CRASH LEVEL ANALYSIS FILE USER'S GUIDE

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Produced under contract for
New Mexico Department of Transportation (NMDOT)
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Produced by
Division of Government Research (DGR)
University of New Mexico

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CRASH FILE CODES
Produced by the Division of Government Research, UNM
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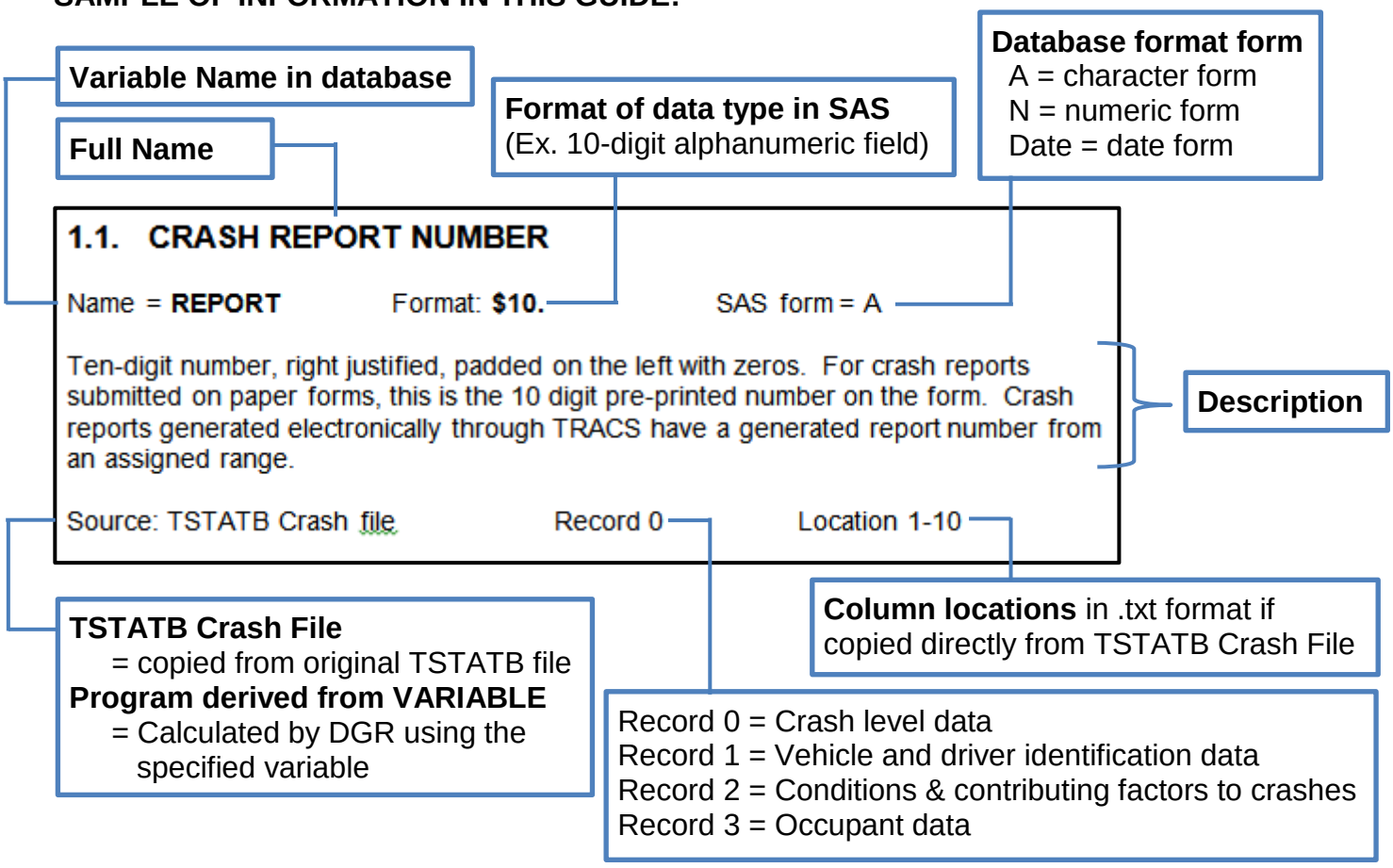
INTRODUCTION

This is a technical guide to the traffic crash data ("TSTATB Crash File") collected by the New Mexico Department of Transportation, Traffic Safety Bureau, Traffic Records Program (NMDOT). The crash data are structured into three groups: data on each crash ("Crash Level"), data on individual vehicles involved in each crash ("Vehicle Level"), and data on occupants of each vehicle ("Occupant Level"). There are technical guides for each level: This document lists data available in the Crash Level File, i.e. data collected on each crash. Crash level data are best used in the analysis of the types, locations, severity and causes of crashes in the State of New Mexico.

Below is a guide to each numbered item. Items in this guide include references to SAS formats: DGR uses SAS (www.sas.com) to process and analyze the large number of crash records. Access to the SAS format library is available through DGR.

Alphabetical indices by Full Name and Variable Name are at the end of this guide. This documentation reflects the state of the file as of 2004, although changes between 2000 and 2004 were quite minor. For data files prior to 2000, see the 2000 version of this documentation.

SAMPLE OF INFORMATION IN THIS GUIDE:



1.1. CRASH REPORT NUMBER

Name = **REPORT** Format: **$10.** SAS form = A

Ten-digit number, right justified, padded on the left with zeros. For crash reports submitted on paper forms, this is the 10 digit pre-printed number on the form. Crash reports generated electronically through TraCS (*Tra*ffic and *C*riminal *S*oftware) have a generated report number from an assigned range.

If an agency sends a supplementary form but does not indicate "supplementary", it will be coded and entered as a regular crash. As a result, one crash may be in the files twice, with separate report numbers.

Source: TSTATB Crash file Record 0 Location 1-10

1.2. CRASH DATE

Name = **DATE** Format: **SAS DATE FORMATS** SAS form = DATE

Date of the crash in the form MMDDYYYY. Files prior to1980 contain a few incorrect values. For example, in 1979 there are some 1978 and some 1967 dates. But these are very few and the data are quite usable. The date has also been separated into three different variables as MONTH, DY and YEAR.

