*	Commercial driver violations (log book, hours, permits carried)
12	0.6	*	Driving on left, wrong side of road, generally
19	1.0	*	Driving uninsured vehicle
1	0.1	*	Driving where prohibited (sidewalk, limited access, off truck
3	0.2	*	Driving while impaired
21	1.1	*	Driving while intoxicated(alco/drug) or BAC above limit(any
19	1.0	*	Driving while license withdrawn (including violation of work
1	0.1	*	Driving while under influence of substance not intended to

Codebook – PARViolations Data Set

N	Prcnt	Code	Label
1	0.1	*	Driving wrong way on one-way road
1	0.1	*	Enter intersection, when space insufficient
65	3.3	*	Equipment violations, generally
2	0.1	*	Exceeding special speed limit(e.g.:for trucks, buses, bridge,
15	0.8	*	Failure to carry insurance card
1	0.1	*	Failure to obey flashing signal (yellow or red)
2	0.1	*	Failure to obey signal, generally
10	0.5	*	Failure to obey stop sign
1	0.1	*	Failure to obey traffic control device, generally
16	0.8	*	Failure to require restraint use (by self or passengers)
3	0.2	*	Failure to signal for turn or stop
14	0.7	*	Failure to stop for red signal
30	1.5	*	Failure to yield, generally
24	1.2	*	Following too closely
3	0.2	*	Hit-and-run, failure to stop after accident
1	0.1	*	Illegal possession of alcohol or drugs
3	0.2	*	Improper method & position of turn (too wide, wrong lane)
6	0.3	*	Improper use of lane (center of 3-lane road, HOV designed lane)
1	0.1	*	Improper, unsafe passing
55	2.8	*	Inattentive, careless, improper driving
27	1.4	*	Lamp violations
10	0.5	*	Lane violations, generally
11	0.6	*	Manslaughter or homicide
11	0.6	*	Non-moving violations, generally
1,101	56.6	*	None
18	0.9	*	Other driver license violations
10	0.5	*	Other moving violation (coasting, backing, opening door)
23	1.2	*	Size, weight, load violations
99	5.1	*	Speed greater than reasonable & prudent (not necessarily over
21	1.1	*	Speed related, violations, generally
14	0.7	*	Speeding (above the speed limit)
1	0.1	*	Theft, unauthorized use of motor vehicle
10	0.5	*	Turn, yield, signaling violations, generally
11	0.6	*	Unknown VIOLATION
33	1.7	*	Unsafe or prohibited lane change
21	1.1	*	Unsafe reckless (not willful, wanton reckless) driving
15	0.8	*	Vehicle registration violations
2	0.1	*	Violate RR grade crossing device/regulations
1	0.1	*	Violation of turn on red (failure to stop & yield to pedestrians
12	0.6	*	Willful reckless driving, driving to endanger, negligent driving
1	0.1	*	Wrong side, passing, following violations, generally

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Codebook – SaferAuthorityStatus Data Set

SaferAuthorityStatus Data Set

The SaferAuthorityStatus data set includes information on the insurance licensing authority for the driver's carrier. This material is imported from the FMCSA Safety and Fitness Electronic Records (SAFER) database and is provided as one record per vehicle/driver for which this carrier information is available.

The SaferAuthorityStatus data set contains the variables CaseID, PSU, PSUStrat, RATWeight, and VehicleNumber. CaseID and VehicleNumber uniquely identify each record in this data set and should be used to merge the SaferAuthorityStatus data set with vehicle level data sets.

Variable Name	Format	Type	Length
CommonStatus	\$20	Char	20

Definition: Describes the standing of the common carrier certificate (operating authority).

N	Prcnt	Code	Label
342	56.5	*	ACTIVE
51	8.4	*	INACTIVE
189	31.2	*	NONE
23	3.8	*	UNK

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Variable Name	Format	Type	Length
ContractStatus	\$20	Char	20

Definition: Describes the standing of the contract carrier permit (operating authority).

N	Prcnt	Code	Label
456	75.4	*	ACTIVE
38	6.3	*	INACTIVE
88	14.5	*	NONE
23	3.8	*	UNK

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Variable Name	Format	Type	Length
BrokerStatus	\$20	Char	20

Definition: Describes the standing of the broker license (operating authority).

N	Prcnt	Code	Label
13	2.1	*	ACTI
119	19.7	*	ACTIVE
3	0.5	*	INAC
34	5.6	*	INACTIVE
413	68.3	*	NONE
23	3.8	*	UNK

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

SaferCarrier Data Set

The SaferCarrier data set contains information on the operations of the driver's carrier from the FMCSA SAFER database. This material is provided as one record per vehicle/driver for which this carrier information is available.

The SaferCarrier data set contains the variables CaseID, PSU, PSUStrat, RATWeight, and VehicleNumber. CaseID and VehicleNumber uniquely identify each record in this data set and should be used to merge the SaferCarrier data set with vehicle level data sets.

Variable Name	Format	Type	Length
AuthorizedForHire	AP1U	Numeric	8

Definition: A commercial entity whose primary business activity is the transportation of property or passengers by motor vehicle for compensation.

N	Prcnt	Code	Label
225	28.3	0	Absent
571	71.7	1	Present

Variable Name	Format	Type	Length
ExemptForHire	AP1U	Numeric	8

Definition: A for-hire entity transporting commodities or conducting operations not subject to economic regulation by the Interstate Commerce Commission.

N	Prcnt	Code	Label
761	95.6	0	Absent
35	4.4	1	Present

Variable Name	Format	Type	Length
PrivateProperty	AP1U	Numeric	8

Definition: An entity whose highway transportation activities are incidental to, and in furtherance of, its primary business activity.

N	Prcnt	Code	Label
598	75.1	0	Absent
198	24.9	1	Present

Codebook – SaferCarrier Data Set

Variable Name	Format	Type	Length
PrivatePassengersBusiness	AP1U	Numeric	8

Definition: A private entity engaged in the interstate transportation of passengers which is provided in the furtherance of a commercial enterprise and is not available to the public at large.

N	Prcnt	Code	Label
796	100.0	0	Absent

Variable Name	Format	Type	Length
PrivatePassengersNonBusiness	AP1U	Numeric	8

Definition: A private entity engaged in the interstate transportation of passengers that does not otherwise meet the definition of a private entity transporting passengers (business) (e.g. church buses).

N	Prcnt	Code	Label
796	100.0	0	Absent

Variable Name	Format	Type	Length
Migrant	AP1U	Numeric	8

Definition: An entity who transports in interstate or foreign commerce at any one time, three or more migrant workers to or from their employment (refers to “contract carrier by motor vehicle”).

N	Prcnt	Code	Label
796	100.0	0	Absent

Variable Name	Format	Type	Length
USMail	AP1U	Numeric	8

Definition: An entity which transports U.S. Mail.

N	Prcnt	Code	Label
780	98.0	0	Absent
16	2.0	1	Present

Variable Name	Format	Type	Length
FederalGovernment	AP1U	Numeric	8

Definition: Transportation of property or passengers by a U.S. Federal Government Agency.

N	Prcnt	Code	Label
794	99.7	0	Absent
2	0.3	1	Present

Codebook – SaferCarrier Data Set

Variable Name	Format	Type	Length
StateGovernment	AP1U	Numeric	8

Definition: Transportation of property or passengers by a U.S. State Government Agency.

N	Prcnt	Code	Label
794	99.7	0	Absent
2	0.3	1	Present

Variable Name	Format	Type	Length
LocalGovernment	AP1U	Numeric	8

Definition: Transportation of property or passengers by a local municipality.

N	Prcnt	Code	Label
794	99.7	0	Absent
2	0.3	1	Present

Variable Name	Format	Type	Length
IndianTribe	AP1U	Numeric	8

Definition: Transportation of property or passengers by an Indian tribal government.

N	Prcnt	Code	Label
795	99.9	0	Absent
1	0.1	1	Present

Variable Name	Format	Type	Length
Other	AP1U	Numeric	8

Definition: An entity which does not fall into one of the other listed classifications.

N	Prcnt	Code	Label
738	92.7	0	Absent
58	7.3	1	Present

Variable Name	Format	Type	Length
Unknown	AP1U	Numeric	8

Definition: Entity type unknown.

N	Prcnt	Code	Label
795	99.9	0	Absent
1	0.1	1	Present

Codebook – SaferCarrier Data Set

Variable Name	Format	Type	Length
CargoCarried	\$27	Char	27

Definition: Describes the specific type of cargo hauled by this carrier.

N	Prcnt	Code	Label
20	2.5	*	BEVERAGES
48	6.0	*	BUILDING MATERIALS
38	4.8	*	CHEMICALS
6	0.8	*	COAL, COKE
29	3.6	*	COMMODITIES DRY BULK
23	2.9	*	CONSTRUCTION
18	2.3	*	DRIVE AWAY/TOWAWAY
5	0.6	*	FARM SUPPLIES
31	3.9	*	FRESH PRODUCE
20	2.5	*	GARBAGE, REFUSE, TRASH
92	11.6	*	GENERAL FREIGHT
13	1.6	*	GRAIN, FEED, HAY
10	1.3	*	HOUSEHOLD GOODS
26	3.3	*	INTERMODAL CONTAINERS
27	3.4	*	LIQUIDS/GASES
4	0.5	*	LIVESTOCK
37	4.6	*	LOGS, POLES, BEAMS, LUMBER
36	4.5	*	MACHINERY, LARGE OBJECTS
32	4.0	*	MEAT
31	3.9	*	METAL; SHEETS, COILS, ROLLS
4	0.5	*	MOBILE HOMES
12	1.5	*	MOTOR VEHICLES
1	0.1	*	OIL FIELD EQUIPMENT
141	17.7	*	OTHER
31	3.9	*	PAPER PRODUCTS
2	0.3	*	PASSENGERS
34	4.3	*	REFRIGERATED FOOD
15	1.9	*	U.S. MAIL
8	1.0	*	UNKNOWN
2	0.3	*	UTILITY

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Codebook – SaferCarrier Data Set

Variable Name	Format	Type	Length
SCAStatus	\$OT44F	Char	20

Definition: Describes the status of the carrier in MCMIS (Motor Carrier Management Information System).

N	Prcnt	Code	Label
1	0.1	99	Unknown
767	96.4	*	ACTIVE
28	3.5	*	INACTIVE

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Variable Name	Format	Type	Length
CarrierOperationDescription	\$100	Char	100

Definition: Describes the carrier's type of operation – it describes where the carrier is allowed to go (intrastate vs. interstate).

N	Prcnt	Code	Label
755	94.8	*	INTERSTATE
7	0.9	*	INTRASTATE HAZMAT
32	4.0	*	INTRASTATE NON-HAZMAT
2	0.3	*	Unknown

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Variable Name	Format	Type	Length
CountDrivers	OT45F	Numeric	8

Definition: Documents the number of drivers employed by this carrier.

N	Prcnt	Code	Label
2	0.3	0	0
50	6.3	1	1
39	4.9	2	2
26	3.3	3	3
28	3.5	4	4
8	1.0	5	5
18	2.3	6	6
15	1.9	7	7
16	2.0	8	8
11	1.4	9	9

1	0.1	12807	12807
3	0.4	12912	12912
1	0.1	13123	13123
1	0.1	13149	13149

Codebook – SaferCarrier Data Set

N	Prcnt	Code	Label
2	0.3	14424	14424
1	0.1	17510	17510
6	0.8	19900	19900
1	0.1	28342	28342
3	0.4	66150	66150
25	3.1	999999999999	Unknown

Variable Name	Format	Type	Length
CountPowerUnits	BEST8	Numeric	8

Definition: Documents the number of power units owned, trip-leased, and term-leased by this carrier.

N	Prcnt	Code	Label
16	2.0	0	0
59	7.4	1	1
32	4.0	2	2
27	3.4	3	3
18	2.3	4	4
13	1.6	5	5
19	2.4	6	6
12	1.5	7	7
13	1.6	8	8
12	1.5	9	9

1	0.1	8392	8392
1	0.1	8538	8538
1	0.1	8923	8923
1	0.1	8989	8989
1	0.1	9050	9050
3	0.4	11279	11279
2	0.3	12356	12356
1	0.1	14584	14584
6	0.8	16500	16500
3	0.4	58602	58602

Codebook – SaferCarrier Data Set

Variable Name	Format	Type	Length
MileageYear	OT45F	Numeric	8

Definition: Documents the calendar year on the carrier's MCS-150 form that represents the year in which the Carrier-Reported Mileage was obtained.

N	Prcnt	Code	Label
1	0.1	1	1
7	0.9	1997	1997
21	2.6	1998	1998
35	4.4	1999	1999
127	16.0	2000	2000
157	19.7	2001	2001
178	22.4	2002	2002
11	1.4	2003	2003
259	32.5	999999999999	Unknown

Variable Name	Format	Type	Length
Mileage	OT45F	Numeric	8

Definition: Documents the carrier's total fleet mileage to the nearest 10,000 miles for the last calendar year, as reported by the carrier on the MCS-150 form.

N	Prcnt	Code	Label
253	31.8	0	0
2	0.3	3000	3000
1	0.1	6000	6000
1	0.1	7578	7578
6	0.8	10000	10000
1	0.1	13000	13000
1	0.1	19000	19000
3	0.4	20000	20000
1	0.1	24000	24000
1	0.1	25555	25555

1	0.1	629383966	629383966
1	0.1	662800784	662800784
1	0.1	670000000	670000000
1	0.1	780110000	780110000
1	0.1	1002438610	1002438610
1	0.1	1094690409	1094690409
2	0.3	1522597573	1522597573
6	0.8	1665000000	1665000000

Codebook – SaferCarrier Data Set

N	Prcnt	Code	Label
1	0.1	1697000000	1697000000
5	0.6	999999999999	Unknown

Codebook – SaferCrashSummary Data Set

SaferCrashSummary Data Set

The SaferCrashSummary data set contains summary crash information for the driver's carrier reported to the FMCSA for a period of 4 years. Each record represents one year of data and four records are stored for each vehicle/driver for which this carrier information is available.

The SaferCrashSummary data set contains the variables CaseID, PSU, PSUStrat, RATWeight, and VehicleNumber. CaseID, VehicleNumber and SCSYear uniquely identify each record in this data set. CaseID and VehicleNumber should be used to merge the SaferCrashSummary data set with vehicle level data sets.

Variable Name	Format	Type	Length
SCSYear	BEST8	Numeric	8

Definition: Identifies the year from which the crash data is taken.

N	Prcnt	Code	Label
495	17.8	2000	2000
696	25.0	2001	2001
696	25.0	2002	2002
696	25.0	2003	2003
201	7.2	2004	2004

Variable Name	Format	Type	Length
SCSFatalities	BEST8	Numeric	8

Definition: Documents the number of crashes that caused at least one fatality for this carrier in a particular year. This number includes both the carrier's driver(s) and occupants in any other involved vehicles.

N	Prcnt	Code	Label
2,178	78.2	0	0
334	12.0	1	1
76	2.7	2	2
42	1.5	3	3
26	0.9	4	4
22	0.8	5	5
18	0.6	6	6
13	0.5	7	7
10	0.4	8	8
6	0.2	9	9
7	0.3	10	10
7	0.3	11	11
3	0.1	12	12
3	0.1	13	13
1	0.0	14	14
3	0.1	15	15

Codebook – SaferCrashSummary Data Set

N	Prcnt	Code	Label
2	0.1	16	16
1	0.0	19	19
6	0.2	20	20
9	0.3	21	21
2	0.1	22	22
2	0.1	23	23
2	0.1	24	24
1	0.0	27	27
1	0.0	29	29
5	0.2	30	30
4	0.1	31	31

Variable Name	Format	Type	Length
SCSInjuries	BEST8	Numeric	8

Definition: Documents the number of crashes that caused at least one injury for this carrier in a particular year. This number includes both the carrier's driver(s) and occupants in any other involved vehicles.

N	Prcnt	Code	Label
1,319	47.4	0	0
508	18.2	1	1
213	7.7	2	2
114	4.1	3	3
94	3.4	4	4
66	2.4	5	5
43	1.5	6	6
31	1.1	7	7
28	1.0	8	8
32	1.1	9	9

2	0.1	239	239
2	0.1	242	242
2	0.1	251	251
1	0.0	260	260
2	0.1	261	261
1	0.0	308	308
1	0.0	327	327
5	0.2	329	329
4	0.1	376	376
1	0.0	377	377

Codebook – SaferCrashSummary Data Set

Variable Name	Format	Type	Length
SCSTowaway	BEST8	Numeric	8

Definition: Documents the number of crashes that caused at least one vehicle to be towed from the scene of a crash involving one of this carrier’s vehicles in a particular year. This number includes both the carrier vehicle and any other involved vehicles.

N	Prct	Code	Label
1,307	46.9	0	0
445	16.0	1	1
209	7.5	2	2
138	5.0	3	3
76	2.7	4	4
72	2.6	5	5
44	1.6	6	6
43	1.5	7	7
27	1.0	8	8
21	0.8	9	9

1	0.0	323	323
1	0.0	328	328
1	0.0	382	382
5	0.2	388	388
1	0.0	458	458
1	0.0	538	538
1	0.0	545	545
4	0.1	551	551
1	0.0	616	616
4	0.1	635	635

Codebook – SaferDriverCrashReport Data Set

SaferDriverCrashReport Data Set

The SaferDriverCrashReport data set contains historical information for previous crashes involving the driver from the FMCSA SAFER database. One record of this information is stored for each previous crash listed on inspection reports for the driver. This information is provided for each vehicle/driver where available.

The SaferDriverCrashReport data set contains the variables CaseID, PSU, PSUStrat, RATWeight, and VehicleNumber. CaseID and VehicleNumber should be used to merge the SaferDriverCrashReport data set with the SaferDriverInspection data set and vehicle level data sets.

Variable Name	Format	Type	Length
SCDDate	\$7	Char	7

Definition: Identifies the date of a particular crash.

N	Prcnt	Code	Label
2	0.9	*	2001-04
3	1.4	*	2001-07
7	3.3	*	2001-08
6	2.8	*	2001-09
16	7.4	*	2001-10
5	2.3	*	2001-11
1	0.5	*	2001-12
8	3.7	*	2002-01
9	4.2	*	2002-02
14	6.5	*	2002-03
11	5.1	*	2002-04
7	3.3	*	2002-05
5	2.3	*	2002-06
7	3.3	*	2002-07
8	3.7	*	2002-08
12	5.6	*	2002-09
8	3.7	*	2002-10
10	4.7	*	2002-11
5	2.3	*	2002-12
8	3.7	*	2003-01
6	2.8	*	2003-02
13	6.0	*	2003-03
8	3.7	*	2003-04
5	2.3	*	2003-05
3	1.4	*	2003-06
9	4.2	*	2003-07
3	1.4	*	2003-08
9	4.2	*	2003-10

Codebook – SaferDriverCrashReport Data Set

N	Prcnt	Code	Label
1	0.5	*	2003-11
6	2.8	*	2003-12

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Variable Name	Format	Type	Length
SCDState	\$2	Char	2

Definition: Identifies the State in which a particular crash occurred.

N	Prcnt	Code	Label
25	11.6	*	AL
36	16.7	*	AZ
16	7.4	*	CA
8	3.7	*	CO
1	0.5	*	DE
12	5.6	*	FL
2	0.9	*	IA
5	2.3	*	IL
25	11.6	*	IN
1	0.5	*	KY
4	1.9	*	MD
3	1.4	*	MI
14	6.5	*	NE
6	2.8	*	NJ
4	1.9	*	NY
7	3.3	*	PA
6	2.8	*	TN
17	7.9	*	TX
21	9.8	*	WA
2	0.9	*	WV

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Variable Name	Format	Type	Length
SCDDateOfBirth	\$4	Char	4

Definition: Identifies the driver's year of birth for a particular crash.