Source: TSTATB Crash file Record 0 Location 13-20

1.3. MONTH OF CRASH

Name = **MONTH** Format: **MNTH** SAS form = N

Month of the crash.

Source: TSTATB Crash file Record 0

1.4. DAY OF MONTH OF CRASH

Name = **DY** Format: **2.** SAS form = N

Day of the month of the crash.

Source: TSTATB Crash file Record 0

1.5. YEAR OF CRASH

Name = **YEAR** Format: **4.** SAS form = N

Year of the crash in the form YYYY.

Source: TSTATB Crash file Record 0

1.6. TIME OF CRASH

Name = **TIME** Format: **$4.** SAS form = A

Time of the crash (24 hour clock). Every year there is a small percentage (e.g., about 0.1 percent in 1980) of TIME coded as 2401 to 2459. Time 0000 generally means unknown, not midnight.

Source: TSTATB Crash file Record 0 Location 24-27

1.7. HOUR OF CRASH

Name = **HOUR** Format: **HOUR.** SAS form = N

Hour of the crash. This field is only on SAS files since 1984.

Source: Program derived

1.8. DAY OF WEEK

Name = **DAY** Format: **DAYW.** SAS form = N

1 Sunday
2 Monday
3 Tuesday
4 Wednesday
5 Thursday
6 Friday
7 Saturday

Source: TSTATB Crash file Record 0 Location 35

1.9. REPORTING AGENCY

Name = **AGENCY** Format: **AGENCY.** SAS form = N

A lot of tribal police don't report, since they have little incentive. When an agency falls far below their normal average, TSTATB often calls to find out what happened and set things straight.

1 Albuquerque Police Department
2 New Mexico State Police
3 County sheriff department
4 Driver report
5 University or campus police
6 All other city police (including marshals)
7 Tribal police

Source: TSTATB Crash file Record 0 Location 21

1.10. CRASH SEVERITY

Name = **SEVERITY** Format: **SEVERITY.** SAS form = N

PDO crashes are probably under reported.

1 Fatal crash
2 Non-fatal crash (injury)
3 Property damage only crash

Source: TSTATB Crash file Record 0 Location 22

1.11. HIT AND RUN CRASH

Name = **HITRUN** Format: **$HITRUN.** SAS form = A

PDO crashes of this kind are probably very under represented because many of them are likely to go unreported.

Y Yes
N No

Source: TSTATB Crash file Record 0 Location 23

1.12. CRASH LOCATION

Name = **CITY** Format: **CITY.** SAS form = N

Some crashes in Bernalillo County areas such as Cedar Crest, Tijeras, and Los Ranchos de Albuquerque are coded as Albuquerque. Codes correspond to urban areas rather than official city limits.

Some cities are not very diligent about sending in crash report forms. Reservation police do not always report. Crashes on roads through reservations are coded as reservation crashes.

Los Alamos county has more crashes than Los Alamos city even though it is a class H county (combined city-county) and should have the same for both.

TSTATB developed a locational guide (and other locational aids) which began to improve data in early and middle 1979.

Place	Code	Place	Code
Rural	000	Corona	095
Alamogordo	010	Corrales	097
Albuquerque	015	Cuba	098
Anthony	016	Deming	100
Angel Fire	017	Des Moines	105
Artesia	020	Dexter	110
Aztec	025	Dora	111
Bayard	030	Eagle Nest	112
Belen	035	Elida	113
Bernalillo	040	Encino	115
Bloomfield	045	Española	120
Bosque Farms	046	Estancia	125
Capitan	050	Eunice	130
Carlsbad	055	Farmington	135
Carrizozo	060	Floyd	138
Causey	063	Folsom	140
Central	065	Ft. Sumner	145
Chama	067	Gallup	150
Cimarron	070	Grady	155
Clayton	075	Grants	160
Cloudcroft	080	Grenville	165
Clovis	085	Hagerman	170
Columbus	090	Hatch	175

Crash Location (continued)

Place	Code	Place	Code
Hobbs	180	Socorro	385
Hope	185	Springer	395
House	187	Sunland Park	400
Hurley	190	Taos	405
Jal	200	Tatum	410
Jemez Springs	210	Texico	415
Lake Arthur	215	Tijeras	416
La Mesilla	217	Truth or Consequences	420
Las Cruces	220	Tucumcari	425
Las Vegas	225	Tularosa	430
Logan	232	Vaughn	435
Lordsburg	235	Virden	440
Los Alamos	240	Wagon Mound	445
Los Lunas	245	Willard	450
Los Ranchos	247	Williamsburg	452
Loving	250	Acoma	455
Lovington	255	Alamo-Navajo	456
Magdalena	260	Canoncito Navajo	457
Maxwell	265	Cochiti	458
Melrose	270	Isleta	459
Milan	280	Jemez	460
Moriarty	285	Jicarilla Apache	461
Mosquero	290	Laguna	462
Mountainair	295	Mescalero Apache	463
Pecos	305	Nambe	464
Portales	310	Navajo	465
Questa	315	Picuris	466
Raton	325	Pojoaque	467
Red River	327	Ramah Navajo	468
Reserve	328	Sandia	469
Rio Rancho	329	San Felipe	470
Roswell	330	San Ildefonso	471
Roy	335	San Juan	472
Ruidoso	340	Santa Ana	473
Ruidoso Downs	345	Santa Clara	474
San Jon	355	Santo Domingo	475
San Ysidro	356	Taos Pueblo	476
Santa Fe	360	Tesuque	477
Santa Rosa	370	Zia	478
Shiprock	375	Zuni	479
Silver City	380		

Source: TSTATB Crash file Record 0 Location 28-30

1.13. POPULATION GROUP

Name = **POPGRP** Format: **POPGRP.** SAS form = N

POPGRP has 1970 census figures for data through 1980. Starting with calendar 1981 data, 1980 census counts are used.