N	Prcnt	Code	Label
2	0.9	*	1931
1	0.5	*	1932
1	0.5	*	1935
1	0.5	*	1936
2	0.9	*	1937
4	1.9	*	1940

Codebook – SaferDriverCrashReport Data Set

N	Prcnt	Code	Label
1	0.5	*	1941
2	0.9	*	1942
2	0.9	*	1943
3	1.4	*	1944
2	0.9	*	1945
4	1.9	*	1946
4	1.9	*	1947
3	1.4	*	1948
2	0.9	*	1949
5	2.3	*	1950
8	3.7	*	1951
2	0.9	*	1952
6	2.8	*	1953
5	2.3	*	1954
3	1.4	*	1955
11	5.1	*	1956
13	6.0	*	1957
5	2.3	*	1958
8	3.7	*	1959
11	5.1	*	1960
6	2.8	*	1961
11	5.1	*	1962
7	3.3	*	1963
6	2.8	*	1964
6	2.8	*	1965
5	2.3	*	1966
3	1.4	*	1967
6	2.8	*	1968
5	2.3	*	1969
4	1.9	*	1970
4	1.9	*	1971
2	0.9	*	1972
4	1.9	*	1973
6	2.8	*	1974
11	5.1	*	1975
6	2.8	*	1977
1	0.5	*	1978
4	1.9	*	1979
1	0.5	*	1980
1	0.5	*	1982

Codebook – SaferDriverCrashReport Data Set

N	Prcnt	Code	Label
1	0.5	*	1984
4	1.9	*	9999

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Variable Name	Format	Type	Length
SCDFatalities	BEST8	Numeric	8

Definition: Documents the total number of fatalities as a result of a particular crash.

N	Prcnt	Code	Label
164	76.3	0	0
44	20.5	1	1
6	2.8	2	2
1	0.5	4	4

Variable Name	Format	Type	Length
SCDInjuries	BEST8	Numeric	8

Definition: Documents the total number of persons injured as a result of a particular crash.

N	Prcnt	Code	Label
42	19.5	0	0
108	50.2	1	1
39	18.1	2	2
14	6.5	3	3
5	2.3	4	4
3	1.4	5	5
2	0.9	9	9
2	0.9	24	24

Variable Name	Format	Type	Length
SCDTowaway	AP1U	Numeric	8

Definition: Indicates whether or not a vehicle involved in a particular crash was towed away from the scene of the crash.

N	Prcnt	Code	Label
17	7.9	0	Absent
198	92.1	1	Present

Codebook – SaferDriverCrashReport Data Set

Variable Name	Format	Type	Length
HazardousMaterial	AP1U	Numeric	8

Definition: Indicates whether or not there was any hazardous material involved/released in the crash.

N	Prcnt	Code	Label
214	99.5	0	Absent
1	0.5	1	Present

Variable Name	Format	Type	Length
ANL	\$3	Char	3

Definition: Indicates whether or not the sequence of events in the crash included a collision with an animal.

N	Prcnt	Code	Label
1	0.5	*	ANL
214	99.5	*	Abs

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Variable Name	Format	Type	Length
BIK	\$3	Char	3

Definition: Indicates whether or not the sequence of events in the crash included a collision with a pedal cycle.

N	Prcnt	Code	Label
214	99.5	*	Abs
1	0.5	*	BIK

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Variable Name	Format	Type	Length
CGO	\$3	Char	3

Definition: Indicates whether or not the sequence of events in the crash included a noncollision event involving a cargo loss or shift.

N	Prcnt	Code	Label
204	94.9	*	Abs
11	5.1	*	CGO

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Codebook – SaferDriverCrashReport Data Set

Variable Name	Format	Type	Length
EQF	\$3	Char	3

Definition: Indicates whether or not the sequence of events in the crash included a noncollision event involving a vehicle failure (e.g. brake failure, blown tire, etc.).

N	Prcnt	Code	Label
212	98.6	*	Abs
3	1.4	*	EQF

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Variable Name	Format	Type	Length
FIR	\$3	Char	3

Definition: Indicates whether or not the sequence of events in the crash included a noncollision event involving an explosion or fire.

N	Prcnt	Code	Label
212	98.6	*	Abs
3	1.4	*	FIR

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Variable Name	Format	Type	Length
FOB	\$3	Char	3

Definition: Indicates whether or not the sequence of events in the crash included a collision with a fixed object.

N	Prcnt	Code	Label
186	86.5	*	Abs
29	13.5	*	FOB

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Variable Name	Format	Type	Length
JAK	\$3	Char	3

Definition: Indicates whether or not the sequence of events in the crash included a noncollision event involving a jackknife.

N	Prcnt	Code	Label
203	94.4	*	Abs
12	5.6	*	JAK

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Codebook – SaferDriverCrashReport Data Set

Variable Name			Format	Type	Length
MVH			\$3	Char	3

Definition: Indicates whether or not the sequence of events in the crash included a collision with a motor vehicle in transport.

N	Prcnt	Code	Label
82	38.1	*	Abs
133	61.9	*	MVH

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Variable Name			Format	Type	Length
NCM			\$3	Char	3

Definition: Indicates whether or not the sequence of events in the crash included a noncollision event where the vehicle crossed the centerline or the median.

N	Prcnt	Code	Label
210	97.7	*	Abs
5	2.3	*	NCM

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Variable Name			Format	Type	Length
NCO			\$3	Char	3

Definition: Indicates whether or not the sequence of events in the crash included a noncollision event not described by the other Event variable choices.

N	Prcnt	Code	Label
206	95.8	*	Abs
9	4.2	*	NCO

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Variable Name			Format	Type	Length
OFR			\$3	Char	3

Definition: Indicates whether or not the sequence of events in the crash included a noncollision event where the vehicle ran off the roadway.

N	Prcnt	Code	Label
184	85.6	*	Abs
31	14.4	*	OFR

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Codebook – SaferDriverCrashReport Data Set

Variable Name	Format	Type	Length
OOB	\$3	Char	3

Definition: Indicates whether or not the sequence of events in the crash included a collision with an “other” moveable object.

N	Prcnt	Code	Label
211	98.1	*	Abs
4	1.9	*	OOB

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Variable Name	Format	Type	Length
OTH	\$3	Char	3

Definition: Indicates whether or not the sequence of events in the crash included an “other” type of collision.

N	Prcnt	Code	Label
209	97.2	*	Abs
6	2.8	*	OTH

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Variable Name	Format	Type	Length
OVR	\$3	Char	3

Definition: Indicates whether or not the sequence of events in the crash included a noncollision event involving an overturn/rollover.

N	Prcnt	Code	Label
187	87.0	*	Abs
28	13.0	*	OVR

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Variable Name	Format	Type	Length
PED	\$3	Char	3

Definition: Indicates whether or not the sequence of events in the crash included a collision with a pedestrian.

N	Prcnt	Code	Label
212	98.6	*	Abs
3	1.4	*	PED

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Codebook – SaferDriverCrashReport Data Set

Variable Name	Format	Type	Length
PVH	\$3	Char	3

Definition: Indicates whether or not the sequence of events in the crash included a collision with a parked motor vehicle.

N	Prcnt	Code	Label
211	98.1	*	Abs
4	1.9	*	PVH

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Variable Name	Format	Type	Length
RUN	\$3	Char	3

Definition: Indicates whether or not the sequence of events in the crash included a collision that involved a downhill runaway vehicle.

N	Prcnt	Code	Label
211	98.1	*	Abs
4	1.9	*	RUN

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Variable Name	Format	Type	Length
SEP	\$3	Char	3

Definition: Indicates whether or not the sequence of events in the crash included a noncollision event involving a separation of units.

N	Prcnt	Code	Label
215	100.0	*	Abs

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Variable Name	Format	Type	Length
TRN	\$3	Char	3

Definition: Indicates whether or not the sequence of events in the crash included a collision with a train.

N	Prcnt	Code	Label
214	99.5	*	Abs
1	0.5	*	TRN

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Codebook – SaferDriverCrashReport Data Set

Variable Name	Format	Type	Length
UMO	\$3	Char	3

Definition: Indicates whether or not the sequence of events in the crash included a collision with an unknown moveable object.

N	Prcnt	Code	Label
215	100.0	*	Abs

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Variable Name	Format	Type	Length
UNK	\$3	Char	3

Definition: Indicates whether or not the sequence of events in the crash included a noncollision event of an unknown nature.

N	Prcnt	Code	Label
215	100.0	*	Abs

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Variable Name	Format	Type	Length
WZE	\$3	Char	3

Definition: Indicates whether or not the sequence of events in the crash included a collision with work zone maintenance equipment.

N	Prcnt	Code	Label
215	100.0	*	Abs

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Codebook – SaferDriverInspection Data Set

SaferDriverInspection Data Set

The SaferDriverInspection data set contains inspection information for the driver while employed by this carrier from the FMCSA SAFER database. One record of this information is stored for each inspection report and is provided for each vehicle/driver where available.

The SaferDriverInspection data set contains the variables CaseID, PSU, PSUStrat, RATWeight, and VehicleNumber. CaseID and VehicleNumber should be used to merge the SaferDriverInspection data set with vehicle level data sets.

Variable Name	Format	Type	Length
LevelCode	BEST8	Numeric	8

Definition: Indicates the level of the inspection for a particular inspection.

N	Prcnt	Code	Label
392	49.3	1	1
201	25.3	2	2
182	22.9	3	3
20	2.5	4	4

Variable Name	Format	Type	Length
SDIDate	\$7	Char	7

Definition: Documents the date of a particular inspection.

N	Prcnt	Code	Label
1	0.1	*	2001-02
1	0.1	*	2001-03
2	0.3	*	2001-04
5	0.6	*	2001-05
13	1.6	*	2001-06
13	1.6	*	2001-07
23	2.9	*	2001-08
13	1.6	*	2001-09
16	2.0	*	2001-10
20	2.5	*	2001-11
8	1.0	*	2001-12
25	3.1	*	2002-01
24	3.0	*	2002-02
24	3.0	*	2002-03
32	4.0	*	2002-04
34	4.3	*	2002-05
53	6.7	*	2002-06
40	5.0	*	2002-07
45	5.7	*	2002-08

Codebook – SaferDriverInspection Data Set

N	Prcnt	Code	Label
44	5.5	*	2002-09
29	3.6	*	2002-10
38	4.8	*	2002-11
40	5.0	*	2002-12
33	4.2	*	2003-01
28	3.5	*	2003-02
37	4.7	*	2003-03
29	3.6	*	2003-04
21	2.6	*	2003-05
29	3.6	*	2003-06
19	2.4	*	2003-07
15	1.9	*	2003-08
11	1.4	*	2003-09
15	1.9	*	2003-10
4	0.5	*	2003-11
11	1.4	*	2003-12

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Variable Name	Format	Type	Length
SDIState	\$2	Char	2

Definition: Documents the State in which a particular inspection took place.

N	Prcnt	Code	Label
31	3.9	*	AL
19	2.4	*	AR
48	6.0	*	AZ
75	9.4	*	CA
45	5.7	*	CO
21	2.6	*	FL
11	1.4	*	GA
12	1.5	*	IA
1	0.1	*	ID
37	4.7	*	IL
30	3.8	*	IN
5	0.6	*	KS
18	2.3	*	KY
3	0.4	*	LA
36	4.5	*	MD
31	3.9	*	MI
11	1.4	*	MO
11	1.4	*	MS
5	0.6	*	MT
12	1.5	*	NC

Codebook – SaferDriverInspection Data Set

N	Prcnt	Code	Label
31	3.9	*	NE
25	3.1	*	NJ
14	1.8	*	NM
1	0.1	*	NV
10	1.3	*	NY
17	2.1	*	OH
12	1.5	*	OR
38	4.8	*	PA
1	0.1	*	RI
3	0.4	*	SC
4	0.5	*	SD
43	5.4	*	TN
29	3.6	*	TX
1	0.1	*	US
8	1.0	*	UT
3	0.4	*	VA
82	10.3	*	WA
8	1.0	*	WI
2	0.3	*	WV
1	0.1	*	WY

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Variable Name	Format	Type	Length
SDIDriverDOB	\$4	Char	4

Definition: Documents the driver's year of birth as it relates to a particular inspection.

N	Prcnt	Code	Label
1	0.1	*	1928
1	0.1	*	1930
3	0.4	*	1931
4	0.5	*	1932
1	0.1	*	1935
1	0.1	*	1936
3	0.4	*	1937
1	0.1	*	1938
1	0.1	*	1939
17	2.1	*	1940
2	0.3	*	1941
10	1.3	*	1942
13	1.6	*	1943
18	2.3	*	1944
7	0.9	*	1945
7	0.9	*	1946

Codebook – SaferDriverInspection Data Set

N	Prcnt	Code	Label
7	0.9	*	1947
5	0.6	*	1948
8	1.0	*	1949
11	1.4	*	1950
36	4.5	*	1951
12	1.5	*	1952
24	3.0	*	1953
49	6.2	*	1954
12	1.5	*	1955
12	1.5	*	1956
45	5.7	*	1957
15	1.9	*	1958
20	2.5	*	1959
24	3.0	*	1960
17	2.1	*	1961
15	1.9	*	1962
15	1.9	*	1963
16	2.0	*	1964
16	2.0	*	1965
18	2.3	*	1966
33	4.2	*	1967
18	2.3	*	1968
13	1.6	*	1969
26	3.3	*	1970
28	3.5	*	1971
23	2.9	*	1972
26	3.3	*	1973
15	1.9	*	1974
33	4.2	*	1975
12	1.5	*	1976
9	1.1	*	1977
3	0.4	*	1978
8	1.0	*	1979
6	0.8	*	1980
1	0.1	*	1981
4	0.5	*	1982
2	0.3	*	8888
68	8.6	*	9999

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Codebook – SaferDriverInspection Data Set

Variable Name	Format	Type	Length
SDITotalViolations	BEST8	Numeric	8

Definition: Indicates the total number of violations found during a particular inspection.

N	Prcnt	Code	Label
207	26.0	0	0
190	23.9	1	1
131	16.5	2	2
85	10.7	3	3
37	4.7	4	4
36	4.5	5	5
28	3.5	6	6
25	3.1	7	7
16	2.0	8	8
6	0.8	9	9
8	1.0	10	10
8	1.0	11	11
7	0.9	12	12
2	0.3	13	13
1	0.1	14	14
2	0.3	15	15
1	0.1	17	17
2	0.3	18	18
1	0.1	21	21
1	0.1	23	23
1	0.1	24	24

Variable Name	Format	Type	Length
TotalOOS	BEST8	Numeric	8

Definition: Indicates the total number of out-of-service violations found during a particular inspection.

N	Prcnt	Code	Label
568	71.4	0	0
139	17.5	1	1
41	5.2	2	2
15	1.9	3	3
17	2.1	4	4
6	0.8	5	5
1	0.1	6	6
1	0.1	7	7
1	0.1	8	8

Codebook – SaferDriverInspection Data Set

N	Prcnt	Code	Label
2	0.3	10	10
1	0.1	15	15

Variable Name	Format	Type	Length
SDIHazMat	BEST8	Numeric	8

Definition: Indicates whether or not a particular inspection involved hazardous materials.

N	Prcnt	Code	Label
746	93.8	0	0
49	6.2	1	1

Codebook – SaferDriverViolation Data Set

SaferDriverViolation Data Set

The SaferDriverViolation data set includes information on any violation issued to the driver while employed by this carrier from the FMCSA SAFER database. One record of this information is stored for each violation listed on inspection reports for the driver. This information is provided for each vehicle/driver where available.

The SaferDriverViolation data set contains the variables CaseID, PSU, PSUStrat, RATWeight, and VehicleNumber. CaseID and VehicleNumber should be used to merge the SaferDriverViolation data set with the SaferDriverInspection data set and vehicle level data sets.

Variable Name	Format	Type	Length
SDVViolation	\$10	Char	10

Definition: Lists the different types of violations assigned to this particular driver within a particular time period.

N	Prcnt	Code	Label
68	10.6	*	BRKADJ
110	17.1	*	BRKOTH
4	0.6	*	COUPLR
26	4.0	*	EMREQP
11	1.7	*	EXHST
10	1.6	*	FRAMES
3	0.5	*	FUEL
3	0.5	*	HPLCRD
1	0.2	*	IMPTRN
11	1.7	*	LDSECR
130	20.2	*	LIGHTS
2	0.3	*	LOGVIO
45	7.0	*	OTHDRV
72	11.2	*	OTHER
17	2.6	*	PERINS
7	1.1	*	SIZWGT
11	1.7	*	STERNG
26	4.0	*	SUSPEN
57	8.9	*	TIRES
9	1.4	*	WHEELS
20	3.1	*	WNDSHL

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Codebook – SaferDriverViolation Data Set

Variable Name	Format	Type	Length
UnitNumber	BEST8	Numeric	8

Definition: Is an identifier used to distinguish individual units inspected.

N	Prcnt	Code	Label
417	64.9	1	1
213	33.1	2	2
12	1.9	3	3
1	0.2	4	4

Variable Name	Format	Type	Length
SDVUnitType	\$10	Char	10

Definition: Indicates the type of unit on which a particular inspection is conducted.

N	Prcnt	Code	Label
15	2.3	*	FT
1	0.2	*	SB
212	33.0	*	ST
127	19.8	*	TR
288	44.8	*	TT

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Variable Name	Format	Type	Length
SDVOutOfService	\$10	Char	10

Definition: Documents the number of out-of-service violations for a particular driver within a particular time period.

N	Prcnt	Code	Label
476	74.0	*	0
167	26.0	*	1

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Codebook – SaferInspectionsSummary Data Set

SaferInspectionsSummary Data Set

The SaferInspectionsSummary data set contains a summary of vehicle, driver, and hazardous material inspection information for the driver's carrier reported to the FMCSA for the period of 2 years prior to the date of inquiry. This material is provided as one record per vehicle/driver for which this carrier information is available.

The SaferInspectionsSummary data set contains the variables CaseID, PSU, PSUStrat, RATWeight, and VehicleNumber. CaseID and VehicleNumber uniquely identify each record in this data set and should be used to merge the SaferInspectionsSummary data set with vehicle level data sets.

Variable Name	Format	Type	Length
DriverInspections	BEST8	Numeric	8

Definition: Documents the total number of driver inspections for this carrier in the 24 months prior to the date of inquiry.

N	Prcnt	Code	Label
15	1.9	0	0
16	2.0	1	1
13	1.6	2	2
13	1.6	3	3
25	3.1	4	4
10	1.3	5	5
4	0.5	6	6
15	1.9	7	7
14	1.8	8	8
7	0.9	9	9

1	0.1	18841	18841
1	0.1	18854	18854
1	0.1	18981	18981
1	0.1	18989	18989
1	0.1	19128	19128
1	0.1	30240	30240
1	0.1	30270	30270
1	0.1	57961	57961
1	0.1	60788	60788
4	0.5	62076	62076

Codebook – SaferInspectionsSummary Data Set

Variable Name	Format	Type	Length
DriverOutOfService	BEST8	Numeric	8

Definition: Documents the total number of driver out-of-service inspections where out-of-service violations were found for this carrier in the 24 months prior to the date of inquiry.

N	Prcnt	Code	Label
182	22.9	0	0
98	12.3	1	1
73	9.2	2	2
33	4.1	3	3
34	4.3	4	4
23	2.9	5	5
24	3.0	6	6
13	1.6	7	7
11	1.4	8	8
14	1.8	9	9

1	0.1	987	987
1	0.1	1006	1006
1	0.1	1020	1020
1	0.1	1178	1178
1	0.1	1218	1218
1	0.1	1219	1219
1	0.1	1227	1227
1	0.1	2999	2999
1	0.1	3066	3066
4	0.5	3100	3100

Variable Name	Format	Type	Length
DriverOutOfServicePerc	BEST8	Numeric	8

Definition: Documents the percentage of inspections that resulted in one or more driver out-of-service violations for this carrier in the 24 months prior to the date of inquiry.

N	Prcnt	Code	Label
200	25.1	0	0
50	6.3	1	1
97	12.2	2	2
42	5.3	3	3
53	6.7	4	4
72	9.0	5	5
58	7.3	6	6
25	3.1	7	7

Codebook – SaferInspectionsSummary Data Set

N	Prcnt	Code	Label
35	4.4	8	8
15	1.9	9	9
14	1.8	10	10
19	2.4	11	11
25	3.1	12	12
4	0.5	13	13
7	0.9	14	14
3	0.4	15	15
4	0.5	16	16
13	1.6	17	17
2	0.3	18	18
5	0.6	19	19
2	0.3	20	20
2	0.3	21	21
5	0.6	22	22
1	0.1	24	24
9	1.1	25	25
5	0.6	26	26
1	0.1	27	27
1	0.1	30	30
3	0.4	31	31
1	0.1	34	34
2	0.3	35	35
1	0.1	36	36
1	0.1	45	45
2	0.3	50	50
1	0.1	56	56
13	1.6	57	57
2	0.3	58	58
1	0.1	67	67

Variable Name	Format	Type	Length
DriverViolationsAverage	F16.2	Numeric	8

Definition: Documents the average number of driver out-of-service violations found per inspection for this carrier in the 24 months prior to the date of inquiry.