5	Outside city limits, but within urban boundaries
6	Under 2,500
7	2,500 – 5,000
8	5,000 - 10,000
9	10,000 - 25,000
11	25,000 - 50,000
12	Over 50,000

Source: TSTATB Crash file Record 0 Location 31-32

1.14. COUNTY

Name = **COUNTY** Format: **COUNTY.** SAS form = N

Alphabetic county code.

NM76 from Española to Chimayo snakes along the border between Santa Fe and Rio Arriba counties and may get coded incorrectly.

1	Bernalillo	12	Harding	23	Roosevelt
2	Catron	13	Hidalgo	24	Sandoval
3	Chaves	14	Lea	25	San Juan
4	Cibola	15	Lincoln	26	San Miguel
5	Colfax	16	Los Alamos	27	Santa Fe
6	Curry	17	Luna	28	Sierra
7	De Baca	18	McKinley	29	Socorro
8	Doña Ana	19	Mora	30	Taos
9	Eddy	20	Otero	31	Torrance
10	Grant	21	Quay	32	Union
11	Guadalupe	22	Rio Arriba	33	Valencia

Source: Program derived from LCOUNTY

1.15. LICENSE COUNTY

Name = **LCOUNTY** Format: **LCOUNTY.** SAS form = N

Motor Vehicle Division county code. See the discussion of COUNTY.

1	Santa Fe	12	San Miguel	23	Hidalgo
2	Bernalillo	13	McKinley	24	Guadalupe
3	Eddy	14	Valencia	25	Socorro
4	Chaves	15	Otero	26	Lincoln
5	Curry	16	San Juan	27	De Baca
6	Lea	17	Rio Arriba	28	Catron
7	Doña Ana	18	Union	29	Sandoval
8	Grant	19	Luna	30	Mora
9	Colfax	20	Taos	31	Harding
10	Quay	21	Sierra	32	Los Alamos
11	Roosevelt	22	Torrance	33	Cibola

Source: TSTATB Crash file Record 0 Location 33-34

1.16. STATE DOT MAINTENANCE DISTRICT

Name = **SHDTDIST** Format: **$2.** SAS form = N

The NM DOT has two kinds of districts: Commission districts which are based on county, and maintenance districts which are modifications of the commission districts to make them more suitable for maintenance operations.

State Highway Department maintenance district. Possible values range from 1 to 6. For crashes on state system roads that match by milepost, this is derived from the ALCG; for others it is assigned by county.

Source: TSTATB Crash file Record 0 Location 103

1.17. STATE DOT COMMISSION DISTRICT

Name = **MDC** Format: **$2.** SAS form = N

The NM DOT has two kinds of districts: Commission districts which are based on county, and maintenance districts which are modifications of the commission districts to make them more suitable for maintenance operations.

State Highway Department commission district. Possible values range from 1 to 6. It is assigned by county.

Source: Program derived

1.18. STATE POLICE DISTRICT

Name = **SPDIST** Format: **$2.** SAS form = N

SPDIST was added since 1989 or 1990.

Source: TSTATB Crash file Record 0 Location 116-117

1.19. HIGHWAY ELEMENT CODE

Name = **ELEMENT** Format: **ELEMENT.** SAS form = N

ELEMENT depends on the judgment of the reporting officer.

1	Intersection
2	Non-intersection
3	Intersection related
4	Driveway access
5	Railroad crossing
6	Bridge, overpass, culvert
7	Crossover-divided roadway
8	Underpass
9	Alley
0	Not stated

Source: TSTATB Crash file Record 0 Location 36

1.20. ROADWAY RELATION

Name = **ROADREL** Format: **ROADREL.** SAS form = N

No problems found.

1 First harmful event was on the roadway
2 First harmful event was off the roadway

Source: TSTATB Crash file Record 0 Location 63

1.21. CRASH CLASSIFICATION

Name = **CLASS** Format: **CLASS.** SAS form = N

This is the classification of the first harmful event which can sometimes hide important events that may have occurred after this.

01	Overturn	07	Railroad train
02	Other non-collision	08	Pedalcyclist
03	Pedestrian	09	Animal
04	Other vehicle	10	Fixed object
05	Vehicle on other roadway	11	Other object
06	Parked vehicle	00	Other

* See ANSI D-16 traffic crash manual for definitions

Source: TSTATB Crash file Record 0 Location 64-65

1.22. CRASH ANALYSIS

Name = **ANALYSIS** Format: **ANALYSIS.** SAS form = N

This item is coded in conjunction with Crash Classification (Name=CLASS) and is represented as a four-digit concatenation of the CLASS value with the ANALYSIS code.

OVERTURN (CLASS=01)

00 Not known or stated
01 Right side of road
02 Left side of road
03 On the road

OTHER NON-COLLISION (CLASS=02)

01 All other non-collision
02 Fire in vehicle (not the result of crash)
03 Person falling, jumping, or being pushed from vehicle
04 Trailer jackknifed
05 Vehicle ran across open area (didn't hit a fixed object)
06 Vehicle downhill into canyon/ravine
07 Submersion in water – arroyo
08 Submersion in water – dip in road
09 Submersion in water – irrigation canal/ditch
10 Submersion in water – lake
11 Submersion in water – pond
12 Submersion in water – river
21 Vehicle breakage resulting in injury or further damage
22 Accidental carbon monoxide poisoning
23 Explosion of any part of the vehicle
24 Object or load falling in or from the vehicle
25 Occupant hit by object in the vehicle
26 Occupant thrown against part of the vehicle
27 Injury/damage from moving part of the vehicle
28 Injury or damage by object thrown into vehicle
29 Toxic or corrosive chemicals leaking out
30 Bridge collapses due to vehicle weight
31 Roadway collapses due to vehicle weight
32 Object falling on vehicle
33 Vehicle striking holes or bumps on road surface
34 Vehicle towing sled, tube, or other such device

CRASH ANALYSIS (continued)

PEDESTRIAN (CLASS=03)

01	Vehicle going straight
02	Vehicle turning right
03	Vehicle turning left
04	Vehicle backing
05	All others and not known

COLLISION WITH OTHER VEHICLE (CLASS=04)

If a collision with another vehicle is *intersection-related*, then the ANALYSIS code is assigned using items 00 – 24 below. Intersection-related crashes are defined using the Highway Element Code (ELEMENT) where ELEMENT is coded as INTERSECTION (1) or INTERSECTION RELATED (3).

00	Not stated	- Intersection-related crash
01	Entering at angle	- Both going straight
02	"	- One right turn
03	"	- One left turn
04	"	- Both turning right
05	"	- Both turning left
06	"	- One stopped
07	"	- All others
08	From same direction	- Both going straight
09	"	- One right turn
10	"	- One left turn
11	"	- Both turning right
12	"	- Both turning left
13	"	- One stopped
14	"	- Vehicle backing
15	"	- All others
16	From opposite direction	- Both going straight
17	"	- One right turn
18	"	- One left turn
19	"	- Both turning left
20	"	- All others
21	Opposite direction	- Head on collision
22	"	- Sideswipe collision
23	Same direction	- Rear end collision
24	"	- Sideswipe collision

CRASH ANALYSIS (continued)

If a collision with another vehicle is *non*-intersection-related, then the ANALYSIS code is assigned using items 25 – 62 below. Non-intersection-related crashes are defined using the Highway Element Code (ELEMENT) where ELEMENT is coded as NON-INTERSECTION (2), DRIVEWAY (4), RAILROAD CROSSING (5), BRIDGE (6), CROSSOVER (7), UNDERPASS (8), or ALLEY (9).

25	One car	- Parked improper location
26	"	- Stopped in traffic
27	"	- Entering parked position
28	"	- Forward from parked position
29	"	- Backing from parked position
30	"	- Entering driveway access
31	"	- Leaving driveway access
32	"	- Backing from driveway access
33	"	- Backing from other than driveway
34	All other non-intersection (use for process of u-turns on highway, road, street)	
35	Not stated	- Non-intersection related crash
36	One Car	- Stalled in traffic
37	Opposite direction – one vehicle spun on roadway before being hit	
38	Same direction – one vehicle spun on roadway before being hit	
40	Vehicle wrong way on divided highway – ramp used incorrectly	
41	"	- other improper entry
42	"	- U turn from same lanes
43	"	- access to road unknown
50	Parts – tire	
51	Parts – lug nuts/wheel parts	
52	Parts – miscellaneous vehicle parts	
53	Trailer disconnected	
54	Towed vehicle disconnected	
55	Vehicle load fell – gravel/rocks	
56	"	- construction materials
57	"	- trash/branches/etc.
58	"	- furniture
59	"	- all other
60	Gravel/rocks from roadway	
61	Snow/ice/slush	
62	Water	

CRASH ANALYSIS (continued)

COLLISION WITH VEHICLE ON OTHER ROADWAY (CLASS=05)

01	Vehicle other roadway – NS
02	Vehicle crossed intersection gore area
03	Vehicle crossed shoulder to other roadway
04	Vehicle crossed median – out of control
05	" - making a U turn
06	" - all others
10	Circumstances not stated
20	Parts – tire
21	Parts – lug nuts/wheel parts
22	Parts – miscellaneous vehicle parts
23	Trailer disconnected
24	Towed vehicle disconnected
25	Vehicle load fell – gravel/rocks
26	" - construction material
27	" - trash/branches/etc.
28	" - furniture
29	" - all other
30	Gravel/rocks from roadway
31	Snow/ice/slush
32	Water

PARKED VEHICLE (CLASS =06)

00	Not known or stated
01	Vehicle parked in proper location
02	Vehicle parked in improper location
03	Vehicle backing into parked vehicle
04	All others

RAILROAD TRAIN (CLASS =07)

00	Not known or stated
01	Vehicle struck train
02	Train struck vehicle
03	Vehicle parked or stranded on tracks
04	Train derailed and struck vehicle
05	Other motorized railway device on tracks

CRASH ANALYSIS (continued)

PEDALCYCLIST (CLASS=08)

00	Not stated
01	Vehicle struck cyclist from behind
02	Vehicle struck cyclist head on
03	Vehicle struck cyclist at angle
04	Cyclist struck vehicle

ANIMAL (CLASS=09)

00	Not stated
01	Domestic animal (Cattle, horse, pigs, etc.)
02	Game animal (deer, elk, etc.)
03	Other animal (dogs, cats, etc.)
04	Bird
11	Cow
12	Horse
13	Pig
14	Sheep
15	Goat
21	Deer
22	Elk
23	Bear
24	Antelope
25	Cougar
31	Dog
32	Cat
33	Porcupine
34	Skunk
35	Badger
36	Coyote
41	Eagle
42	Hawk
43	Crow
44	Buzzard

CRASH ANALYSIS (continued)

COLLISION WITH FIXED OBJECTS (CLASS=10)

00	Other and not stated
01	Abutment or pier
02	Barricade
03	Bridge
04	Building
05	Cattle guard
06	Construction material or equipment
07	Culvert or drain pipe (cement)
08	Ditch
09	Drain or drain cover (man holes)
10	Embankment
11	Equipment (work or construction)
12	Fence (wood, brick, stone)
13	Fire hydrant
14	Guard or reflector posts
15	Gas meter
16	Guard rail
17	Guard rail at bridge or culvert
18	Hydro cells or tor shok device
19	Light standard (light pole)
20	Median (raised) or curb
21	Sign or sign post (traffic)
22	Sign or sign post (commercial)
23	Tree
24	Utility post or telephone pole
25	Traffic signal standard
26	Parking meter
27	Fence (barbed wire)
28	Boulder/rocks
29	Cliff wall
30	Dry arroyo
31	Dry irrigation ditch
32	Dumpster/trash receptacles
33	Embankment – earth
34	Embankment - rock/stone
35	Embankment - manmade - concrete, wire mesh
36	Embankment - material type unknown
37	Mailbox
38	Man-made items (phone boxes, picnic tables, etc.)
39	Overhead wires

40 Overpass
41 Railroad gate
42 Railroad signals/signs
43 Railroad track
44 Roadway divider - concrete Jersey bounce
45 Roadway divider - concrete wall
46 Roadway divider – fence
47 Shrubs/vegetation

OTHER OBJECTS (CLASS=11)

00 Not stated
10 Animal drawn vehicle
11 Animal with rider
12 Street car
13 Railway devices moved by human power
21 Object dropped from vehicle - construction material
22 " - furniture
23 " - load from large trucks
24 " - trash, branches, etc.
25 " - tire
26 " - vehicle part
27 " - all other
30 Fallen tree
31 Boulder, rock
32 Landslide material
33 Avalanche material
34 Other material resulting from landslide, flood, wind, etc.