N	Prcnt	Code	Label
690	86.7	0	0
18	2.3	1	1
88	11.1	99999999999999	99999999999999

Codebook – SaferInspectionsSummary Data Set

Variable Name	Format	Type	Length
VehicleInspections	BEST8	Numeric	8

Definition: Documents the total number of vehicle inspections for this carrier in the 24 months prior to the date of inquiry.

N	Prcnt	Code	Label
21	2.6	0	0
18	2.3	1	1
16	2.0	2	2
24	3.0	3	3
14	1.8	4	4
16	2.0	5	5
6	0.8	6	6
7	0.9	7	7
18	2.3	8	8
18	2.3	9	9

1	0.1	11574	11574
1	0.1	11587	11587
1	0.1	11601	11601
1	0.1	12112	12112
1	0.1	12270	12270
1	0.1	20083	20083
1	0.1	20100	20100
1	0.1	35545	35545
1	0.1	36922	36922
4	0.5	37747	37747

Variable Name	Format	Type	Length
VehicleOutOfService	BEST8	Numeric	8

Definition: Documents the total number of vehicle out-of-service inspections where out-of-service violations were found for this carrier in the 24 months prior to the date of inquiry.

N	Prcnt	Code	Label
71	8.9	0	0
55	6.9	1	1
61	7.7	2	2
26	3.3	3	3
38	4.8	4	4
31	3.9	5	5
13	1.6	6	6
14	1.8	7	7
14	1.8	8	8
21	2.6	9	9

Codebook – SaferInspectionsSummary Data Set

N	Prcnt	Code	Label
1	0.1	1764	1764
1	0.1	2302	2302
1	0.1	2389	2389
1	0.1	2445	2445
1	0.1	2450	2450
1	0.1	2941	2941
1	0.1	2948	2948
1	0.1	5940	5940
1	0.1	6242	6242
4	0.5	6338	6338

Variable Name	Format	Type	Length
VehicleOutOfServicePerc	BEST8	Numeric	8

Definition: Documents the percentage of inspections that resulted in one or more vehicle out-of-service violations for this carrier in the 24 months prior to the date of inquiry.

N	Prcnt	Code	Label
130	16.3	0	0
5	0.6	1	1
3	0.4	2	2
5	0.6	3	3
5	0.6	4	4
14	1.8	5	5
11	1.4	6	6
15	1.9	7	7
9	1.1	8	8
12	1.5	9	9

3	0.4	54	54
13	1.6	57	57
18	2.3	58	58
1	0.1	62	62
1	0.1	63	63
4	0.5	67	67
3	0.4	68	68
1	0.1	70	70
4	0.5	75	75
2	0.3	100	100

Codebook – SaferInspectionsSummary Data Set

Variable Name	Format	Type	Length
VehicleViolationsAverage	F16.2	Numeric	8

Definition: Documents the average number of vehicle out-of-service violations found per inspection for this carrier in the 24 months prior to the date of inquiry.

N	Prcnt	Code	Label
562	70.6	0	0.00
133	16.7	1	1.00
12	1.5	2	2.00
1	0.1	3	3.00
88	11.1	999999999999	999999999999.00

Variable Name	Format	Type	Length
HazmatInspections	BEST8	Numeric	8

Definition: Documents the total number of Hazmat inspections for this carrier in the 24 months prior to the date of inquiry.

N	Prcnt	Code	Label
462	58.0	0	0
46	5.8	1	1
34	4.3	2	2
13	1.6	3	3
7	0.9	4	4
8	1.0	5	5
10	1.3	6	6
10	1.3	7	7
4	0.5	8	8
1	0.1	9	9

2	0.3	1903	1903
1	0.1	1928	1928
1	0.1	1991	1991
1	0.1	2052	2052
4	0.5	2088	2088
3	0.4	2299	2299
1	0.1	2362	2362
1	0.1	2561	2561
1	0.1	2611	2611
1	0.1	5428	5428

Codebook – SaferInspectionsSummary Data Set

Variable Name	Format	Type	Length
HazmatOutOfService	BEST8	Numeric	8

Definition: Documents the total number of Hazmat out-of-service inspections where out-of-service violations were found for this carrier in the 24 months prior to the date of inquiry.

N	Prcnt	Code	Label
590	74.1	0	0
56	7.0	1	1
19	2.4	2	2
9	1.1	3	3
12	1.5	4	4
11	1.4	5	5
7	0.9	6	6
3	0.4	7	7
8	1.0	8	8
19	2.4	9	9
7	0.9	12	12
3	0.4	13	13
1	0.1	14	14
3	0.4	15	15
2	0.3	16	16
3	0.4	18	18
1	0.1	19	19
1	0.1	22	22
3	0.4	25	25
1	0.1	26	26
1	0.1	28	28
1	0.1	34	34
1	0.1	36	36
2	0.3	42	42
1	0.1	43	43
1	0.1	46	46
1	0.1	48	48
2	0.3	49	49
1	0.1	54	54
1	0.1	56	56
1	0.1	57	57
2	0.3	63	63
1	0.1	65	65
1	0.1	68	68
1	0.1	71	71
1	0.1	77	77

Codebook – SaferInspectionsSummary Data Set

N	Prcnt	Code	Label
1	0.1	78	78
2	0.3	84	84
2	0.3	85	85
1	0.1	100	100
1	0.1	104	104
1	0.1	111	111
1	0.1	124	124
3	0.4	129	129
1	0.1	135	135
1	0.1	138	138
4	0.5	139	139

Variable Name	Format	Type	Length
HazmatOutOfServicePerc	F9.2	Numeric	8

Definition: Documents the percentage of inspections that resulted in one or more Hazmat out-of-service violations for this carrier in the 24 months prior to the date of inquiry.

N	Prcnt	Code	Label
528	66.3	0	0.00
11	1.4	1	1.00
8	1.0	2	2.00
13	1.6	3	3.00
31	3.9	4	4.00
17	2.1	5	5.00
24	3.0	6	6.00
10	1.3	7	7.00
6	0.8	8	8.00
5	0.6	9	9.00
7	0.9	10	10.00
4	0.5	11	11.00
7	0.9	12	12.00
2	0.3	13	13.00
1	0.1	15	15.00
2	0.3	16	16.00
5	0.6	17	17.00
5	0.6	20	20.00
1	0.1	23	23.00
10	1.3	25	25.00
1	0.1	33	33.00
10	1.3	50	50.00
88	11.1	99999	99999.00

Codebook – SaferInspectionsSummary Data Set

Variable Name	Format	Type	Length
HazmatViolationsAverage	F16.2	Numeric	8

Definition: Documents the average number of Hazmat out-of-service violations found per inspection for this carrier in the 24 months prior to the date of inquiry.

N	Prcnt	Code	Label
706	88.7	0	0.00
1	0.1	1	1.00
1	0.1	2	2.00
88	11.1	999999999999	999999999999.00

Variable Name	Format	Type	Length
SISTotal	BEST8	Numeric	8

Definition: Documents the total number of inspections (any type) for this carrier in the 24 months prior to the date of inquiry. The Total Number Of Inspections may not reflect a simple addition of all the driver, vehicle, and Hazmat inspections because two or more of these types of violations may occur on the same inspection.

N	Prcnt	Code	Label
14	1.8	0	0
15	1.9	1	1
15	1.9	2	2
10	1.3	3	3
23	2.9	4	4
13	1.6	5	5
5	0.6	6	6
12	1.5	7	7
17	2.1	8	8
6	0.8	9	9

1	0.1	18962	18962
1	0.1	19093	19093
1	0.1	19104	19104
1	0.1	19217	19217
1	0.1	19257	19257
1	0.1	30582	30582
1	0.1	30608	30608
1	0.1	58513	58513
1	0.1	61334	61334
4	0.5	62663	62663

Codebook – SaferInsurance Data Set

SaferInsurance Data Set

The SaferInsurance data set includes information on the type and status of insurance that the driver's carrier holds from the FMCSA SAFER database. This material is provided as one record per vehicle/driver for which this carrier information is available.

The SaferInsurance data set contains the variables CaseID, PSU, PSUStrat, RATWeight, and VehicleNumber. CaseID and VehicleNumber uniquely identify each record in this data set and should be used to merge the SaferInsurance data set with vehicle level data sets.

Variable Name	Format	Type	Length
BIPDRequired	\$2	Char	2

Definition: Documents whether or not the carrier is required to have Bodily Injury & Property Damage insurance coverage.

N	Prcnt	Code	Label
64	10.6	*	N
23	3.8	*	NA
518	85.6	*	Y

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Variable Name	Format	Type	Length
BIPDOK	\$20	Char	20

Definition: Documents whether or not the carrier has the required Bodily Injury & Property Damage insurance coverage.

N	Prcnt	Code	Label
23	3.8	*	NA
2	0.3	*	NO
10	1.7	*	NOT OK
570	94.2	*	OK

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Variable Name	Format	Type	Length
CargoRequired	\$20	Char	20

Definition: Documents whether or not the carrier is required to have cargo insurance coverage.

N	Prcnt	Code	Label
23	3.8	*	NA
232	38.3	*	NOT REQUIRED
350	57.9	*	REQUIRED

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Codebook – SaferInsurance Data Set

Variable Name	Format	Type	Length
CargoOK	\$20	Char	20

Definition: Documents whether or not the carrier has cargo insurance coverage when required to have this type of coverage.

N	Prcnt	Code	Label
23	3.8	*	NA
1	0.2	*	NO
6	1.0	*	NOT OK
575	95.0	*	OK

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Variable Name	Format	Type	Length
BondRequired	\$20	Char	20

Definition: Documents whether or not a \$10,000 surety bond is required for the broker's license (authority).

N	Prcnt	Code	Label
23	3.8	*	NA
445	73.6	*	NOT REQUIRED
137	22.6	*	REQUIRED

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Variable Name	Format	Type	Length
BondOK	\$20	Char	20

Definition: Documents whether or not the surety bond was in place on the broker's license (authority).

N	Prcnt	Code	Label
23	3.8	*	NA
2	0.3	*	NOT OK
580	95.9	*	OK

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Variable Name	Format	Type	Length
MinCoverageAmount	F16.2	Numeric	8

Definition: Documents (in thousands of dollars) the minimum amount of liability insurance coverage that this carrier is required to have.

N	Prcnt	Code	Label
1	0.2	300	300
388	64.1	750	750
146	24.1	1000	1000
1	0.2	1500	1500

Codebook – SaferInsurance Data Set

N	Prcnt	Code	Label
46	7.6	5000	5000
23	3.8	8888888887	8888888887

Variable Name	Format	Type	Length
LiabilityInsurance	\$20	Char	20

Definition: Documents the amount (in thousands of dollars) of the liability insurance coverage that this carrier has.

N	Prcnt	Code	Label
23	3.8	*	NA
64	10.6	*	NOT REQUIRED
133	22.0	*	REQUIRED: \$1000
1	0.2	*	REQUIRED: \$1500
1	0.2	*	REQUIRED: \$300
40	6.6	*	REQUIRED: \$5000
343	56.7	*	REQUIRED: \$750

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Codebook – SaferReview Data Set

SaferReview Data Set

The SaferReview data set contains the safety ratings of the driver's carrier based on their compliance with FMCSA regulations from the FMCSA SAFER database. One record of this information is provided for each carrier review and reviews are stored for each vehicle/driver where this information is available.

The SaferReview data set contains the variables CaseID, PSU, PSUStrat, RATWeight, and VehicleNumber. CaseID, VehicleNumber and ReviewDate uniquely identify each record in this data set. CaseID and VehicleNumber should be used to merge the SaferReview data set with vehicle level data sets.

Variable Name	Format	Type	Length
RatingDate	\$7	Char	7

Definition: Documents the date that the current Federal safety rating was assigned to this carrier.

N	Prcnt	Code	Label
2	0.1	*	1986-09
1	0.1	*	1986-11
3	0.2	*	1986-12
2	0.1	*	1987-01
1	0.1	*	1987-03
2	0.1	*	1987-04
4	0.3	*	1987-05
6	0.4	*	1987-06
6	0.4	*	1987-07
6	0.4	*	1987-08

4	0.3	*	2002-09
4	0.3	*	2002-10
4	0.3	*	2002-11
3	0.2	*	2002-12
3	0.2	*	2003-01
3	0.2	*	2003-02
2	0.1	*	2003-03
4	0.3	*	2003-04
1	0.1	*	2003-05
1	0.1	*	2003-06

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Codebook – SaferReview Data Set

Variable Name	Format	Type	Length
Rating	\$30	Char	30

Definition: Documents the current Federal safety rating assigned to this carrier.

N	Prcnt	Code	Label
74	4.7	999999999	999999999
387	24.5	*	CONDITIONAL
996	63.0	*	SATISFACTORY
1	0.1	*	UNSATISFACTO
123	7.8	*	UNSATISFACTORY

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Variable Name	Format	Type	Length
ReviewDate	\$7	Char	7

Definition: Documents the date that the most recent Safety/Compliance Review was performed on this carrier.

N	Prcnt	Code	Label
2	0.1	*	1986-09
2	0.1	*	1986-11
5	0.3	*	1986-12
6	0.4	*	1987-01
3	0.2	*	1987-02
10	0.6	*	1987-03
2	0.1	*	1987-04
8	0.5	*	1987-05
12	0.8	*	1987-06
9	0.6	*	1987-07

3	0.2	*	2002-08
2	0.1	*	2002-09
6	0.4	*	2002-10
5	0.3	*	2002-11
1	0.1	*	2002-12
4	0.3	*	2003-01
2	0.1	*	2003-02
3	0.2	*	2003-03
1	0.1	*	2003-04
1	0.1	*	2003-05

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Codebook – SaferReview Data Set

Variable Name	Format	Type	Length
ReviewType	\$30	Char	30

Definition: Documents the type of review performed on this carrier.

N	Prcnt	Code	Label
1,349	85.3	*	COMPLIANCE
1	0.1	*	EDUC CONTACT
3	0.2	*	NON-RATABLE
227	14.4	*	SAFETY
1	0.1	*	SHIPPER

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Codebook – SafeStat Data Set

SafeStat Data Set

The SafeStat data set contains safety statistics for the driver's carrier from the FMCSA SAFER database. Scores are compiled for driver, vehicle, accident, and the safety management areas. One record of this information is provided for each SafeStat score assigned to a carrier. These scores are stored for each vehicle/driver where this information is available.

The SafeStat data set contains the variables CaseID, PSU, PSUStrat, RATWeight, and VehicleNumber. CaseID and VehicleNumber should be used to merge the SafeStat data set with other vehicle level data sets.

Variable Name	Format	Type	Length
STADate	\$7	Char	7

Definition: Establishes the date that a particular SafeStat score was assigned to a carrier.

N	Prcnt	Code	Label
1	0.1	*	2002-02
49	2.6	*	2002-03
4	0.2	*	2002-04
9	0.5	*	2002-05
102	5.4	*	2002-06
11	0.6	*	2002-07
1	0.1	*	2002-08
134	7.1	*	2002-09
262	13.9	*	2002-11
289	15.4	*	2003-01
152	8.1	*	2003-02
146	7.8	*	2003-03
137	7.3	*	2003-04
130	6.9	*	2003-05
121	6.4	*	2003-06
100	5.3	*	2003-07
83	4.4	*	2003-08
72	3.8	*	2003-09
46	2.4	*	2003-10
26	1.4	*	2003-11
7	0.4	*	2003-12

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Codebook – SafeStat Data Set

Variable Name	Format	Type	Length
Score	OT36F	Numeric	8

Definition: Documents the overall SafeStat Score, where SafeStat score = 2 x Accident SEA + 1.5 x Driver SEA + Vehicle SEA + Safety Management SEA.

N	Prcnt	Code	Label
2	0.1	0	0
1	0.1	162	162
1	0.1	169	169
4	0.2	170	170
2	0.1	171	171
1	0.1	183	183
1	0.1	185	185
1	0.1	193	193
2	0.1	195	195
1	0.1	198	198

1	0.1	406	406
1	0.1	407	407
1	0.1	413	413
1	0.1	414	414
2	0.1	429	429
2	0.1	431	431
1	0.1	432	432
1	0.1	433	433
1	0.1	434	434
1,700	90.3	999	Unknown

Variable Name	Format	Type	Length
AccidentSEA	F12	Numeric	8

Definition: Documents the SafeStat score for the Accident SEA category for this carrier.

N	Prcnt	Code	Label
561	29.8	0	0
16	0.9	1	1
18	1.0	2	2
12	0.6	3	3
19	1.0	4	4
26	1.4	5	5
36	1.9	6	6
37	2.0	7	7
9	0.5	8	8

Codebook – SafeStat Data Set

N	Prcnt	Code	Label
10	0.5	90	90
10	0.5	91	91
8	0.4	92	92
4	0.2	93	93
6	0.3	94	94
5	0.3	95	95
7	0.4	96	96
7	0.4	97	97
7	0.4	98	98
8	0.4	99	99

Variable Name	Format	Type	Length
DriverSEA	F12	Numeric	8

Definition: Documents the SafeStat score for the Driver SEA category for this carrier.

N	Prcnt	Code	Label
284	15.1	0	0
12	0.6	1	1
14	0.7	2	2
4	0.2	3	3
7	0.4	4	4
5	0.3	5	5
8	0.4	6	6
35	1.9	7	7
34	1.8	8	8
26	1.4	9	9

13	0.7	91	91
24	1.3	92	92
14	0.7	93	93
13	0.7	94	94
10	0.5	95	95
9	0.5	96	96
15	0.8	97	97
5	0.3	98	98
2	0.1	99	99
9	0.5	100	100

Codebook – SafeStat Data Set

Variable Name	Format	Type	Length
VehicleSEA	F12	Numeric	8

Definition: Documents the SafeStat score for the Vehicle SEA category for this carrier.

N	Prcnt	Code	Label
95	5.0	0	0
13	0.7	2	2
9	0.5	3	3
1	0.1	4	4
4	0.2	5	5
9	0.5	6	6
5	0.3	7	7
7	0.4	8	8
11	0.6	9	9
8	0.4	10	10

10	0.5	91	91
15	0.8	92	92
15	0.8	93	93
14	0.7	94	94
6	0.3	95	95
18	1.0	96	96
18	1.0	97	97
10	0.5	98	98
10	0.5	99	99
3	0.2	100	100

Variable Name	Format	Type	Length
SafetySEA	F12	Numeric	8

Definition: Documents the SafeStat score for the Safety Management SEA category for this carrier.

N	Prcnt	Code	Label
1,519	80.7	0	0
4	0.2	52	52
9	0.5	53	53
2	0.1	56	56
28	1.5	57	57
12	0.6	58	58
9	0.5	61	61
34	1.8	62	62
6	0.3	63	63
11	0.6	65	65

Codebook – SafeStat Data Set

N	Prcnt	Code	Label
23	1.2	66	66
1	0.1	67	67
4	0.2	68	68
11	0.6	69	69
17	0.9	70	70
18	1.0	71	71
14	0.7	72	72
36	1.9	73	73
17	0.9	74	74
5	0.3	77	77
13	0.7	78	78
3	0.2	81	81
1	0.1	82	82
22	1.2	84	84
9	0.5	87	87
6	0.3	88	88
8	0.4	89	89
9	0.5	90	90
2	0.1	91	91
1	0.1	94	94
3	0.2	96	96
7	0.4	97	97
6	0.3	98	98
8	0.4	99	99
4	0.2	100	100

Variable Name	Format	Type	Length
STACategory	\$10	Char	10

Definition: Provides the letter code for the category indicator value calculated for this carrier.