Source: TSTATB Crash file Record 0 Location 66-67

1.23. STATE HIGHWAY DEPARTMENT PROPERTY

Name = **SHDTPROP** Format: **SHDTPROP.** SAS form = N

Crashes involving the State Highway Department's property. Codes for 18 and 19 are not assigned in the ARCS coding manual maintained by the NMDOT, Traffic Safety Division, Traffic Records.

1	Guardrail	11	Culverts
2	Bridgerail	12	Bridge Structure
3	Concrete Barrier Wall	13	Field/Hog Fence
4	Attenuator/Sand Barrels	14	Signal Boxes
5	Chain Link Fence	15	Delineators
6	Barb Wire Fence	16	Mileposts
7	Signs	17	Pavement Gouges
8	Traffic Signals	20	Chemical Spill
9	Light Poles	21	Fuel Spill
10	All Other	22	Sand/Gravel Spill
		23	Other Load Spills

Source: TSTATB Crash file Record 0 Location 101-102

1.24. LIGHTING

Name = **LIGHT** Format: **LIGHT.** SAS form = N

Every year about 0.2 percent are coded zero. Accuracy is questionable. Often it may be coded according to conditions when the officer got there - not when the crash occurred.

1	Daylight
2	Dawn
3	Dusk
4	Dark (lighted)
5	Dark (not lighted)
6	Other or not stated

Source: TSTATB Crash file Record 0 Location 95

1.25. WEATHER

Name = **WEATHER** Format: **WEATHERS.** SAS form = N

No problems found.

0 Not stated
1 Clear
2 Raining
3 Snowing
4 Fog
5 Dust
6 Wind
7 Other

Source: TSTATB Crash file Record 0 Location 96

1.26. ROAD CHARACTER

Name = **CHARACT** Format: **CHARACT.** SAS form = N

0 Not stated
1 Straight
2 Curve

Source: TSTATB Crash file Record 0 Location 97

1.27. ROAD GRADE

Name = **GRADE** Format: **GRADE.** SAS form = N

0 Not stated
1 Level
2 Hillcrest
3 On grade
4 Dip

Source: TSTATB Crash file Record 0 Location 98

1.28. AMBULANCE NAME

Name = **AMBNAME** Format: **$25.** SAS form = A

Name of the ambulance service for the crash. Along with misspellings, a serious problem is that standard codes are not used. Generally, for ambulances with at least 15 calls, each service is coded about seven different ways. For example Aircare has 25 different codings, Santa Fe has 40 different codes for SFCAS and nine for Rock Mountain Ambulance Service, Albuquerque has about 50 different ways to code Albuquerque Ambulance Service and 40 for AFD, Las Cruces has six for its ambulance service, Rio Rancho has 20 for RRAS, and Roswell has 17 different codes. Almost every year there are numbers of one or more digits entered by themselves into this field. Most appear to be the number of the ambulance, but as there are many services that use the same numbering systems, these numbers are not often useful. From 1988 to 1992 there were 13 (as well as one blank and one entry of 2v), 1993 has five, 1994 has six, 1995 has five, 1996 has 1, 1997 has six (one dash and one entry of 4PV), 1998 has eight. The computer can't recognize all of these, so human effort must be used.

Abbreviations (which are not always used):

AMB	Ambulance
SER	Service
ASSO	Association
PV	Private vehicle
FD	Fire department
PD	Police department

Source: TSTATB Crash file Record 0 Location 68-92

1.29. OCCUPANTS IN ENTIRE CRASH

Name = **TOTAL** Format: **2.** SAS form = N

The total number of people involved in a crash. This is not the total number of crashes, as there can be multiple people involved in one crash. The term “occupants” includes drivers, passengers, pedestrians, pedalcyclists and motorcyclists.

Source: Program derived from the occupant level

1.30. OCCUPANTS KILLED

Name = **KILLED** Format: **2.** SAS form = N

The number of people killed in a crash. The terms fatalities and deaths are synonymous with killed. This is not the number of fatal crashes, as there can be multiple people killed in one fatal crash. The term “occupants” includes drivers, passengers, pedestrians, pedalcyclists and motorcyclists.

Source: Program derived from the occupant level

1.31. OCCUPANTS WITH AN INCAPACITATING INJURY

Name = **CLASSA** Format: **2.** SAS form = N

The number of people with an incapacitating (Class A) injury in a crash (i.e. the injured person was incapacitated and had to be carried from the scene of the crash). This is not the total number of injury crashes, as there can be multiple people injured in one crash. The term “occupants” includes drivers, passengers, pedestrians, pedalcyclists and motorcyclists. The term “serious injuries” refers to Class A plus Class B injuries.

Source: Program derived from the occupant level

1.32. OCCUPANTS WITH A NON-INCAPACITATING INJURY

Name = **CLASSB** Format: **2.** SAS form = N

The number of people with a non-incapacitating (Class B) injury in a crash (i.e. the injured person was visible injured but able to walk away from the crash). This is not the total number of injury crashes, as there can be multiple people injured in one crash. The term “occupants” includes drivers, passengers, pedestrians, pedalcyclists and motorcyclists. The term “serious injuries” refers to Class A plus Class B injuries.

Source: Program derived from the occupant level

1.33. OCCUPANTS WITH A NON-VISIBLE INJURY

Name = **CLASSC** Format: **2.** SAS form = N

The number of people with a non-visible (Class C) injury in a crash (i.e. the person was not visibly injured but complained of an injury). This is not the total number of injury crashes, as there can be multiple people injured in one crash. The term “occupants” includes drivers, passengers, pedestrians, pedalcyclists and motorcyclists.

Source: Program derived from the occupant level

1.34. OCCUPANTS UNHURT (PROPERTY DAMAGE ONLY)

Name = **UNHURT** Format: **2.** SAS form = N

The number of people unhurt (Class O) in a crash (i.e. there was property damage only). The term “occupants” includes drivers, passengers, pedestrians, pedalcyclists and motorcyclists.

Source: Program derived from the occupant level

1.35. INVOLVEMENT OF NON-LOCAL DRIVERS

Name = **NONLOCAL** Format: **NONLOCAL.** SAS form = N

This field is mainly for picking up out of state involvement which it does well, except for the possibility of false ID's. The distinction between local and non-local in-state is not very precise; it is a quick guess job by the coders who compare the driver’s address to the crash location.

0 Local
1 Out of state
2 Non-local in-state
3 Both

Source: Program derived from the detail level

1.36. PEDESTRIAN INVOLVEMENT

Name = **PEDINV** Format: **PEDINV.** SAS form = N

This data element with new definition available on SAS file only for Federal Fiscal Year 1984 and following.

0 Pedestrian not involved
1 Pedestrian involved

* Note: For files prior to FY84, use PEDMC to select for pedestrians, pedalcyclist or motorcycle involvement.

0 None
1 Motorcycle
2 Pedalcycle
3 Pedestrian

Source: Program derived from the occupant level

1.37. MOTORCYCLE INVOLVEMENT

Name = **MCINV** Format: **MCINV.** SAS form = N

This field was part of PEDMC field, which was split for Federal Fiscal Year 1984. Only available on SAS files since FY84 and thereafter. See note under Pedestrian Involvement.

0 Motorcycle not involved
1 Motorcycle involved

Source: Program derived from the detail level

1.38. PEDALCYCLIST INVOLVEMENT

Name = **PECINV** Format: **PECINV.** SAS form = N

This field was part of PEDMC field, which was split for Federal Fiscal Year 1984. Only available on SAS files since FY84 and thereafter. See note under Pedestrian Involvement.

0 Pedalcyclist not involved
1 Pedalcyclist involved

Source: Program derived from the detail level

1.39. ALCOHOL INVOLVEMENT

Name = **ALCINV** Format: **ALCINV.** SAS form = N

Highest code from the Detail record: (If more than one code applies, the one with the highest number is used.)

0 None indicated
1 From sobriety field
2 From contributing factors
3 Cited for DWI

Source: Program derived from the detail level

1.40. DRUG INVOLVEMENT

Name = **DRUGINV** Format: **ALCINV.** SAS form = N

Highest code from the Detail record: (If more than one code applies, the one with the highest number is used.)

0 None indicated
1 From sobriety field
2 From contributing factors
3 Cited for DWI

Source: Program derived from the detail level

1.41. HEAVY TRUCK INVOLVEMENT

Name = **TRKINV** Format: **TRKINV.** SAS form = N

Indicates the presence of one or more vehicles classified as Semi's (TYPEV=3)

0 No
1 Yes

Source: Program derived from the detail level

1.42. HAZARDOUS MATERIAL INVOLVEMENT

Name = **HZINV** Format: **HZINV.** SAS form = N

This field was added by TSTATB as of July 1, 1984. From 1989 to 1998 HZINV is 0.009 percent present.

0 No
1 Yes

Source: Program derived from the detail level

1.43. NUMBER OF VEHICLES AND PEDESTRIANS INVOLVED

Name = **NVEH** Format: **2.** SAS form = N

Source: Program derived from the detail level

1.44. HIGHEST ENFORCEMENT ACTION

Location = 184 Length = 1 Type = A Form = CH

Name = **MAXENF** Format: **$ENF.** SAS form = A

B Booked
C Citation
W Warning
0 None or not stated
P Pending

Source: Program derived from the detail level

1.45. MAXIMUM VEHICLE DAMAGE

Name = **MAXDAM** Format: **MAXDAM.** SAS form = N

No problems found. Code 5 corresponds to minimal damage, code 6 to maximal. From Detail record vehicle damage codes:

1 Disabling damage (cannot be driven)
2 Functional damage (affects operation of vehicle)
3 Other vehicle damage (usually affects only appearance: dents, glass, cracks, trim)
4 Other property damage (if no damage to vehicle, damage to other property involved)
5 No damage (none apparent; usually injury incurred by occupant or pedestrian)
6 Vehicle caught on fire as a result of the crash

Source: Program derived from the detail level

1.46. HIGHEST CONTRIBUTING FACTOR IN CRASH

Name = **TOPCFACC** Format: **TOPCF.** SAS form = N

Failure to yield and driver inattention are “catchalls.” Numbers 26, 27 and 28 are confused at times.

These are derived from the contributing factors codes in a priority order provided by the Traffic Safety Division. When more than one contributing factor is coded, the one with the lowest number on this list is used.

From the Detail record highest contributing factors field:

1 Impaired driving (includes alcohol and drugs)
2 Pedestrian error
3 Passed red light
4 Passed stop sign
5 Failure to yield (includes FTY for Police or Emergency Vehicle)
6 Excessive speed
7 Too fast for conditions
8 Left of center
9 Following too close
10 Improper turn
11 Improper overtake
12 Improper lane change
13 Improper backing
14 Traffic control out
15 Defective steering
16 Defective brakes
17 Defective tires
18 Mechanical defect
19 Road defect
20 Avoid other vehicle
21 Avoid other item
22 Driverless vehicle
23 Skid -- no braking
24 Driver inattention (includes cell phone)
25 Improper driving
26 Other -- no driver error
27 None
28 No indication

Source: Program derived from the detail level

Notes on Location Coding using ASTREET, BSTREET, MILEPOST and MILELOG

The primary location fields on the crash form are the name of the roadway that the crash occurred on (ASTREET), the name of the intersecting street (BSTREET), and the name of a permanent landmark, intersection or milepost (if not at an intersection). The latter two fields are both coded into the Secondary Street (BSTREET) variable. There are also fields to specify the distance and direction from the landmark/intersection/milepost. The street name fields are the basis of almost all location data in the TSTATB crash file. For most crashes, the city code, major street and secondary street are the primary location data. For 2005-2009 data, approximately 70% of crashes were located by street names, 15% by milepost, and 15% have neither.