N	Prcnt	Code	Label
19	1.0	*	A
98	5.2	*	B
63	3.3	*	C
109	5.8	*	D
166	8.8	*	E
259	13.8	*	F
45	2.4	*	G
1,123	59.7	*	H

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Codebook – SafeStat Data Set

Variable Name	Format	Type	Length
CategoryDescription	\$50	Char	50

Definition: Describes the SafeStat indicator value calculated for this carrier.

N	Prcnt	Code	Label
109	5.8	*	ONLY ACCIDENT SEA >= 75
166	8.8	*	ONLY DRIVER SEA >= 75
45	2.4	*	ONLY SAFETY MANAGEMENT SEA >= 75
259	13.8	*	ONLY VEHICLE SEA >= 75
19	1.0	*	SAFESTAT SCORE >= 350
63	3.3	*	SAFESTAT SCORE BETWEEN 150 AND 225
98	5.2	*	SAFESTAT SCORE BETWEEN 225 AND 350
1,123	59.7	*	SCORED - ALL SEAS < 75

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Codebook – TruckExterior Data Set

TruckExterior Data Set

The TruckExterior data set contains information on each truck in the crash. Passenger vehicles involved in the crash are not included in this data set but instead are covered under VehicleExterior. This material is provided as one record per truck involved in the crash.

The TruckExterior data set contains the variables CaseID, PSU, PSUStrat, RATWeight, and VehicleNumber. CaseID and VehicleNumber uniquely identify each record in this data set and should be used to merge the TruckExterior data set with vehicle level data sets.

Variable Name	Format	Type	Length
PowerUnitType	ML611F	Numeric	8

Definition: Establishes the type of power unit involved in this crash.

N	Prcnt	Code	Label
354	28.5	1	Straight Truck
865	69.7	2	Tractor
16	1.3	7	Not Inspected
6	0.5	9	Unknown

Variable Name	Format	Type	Length
CabStyle	ML4135F	Numeric	8

Definition: Establishes the cab style of the power unit involved in the crash.

N	Prcnt	Code	Label
1,106	89.1	1	Conventional
101	8.1	2	Cab-over-engine
8	0.6	3	Cab forward
23	1.9	7	Not Inspected
2	0.2	8	Other (specify)
1	0.1	9	Unknown

Variable Name	Format	Type	Length
DromedaryBox	ML1158F	Numeric	8

Definition: Establishes the presence of a dromedary box on the vehicle. A dromedary box is essentially a storage box that is typically mounted on the tractor chassis immediately rearward of the rear wall of the tractor cab. Access is typically located on the sides of the vehicle. These boxes are used to store tarps, tie-downs, tools, and the driver's personal gear. On occasion, dromedary boxes are utilized to haul cargo.

N	Prcnt	Code	Label
52	4.2	1	Yes
1,149	92.6	2	No
23	1.9	8	Not Inspected
17	1.4	99	Unknown

Codebook – TruckExterior Data Set

Variable Name	Format	Type	Length
SleeperBerth	ML612F	Numeric	8

Definition: Establishes the presence of a sleeper berth as an integral part of the cab structure.

N	Prcnt	Code	Label
549	44.2	1	Yes
659	53.1	2	No
23	1.9	8	Not Inspected
10	0.8	99	Unknown

Variable Name	Format	Type	Length
BlindSpot	ML4134F	Numeric	8

Definition: Establishes links between the vehicle's mirror system and crash causation.

N	Prcnt	Code	Label
19	1.5	1	Yes (Specify)
1,149	92.6	2	No
25	2.0	8	Not Inspected
48	3.9	9	Unknown

Variable Name	Format	Type	Length
DataRecorder	ML1159F	Numeric	8

Definition: Establishes the presence of an engine control/data recorder unit.

N	Prcnt	Code	Label
926	74.6	1	No
52	4.2	2	Yes (specify)
25	2.0	8	Not Inspected
238	19.2	9	Unknown

Variable Name	Format	Type	Length
RPM	OT55F	Numeric	8

Definition: Establishes the engine RPM as obtained from the truck's data recorder.

N	Prcnt	Code	Label
1	0.1	1620	1620
1	0.1	1740	1740
1	0.1	2304	2304
1	0.1	9995	EC/DR Unit Installed, No RPM Recording Capability
926	74.6	9996	EC/DR Unit Not Installed

Codebook – TruckExterior Data Set

N	Prcnt	Code	Label
25	2.0	9997	Not inspected
238	19.2	9998	Unknown if EC/DR Unit Installed
48	3.9	9999	EC/DR Unit Installed, Unknown RPMs

Variable Name	Format	Type	Length
TEXSpeed	OT57F	Numeric	8

Definition: Establishes the speed (in kph) of the vehicle as indicated by information obtained from the truck's data recorder.

N	Prcnt	Code	Label
1	0.1	0	0
1	0.1	11	11
1	0.1	89	89
1	0.1	103	103
1	0.1	108	108
1	0.1	995	EC/DR Unit Installed, No Speed Recording Capability
926	74.6	996	EC/DR Unit Not Installed
25	2.0	997	Not Inspected
238	19.2	998	Unknown if EC/DR Unit Installed
46	3.7	999	EC/DR Unit Installed, Unknown Speed

Variable Name	Format	Type	Length
GearPosition	OT56F	Numeric	8

Definition: Establishes the gear position of the truck as indicated by information obtained from the data recorder.

N	Prcnt	Code	Label
1	0.1	1	1
1	0.1	3	3
1	0.1	4	4
1	0.1	7	7
1	0.1	9	9
2	0.2	95	EC/DR Unit Installed, No Gear Position Recording Capability
926	74.6	96	EC/DR Unit Not Installed
25	2.0	97	Not Inspected
238	19.2	98	Unknown if EC/DR Unit Installed
45	3.6	99	EC/DR Unit Installed, Unknown Gear Position

Codebook – TruckExterior Data Set

Variable Name	Format	Type	Length
TrailerCount	OT58F	Numeric	8

Definition: Establishes the number of trailers that are included in the vehicle configuration.

N	Prcnt	Code	Label
29	2.3	0	No Trailer *and* Power Unit Not Straight Truck
824	66.4	1	1
57	4.6	2	2
310	25.0	7	Straight Truck With No Trailers
21	1.7	8	Not Inspected

Variable Name	Format	Type	Length
TEXEmptyWeight	OT29F	Numeric	8

Definition: Establishes the combined total empty weight (kilograms) for all units in the truck configuration. The empty weight for each unit is specified by the unit's manufacturer.

N	Prcnt	Code	Label
1	0.1	2404	2404
1	0.1	2420	2420
1	0.1	2737	2737
1	0.1	3164	3164
1	0.1	3167	3167
1	0.1	3175	3175
1	0.1	3181	3181
1	0.1	3196	3196
1	0.1	3339	3339
1	0.1	3362	3362

1	0.1	22934	22934
1	0.1	23098	23098
1	0.1	23134	23134
1	0.1	23927	23927
1	0.1	25104	25104
1	0.1	25548	25548
1	0.1	26250	26250
1	0.1	28576	28576
26	2.1	777777	Not inspected
199	16.0	999999	Unknown

Codebook – TruckExterior Data Set

Variable Name	Format	Type	Length
CMDBCargoWeight	OT29F	Numeric	8

Definition: Establishes the total weight (kilograms) of all cargo in all trailers combined. This value represents payload cargo only, not the weight of the trailer, the driver, or the driver's personal effects.

N	Prcnt	Code	Label
1	0.1	9	9
1	0.1	14	14
2	0.2	23	23
1	0.1	34	34
5	0.4	45	45
1	0.1	68	68
1	0.1	75	75
2	0.2	91	91
3	0.2	113	113
1	0.1	136	136

1	0.1	39010	39010
1	0.1	39508	39508
1	0.1	41822	41822
1	0.1	43872	43872
1	0.1	45360	45360
1	0.1	48988	48988
1	0.1	49743	49743
1	0.1	63504	63504
26	2.1	777777	Not inspected
592	47.7	999999	Unknown

Variable Name	Format	Type	Length
TOTALGVWR	OT29F	Numeric	8

Definition: This is the total combined gross vehicle weight rating (in kilograms) for all units of the truck configuration. The GVWR is specified by the manufacturer and represents the sum of the weights each axle within a unit is designed to carry.

N	Prcnt	Code	Label
1	0.1	4536	4536
1	0.1	5012	5012
2	0.2	5443	5443
1	0.1	5897	5897
2	0.2	6010	6010
2	0.2	6350	6350
1	0.1	6373	6373
1	0.1	6396	6396

Codebook – TruckExterior Data Set

N	Prcnt	Code	Label
1	0.1	6460	6460
1	0.1	6463	6463

1	0.1	84863	84863
1	0.1	87984	87984
1	0.1	88579	88579
1	0.1	94802	94802
1	0.1	95935	95935
1	0.1	96163	96163
1	0.1	97977	97977
1	0.1	104554	104554
26	2.1	777777	Not inspected
221	17.8	999999	Unknown

Variable Name	Format	Type	Length
TEXConfiguration	\$15	Char	15

Definition: Provides a summary of the configuration of the rig. Letter codes are “strung together” (listed from left to right) to represent the order of equipment in the rig. For example, a tractor pulling two trailers connected by an A-dolly would have a configuration of “TSAS”.

N	Prcnt	Code	Label
1	0.1	ISS	ISS
22	1.8	Not Insp	Not Insp
309	24.9	R	R
20	1.6	RF	RF
24	1.9	RO	RO
1	0.1	ROO	ROO
29	2.3	T	T
6	0.5	TO	TO
773	62.3	TS	TS
1	0.1	TSA	TSA
22	1.8	TSAS	TSAS
2	0.2	TSCS	TSCS
29	2.3	TSF	TSF
2	0.2	TSXS	TSXS

Codebook – TruckExterior Data Set

Variable Name	Format	Type	Length
TEXTTotalLength	OT54F	Numeric	8

Definition: Establishes the total length (meters) of the entire truck configuration. Due to overlapping vehicle connection points, the total length of the vehicle configuration will be less than the sum of the unit lengths.

N	Prcnt	Code	Label
1	0.1	3	3
6	0.5	5	5
33	2.7	6	6
28	2.3	7	7
77	6.2	8	8
63	5.1	9	9
64	5.2	10	10
39	3.1	11	11
27	2.2	12	12
25	2.0	13	13
17	1.4	14	14
17	1.4	15	15
22	1.8	16	16
44	3.5	17	17
79	6.4	18	18
98	7.9	19	19
110	8.9	20	20
128	10.3	21	21
133	10.7	22	22
42	3.4	23	23
19	1.5	24	24
10	0.8	25	25
3	0.2	26	26
4	0.3	27	27
1	0.1	28	28
1	0.1	29	29
2	0.2	30	30
3	0.2	32	32
1	0.1	50	50
16	1.3	77	Not inspected
128	10.3	99	Unknown

Codebook – TruckExterior Data Set

Variable Name	Format	Type	Length
PlacardRequired	OT47F	Numeric	8

Definition: Establishes whether or not the trailer unit was placarded (i.e. had warning symbol on it), indicating the trailer was carrying hazardous cargo.

N	Prcnt	Code	Label
887	71.5	0	No Placard Required
53	4.3	1	Yes, Placard Required
26	2.1	8	Not Inspected
275	22.2	9	Unknown

Variable Name	Format	Type	Length
MirrorCount	OT59F	Numeric	8

Definition: Establishes the total number of mirrors on the truck configuration.

N	Prcnt	Code	Label
35	2.8	1	1
768	61.9	2	2
164	13.2	3	3
205	16.5	4	4
1	0.1	5	5
26	2.1	7	Not Inspected
42	3.4	9	Unknown

Variable Name	Format	Type	Length
RightDoorMirror	AP1U	Numeric	8

Definition: Establishes whether or not the truck's power unit has an exterior mirror mounted on its right door. (Was originally an attribute choice under the variable "Exterior Mirror Location.")

N	Prcnt	Code	Label
53	4.3	0	Absent
1,120	90.2	1	Present
26	2.1	7	Not Inspected
42	3.4	9	Unknown

Codebook – TruckExterior Data Set

Variable Name	Format	Type	Length
LeftDoorMirror	AP1U	Numeric	8

Definition: Establishes whether or not the truck’s power unit has an exterior mirror mounted on its left door. (This variable was originally an attribute choice under the variable “Exterior Mirror Location.”)

N	Prcnt	Code	Label
50	4.0	0	Absent
1,123	90.5	1	Present
26	2.1	7	Not Inspected
42	3.4	9	Unknown

Variable Name	Format	Type	Length
RightFenderMirror	AP1U	Numeric	8

Definition: Establishes whether or not the truck’s power unit has an exterior mirror mounted on its right fender. (This variable was originally an attribute choice under the variable “Exterior Mirror Location.”)

N	Prcnt	Code	Label
817	65.8	0	Absent
356	28.7	1	Present
26	2.1	7	Not Inspected
42	3.4	9	Unknown

Variable Name	Format	Type	Length
LeftFenderMirror	AP1U	Numeric	8

Definition: Establishes whether or not the truck’s power unit has an exterior mirror mounted on its left fender. (This variable was originally an attribute choice under the variable “Exterior Mirror Location.”)

N	Prcnt	Code	Label
947	76.3	0	Absent
226	18.2	1	Present
26	2.1	7	Not Inspected
42	3.4	9	Unknown

Codebook – TruckExterior Data Set

Variable Name	Format	Type	Length
OtherLocationMirror	AP1U	Numeric	8

Definition: Establishes whether or not the truck’s power unit has an exterior mirror mounted on locations other than its doors or fenders. (This variable was originally an attribute choice under the variable “Exterior Mirror Location” and was the “Other (specify):” attribute choice.)

N	Prcnt	Code	Label
1,110	89.4	0	Absent
63	5.1	1	Present
26	2.1	7	Not Inspected
42	3.4	9	Unknown

Variable Name	Format	Type	Length
ITSCount	OT59F	Numeric	8

Definition: Establishes the total number of ITS equipment on the truck.

N	Prcnt	Code	Label
1,065	85.8	0	0
23	1.9	1	1
1	0.1	2	2
1	0.1	3	3
26	2.1	7	Not Inspected
125	10.1	9	Unknown

Variable Name	Format	Type	Length
ITSHeadway	AP1U	Numeric	8

Definition: Establishes whether or not a headway detection unit is installed in the cab of the vehicle and is functional. These units are intended to assist the driver in avoiding rear-end crashes. While several operational modes are in active use, all of these units measure the gap distance to a vehicle/object located forward of the driver’s position. When the gap distance diminishes to a pre-selected unacceptable level, the unit issues an auditory alert to the driver. (Was originally an attribute choice under the variable “ITS Equipment Installed.”)

N	Prcnt	Code	Label
1,088	87.7	0	Absent
2	0.2	1	Present
26	2.1	7	Not Inspected
125	10.1	9	Unknown

Codebook – TruckExterior Data Set

Variable Name	Format	Type	Length
ITSSideObject	AP1U	Numeric	8

Definition: Establishes whether or not a side/object detection unit is installed in the cab of the vehicle and is functional. These units are intended to assist the driver in avoiding side impacts as a result of intruding into adjacent lanes or as a result of other vehicle's intruding into the truck lanes. These units are also useful with respect to avoiding obstacles while backing. While several operational modes are in active use, all of these units typically issue alerts when clearances to the sides of the vehicle diminish to unacceptable levels. (This variable was originally an attribute choice under the variable "ITS Equipment Installed.")

N	Prcnt	Code	Label
1,088	87.7	0	Absent
2	0.2	1	Present
26	2.1	7	Not Inspected
125	10.1	9	Unknown

Variable Name	Format	Type	Length
ITSRollover	AP1U	Numeric	8

Definition: Establishes whether or not a rollover warning unit is installed in the cab of the vehicle and is functional. While several operational modes are in active use, these devices typically measure lateral acceleration and issue an alert to the driver when these forces rise to a level that may create an unstable condition. (This variable was originally an attribute choice under the variable "ITS Equipment Installed.")

N	Prcnt	Code	Label
1,089	87.8	0	Absent
1	0.1	1	Present
26	2.1	7	Not Inspected
125	10.1	9	Unknown

Variable Name	Format	Type	Length
ITSOther	AP1U	Numeric	8

Definition: Establishes whether or not other ITS equipment (other than headway detection units, side/object detection units, and rollover warning units) is installed in the cab of the vehicle and is functional. (This variable was originally an attribute choice under the variable "ITS Equipment Installed" and was the "Other (specify):" attribute choice.)

N	Prcnt	Code	Label
1,087	87.6	0	Absent
3	0.2	1	Present
26	2.1	7	Not Inspected
125	10.1	9	Unknown

Codebook – TruckInspection Data Set

TruckInspection Data Set

The TruckInspection data set combines information on Federal inspection violations. There may be more than one record per truck. Each record represents a violation.

The TruckInspection data set contains the variables CaseID, PSU, PSUStrat, RATWeight, and VehicleNumber. CaseID, VehicleNumber, TINPosition and TINViolationCode uniquely identify each record in this data set. CaseID and VehicleNumber should be used to merge the TruckInspection data set with the TruckExterior data set and other vehicle level data sets. CaseID, VehicleNumber and TINPosition should be used to merge the TruckInspection data set with the TruckUnits data set.

Variable Name	Format	Type	Length
TINPosition	BEST8	Numeric	8

Definition: Indicates which unit in the truck configuration received a specific violation, based on its position in the truck's configuration.

N	Prcnt	Code	Label
2,497	77.0	1	1
685	21.1	2	2
59	1.8	3	3

Variable Name	Format	Type	Length
TINViolationCode	\$OT48F	Char	15

Definition: Indicates the numerical violation code as it corresponds to a specific violation. These codes are found in the Federal Motor Carrier Safety Regulations "Code of Federal Regulations, Title 49."

N	Prcnt	Code	Label
1	0.0	13901	Operating w/o proper motor carrier authority
1	0.0	13906	Oper w/o proper insurance or other securities
1	0.0	171.2B	Failed to comply with exemption
1	0.0	172.200A	No shipping paper provided offeror
1	0.0	172.332	ID# marking for (b) panel (c) placards
2	0.1	172.502A1	Prohibited placarding
1	0.0	172.516C6	Placard damaged, deteriorated, or obscured
1	0.0	172.602A	ER info missing
1	0.0	173.24B1	Release of HM from package
2	0.1	177.817A	No shipping papers (carrier)

7	0.2	396.3A1BC	Brake-air compressor violation
3	0.1	396.3A1BD	Brake-defective brake drum
6	0.2	396.3A1BL	Brake-reserve system pressure loss
13	0.4	396.3A1T	Tires (general)
12	0.4	396.5	Excessive oil leaks
15	0.5	396.5B	Oil and/or grease leak

Codebook – TruckInspection Data Set

N	Prcnt	Code	Label
6	0.2	396.7	Unsafe operations forbidden
1	0.0	396.9D2	Failure to correct defects noted on insp
1	0.0	398.6	Violation of hours of service reg-migrant
2	0.1	399.207	Vehicle access requirements violations

Variable Name	Format	Type	Length
ViolationType	ML618F	Numeric	8

Definition: Indicates if a violation was in effect prior to the crash, or if the violation was a result of the crash.

N	Prcnt	Code	Label
2,195	67.7	1	Pre-crash
112	3.5	2	No
856	26.4	3	Crash Related
78	2.4	999	Unknown

Variable Name	Format	Type	Length
TINOutOfService	ML617F	Numeric	8

Definition: Indicates whether or not a specific violation was classified as “out-of-service.”

N	Prcnt	Code	Label
1,088	33.6	1	Yes
2,150	66.3	2	No
3	0.1	9	Unknown

Variable Name	Format	Type	Length
TINDisposition	ML640F	Numeric	8

Definition: Establishes the disposition of the truck as indicated by violations found during the FMCSA truck inspection.

N	Prcnt	Code	Label
87	2.7	1	Repaired at Scene
1,996	61.6	2	Towed/Escorted
142	4.4	3	Other (Specify)
787	24.3	8	Not Applicable
229	7.1	9	Unknown

TruckUnits Data Set

The TruckUnits data set contains detailed information about each unit involved in the crash. This includes both power units and trailers, where applicable, as indicated by the position field, which is part of the key of this data set. This material is provided as one record per truck unit.