For crashes on the rural state highway system the milepost location is important. When crashes are entered, coders attempt to identify the milepost if it was not specified on the report. The SAS program that reads the TSTATB file works to identify all state system crashes and to be sure the milepost is reasonable. It extracts route names from the major street to the extent possible and mile posts from the secondary street when the mile post is not coded. The primary location system used by the NMDOT is the designated route name and mile post.

An older location system based on administrative route code and log mile was used for many years. In the late 1980's, the NMDOT renamed routes and made other changes to the designated route system to fix problems with mile post locations. After these changes, the administrative route system was phased out. It is still used in some applications at DGR, so it is maintained on the TSTATB crash file.

Until 1981, the Big I area was often coded LPnnNW (or SW, etc.). This is for the light post that the crash was closest to.

There are numerous problems with ASTREET and BSTREET. Misspellings abound, especially for the smaller cities. Along with misspellings, one street may be coded many different ways. For example; 4th street is often coded as SR 85, ALT 85 or US 85. Some streets change names as they go, so synonyms need to be taken into account at certain intersections such as Copper at Carlisle (in Albuquerque), which is also Campus at Carlisle. A street may also have changed names completely and so synonyms would be needed there also. Physical features, business names, park names, things like "canal", "ditch", "dirt road" and other unrecognizable codes also show up in the data.

For the Big I, codes of I40 and I25 are found in the street name fields. Also, Big I crashes are sometimes coded as the Candelaria intersection off ramp. Another complication is that each ramp has its own five-digit code. Ramp crashes are often coded as being on the freeway. The five-digit code for the freeway sometimes is replaced by I40W, I25N, etc.

1.47. MAJOR STREET

Name = **ASTREET** Format: **$25.** SAS form = A

ASTREET is the name of the roadway that the crash occurred on as designated on the crash report.

Source: TSTATB Crash file Record 0 Location 133-157

1.48. SECONDARY STREET

Name = **BSTREET** Format: **$25.** SAS form = A

BSTREET is the name of the nearest intersection or nearest street or landmark.

Source: TSTATB Crash file Record 0 Location 158-182

1.49. MILES FROM INTERSECTION

Name = **MILES** Format: **3.1** SAS form = N

Distance from the intersection or landmark to the closest tenth of a mile. In general, the MILES field is not used. Rarely is it coded to the nearest tenth of a mile as it should be.

Source: TSTATB Crash file Record 0 Location 55-57

1.50. FEET FROM INTERSECTION

Name = **FEET** Format: **4.** SAS form = N

Distance from intersection or landmark in feet, if specified. Often, FEET is not used or, if it is used, it is expressed as round numbers. It is probably most accurate when the crash was fatal. Numbers greater than 25 feet are probably just eyeball estimates and inaccurate. There is no documented standard for the origin of the intersection to measure from; in fact, most are not measured. A large percentage of the time, the coders guess from the diagram, taking the distance from the cross walk area.

Source: TSTATB Crash file Record 0 Location 58-61

1.51. DIRECTION FROM INTERSECTION

Name = **IDIREC** Format: **$DIREC.** SAS form = A

IDIREC is left out about 60 percent of the time. Sometimes it is present when FEET is zero. Sometimes it is absent when FEET is nonzero.

Blank	None or not stated
N	North
S	South
E	East
W	West

Source: TSTATB Crash file Record 0 Location 62

1.52. DESIGNATED ROUTE NAME

Name = **RTNAME** Format: $8. SAS form = A

RTNAME is derived from ASTREET by recognizing the common ways to write route name (I-25, I 25, Interstate 25, HWY 25, etc.) and creating a standardized form (I 25). Since route numbers in NM are unique (there is no NM 25 or US 25) the route number is used to look up the route in the HPMS file and derive the correct prefix (I, NM, or US) for the route. The HPMS file is an extract from the official road inventory file maintained by the NM DOT. Also, the milepost is checked against the range of mileposts for the route. If a route does not match to the HPMS or the milepost is out of range, RTNAME and milepost are missing.

Source: RTNAME: Program derived

1.53. DESIGNATED ROUTE NAME IN HPMS FORMAT

Name = **CHDBRT** Format: $6. SAS form = A

CHDBRT is coded in the TSTATB crash file. It is a designated route name in a format that matches the HPMS (I00025, NM0048, US0064). CHDBRT is updated from the match to HPMS for crashes that match.

Source: CHDBRT: TSTATB Crash file Record 0 Location 46-50

1.54. POST

Name = **POST** Format: **6.2** SAS form = N

POST is the mile post as coded on the original TSTATB crash file. A value of zero in POST indicates that the mile post is unknown or not applicable. MILEPOST is generally equal to POST, except it is set to missing when POST is zero or not within the range for the route as indicated by HPMS. When POST is zero but BSTREET contains a mile post reference ("MM 3" or "MP 10") mile post is derived from BSTREET using IDIREC and MILES/FEET.

Source: POST: TSTATB Crash file Record 0 Location 46-50

1.55. MILE POST

Name = **MILEPOST** Format: **6.2** SAS form = N

Five digit mile post of crash with two implied decimal places. MILEPOST is inaccurate in data prior to 1988. Mile post markers can be incorrect by as much as a mile in rare cases. Route name and mile post are the primary location variables for crashes on the rural state road system, particularly in data since 1999.