The TruckUnits data set contains the variables CaseID, PSU, PSUStrat, RATWeight, and VehicleNumber. CaseID, VehicleNumber and TUNPosition uniquely identify each record in this data set. CaseID and VehicleNumber should be used to merge the TruckUnits data set with the TruckExterior data set and other vehicle level data sets. CaseID, VehicleNumber and TUNPosition should be used to merge the TruckUnits data set with the TruckInspection data set.

Variable Name	Format	Type	Length
TUNPosition	BEST8	Numeric	8

Definition: Identifies the position of a particular unit within the vehicle configuration. Position “1” should identify a straight truck or a power unit in a multiple combination, with each trailer then assigned the next number as it moves away from the power unit.

N	Prcnt	Code	Label
1,241	57.0	1	1
881	40.4	2	2
57	2.6	3	3

Variable Name	Format	Type	Length
TUNUnitType	ML639F	Numeric	8

Definition: Describes the unit type for each unit in the vehicle configuration.

N	Prcnt	Code	Label
859	39.4	1	Semi
49	2.2	2	Full
1,220	56.0	3	Power unit
22	1.0	6	Not Inspected
28	1.3	8	Other (specify)
1	0.0	9	Unknown

Variable Name	Format	Type	Length
TUNBodyType	ML620F	Numeric	8

Definition: Establishes the type of trailer unit/cargo body identified within the vehicle configuration. If the vehicle is a straight truck, this designation is also used to describe the body type of the straight truck (e.g. cement mixer).

N	Prcnt	Code	Label
451	20.7	1	Van
33	1.5	2	Open top van
123	5.6	3	Refrigerated van

Codebook – TruckUnits Data Set

N	Prcnt	Code	Label
5	0.2	4	Livestock carrier
163	7.5	5	Flatbed
14	0.6	6	Low boy
14	0.6	7	Flatbed with equipment
23	1.1	8	Flatbed with sides
14	0.6	9	Pole/logging
68	3.1	10	Tank-liquid
1	0.0	11	Tank-compressed gas
20	0.9	12	Tank-dry bulk
8	0.4	13	Auto carrier
199	9.1	14	Dump
28	1.3	15	Bottom dump/hopper bottom
45	2.1	16	Garbage/refuse
24	1.1	17	Cement mixer
63	2.9	18	Other (specify)
855	39.2	77	Not applicable (includes tractor power unit)
22	1.0	88	Not Inspected
6	0.3	99	Unknown

Variable Name

CargoType

Format Type Length
ML623F Numeric 8

Definition: Establishes the type of cargo carried in each unit of the vehicle configuration. A tractor power unit is normally classified with the “Not applicable” designation since these units typically do not carry cargo. For the unusual circumstance where a tractor power unit is carrying cargo, either the “Tractor power unit with container cargo” or “Tractor power unit with other bulk cargo (specify):” designations are used as appropriate.

N	Prcnt	Code	Label
351	16.1	0	Empty
293	13.4	1	General freight
22	1.0	2	Household goods
63	2.9	3	Building materials
41	1.9	4	Metal (coil, sheets)
21	1.0	5	Heavy machinery
29	1.3	6	Large objects
10	0.5	7	Motor vehicles
3	0.1	8	Piggyback/tow-away
6	0.3	9	Gases in bulk
235	10.8	10	Solids in bulk
49	2.2	11	Liquids in bulk
15	0.7	13	Logs, poles, lumber
74	3.4	14	Refrigerated foods

Codebook – TruckUnits Data Set

N	Prcnt	Code	Label
4	0.2	15	Mobile home
32	1.5	16	Farm products
6	0.3	17	Live animals
7	0.3	18	Other (specify):
862	39.6	77	Not applicable
26	1.2	88	Not Inspected
30	1.4	99	Unknown

Variable Name	Format	Type	Length
TUNVIN	\$10	Char	10

Definition: Establishes the Vehicle Identification Number (VIN) for each unit in the vehicle configuration.

N	Prcnt	Code	Label
1	0.0	*	0016
1	0.0	*	0125A
1	0.0	*	0M17609C
1	0.0	*	0T3A110004
1	0.0	*	0T3A113004
1	0.0	*	102955
1	0.0	*	107294N
1	0.0	*	10BBA72Y4Y
1	0.0	*	10BFB72T8X
1	0.0	*	10BFS6210D

1	0.0	*	UNV623301
1	0.0	*	Unknown
1	0.0	*	V30363
1	0.0	*	VG6BA01A4J
1	0.0	*	VG6M114B7G
1	0.0	*	VG6M116A9Y
1	0.0	*	WA89149779
1	0.0	*	WA94182673
1	0.0	*	WN63222274
1	0.0	*	X127269

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Codebook – TruckUnits Data Set

Variable Name	Format	Type	Length
ManufactureDate	\$OT50F	Char	8

Definition: Establishes the month and year in which each unit in the vehicle configuration was manufactured.

N	Prcnt	Code	Label
14	0.6	*	01/00
6	0.3	*	01/01
9	0.4	*	01/02
5	0.2	*	01/03
1	0.0	*	01/60
1	0.0	*	01/74
1	0.0	*	01/75
1	0.0	*	01/76
1	0.0	*	01/77
2	0.1	*	01/79

4	0.2	*	12/92
3	0.1	*	12/93
4	0.2	*	12/94
8	0.4	*	12/95
8	0.4	*	12/96
10	0.5	*	12/97
12	0.6	*	12/98
12	0.6	*	12/99
26	1.2	88/88	Not Inspected
819	37.6	99/99	Unknown

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Variable Name	Format	Type	Length
TUNEmptyWeight	OT29F	Numeric	8

Definition: Establishes the empty weight (kilograms) for each unit of the vehicle configuration. This value represents the empty weight of each unit as specified by the unit's manufacturer.

N	Prcnt	Code	Label
4	0.2	2200	2200
1	0.0	2404	2404
1	0.0	2420	2420
1	0.0	2422	2422
1	0.0	2495	2495
1	0.0	2558	2558
1	0.0	2563	2563
1	0.0	2586	2586

Codebook – TruckUnits Data Set

N	Prcnt	Code	Label
9	0.4	2722	2722
1	0.0	2735	2735

1	0.0	17350	17350
1	0.0	17950	17950
1	0.0	18280	18280
1	0.0	18281	18281
1	0.0	18300	18300
1	0.0	19573	19573
1	0.0	19913	19913
1	0.0	28576	28576
27	1.2	888888	Not inspected
264	12.1	999999	Unknown

Variable Name	Format	Type	Length
TUNCargoWeight	OT29F	Numeric	8

Definition: Establishes the weight (kilograms) of the cargo transported in each unit of the vehicle configuration. This value represents the payload associated with each unit of the vehicle combination. Payload is the total weight of the unit and cargo minus the weight of the unit before the cargo is loaded. Payload does not include miscellaneous items in the cab or dromedary box of power units or other items such as chains and tie downs.

N	Prcnt	Code	Label
343	15.7	0	0
1	0.0	9	9
1	0.0	14	14
2	0.1	23	23
1	0.0	34	34
7	0.3	45	45
2	0.1	68	68
1	0.0	75	75
2	0.1	91	91
2	0.1	113	113

1	0.0	35127	35127
2	0.1	35381	35381
1	0.0	35834	35834
1	0.0	36764	36764
1	0.0	39009	39009
1	0.0	39508	39508
1	0.0	41822	41822
856	39.3	888887	Not applicable

Codebook – TruckUnits Data Set

N	Prcnt	Code	Label
26	1.2	888888	Not inspected
283	13.0	999999	Unknown

Variable Name	Format	Type	Length
GVWR	OT29F	Numeric	8

Definition: Establishes the Gross Vehicle Weight Rating (GVWR, in kilograms) for each unit of the vehicle configuration. The GVWR is specified by the manufacturer and represents the sum of the weights each axle within a unit is designed to carry.

N	Prcnt	Code	Label
2	0.1	4536	4536
1	0.0	5012	5012
1	0.0	5216	5216
1	0.0	5307	5307
1	0.0	5440	5440
2	0.1	5443	5443
1	0.0	5489	5489
2	0.1	5897	5897
2	0.1	6010	6010
1	0.0	6123	6123

1	0.0	49360	49360
1	0.0	50349	50349
1	0.0	50803	50803
1	0.0	53071	53071
1	0.0	53524	53524
1	0.0	54885	54885
1	0.0	54890	54890
1	0.0	59213	59213
26	1.2	888888	Not inspected
284	13.0	999999	Unknown

Variable Name	Format	Type	Length
TUNTotalLength	OT28F14.1	Numeric	8

Definition: Establishes the length (in meters) of each unit of the vehicle's configuration. Unit lengths are established by measuring from the furthest forward projection to the furthest rearward projection.

N	Prcnt	Code	Label
1	0.0	3.9	3.9
1	0.0	4.1	4.1
1	0.0	4.3	4.3
1	0.0	4.5	4.5

Codebook – TruckUnits Data Set

N	Prcnt	Code	Label
5	0.2	4.6	4.6
3	0.1	4.7	4.7
5	0.2	4.8	4.8
1	0.0	4.9	4.9
7	0.3	5	5.0
3	0.1	5.2	5.2

1	0.0	19.1	19.1
1	0.0	19.7	19.7
3	0.1	20.7	20.7
1	0.0	20.8	20.8
1	0.0	22.9	22.9
1	0.0	23.6	23.6
1	0.0	24.3	24.3
1	0.0	26	26.0
27	1.2	7777	Not Inspected
146	6.7	9999	Unknown

Variable Name	Format	Type	Length
CapacityPercent	OT36F	Numeric	8

Definition: Establishes the proportion of available cargo space that is used to transport cargo in each unit of the vehicle configuration. The reported percentages are subjective estimates of the total available space that is used.

N	Prcnt	Code	Label
352	16.2	0	0
11	0.5	1	1
1	0.0	2	2
1	0.0	4	4
14	0.6	5	5
1	0.0	8	8
20	0.9	10	10
1	0.0	11	11
1	0.0	12	12
7	0.3	15	15

3	0.1	93	93
2	0.1	94	94
18	0.8	95	95
67	3.1	96	96
6	0.3	97	97
8	0.4	98	98

Codebook – TruckUnits Data Set

N	Prcnt	Code	Label
3	0.1	99	99
290	13.3	100	100
26	1.2	777	Not Inspected
862	39.6	888	Not applicable
174	8.0	999	Unknown

Variable Name

TankCapacity

Format	Type	Length
OT38F	Numeric	8

Definition: Is used with tankers (liquid loads) and establishes the total capacity (liters) of that particular tank.

N	Prcnt	Code	Label
1	0.0	3407	3407
1	0.0	5678	5678
1	0.0	5700	5700
1	0.0	10409	10409
2	0.1	13248	13248
1	0.0	13626	13626
1	0.0	17396	17396
1	0.0	17411	17411
1	0.0	20276	20276
1	0.0	20439	20439
1	0.0	20441	20441
1	0.0	24224	24224
1	0.0	24603	24603
1	0.0	24605	24605
1	0.0	25360	25360
1	0.0	25738	25738
3	0.1	26495	26495
1	0.0	28766	28766
1	0.0	33600	33600
2	0.1	34065	34065
1	0.0	35201	35201
1	0.0	35390	35390
1	0.0	35579	35579
5	0.2	35958	35958
1	0.0	38986	38986
1	0.0	42771	42771
2,104	96.6	88887	Not Applicable
26	1.2	88888	Not Inspected
15	0.7	99999	Unknown

Codebook – TruckUnits Data Set

Variable Name	Format	Type	Length
TankLoad	OT38F	Numeric	8

Definition: Is used with tankers (liquid load) and establishes the total load (liters) being carried in that particular tank at the time of the crash.

N	Prcnt	Code	Label
1	0.0	1893	1893
1	0.0	4020	4020
1	0.0	5616	5616
1	0.0	5678	5678
1	0.0	7040	7040
1	0.0	8327	8327
1	0.0	8531	8531
1	0.0	10542	10542
1	0.0	13248	13248
1	0.0	13418	13418
1	0.0	15899	15899
1	0.0	16166	16166
1	0.0	17396	17396
1	0.0	19069	19069
1	0.0	20201	20201
1	0.0	20363	20363
1	0.0	21386	21386
1	0.0	21790	21790
1	0.0	24118	24118
1	0.0	24160	24160
1	0.0	29145	29145
1	0.0	30280	30280
1	0.0	30659	30659
1	0.0	31045	31045
1	0.0	31416	31416
1	0.0	32173	32173
1	0.0	33301	33301
1	0.0	33308	33308
1	0.0	33664	33664
1	0.0	33762	33762
2	0.1	34065	34065
1	0.0	37850	37850
1	0.0	49205	49205
2,105	96.6	88887	Not Applicable
26	1.2	88888	Not Inspected
14	0.6	99999	Unknown

Codebook – TruckUnits Data Set

Variable Name	Format	Type	Length
Hazard	ML627F	Numeric	8

Definition: Establishes the presence of hazardous cargo in each unit of the vehicle configuration. A cargo is hazardous if it is corrosive, explosive, flammable, or radioactive. This includes all petroleum products except motor oil in cans and finished plastics. If the cargo was required by law to be placarded (i.e. warning symbol), it should be classified as hazardous.

N	Prcnt	Code	Label
52	2.4	1	Yes
1,226	56.3	2	No
867	39.8	7	Not applicable
24	1.1	8	Not Inspected
10	0.5	9	Unknown

Variable Name	Format	Type	Length
TUNSpillage	ML622F	Numeric	8

Definition: Establishes the occurrence of cargo spillage during the crash sequence. To qualify, the cargo spillage must occur as a result of or following the first harmful event. Spillage of fuel from the involved vehicles and the scattering of debris from the crash are not considered cargo spillage. Similarly, cargo spillage that occurs prior to the first harmful event (i.e. pre-crash phase) is not considered applicable to this variable.

N	Prcnt	Code	Label
1,057	48.5	0	No spillage
205	9.4	1	Non-hazardous spillage
18	0.8	2	Hazardous spillage
867	39.8	7	Not applicable
24	1.1	8	Not Inspected
8	0.4	9	Unknown

Variable Name	Format	Type	Length
AxlesUsed	OT53F	Numeric	8

Definition: Establishes the number of axles in use for each unit of the vehicle configuration. This number does not include lift axles that are up and therefore, not in use at the time of the crash.

N	Prcnt	Code	Label
73	3.4	1	1
1,032	47.4	2	2
974	44.7	3	3
53	2.4	4	4
6	0.3	5	5
6	0.3	6	6
25	1.1	7	Not Inspected
10	0.5	9	Unknown

Codebook – TruckUnits Data Set

Variable Name	Format	Type	Length
AxlesNotUsed	OT36F	Numeric	8

Definition: Establishes the number of axles that were lifted and not in use at the time of the crash. The number of lift axles is reported for each unit of the vehicle configuration.

N	Prcnt	Code	Label
1,928	88.5	0	0
84	3.9	1	1
4	0.2	2	2
1	0.0	3	3
26	1.2	777	Not Inspected
123	5.6	888	Not applicable
13	0.6	999	Unknown

Variable Name	Format	Type	Length
SteerableAxles	OT36F	Numeric	8

Definition: Establishes the number of steer axles (including self-aligning steer axles) on each unit within the configuration. For most articulated vehicles on U.S. trafficways, there will typically be one steer axle within the configuration (i.e. the front steer axle of the tractor unit). Within those configurations that utilize a C-dolly however, there can be self-aligning axles on the C-dolly.

N	Prcnt	Code	Label
832	38.2	0	0
1,259	57.8	1	1
11	0.5	2	2
25	1.1	777	Not Inspected
45	2.1	888	Not applicable
7	0.3	999	Unknown

Variable Name	Format	Type	Length
RearTapeCond	ML632F	Numeric	8

Definition: Establishes the condition of the tape on the rear of each trailer/cargo body. For this variable, tape condition factors are limited to visibility issues (e.g. clean/dirty).

N	Prcnt	Code	Label
333	15.3	0	No tape
372	17.1	1	Clean
390	17.9	2	Some dirt
106	4.9	3	Very dirty
862	39.6	7	Not applicable
25	1.1	8	Not Inspected
91	4.2	9	Unknown

Codebook – TruckUnits Data Set

Variable Name	Format	Type	Length
SideTapeCond	ML633F	Numeric	8

Definition: Establishes the condition of the tape on the sides of each trailer/cargo body. For this variable, tape condition factors are limited to visibility issues (e.g. clean/dirty).

N	Prcnt	Code	Label
327	15.0	0	No tape
441	20.2	1	Clean
379	17.4	2	Some dirt
60	2.8	3	Very dirty
862	39.6	7	Not applicable
25	1.1	8	Not Inspected
85	3.9	9	Unknown

Variable Name	Format	Type	Length
ReflectTapeType	ML638F	Numeric	8

Definition: Establishes the use/presence of retroreflective tape to improve truck conspicuity. It should be noted that the first unit in the vehicle configuration for this variable is designated as the power unit cargo body. This designation refers to the cargo body of a straight truck. If the power unit is a tractor, the “Not applicable” designation would typically be used.

N	Prcnt	Code	Label
286	13.1	0	No
933	42.8	1	Yes
862	39.6	7	Not applicable
25	1.1	8	Not Inspected
73	3.4	9	Unknown

Variable Name	Format	Type	Length
ReflectTapePattern	ML634F	Numeric	8

Definition: Establishes the pattern of tape markings that are present.

N	Prcnt	Code	Label
286	13.1	0	No tape
900	41.3	1	Side/rear per FMVSS 108 or similar
24	1.1	6	Not Inspected
862	39.6	7	Not applicable
32	1.5	8	Other pattern (specify):
75	3.4	9	Unknown

Codebook – TruckUnits Data Set

Variable Name	Format	Type	Length
ReflectTapeColor	ML631F	Numeric	8

Definition: Establishes the color of tape markings that are present.

N	Prcnt	Code	Label
286	13.1	0	No tape
930	42.7	1	Red/white per FMVSS 108
25	1.1	6	Not Inspected
862	39.6	7	Not applicable
1	0.0	8	Other color (specify):
75	3.4	9	Unknown

Variable Name	Format	Type	Length
UnderrideTapePeel	OT36F	Numeric	8

Definition: Establishes the proportion of tape on the rear underride guard that is peeling or damaged.

N	Prcnt	Code	Label
468	21.5	0	0
3	0.1	1	1
12	0.6	2	2
2	0.1	3	3
1	0.0	4	4
67	3.1	5	5
41	1.9	10	10
5	0.2	15	15
23	1.1	20	20
12	0.6	25	25

5	0.2	76	76
2	0.1	80	80
4	0.2	90	90
3	0.1	95	95
1	0.0	97	97
2	0.1	99	99
10	0.5	100	100
480	22.0	666	No tape
25	1.1	777	Not Inspected
862	39.6	888	Not applicable
103	4.7	999	Unknown

Codebook – TruckUnits Data Set

Variable Name	Format	Type	Length
RearTapePeel	OT36F	Numeric	8

Definition: Establishes the proportion of the tape on the rear area of each unit (excluding the underride guard) that is peeling or damaged.

N	Prcnt	Code	Label
642	29.5	0	0
2	0.1	1	1
15	0.7	2	2
2	0.1	3	3
2	0.1	4	4
69	3.2	5	5
43	2.0	10	10
2	0.1	15	15
1	0.0	17	17
14	0.6	20	20

2	0.1	75	75
2	0.1	76	76
5	0.2	80	80
3	0.1	90	90
1	0.0	95	95
4	0.2	100	100
334	15.3	666	No tape
25	1.1	777	Not Inspected
862	39.6	888	Not applicable
96	4.4	999	Unknown

Variable Name	Format	Type	Length
SideTapePeel	OT36F	Numeric	8

Definition: Establishes the proportion of the tape on the sides of the trailer that is peeling or damaged.

N	Prcnt	Code	Label
686	31.5	0	0
1	0.0	1	1
15	0.7	2	2
2	0.1	3	3
65	3.0	5	5
53	2.4	10	10
2	0.1	15	15
15	0.7	20	20
9	0.4	25	25
9	0.4	30	30

Codebook – TruckUnits Data Set

N	Prcnt	Code	Label
1	0.0	35	35
3	0.1	40	40
4	0.2	50	50
2	0.1	60	60
1	0.0	66	66
1	0.0	75	75
4	0.2	76	76
2	0.1	80	80
3	0.1	90	90
3	0.1	100	100
316	14.5	666	No tape
25	1.1	777	Not Inspected
862	39.6	888	Not applicable
95	4.4	999	Unknown

Codebook – VehicleEvents Data Set

VehicleEvents Data Set

The VehicleEvents data set contains information about events, such as safety equipment deployment and fires that occurred during and immediately after the crash. One record exists for each vehicle.

The VehicleEvents data set contains the variables CaseID, PSU, PSUStrat, RATWeight, and VehicleNumber. CaseID and VehicleNumber uniquely identify each record in this data set and should be used to merge the VehicleEvents data set with other vehicle level data sets.

Variable Name	Format	Type	Length
FireOrigin	ML118F	Numeric	8

Definition: Identifies the location of fire initiation.

N	Prcnt	Code	Label
5	0.2	1	Vehicle exterior (front, side, back, top)
1	0.0	2	Exhaust System
23	1.0	3	Fuel tank (and other fuel retention system parts)
22	1.0	4	Engine compartment
8	0.4	5	Cargo/Truck compartment
4	0.2	8	Other location (specify)
2,218	97.1	88	No fire
3	0.1	99	Unknown

Variable Name	Format	Type	Length
FireSeverity	ML117F	Numeric	8

Definition: Documents the degree of fire involvement.

N	Prcnt	Code	Label
19	0.8	1	Minor Fire
47	2.1	2	Major Fire
2,218	97.1	88	No fire

Variable Name	Format	Type	Length
RolloverType	ML202F	Numeric	8

Definition: Describes the type of rollover event that occurred for this vehicle. Rollover is defined as any vehicle rotation of 90 degrees or more about any true longitudinal or lateral axis. Rollover can occur at any time during the collision and is coded independently of other configuration questions.

N	Prcnt	Code	Label
1,971	86.3	0	No rollover (no overturning)
309	13.5	1	Longitudinal axis
1	0.0	98	Rollover, end-over-end (i.e. primarily about the lateral axis)
3	0.1	99	Rollover (overturn), details unknown

Codebook – VehicleEvents Data Set

Variable Name	Format	Type	Length
QuarterTurns	OT46F	Numeric	8

Definition: Documents the number of quarter turns that the vehicle rolled during the crash sequence. A quarter turn is defined as a rotation of 90 degrees about the longitudinal axis of the vehicle; this does not include rotation about the vertical axis, commonly called yaw.

N	Prcnt	Code	Label
1,971	86.3	0	0
221	9.7	1	1
29	1.3	2	2
20	0.9	3	3
15	0.7	4	4
1	0.0	5	5
4	0.2	6	6
3	0.1	8	8
1	0.0	9	9
19	0.8	99	Unknown

Variable Name	Format	Type	Length
RollInitType	ML201F	Numeric	8

Definition: Describes the type of rollover event in terms of how the rollover was initiated. The attributes are used for rollovers initiated about the longitudinal axis.

N	Prcnt	Code	Label
1,971	86.3	0	No rollover
72	3.2	1	Trip-over
3	0.1	2	Flip-over
119	5.2	3	Turn-over (specify)
17	0.7	4	Climb-over
26	1.1	5	Fall-over
17	0.7	6	Bounce-over
46	2.0	7	Collision with another vehicle
8	0.4	8	Other rollover initiation type (specify)
1	0.0	98	Rollover-end-over-end
4	0.2	99	Unknown rollover initiation type

Codebook – VehicleEvents Data Set

Variable Name	Format	Type	Length
RollInitLocation	ML198F	Numeric	8

Definition: Establishes the location of the trip point or start of the vehicle's roll that was identified in the variable "Rollover Initiation Type."

N	Prcnt	Code	Label
1,971	86.3	0	No rollover
157	6.9	1	On roadway
19	0.8	2	On shoulder -paved
9	0.4	3	On shoulder - unpaved
123	5.4	4	On roadside or divided trafficway median
1	0.0	8	Rollover - end-over-end
4	0.2	9	Unknown

Variable Name	Format	Type	Length
RollObject	ML1205F	Numeric	8

Definition: Is related to the variable "Rollover Initiation Type," and identifies the source of the force that acted upon the vehicle, which resulted in the rollover.

N	Prcnt	Code	Label
1,971	86.3	0	No rollover
20	0.9	1	Vehicle#1
19	0.8	2	Vehicle#2
4	0.2	3	Vehicle#3
2	0.1	4	Vehicle#4
1	0.0	5	Vehicle#5
145	6.3	31	Overturn->rollover(excludes end-over-end)
1	0.0	32	Rollover->end-over-end
2	0.1	34	Jackknife
1	0.0	41	Tree(<= 10 cm in diameter)
1	0.0	42	Tree(> 10 cm in diameter)
1	0.0	44	Embankment
1	0.0	51	Nonbreakaway pole or post(>10 cm but <= 30 cm in diameter)
27	1.2	54	Concrete traffic barrier
5	0.2	56	Other traffic barrier(includes guardrail) (specify)
1	0.0	58	Wall
59	2.6	61	Ground
9	0.4	63	Curb
1	0.0	64	Bridge
3	0.1	68	Other fixed object (specify)
1	0.0	88	Other nonfixed object (specify)

Codebook – VehicleEvents Data Set

N	Prcnt	Code	Label
4	0.2	98	Other event (specify)
5	0.2	99	Unknown event or object

Variable Name	Format	Type	Length
RollTrip	ML200F	Numeric	8

Definition: Establishes the specific point on the vehicle where the tripping force was applied.

N	Prcnt	Code	Label
1,971	86.3	0	No rollover
73	3.2	1	Wheels/tires
35	1.5	2	Side plane
32	1.4	3	End plane
20	0.9	4	Undercarriage
1	0.0	5	Other location on vehicle (specify)
146	6.4	6	Non-contact rollover forces (specify)
1	0.0	8	Rollover - end-over-end
5	0.2	9	Unknown

Variable Name	Format	Type	Length
RollDirect	ML197F	Numeric	8

Definition: Establishes the direction in which the vehicle initially rolled.

N	Prcnt	Code	Label
1,971	86.3	0	No rollover
149	6.5	1	Roll right - primarily about the longitudinal axis
157	6.9	2	Roll left - primarily about the longitudinal axis
1	0.0	8	Rollover - end-over-end
6	0.3	9	Unknown roll direction

Variable Name	Format	Type	Length
CollisionManner	ML1389F	Numeric	8

Definition: Is intended to describe the primary impact (in terms of delta V) sustained by this vehicle during the collision sequence. The primary impact may not be the first impact sustained by this vehicle.

N	Prcnt	Code	Label
386	16.9	0	Not a collision with a motor-vehicle in transit
724	31.7	1	Rear-end
142	6.2	2	Head-on
2	0.1	3	Rear-to-rear
805	35.2	4	Angle

Codebook – VehicleEvents Data Set

N	Prcnt	Code	Label
130	5.7	5	Sideswipe - same direction
36	1.6	6	Sideswipe - opposite direction
25	1.1	8	Other (specify)
34	1.5	9	Unknown

Variable Name	Format	Type	Length
FirstHarmfulEvent	ML1391F	Numeric	8

Definition: Establishes the first property or injury-producing event that can be determined to have occurred during the crash sequence.

N	Prcnt	Code	Label
136	6.0	1	Overturn
1	0.0	2	Fire/explosion
4	0.2	5	Fell from vehicle
2	0.1	6	Injured in vehicle
36	1.6	7	Other non-collision
28	1.2	8	Pedestrian
8	0.4	9	Pedal cycle
7	0.3	10	Railway train
1	0.0	11	Animal
1,820	79.7	12	Motor vehicle in transport
26	1.1	13	Motor vehicle in transport in other roadway
20	0.9	14	Parked motor vehicle
19	0.8	16	Thrown or falling object
31	1.4	18	Other object (not fixed)
2	0.1	19	Building
3	0.1	20	Impact attenuator/crash cushion
6	0.3	21	Bridge pier or abutment
6	0.3	23	Bridge rail
36	1.6	24	Guardrail
39	1.7	25	Concrete traffic barrier
1	0.0	26	Other longitudinal barrier
5	0.2	27	Highway/traffic sign post
4	0.2	29	Luminaire/light support
2	0.1	30	Utility pole
5	0.2	31	Other post, pole or support
1	0.0	32	Culvert
5	0.2	33	Curb
1	0.0	34	Ditch
7	0.3	35	Embankment - earth
1	0.0	36	Embankment - rock, stone or concrete
2	0.1	38	Fence

Codebook – VehicleEvents Data Set

N	Prcnt	Code	Label
1	0.0	39	Wall
2	0.1	41	Shrubbery
9	0.4	42	Tree
2	0.1	43	Other fixed object
1	0.0	46	Traffic signal support
4	0.2	99	Unknown

VehicleExterior Data Set

The VehicleExterior data set contains information on each passenger vehicle in the crash. Trucks are not included in this data set but instead are covered under TruckExterior. This material is provided as one record for each passenger vehicle involved in the crash.

The VehicleExterior data set contains the variables CaseID, PSU, PSUStrat, RATWeight, and VehicleNumber. CaseID and VehicleNumber uniquely identify each record in this data set and should be used to merge the VehicleExterior data set with other vehicle level data sets.

Variable Name	Format	Type	Length
BodyCategory	ML280F	Numeric	8

Definition: Describes the vehicle’s general body category.

N	Prcnt	Code	Label
551	59.8	1	Automobiles
118	12.8	3	Utility Vehicles (<= 4,536 kgs GVWR)
98	10.6	4	Van Based Light Trucks (<= 4,536 kgs GVWR)
147	16.0	5	Light Conventional Trucks (Pickup style cab,<=4,536kgs GVWR)
7	0.8	6	Other Light Trucks (<= 4,536 kgs GVWR)

Variable Name	Format	Type	Length
VEXBodyType	ML281F	Numeric	8

Definition: Documents the body type of the vehicle, as identified by the manufacturer.

N	Prcnt	Code	Label
14	1.5	1	Convertible
110	11.9	2	2-door sedan, hardtop, coupe
35	3.8	3	3-door/2-door hatchback
366	39.7	4	4-door sedan, hardtop
10	1.1	5	5-door/4-door hatchback
14	1.5	6	Station Wagon
98	10.6	14	Compact utility
15	1.6	15	Large utility
5	0.5	16	Utility station wagon
2	0.2	17	3-door coupe
62	6.7	20	Minivan
34	3.7	21	Large van
2	0.2	28	Other van type
60	6.5	30	Compact pickup
85	9.2	31	Large pickup
1	0.1	32	Pickup with slide-in camper
1	0.1	39	Unknown pickup style light conventional truck type
7	0.8	40	Cab chassis based

Codebook – VehicleExterior Data Set

Variable Name	Format	Type	Length
VEXVehicleClass	ML31F	Numeric	8

Definition: Documents the class of vehicle, as determined by the researcher. This classification system is based on documentation provided by the Passenger Car Classification Committee A3B11(1) of the Transportation Research Board, Traffic Records and Accident Analysis Committee, A3B11. This classification is based on the size of the vehicle's wheelbase.

N	Prcnt	Code	Label
117	12.7	1	Subcompact/mini (wheelbase < 254 cm)
184	20.0	2	Compact (wheelbase >= 254 but < 265 cm)
173	18.8	3	Intermediate (wheelbase >= 265 but < 278 cm)
51	5.5	4	Full Size (wheelbase >= 278 but < 291 cm)
26	2.8	5	Largest (wheelbase >= 291 cm)
98	10.6	14	Compact utility vehicle
15	1.6	15	Large utility vehicle (<= 4,536 kgs GVWR)
5	0.5	16	Utility station wagon (<= 4,536 kgs GVWR)
62	6.7	20	Minivan (<= 4,536 kgs GVWR)
34	3.7	21	Large van (<= 4,536 kgs GVWR)
2	0.2	28	Other van type (<= 4,536 kgs GVWR)
60	6.5	30	Compact pickup truck (<= 4,536 kgs GVWR)
85	9.2	31	Large pickup truck (<= 4,536 kgs GVWR)
1	0.1	38	Other pickup truck type (<= 4,536 kgs GVWR)
1	0.1	39	Unknown pick up truck (<=4,536 kgs GVWR)
7	0.8	45	Other light truck (<= 4,536 kgs GVWR)

Variable Name	Format	Type	Length
VEXWeightSource	ML282F	Numeric	8

Definition: Identifies the source from which the curb weight of the vehicle was obtained.

N	Prcnt	Code	Label
7	0.8	0	Curb weight unknown
26	2.8	1	AAMA
517	56.1	2	Automotive News
189	20.5	3	Branham Automobile Reference Book
133	14.4	4	Gasoline Truck, Import Truck, and Diesel Truck Index
44	4.8	8	Other (specify)
5	0.5	99	Unknown curb weight source

Codebook – VehicleExterior Data Set

Variable Name	Format	Type	Length
VEXCargoWeight	OT29F	Numeric	8

Definition: Documents the weight (in kilograms) of any cargo inside the vehicle at the time of the crash and most often represents a researcher’s “best guess” estimate of the cargo weight in kilograms. This value is based on interview information, the PAR, and vehicle inspection.

N	Prcnt	Code	Label
573	62.2	0	0
5	0.5	1	1
6	0.7	2	2
1	0.1	3	3
39	4.2	5	5
9	1.0	7	7
24	2.6	9	9
3	0.3	10	10
16	1.7	11	11

2	0.2	680	680
1	0.1	701	701
2	0.2	907	907
1	0.1	1133	1133
4	0.4	1134	1134
1	0.1	1361	1361
2	0.2	1814	1814
1	0.1	2313	2313
1	0.1	3039	3039
60	6.5	999999	Unknown

Variable Name	Format	Type	Length
VEXCargoSource	ML283F	Numeric	8

Definition: Documents the source from which the estimate of the weight of the cargo inside the vehicle at the time of the crash was obtained.

N	Prcnt	Code	Label
60	6.5	0	Cargo weight unknown
789	85.7	1	Vehicle inspection
63	6.8	2	Interview
1	0.1	4	Tow Yard Operator
8	0.9	8	Other (specify)

Codebook – VehicleExterior Data Set

Variable Name	Format	Type	Length
VEXVIN	\$10	Char	10

Definition: Documents the Vehicle Identification Number (VIN) of the vehicle, as determined by the researcher from vehicle inspection.

N	Prcnt	Code	Label
1	0.1	*	1582028838
1	0.1	*	19UUA566X1
1	0.1	*	1B3BA56J0K
1	0.1	*	1B3BD36D2G
1	0.1	*	1B3BE46D9F
1	0.1	*	1B3BE46K8H
1	0.1	*	1B3BX68E6H
1	0.1	*	1B3BZ48C4G
1	0.1	*	1B3EJ46X4X
1	0.1	*	1B3EJ46X5S

1	0.1	*	WVWCA0156G
1	0.1	*	WVWRB11G3K
1	0.1	*	YS3CN65M6R
1	0.1	*	YS3DD58B3V
1	0.1	*	YV1AX8842G
1	0.1	*	YV1FX8845K
1	0.1	*	YV1GA8746L
1	0.1	*	YV1LS5574W
1	0.1	*	YV1LS5826V
1	0.1	*	YV1LZ5648W

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Variable Name	Format	Type	Length
VEXSpecialUse	ML1326F	Numeric	8

Definition: Documents specific other uses for the vehicle in addition to personal use.

N	Prcnt	Code	Label
908	98.6	0	No Special Use
4	0.4	1	Taxi
1	0.1	2	Vehicle used as a school bus
5	0.5	5	Police
2	0.2	6	Ambulance
1	0.1	9	Unknown

Codebook – VehicleExterior Data Set

Variable Name	Format	Type	Length
InTransport	ML536F	Numeric	8

Definition: Determines whether or not the vehicle was in transport at the time of the crash. To be considered “in transport,” a vehicle must be on the roadway or in motion within the trafficway.

N	Prcnt	Code	Label
4	0.4	0	No
917	99.6	1	Yes

Variable Name	Format	Type	Length
InspectionType	ML177F	Numeric	8

Definition: Documents the type of inspection performed on the vehicle by the researcher. It allows users to identify cases with complete documentation of required damage data (exterior and interior).

N	Prcnt	Code	Label
2	0.2	1	Vehicle fully repaired -no damage evident
373	40.5	2	Partial inspection (specify)
546	59.3	3	Complete Inspection

Variable Name	Format	Type	Length
VEXInspectionDate	\$7	Char	7

Definition: Documents the date that the researcher inspected the vehicle.

N	Prcnt	Code	Label
22	2.4	*	2001-01
10	1.1	*	2001-02
23	2.5	*	2001-03
26	2.8	*	2001-04
25	2.7	*	2001-05
28	3.0	*	2001-06
24	2.6	*	2001-07
23	2.5	*	2001-08
16	1.7	*	2001-09
34	3.7	*	2001-10
26	2.8	*	2001-11
16	1.7	*	2001-12
31	3.4	*	2002-01
29	3.1	*	2002-02
44	4.8	*	2002-03
32	3.5	*	2002-04
31	3.4	*	2002-05
26	2.8	*	2002-06
17	1.8	*	2002-07

Codebook – VehicleExterior Data Set

N	Prcnt	Code	Label
27	2.9	*	2002-08
27	2.9	*	2002-09
26	2.8	*	2002-10
43	4.7	*	2002-11
20	2.2	*	2002-12
27	2.9	*	2003-01
29	3.1	*	2003-02
37	4.0	*	2003-03
28	3.0	*	2003-04
22	2.4	*	2003-05
37	4.0	*	2003-06
21	2.3	*	2003-07
17	1.8	*	2003-08
10	1.1	*	2003-09
25	2.7	*	2003-10
22	2.4	*	2003-11
18	2.0	*	2003-12
2	0.2	*	2004-01

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Variable Name	Format	Type	Length
Transmission	ML247F	Numeric	8

Definition: Documents the type of transmission that is in the vehicle.

N	Prcnt	Code	Label
131	14.2	1	Manual
746	81.0	2	Automatic
44	4.8	9	Unknown

Variable Name	Format	Type	Length
DriveWheels	ML113F	Numeric	8

Definition: Describes the type of drive wheels that power the vehicle.

N	Prcnt	Code	Label
499	54.2	1	Front Wheel Drive (FWD)
266	28.9	2	Rear Wheel Drive (RWD)
123	13.4	3	Four Wheel Drive (4WD)
9	1.0	4	All Wheel Drive (AWD)
24	2.6	9	Unknown

Codebook – VehicleExterior Data Set

Variable Name	Format	Type	Length
LFRestricted	ML484F	Numeric	8

Definition: Documents whether or not the vehicle's left front tire was prevented from rotation by damaged components of this vehicle as a result of the crash.

N	Prcnt	Code	Label
270	29.3	1	Yes
618	67.1	2	No
2	0.2	3	Not-Applicable
31	3.4	4	Unknown

Variable Name	Format	Type	Length
LRRestricted	ML484F	Numeric	8

Definition: Documents whether or not the vehicle's left rear tire was prevented from rotation by damaged components of this vehicle as a result of the crash.

N	Prcnt	Code	Label
120	13.0	1	Yes
767	83.3	2	No
2	0.2	3	Not-Applicable
32	3.5	4	Unknown

Variable Name	Format	Type	Length
RRRestricted	ML484F	Numeric	8

Definition: Documents whether or not the vehicle's right rear tire was prevented from rotation by damaged components of this vehicle as a result of the crash.

N	Prcnt	Code	Label
112	12.2	1	Yes
776	84.3	2	No
3	0.3	3	Not-Applicable
30	3.3	4	Unknown

Variable Name	Format	Type	Length
RFRestricted	ML484F	Numeric	8

Definition: Documents whether or not the vehicle's right front tire was prevented from rotation by damaged components of this vehicle as a result of the crash.

N	Prcnt	Code	Label
251	27.3	1	Yes
641	69.6	2	No
29	3.1	4	Unknown

Codebook – VehicleExterior Data Set

Variable Name	Format	Type	Length
LDeflated	ML484F	Numeric	8

Definition: Documents whether or not the vehicle's left front tire was deflated as a result of the crash.