Source: MILEPOST: Program derived Record 0 Location 46-50

1.56. ADMINISTRATIVE ROUTE

Name = **ROUTE** Format: **$4.** SAS form = A

This is the administrative route code indicating crash location. MILELOG is used with ROUTE to provide the exact location (do not use milepost with route). Full description of the codes is available in a separate document available from the Division of Government Research. While ROUTE is still coded on the TSTATB crash file, the primary location system used by the NMDOT since 1988 is based on route name and milepost. ROUTE is determined from the Accident Location Coding Guide (ALCG) file based on RTNAME and MILEPOST. See OROUTE for the administrative route originally coded in the TSTATB file.

Examples of codes are:

Code	Status	Highway	
0401	1-4,or 7	I-40	Federal aid interstate - FAI (purple)
0311		US666	Federal aid primary - FAP (green)
1217	5	NM176	Federal aid secondary - FAS (red)
2042		NM42	Other state roads (brown)
3000			All local roads
4000	5		Federal aid urban (state) FAU (blue)
4000	6		Federal aid urban (local) FAU (orange)
6000			Municipal arterial project MAP (pink)
7032		INDIAN 32	Tribal or BIA
8145		FR 145	Forest service
9206	A	CR 206A	County roads according to district

Source: ROUTE: program derived Record 0 Location 128-131

1.57. ADMINISTRATIVE ROUTE ORIGINAL

Name = **OROUTE** Format: **$4.** SAS form = A

OROUTE is the administrative route originally coded in the TSTATB crash file. See ROUTE.

Source: OROUTE: TSTATB Crash file Record 0 Location 128-131

1.58. ROUTE STATUS

Name = **STATUS** Format: **$STATUS.** SAS form = A

Because of a variety of county road numbering schemes, any alpha or numeric character is possible in this field.

0	No status
1,2,3	Interstate routes in various stages of completion
4	Other incomplete interstate and primary loops
5	All federal aid secondary routes
6	Federal aid urban route – state and local
7	Interstate frontage road (including some of US66, US85)
A,B,C	County roads (generally indicated commission district)

Source: TSTATB Crash file Record 0 Location 132

1.59. MILE LOG

Name = **MILELOG** Format: **6.2** SAS form = N

Five digit mile log of crash with two implied decimal places. Precision is probably not always to tenths as it should be. MILELOG is used with ROUTE (not RTNAME) to provide location. As provided on the TSTATB crash file, LOG has been interpolated incorrectly using the ALCG (Accident Location Coding Guide). The interpolation is corrected by DGR in SAS and the corrected output is MILELOG.
.
Source: MILELOG: program derived Record 0 Location 37-41

1.60. LOG

Name = **LOG** Format: **6.2** SAS form = N

Use MILELOG. As provided on the TSTATB file from NMDOT, LOG has been interpolated incorrectly using the ALCG (Accident Location Coding Guide). The interpolation is corrected by DGR in SAS and the corrected output is MILELOG.
.
Source: LOG: TSTATB Crash file Record 0 Location 37-41

1.61. FUNCTIONAL CLASS OF ROADWAY

Name = **FUNCTCL** Format: **FUNCTCL.** SAS form = N

The urban data can be usable as long as one knows what one is doing and can recode some of the data. For rural data, major and minor are not coded, so the data are essentially unusable. This field was added as of January 1, 1980.

0 Unknown
1 Rural interstate
2 Rural principal arterial non-interstate
6 Rural minor arterial
7 Rural major collector
8 Rural minor collector
9 Rural local
11 Urban principal arterial-interstate
12 Urban principal arterial freeway connecting link
13 Urban principal arterial freeway not connecting link
14 Urban principal arterial other connecting link
15 Urban principal arterial other non connecting link
16 Urban minor arterial
17 Urban collector
19 Urban local

Source: TSTATB Crash file Record 0 Location 183-184

1.62. ROAD SYSTEM

Name = **SYSTEM** Format: **SYS.** SAS form = N

Since SYSTEM is derived from POPGRP and ROUTE, data through 1980 is based on the 1970 census. Starting with calendar 1981 data, 1980 census counts are used. The "urban" category includes interstate routes within cities.

1 Rural non-interstate
2 Urban (towns of 5,000 or more)
3 Rural interstate

Source: Program derived

1.63. MAJOR STREET CODE

Name = **STRCODE1** Format: **$5.** SAS form = A

Street code number associated with ASTREET in the street name coding list (tsbutil strts).

Source: TSTATB Crash file Record 0 Location 118-122

1.64. SECONDARY STREET CODE

Name = **STRCODE2** Format: **$5.** SAS form = A

Street code number associated with BSTREET in the street name coding list.

Source: TSTATB Crash file Record 0 Location 123-127

1.65. DIVIDED HIGHWAY

Name = **DIVHWY** Format: **$1.** SAS form = A

Indicates whether the highway is divided or not. Possible values are 0, 1, or 2. Present only for crashes on the rural state system that matched by milepost.

0 Not Divided Highway
1 Divided Highway North/South (e.g. I-25)
2 Divided Highway East/West (e.g. I-40)

Source: TSTATB Crash file Record 0 Location 99

1.66. DIVIDED HIGHWAY DIRECTION

Name = **DHDIREC** Format: **$1.** SAS form = A

Indicates direction of travel on divided highway. Possible values are E, W, N, S. Present only for crashes on the rural state system that matched by milepost.

Source: TSTATB Crash file Record 0 Location 100

1.67. CRASH DIRECTION

Name = **ACCDIR** Format: **$1.** SAS form = A

Indicates the direction of travel of the vehicle with the top contributing factor in the crash. Present for all crashes.

Source: Program derived from the detail level.

1.68. FILE DATE

Name = **FILEDATE** Format: **SAS Date Formats** SAS Form = DATE

The date the raw TSTATB crash file was extracted from ARCS.

Source: Source: TSTATB Crash file Record 0 Location 42-45 & 51-54

INDEX BY VARIABLE DESCRIPTION / FULL NAME

INDEX BY VARIABLE NAME