N	Prcnt	Code	Label
270	29.3	1	Yes
618	67.1	2	No
2	0.2	3	Not-Applicable
31	3.4	4	Unknown

Variable Name	Format	Type	Length
LReflated	ML484F	Numeric	8

Definition: Documents whether or not the vehicle's left rear tire was deflated as a result of the crash.

N	Prcnt	Code	Label
120	13.0	1	Yes
767	83.3	2	No
2	0.2	3	Not-Applicable
32	3.5	4	Unknown

Variable Name	Format	Type	Length
RReflated	ML484F	Numeric	8

Definition: Documents whether or not the vehicle's right rear tire was deflated as a result of the crash.

N	Prcnt	Code	Label
112	12.2	1	Yes
776	84.3	2	No
3	0.3	3	Not-Applicable
30	3.3	4	Unknown

Variable Name	Format	Type	Length
RDeflated	ML484F	Numeric	8

Definition: Documents whether or not the vehicle's right front tire was deflated as a result of the crash.

N	Prcnt	Code	Label
251	27.3	1	Yes
641	69.6	2	No
29	3.1	4	Unknown

Codebook – VehicleExterior Data Set

Variable Name	Format	Type	Length
Wheelbase	OT25F	Numeric	8

Definition: Reflects the length (in centimeters) of the vehicle's original or undamaged wheelbase to the nearest centimeter, based on manufacturer specifications.

N	Prcnt	Code	Label
1	0.1	203	203
3	0.3	220	220
1	0.1	224	224
1	0.1	225	225
2	0.2	227	227
1	0.1	236	236
5	0.5	237	237
3	0.3	238	238
6	0.7	239	239
6	0.7	240	240

2	0.2	395	395
1	0.1	396	396
4	0.4	400	400
1	0.1	401	401
1	0.1	405	405
1	0.1	408	408
1	0.1	411	411
1	0.1	424	424
2	0.2	428	428
9	1.0	999	Unknown

Variable Name	Format	Type	Length
OverallLength	OT28F	Numeric	8

Definition: Documents the overall length (in centimeters) of the vehicle, as specified by the manufacturer.

N	Prcnt	Code	Label
1	0.1	222	222
1	0.1	343	343
1	0.1	357	357
2	0.2	362	362
1	0.1	367	367
1	0.1	375	375
1	0.1	379	379
3	0.3	384	384

Codebook – VehicleExterior Data Set

N	Prcnt	Code	Label
1	0.1	395	395
1	0.1	396	396

1	0.1	614	614
1	0.1	618	618
2	0.2	620	620
1	0.1	621	621
2	0.2	624	624
2	0.2	626	626
2	0.2	627	627
1	0.1	651	651
1	0.1	674	674
9	1.0	9999	Unknown

Variable Name	Format	Type	Length
MaxWidth	OT25F	Numeric	8

Definition: Documents the overall/maximum width (in centimeters) of the vehicle, as specified by the manufacturer.

N	Prcnt	Code	Label
2	0.2	141	141
3	0.3	153	153
1	0.1	158	158
3	0.3	159	159
1	0.1	160	160
1	0.1	161	161
3	0.3	162	162
7	0.8	163	163
7	0.8	164	164
9	1.0	165	165

38	4.1	202	202
10	1.1	203	203
1	0.1	217	217
1	0.1	219	219
1	0.1	236	236
1	0.1	238	238
1	0.1	242	242
1	0.1	244	244
1	0.1	246	246
8	0.9	999	Unknown

Codebook – VehicleExterior Data Set

Variable Name	Format	Type	Length
VEXCurbWeight	OT29F	Numeric	8

Definition: Documents the vehicle's curb weight (in kilograms), as identified by manufacturer specifications.

N	Prcnt	Code	Label
1	0.1	696	696
1	0.1	710	710
1	0.1	820	820
1	0.1	831	831
2	0.2	885	885
1	0.1	890	890
1	0.1	893	893
1	0.1	912	912
1	0.1	921	921
1	0.1	925	925

1	0.1	2697	2697
1	0.1	2738	2738
1	0.1	2753	2753
1	0.1	2759	2759
1	0.1	2777	2777
1	0.1	2839	2839
1	0.1	2847	2847
1	0.1	3118	3118
1	0.1	3259	3259
7	0.8	999999	Unknown

Variable Name	Format	Type	Length
AverageTrack	OT25F	Numeric	8

Definition: Documents the vehicle's average track width in centimeters, calculated by averaging the front and rear track width, values that are identified by the manufacturer. This value represents the average track width prior to the crash (undamaged).

N	Prcnt	Code	Label
1	0.1	101	101
1	0.1	102	102
1	0.1	129	129
1	0.1	130	130
3	0.3	134	134
1	0.1	135	135
2	0.2	137	137
5	0.5	138	138

Codebook – VehicleExterior Data Set

N	Prcnt	Code	Label
12	1.3	139	139
6	0.7	171	171

3	0.3	172	172
10	1.1	173	173
8	0.9	174	174
2	0.2	175	175
1	0.1	176	176
1	0.1	177	177
3	0.3	178	178
1	0.1	180	180
88	9.6	999	Unknown

Variable Name	Format	Type	Length
FrontOverhang	OT25F	Numeric	8

Definition: Documents the front overhang in centimeters of the vehicle as identified by manufacturer specifications. Front overhang is the distance between the front axle and the maximum forward projection of the vehicle. This value represents the vehicle's front overhang prior to the crash (undamaged).

N	Prcnt	Code	Label
1	0.1	58	58
1	0.1	61	61
4	0.4	62	62
1	0.1	64	64
4	0.4	65	65
1	0.1	67	67
3	0.3	68	68
11	1.2	70	70
4	0.4	71	71
4	0.4	72	72

10	1.1	115	115
5	0.5	116	116
4	0.4	117	117
7	0.8	118	118
3	0.3	119	119
1	0.1	121	121
2	0.2	122	122
1	0.1	125	125
1	0.1	126	126

Codebook – VehicleExterior Data Set

N	Prcnt	Code	Label
2	0.2	141	141
43	4.7	999	Unknown

Variable Name	Format	Type	Length
RearOverhang	OT25F	Numeric	8

Definition: Documents the rear overhang in centimeters of the vehicle as identified by manufacturer specifications. Rear overhang is the distance between the rear axle and the maximum rear projection of the vehicle. This value represents the rear overhang prior to the crash (undamaged).

N	Prcnt	Code	Label
1	0.1	62	62
1	0.1	64	64
1	0.1	65	65
2	0.2	67	67
1	0.1	69	69
1	0.1	71	71
4	0.4	72	72
4	0.4	74	74
3	0.3	75	75
3	0.3	76	76

3	0.3	145	145
1	0.1	153	153
1	0.1	154	154
1	0.1	160	160
1	0.1	161	161
4	0.4	162	162
1	0.1	179	179
1	0.1	188	188
1	0.1	200	200
48	5.2	999	Unknown

Variable Name	Format	Type	Length
EndWidth	OT25F	Numeric	8

Definition: Represents the undamaged dimension in centimeters of either the contacted end plane or the front undamaged plane if the side plane is contacted.

N	Prcnt	Code	Label
1	0.1	118	118
1	0.1	124	124
1	0.1	128	128
3	0.3	130	130

Codebook – VehicleExterior Data Set

N	Prcnt	Code	Label
2	0.2	132	132
1	0.1	133	133
2	0.2	135	135
4	0.4	136	136
2	0.2	137	137
10	1.1	138	138

6	0.7	190	190
2	0.2	191	191
2	0.2	192	192
1	0.1	193	193
2	0.2	194	194
6	0.7	195	195
5	0.5	196	196
2	0.2	200	200
3	0.3	202	202
1	0.1	214	214
211	22.9	999	Unknown

Variable Name	Format	Type	Length
VehicleDisposition	ML1201F	Numeric	8

Definition: Represents the researcher's assessment of the disposition of the vehicle and is based primarily on inspection of the vehicle.

N	Prcnt	Code	Label
130	14.1	0	Not towed due to vehicle damage
784	85.1	1	Towed due to vehicle damage
7	0.8	9	Unknown

Variable Name	Format	Type	Length
Justification	\$30	Char	30

Definition: Represents the reason for the determination that the vehicle was or was not towed, based on the researcher's assessment of the disposition of the vehicle.

N	Prcnt	Code	Label
1	0.1	*	4 flat tires, passenger compar
1	0.1	*	AXEL DAMAGE
1	0.1	*	AXLES DAMAGED AND ENGINE DAMAG
1	0.1	*	Air bags deployed.
1	0.1	*	Appeared driveable
1	0.1	*	BENT FRAME

Codebook – VehicleExterior Data Set

N	Prcnt	Code	Label
1	0.1	*	BENT FRAME RAIL
1	0.1	*	BOTH FRONT TIRES RESTRICTED
1	0.1	*	BOTH FRONT WHEELS RESTRICTED
1	0.1	*	BOTH REAR WHEELS DISABLED

1	0.1	*	vehicle entirely destroyed by
60	6.5	*	vehicle inspection
1	0.1	*	vehicle inspection LF restrict
1	0.1	*	vehicle is driveable
1	0.1	*	vehicle repaired
1	0.1	*	vehilce inspection
1	0.1	*	wheel and tire damage
7	0.8	*	wheel damage
1	0.1	*	wheel damage both left side
4	0.4	*	wheel restriction

Note: Asterisk in code column indicates that the stored value is the same as the value in the label column.

Variable Name	Format	Type	Length
MultiStage	ML115F	Numeric	8

Definition: Documents whether the vehicle is a multi-stage (initially an incomplete) vehicle or an altered (modified) vehicle. The determination is based on a label attached to the vehicle that demonstrates compliance with all Federal Motor Vehicle Safety Standards.

N	Prcnt	Code	Label
889	96.5	0	No post-manufacturer modifications
21	2.3	1	Yes - post-manufacturer modification (specify)
11	1.2	9	Unknown if vehicle is modified

Generalized Estimated Sampling Errors

The tables on the following pages can be used to estimate standard errors and confidence intervals for estimated totals of variables contained in the LTCCS data sets. Recently, statistical software has become more widely available that allows standard errors and confidence intervals to be estimated directly for samples that include stratification and clustering. The following tables are provided for researchers who may not have access to such software. The tables were derived based on the method of generalized variance functions (GVF).¹ Nine separate tables are provided that can be used according to the level at which the data were analyzed. Tables are provided for each of the nine levels of analysis:

- Brake
- Crash
- Driver
- Drug
- Injury
- Occupant
- Passenger
- Truck
- Vehicle

For example, if the data were analyzed at the truck level, then estimated standard errors from the truck table can be applied. If the data were analyzed at the occupant level, then estimated standard errors from the occupant table can be applied. The tables provide estimated standard errors for a range of estimated totals that might be derived from the data; however, there is no need to interpolate if an estimated total falls in between two numbers in a given table. The generalized variance functions that appear below each table can be used to generate the estimated standard errors. The equations appear in the form

$$se = \exp(a + b \ln(x))$$

where x is the estimated total and a and b are constants. Substitution of x , a , and b directly into the equation gives the estimated standard error. Approximate two-sided confidence intervals for estimated totals can be calculated by using the formula

$$x \pm t \cdot se(x)$$

where x is the estimated total, t is the upper percentage point of the t-distribution on 12 degrees of freedom for a two-sided confidence interval, and $se(x)$ is the estimated standard error.

As an example, suppose the number of occupants wearing a lap and shoulder belt is estimated at 180,000 and a 95% confidence interval is desired. The approximate standard error for this estimate is 29,600, as shown by the entry to the right of 180,000 in the occupant table. The value for t is 2.18 which corresponds to the upper percentage point of the t-distribution on 12 degrees of freedom for a 95% two-sided confidence interval (the degrees of freedom equals the number of PSUs minus the number of strata, which in the case of the LTCCS design is $24-12=12$). Therefore, the estimated 95% confidence interval is

$$180,000 \pm 2.18 (29,600)$$

or (115,472, 244,528). If the estimated total is 182,000, which does not appear in the table, the formula can be applied directly to calculate the estimated standard error, leading to

$$se = \exp(0.6521 + 0.7971 (\ln 182,000)) = 29,900$$

rounded to the nearest 100.

¹ See K.M. Wolter, *Introduction to Variance Estimation*, Springer-Verlag, New York, 1985, Chapter 5 for a complete description of the method.

LTCCS ESTIMATES AND STANDARD ERRORS					
Brake		Crash		Drug	
Estimate (x)	Standard Error (se)	Estimate (x)	Standard Error (se)	Estimate (x)	Standard Error (se)
100	100	100	100	100	100
200	100	200	200	200	200
500	300	500	300	500	300
1,000	500	1,000	600	1,000	600
2,500	1,100	2,000	1,000	2,000	1,100
5,000	2,000	3,000	1,300	3,000	1,500
7,500	2,900	4,000	1,700	4,000	2,000
10,000	3,600	5,000	2,000	5,000	2,400
12,500	4,400	6,000	2,300	6,000	2,800
15,000	5,100	7,000	2,600	7,000	3,200
17,500	5,800	8,000	2,900	8,000	3,600
20,000	6,400	9,000	3,200	9,000	4,000
25,000	7,800	10,000	3,500	10,000	4,300
30,000	9,000	12,500	4,200	12,500	5,300
35,000	10,300	15,000	4,800	15,000	6,200
40,000	11,500	17,500	5,500	17,500	7,000
45,000	12,600	20,000	6,100	20,000	7,900
50,000	13,800	25,000	7,300	25,000	9,500
60,000	16,000	30,000	8,400	30,000	11,100
70,000	18,200	35,000	9,600	35,000	12,700
80,000	20,300	40,000	10,600	40,000	14,300
90,000	22,400	45,000	11,700	45,000	15,800
100,000	24,500	50,000	12,700	50,000	17,300
125,000	29,500	55,000	13,700	55,000	18,800
150,000	34,300	60,000	14,700	60,000	20,200
175,000	38,900	65,000	15,700	70,000	23,100
200,000	43,500	70,000	16,600	80,000	25,900
225,000	48,000	75,000	17,600	90,000	28,600
250,000	52,300	80,000	18,500	100,000	31,300
275,000	56,600	85,000	19,400	110,000	34,000
300,000	60,900	90,000	20,300	120,000	36,600
350,000	69,200	95,000	21,200	130,000	39,200
400,000	77,300	100,000	22,100	140,000	41,800
450,000	85,200	110,000	23,900	150,000	44,300
500,000	93,000	115,000	24,800	160,000	46,900
550,000	100,600	120,000	25,600	170,000	49,400
SE=exp(a + b(ln x)), where a=0.5592 and b=0.8292		SE=exp(a + b(ln x)), where a=0.7857 and b=0.8008		SE=exp(a + b(ln x)), where a=0.4769 and b=0.8577	

LTCCS ESTIMATES AND STANDARD ERRORS					
Injury		Occupant		Passenger Vehicle	
Estimate (x)	Standard Error (se)	Estimate (x)	Standard Error (se)	Estimate (x)	Standard Error (se)
100	100	500	300	400	200
200	100	750	400	600	300
500	300	1,000	500	800	400
1,000	500	2,000	800	1,000	500
2,500	1,100	3,000	1,100	1,500	600
5,000	1,900	4,000	1,400	2,000	800
7,500	2,600	5,000	1,700	2,500	1,000
10,000	3,300	6,000	2,000	3,000	1,100
12,500	3,900	7,000	2,200	3,500	1,200
15,000	4,600	8,000	2,500	4,000	1,400
17,500	5,200	9,000	2,700	4,500	1,500
20,000	5,800	10,000	3,000	5,000	1,600
25,000	6,900	20,000	5,100	5,500	1,800
30,000	8,000	30,000	7,100	6,000	1,900
35,000	9,100	40,000	8,900	6,500	2,000
40,000	10,200	50,000	10,700	7,000	2,100
45,000	11,200	60,000	12,300	7,500	2,200
50,000	12,200	70,000	14,000	8,000	2,300
55,000	13,200	80,000	15,500	9,000	2,600
60,000	14,200	90,000	17,100	10,000	2,800
70,000	16,100	100,000	18,600	15,000	3,800
80,000	17,900	110,000	20,000	20,000	4,700
90,000	19,700	120,000	21,500	25,000	5,600
100,000	21,500	130,000	22,900	30,000	6,500
125,000	25,800	140,000	24,300	35,000	7,300
150,000	29,900	150,000	25,600	40,000	8,100
175,000	34,000	160,000	27,000	45,000	8,900
200,000	37,900	170,000	28,300	50,000	9,600
225,000	41,700	180,000	29,600	55,000	10,300
250,000	45,400	190,000	30,900	60,000	11,100
275,000	49,100	200,000	32,200	65,000	11,800
300,000	52,700	220,000	34,800	70,000	12,500
325,000	56,300	240,000	37,300	75,000	13,100
350,000	59,800	260,000	39,700	80,000	13,800
375,000	63,300	280,000	42,200	85,000	14,500
400,000	66,700	300,000	44,500	90,000	15,100
SE=exp(a + b(ln x)), where a=0.5629 and b=0.8175		SE=exp(a + b(ln x)), where a=0.6521 and b=0.7971		SE=exp(a + b(ln x)), where a=0.8450 and b=0.7695	

LTCCS ESTIMATES AND STANDARD ERRORS					
Truck		Vehicle		Driver	
Estimate (x)	Standard Error (se)	Estimate (x)	Standard Error (se)	Estimate (x)	Standard Error (se)
1,000	500	2,000	900	2,000	900
2,000	900	3,000	1,200	3,000	1,200
3,000	1,200	4,000	1,500	4,000	1,500
4,000	1,500	5,000	1,800	5,000	1,800
5,000	1,800	6,000	2,100	6,000	2,100
6,000	2,100	7,000	2,300	7,000	2,300
7,000	2,400	8,000	2,600	8,000	2,600
8,000	2,600	9,000	2,800	9,000	2,900
9,000	2,900	10,000	3,100	10,000	3,100
10,000	3,200	15,000	4,200	15,000	4,300
12,500	3,800	20,000	5,300	20,000	5,500
15,000	4,300	25,000	6,400	25,000	6,500
17,500	4,900	30,000	7,400	30,000	7,600
20,000	5,400	35,000	8,300	35,000	8,600
25,000	6,500	40,000	9,200	40,000	9,500
30,000	7,500	45,000	10,200	45,000	10,500
35,000	8,500	50,000	11,000	50,000	11,400
40,000	9,400	60,000	12,800	60,000	13,200
45,000	10,300	70,000	14,400	70,000	15,000
50,000	11,200	80,000	16,000	80,000	16,700
55,000	12,100	90,000	17,600	90,000	18,300
60,000	13,000	100,000	19,100	100,000	19,900
65,000	13,800	110,000	20,600	110,000	21,500
70,000	14,600	120,000	22,100	120,000	23,100
75,000	15,400	130,000	23,600	130,000	24,600
80,000	16,300	140,000	25,000	140,000	26,100
85,000	17,000	150,000	26,400	150,000	27,600
90,000	17,800	160,000	27,800	160,000	29,100
95,000	18,600	170,000	29,200	170,000	30,500
100,000	19,400	180,000	30,500	180,000	32,000
105,000	20,100	190,000	31,800	190,000	33,400
110,000	20,900	200,000	33,200	200,000	34,800
115,000	21,600	210,000	34,500	210,000	36,200
120,000	22,400	220,000	35,800	220,000	37,600
130,000	23,800	230,000	37,100	230,000	38,900
140,000	25,300	240,000	38,300	240,000	40,300
SE=exp(a + b(ln x)), where a=0.7911 and b=0.7888		SE=exp(a + b(ln x)), where a=0.7224 and b=0.7936		SE=exp(a + b(ln x)), where a=0.6410 and b=0.8042	

Index

A

AASHTODistance, 135
AASHTORecommended, 153
ABGTest, 254
ABSFunctional, 13
ABSInstalled, 13
AccessControl, 128
AccidentCat, 56
AccidentSEA, 321
ACDcode, 62
ACDdetail, 63
ACRAvoidance, 53
ACRCargoshift, 57
ACRCriticalEvent, 49
ACRJackknife, 57
ACRLocation, 54
ACRReason, 51
ACRRightOfWay, 54
ACRStability, 53
ACSAccelerating, 21
ACSAvoidance, 21
ACSConstant, 20
ACSCurve, 20
ACSDecelerating, 21
ACSHeavyBraking, 22
ACSLightBraking, 20
ACSLocation, 18
ACSModerateBraking, 22
ACSSpillage, 19
ACSStraight, 22
ACSTurn, 20
ACSType, 18
Action, 225
ADAOtherFactor, 87
ADAPostedSpeed, 86
ADATravelSpeed, 85
ADDAdjustingRadio, 108
ADDialingPhone, 108
ADDPreviousCrash, 110
ADDRecognition, 107
ADDSurveillance, 106
ADHCorrectedVision, 96
AdjustorType, 13
ADRDrugTest, 72
ADROtherFactor, 69
ADRTrafficFlow, 78
ADRWorkSchedule, 68
ADSAverageDay, 122
ADSHoursOnDuty, 117
ADSLongestDay, 121
ADSShortestDay, 122
AFTCurveRadius, 152
AFTFog, 160
AFTHail, 161
AFTNoDriver, 163
AFTRain, 160
AFTSleet, 161
AFTSnow, 160
Aggression, 269
AggressionCount, 90
AggressionReason, 93
AirbagAvail, 234
AirbagAvailable, 242
AirbagDamage, 9
AirbagFailure, 8
AirbagLocation, 6
AirbagNumber, 5
AirbagStatus, 7
AirbagType, 7
AISCCode, 202
AJKAccelerating, 212
AJKAvoidance, 212
AJKConstant, 211
AJKCurve, 211
AJKDecelerating, 212
AJKDirection, 210
AJKHeavyBraking, 213
AJKLightBraking, 211
AJKLocation, 210
AJKModerateBraking, 213
AJKOther, 212
AJKSource, 209
AJKStraight, 213
AJKTurn, 211
AJKType, 209
AlcoholTest, 70
AlcoholUse, 70
AnchorAdjustment, 243
ANL, 291
ANMAge, 221
ANMAvoidance, 228
ANMDecision, 227
ANMGender, 224
ANMHeight, 222
ANMPARSevCode, 228
ANMPosition, 224
ANMRESSEvCode, 229
ANMType, 224
ANMWeight, 223
AnyDrugsCrash, 48
AnyDrugsVeh, 267
Approach, 85
ApproachingTraffic, 110
Aspect, 202
Assumption, 87
Astigmatic, 100
AuthorizedForHire, 276
AutoBeltAvailable, 245
AutoBeltFailure, 246
AutoBeltProper, 246
AutoBeltSource, 246
AutoBeltUsed, 245
AverageTrack, 370
Axle, 12

AxlesNotUsed, 349
AxlesUsed, 348

B

BadLaneMarkings, 155
BaffleFailure, 24
BaseWeight, 183
BeltMotorized, 246
BIK, 291
BIPDOK, 314
BIPDRequired, 314
BlindSpot, 327
BlockingOthers, 93
BlowingDebris, 162
BodyCategory, 360
BondOK, 315
BondRequired, 315
BrakeFailure, 147
BrakesInoperative, 149
BrakesOutOfAdjustment, 149
BrakesSystemDeficiency, 150
BrakeType, 12
BRAPosition, 13
BrokerStatus, 275
Building, 111

C

CabStyle, 326
CapacityPercent, 345
Carburetion, 181
CarCount, 42
CargoCarried, 279
CargoLoadSecurement, 150
CargoOK, 315
CargoRequired, 314
CargoType, 340
CarrierEmployer, 269
CarrierOperationDescription, 280
CategoryDescription, 325
CauseCount, 19
CDC, 11
CDCCategory, 38
CDCObjectContact, 28
CDCWidth, 38
CGO, 291
ChamberSize, 14
ChamberType, 15
ChildSeatAvailable, 241
CitDate, 61
ClassVehicle, 139
ClassVehicle2, 142
ClockForce, 30
CMDBCargoWeight, 330
CMVCrashes, 190
CMVViolations, 190
Code, 219
ColdFlu, 98
CollisionManner, 357
CollisionType, 45
ColorBlind, 100

ComfortCount, 77
CommonStatus, 275
CompartmentFailure, 24
Component, 207
ConstructionZone, 144
ContactOther, 11
ContractStatus, 275
ConvDate, 62
Conversant, 105
Conversation, 104
CountDrivers, 280
CountPowerUnits, 281
CRAAlcohol, 48
CrashCode, 54
CrashDate, 40
Crashes, 214
CrashPARSevCode, 43
CrashRESSevCode, 44
CrashTime, 41
CrashType, 43
CriticalEventCat, 51
CrossedLine, 88
CrushDirection, 206
CrushMagnitude, 206

D

DamageArea, 140
DamageArea2, 143
DamageLocation, 36
DamageSource, 10
DataRecorder, 327
DateOfDeath, 250
Day, 45
Daylight, 129
DayRunningLights, 183
DCType, 27
DeformCode, 35
DeformDistribution, 34
DeformExtent, 34
DeformLocation, 32
DeformLong, 32
DeformVertical, 33
Demoted, 76
Deployment, 7
Depowered, 7
DesignDefect, 132
DesignedObstructedView, 147
DiabeticBlackout, 97
Discussion, 58
Distraction, 227
DriverFatigue, 268
DriverInspections, 305
DriverNumber, 64
DriverOutOfService, 306
DriverOutOfServicePerc, 306
DriverPhysical, 268
DriverPresent, 186
DriverReported, 95
DriverSEA, 322
DriverViolationsAverage, 307
DriveWheels, 365

DromedaryBox, 326
DrugName, 94
DrugType, 94

E

EjectionArea, 235
EjectionType, 234
EmergencyVehicle, 145
Emotional, 74
EmotionExperience, 269
EndWidth, 372
EngineProblem, 148
Entrapment, 236
ENVdust, 137
ENVFog, 136
ENVHail, 136
EnvironmentCount, 162
ENVNoConditions, 135
ENVOtherConditions, 137
ENVRain, 135
ENVSleet, 137
ENVSnow, 136
ENVTrafficFlow, 126
ENVWindGusts, 136
EpilepticSeizure, 97
EQF, 292
EthnicOrigin, 189
Evasion, 87
EventNumber, 26
EventSequence, 138
EVEObjectContact, 141
ExemptForHire, 276
ExhaustLeak, 152
EXPWorkSchedule, 76
ExteriorDistractionCount, 110
ExternalPerson, 111
ExtraLoads, 76
EyeWear, 233

F

FamilyProblems, 68
Fatigue, 73
FederalGovernment, 277
FieldLocation, 36
FillInTrips, 82
FIR, 292
FireOrigin, 354
FireSeverity, 354
FirstHarmfulEvent, 358
FlapsDamaged, 9
FlapsOpen, 9
Flashing, 92
FloorRetrieval, 109
FlowRestriction, 126
FOB, 292
Focused, 67
ForceDirection, 29
FourWheelDrive, 180
FrontOverhang, 371
FrontWheelDrive, 180

FuelSystemProblem, 151
FuelType, 182
FunctionalClass, 128
Functioning, 130

G

GCSScore, 253
GearPosition, 328
Glare, 162
Glaucoma, 99
GVEBodyType, 167
GVECargoSource, 171
GVECargoWeight, 170
GVECurbWeight, 169
GVEInspection, 172
GVEInspectionDate, 172
GVEMake, 164
GVEModel, 165
GVEMotorcycleDisplacement, 184
GVEPARSevCode, 173
GVEPostedSpeed, 185
GVERESSevCode, 174
GVERestraintType, 181
GVESpecialUse, 172
GVETotalViolations, 192
GVETravelSpeed, 184
GVEVehicleClass, 168
GVEVIN, 171
GVEWeightSource, 169
GVEYear, 166
GVWR, 344

H

HandsUsed, 228
Hazard, 348
HazardousMaterial, 291
HazmatInspections, 310
HazmatOutOfService, 311
HazmatOutOfServicePerc, 312
HazmatViolationsAverage, 313
HearingImpaired, 226
HearingImpairment, 101
HearingRestricted, 226
HeartAttack, 97
HMIDisposition, 199
HMIInspection, 198
HMIOutOfService, 199
HMIViolation, 199
Honking, 92
HospitalDays, 248
HoursDriving, 117
HoursSinceSleep, 114
HoursWorked, 120
Hurrying, 73
Hyperopic, 99

I

IllegalUTurn, 89

Illness, 69
IllnessFactorCount, 96
ImpactNumber, 35
ImproperBulkLoading, 23
ImproperGeneralLoading, 23
Inattention, 104
IndianTribe, 278
InformationSource, 207
InitialFacility, 248
InitialTreatment, 247
InjuryCount, 252
InjuryNumber, 200
InjurySource, 203
InjurySourceCat, 203
InspDriverOOS, 215
InspectionExists, 198
Inspections, 214
InspectionType, 364
InspVehOOS, 215
InspViols, 216
InsufficientSight, 155
IntegratedRestrains, 240
Interchange, 126
InteriorDistractionCount, 107
IntersectionType, 127
InTransport, 364
IntrusionLocation, 206
IntrusionRow, 206
Intrusions, 237
ITSCount, 335
ITSHeadway, 335
ITSOther, 336
ITSRollover, 336
ITSSideObject, 336

J

JAK, 292
Junction, 125
Justification, 373

K

KnewRoad, 74
KnewVehicle, 74

L

LastSleepEnd, 113
LastSleepHours, 112
LastSleepStart, 113
LastWeekHours, 123
LastWeekMoonlight, 124
LeftDoorMirror, 334
LeftFenderMirror, 334
LeftLength, 16
LegallyBlind, 99
LevelCode, 297
LFDinflated, 367
LFRestricted, 366
LiabilityInsurance, 316

LicState, 60
LightViolations, 91
LoadObstructedView, 146
LoadPressure, 79
LocalGovernment, 278
LocalViols, 216
LRDeflated, 367
LRRestricted, 366

M

MainSleepEnd, 116
MainSleepHours, 115
MainSleepStart, 115
ManeuverCount, 88
ManualBeltAvailable, 242
ManualBeltFailure, 243
ManualBeltProper, 243
ManualBeltSource, 245
ManualBeltUsed, 242
ManufactureDate, 342
Material, 196
MaxCrushLocation, 37
MaxWidth, 369
MCMIScmvNonViolations, 195
MCMIScmvViolations, 194
MCMIScrashes, 194
MedianWidth, 152
Medium, 235
MediumStatus, 235
Migrant, 277
Mileage, 282
MileageYear, 282
MinCoverageAmount, 315
MirrorCount, 333
Misjudgment, 85
Mobility, 236
Mortality, 247
Motion, 224
Movement, 259
MovementCount, 19
MultiEjection, 236
MultiStage, 374
MVH, 293
Myopic, 99

N

NarrowRoad, 156
NarrowShoulders, 156
NCM, 293
NCO, 293
NewPosition, 75
NoApplicableFatigue, 81
NoApplicableRelations, 83
NoDriverPresent, 69
NoFactors, 101
NonCMVCrashes, 191
NonCMVViolations, 191
NonMotorist, 271
NonMotoristCount, 42
NormalVision, 98

NoTraffic, 144
NumOOSViols, 218
NumViols, 218

O

ObjectContactClass, 27
ObjectObscured, 154
ObsceneGestures, 92
Obscured, 66
OCCAge, 230
OCCFatality, 47
OCCGender, 232
OCCHeight, 231
OCCInjSeverityCode, 247
OCCLocation, 238
OCCRestraintType, 238
OccupantMovement, 108
OccupantNumber, 5, 200, 230
OCCWeight, 232
OFR, 293
OINDescription, 201
OOB, 294
Orientation, 225
OTH, 294
Other, 278
OtherAggression, 93
OtherBlackout, 98
OtherCargos, 25
OtherChangeSpecify, 163
OtherComfortFactor, 79
OtherControls, 108
OtherDefect, 148
OtherDefectSpecify, 148
OtherExternal, 111
OtherFactorCount, 101
OtherFactorPhysical, 103
OtherFatigue, 81
OtherIllness, 98
OtherInternal, 109
OtherLiquids, 25
OtherLocationMirror, 335
OtherManeuver, 90
OtherMovement, 21
OtherPressure, 77
OtherPressureCount, 81
OtherProblem, 157
OtherProblemSpecify, 158
OtherRelations, 83
OtherRetrieval, 109
OtherSeizure, 97
OtherSolids, 24
OtherTraffic, 145
OtherTrafficSpecify, 145
OtherViewObstruction, 147
OtherVision, 100
OtherWeather, 161
OtherWeatherSpecify, 161
OutsideLocation, 106
OVEAccidentType, 264
OVEAlcohol, 267
OVEAvoidance, 263

OVECargoShift, 267
OVEConfiguration, 259
OVECrashCode, 265
OVECriticalEvent, 260
OVEDecision, 268
OVEEnvironment, 270
OVEJackKnife, 267
OVELocation, 264
OVEMake, 256
OVEModel, 257
OverallLength, 368
OVEReason, 261
OVERecognition, 268
OVERightOfWay, 264
OverrideDesc, 31
OVESpeed, 271
OVEStability, 263
OVESurveillance, 269
OVEYear, 258
OVR, 294

P

PARAlcoholPresent, 186
PARAlcoholTest, 186
PARAlcoholTestResult, 186
Paraplegia, 102
ParBeltUsed, 234
PARDescription, 273
PARDrugsPresent, 188
PARTestDelay, 187
PARTestSource, 188
PARViolationCode, 272
PED, 294
PersonalProblems, 68
PlacardRequired, 333
PoorCondition, 156
PositionNumber, 27
PostInclination, 241
Posture, 238
PowerUnitType, 326
PreEventMovement, 49
PretensionerActuated, 244
PretensionerAvailable, 244
PretensionerTravel, 244
PrevViolations, 193
PriorCrashes, 10
PriorInclination, 241
PriorMaintenance, 11
PrivatePassengersBusiness, 277
PrivatePassengersNonBusiness, 277
PrivateProperty, 276
Prosthesis, 101
PVH, 295

Q

QuarterTurns, 355
Quotas, 76

R

Race, 233
Railroad, 130
RampSpeed, 156
RanLights, 89
RapidAcceleration, 92
Rating, 318
RatingDate, 317
RearOverhang, 372
RearTapeCond, 349
RearTapePeel, 352
ReasonCat, 52
ReflectiveTapeMissingObscured, 151
ReflectTapeColor, 351
ReflectTapePattern, 350
ReflectTapeType, 350
Reportable, 196
RestraintDamage, 239
Retractor, 244
ReviewDate, 318
ReviewType, 319
RFDeflated, 367
RFRestricted, 366
RightDoorMirror, 333
RightFenderMirror, 334
RightLength, 17
RiskTaking, 227
RoadAlignment, 131
RoadGeometry, 155
RoadProfile, 131
RoadRelation, 125
RoadSurface, 131
Roadway, 270
RoadwayClass, 130
RoadwayFactorCount, 154
Role, 233
RollDirect, 357
RollInitLocation, 356
RollInitType, 355
RollObject, 356
RolloverType, 354
RollTrip, 357
Roof1, 179
Roof2, 179
Roof3, 180
RotatingShift, 80
Rotation, 120
Row, 237
RPM, 327
RRDeflated, 367
RRRestricted, 366
RumbleStrip, 133
RUN, 295
RushHour, 145

S

SafetySEA, 323
SCAStatus, 280
SCDDate, 287
SCDDateOfBirth, 288

SCDFatalities, 290
SCDInjuries, 290
SCDState, 288
SCDTowaway, 290
ScheduledExtensions, 80
Score, 321
SCSFatalities, 284
SCSInjuries, 285
SCSTowaway, 286
SCSYear, 284
SDIDate, 297
SDIDriverDOB, 299
SDIHazMat, 302
SDIState, 298
SDITotalViolations, 301
SDVOutOfService, 304
SDVUnitType, 304
SDVViolation, 303
SeatLocation1, 6
SeatLocation2, 6
SeatOrientation, 239
SeatPerformance, 240
SeatRow1, 5
SeatRow2, 6
SeatType, 239
SelfInducedIllegal, 77
SelfInducedOther, 77
SEP, 295
Series, 177
ShippingDeadline, 75
ShortNoticeTrips, 82
ShoulderType, 133
ShoulderWidth, 133
SideTapeCond, 350
SideTapePeel, 352
SightDistance, 153
SightImpaired, 226
SightLine, 66
SightLineDistance, 134
SightLineRestriction, 134
SightRestricted, 226
Signage, 128
SignsMissing, 154
SISTotal, 313
SleepApnea, 102
SleeperBerth, 327
SlickSurface, 157
Sloshing, 24
Smoke, 162
SocialSchedule, 68
SparseTieDowns, 23
Speeding, 84
SpeedingBehavior, 90
STACategory, 324
STADate, 320
StateGovernment, 278
SteerableAxles, 349
SteeringWheelProblem, 152
StopRequired, 67
Stratum, 138
StreetAddress, 110
StrenuousNonWork, 102

StrenuousRecreation, 102
StrokeType, 16
Subject, 105
Summary, 44
SurfaceCondition, 132
SurfaceDefect, 132
SuspensionFrameDeficiency, 151
SwitchStatus, 8
SwitchType, 8

T

Tailgating, 84
TailgatingBehavior, 91
TankCapacity, 346
TankFailure, 25
TankLoad, 347
TestDelay, 72
TestResult, 95
TestSource, 71
TEXConfiguration, 331
TEXEmptyWeight, 329
TEXSpeed, 328
TEXTotalLength, 332
TimeOfDeath, 251
TimeStopped, 67
TINDisposition, 338
TINOutOfService, 338
TINPosition, 337
TINViolationCode, 337
TireDeficiency, 149
TireFailure, 147
TotalCrashes, 192
TOTALGVWR, 330
TotalOOS, 301
TowingUnitProblem, 151
Tracking, 107
TrackPosition, 240
Traffic, 270
TrafficControl, 129
TrafficDensity, 78
TrafficSpeed, 78
TrailerCount, 329
Transmission, 365
TransmissionFailure, 148
TravelLanes, 127
Treatment, 47
TRN, 295
TruckCount, 42
TUNBodyType, 339
TUNCargoWeight, 343
TUNEmptyWeight, 342
TUNPosition, 339
TUNSpillage, 348
TUNTtotalLength, 344
TUNUnitType, 339
TUNVIN, 341

U

UMO, 296
UnderrideTapePeel, 351

Undertaking, 88
UnderWater, 157
UnitNumber, 304
UnitsTransfused, 254
UNK, 296
Unknown, 278
UnknownCause, 25
UnknownFactor, 69
UnknownVision, 100
UnkTypeCrashes, 194
UnpaidLoading, 82
UnscheduledExtensions, 81
UnspecifiedExternal, 111
Upset, 73
USMail, 277

V

VariableCompensation, 82
VehicleCount, 41
VehicleDefectCount, 146
VehicleDisposition, 373
VehicleInspections, 308
VehicleLightingDeficiency, 150
VehicleLoad, 79
VehicleObscured, 155
VehicleOutOfService, 308
VehicleOutOfServicePerc, 309
VehicleOverweight, 150
VehicleSEA, 323
VehicleState, 270
VehicleType, 182
VehicleViolationsAverage, 310
VEXBodyType, 360
VEXCargoSource, 362
VEXCargoWeight, 362
VEXCurbWeight, 370
VEXInspectionDate, 364
VEXSpecialUse, 363
VEXVehicleClass, 361
VEXVIN, 363
VEXWeightSource, 361
VINBodyType, 178
VINMake, 174
VINModel, 176
VINWeight, 182
VINYear, 176
ViolationNumber, 59
ViolationType, 338
ViolDesc, 219
ViolDescription, 64

W

Waiver, 197
WashedOut, 157
WeakTieDowns, 23
Weather, 270
WeatherCount, 159
Weaving, 91
WeekAverage, 119
WeekLongest, 118

WeekShortest, 119
Wheelbase, 368
WheelConfig, 183
WhileCount, 210
WindGust, 160
WorkDaysLost, 249
WorkFatigueCount, 80
WorkPressureCount, 75

WrongTurnLane, 89
WrongWay, 89
WZE, 296

Z

ZipCode, 189