



Crash Data Overview

*Introduction and Demonstration of two
Point Level Data Sets*

May 3rd 2016

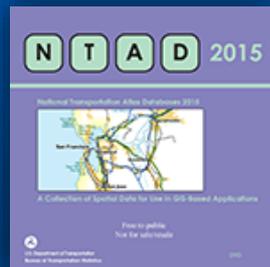


Two Data Sets

- Fatality Analysis Reporting System

(FARS)

- Fatal Crashes in the U.S.A.
- Calendar Year 2013
- **Mature** dataset. Dates back to 1975
 - Data accompanied by 500 page manual that defines the data elements and decodes the data.



- Maryland State Police Vehicle Crashes

(MSP)

- All Crashes in Maryland
- Calendar Year 2015
- **Newly Available** data set. In its first year.
 - Data accompanied by an excel spreadsheet that decodes the data.



FARS Manual

- Person File Examples:

- **Person Type (PER_TYP)**

- Describes the role of the person involved in crash.

2011-Later

01	Driver of a Motor Vehicle In-Transport
02	Passenger of a Motor Vehicle In-Transport
03	Occupant of a Motor Vehicle Not In-Transport
04	Occupant of a Non-Motor Vehicle Transport Device
05	Pedestrian
06	Bicyclist
07	Other Cyclist
--	Other Pedestrian (Includes Persons on Personal Conveyances, 1994-2006)
08	Person on Personal Conveyances (Since 2007)
09	Unknown Occupant Type in a Motor Vehicle In-Transport
10	Persons In/On Buildings (Since 2007)
19	Unknown Type of Non-Motorist
--	Not Reported
--	Unknown

- **Injury Severity (INJ_SEV)**

- Describes the severity of the injury to each person in the crash.

SAS Name: INJ_SEV

Attribute Codes

1975-2012	2013-Later	
0	--	No Injury (O)
--	0	No Apparent Injury (O)
1	1	Possible Injury (C)
2	--	Non-Incapacitating Evident Injury (B)
--	2	Suspected Minor Injury (B)
3	--	Incapacitating Injury (A)
--	3	Suspected Serious Injury (A)
4	4	Fatal Injury (K)
5	5	Injured, Severity Unknown (U) (Since 1978)
6	6	Died Prior to Crash
8	8	Not Reported (2010 Only)
9	9	Unknown



MSP Crash Data

	A	B	C	D	E	F	G	H	I	J	K
51	COLLISION_TYPE_CODE										
52		00	Not Applicable								
53		01	Head On								
54		02	Head On Left Turn								
55		03	Same Direction Rear End								
56		04	Same Direction Rear End Right Turn								
57		05	Same Direction Rear End Left Turn								
58		06	Opposite Direction Sideswipe								
59		07	Same Direction Sideswipe								
60		08	Same Direction Right Turn								
61		09	Same Direction Left Turn								
62		10	Same Direction Both Left Turn								
63		11	Same Movement Angle								
64		12	Angle Meets Right Turn								
65		13	Angle Meets Left Turn								
66		14	Angle Meets Left Turn Head On								
67		15	Opposite Direction Both Left Turn								
68		17	Single Vehicle								
69		88	Other								
70		99	Unknown								
71	SURF_COND_CODE										
72		00	Not Applicable								
73		01	Wet								
74		02	Dry								
75		03	Snow								
76		04	Ice								
77		05	Mud, Dirt, Gravel								
78		06	Slush								
79		07	Water (standing/moving)								
80		08	Sand								
81		09	Oil								
82		88	Other								
83		99	Unknown								
84	LANE_CODE										
85		00	Not Applicable								
86		01	Right Turn Lane								
87		02	Left Turn Lane								
88		03	Acceleration Lane								
89		04	Deceleration Lane								
90		05	Shoulder Area								
91		06	Crossover Area								

File Explorer: MD_Crash_As_Delivered

Name	Date modified	Type	Size
MD_Crash_OpenDataDictionary.xlsx	3/16/2016 8:50 AM	Microsoft Excel W...	31 KB
MD_Crash_Qtr01_2015.xlsx	3/16/2016 8:50 AM	Microsoft Excel W...	20,013 KB
MD_Crash_Qtr02_2015.xlsx	3/16/2016 1:46 PM	Microsoft Excel W...	22,029 KB
MD_Crash_Qtr03_2015.xlsx	3/16/2016 1:47 PM	Microsoft Excel W...	22,141 KB
MD_Crash_Qtr04_2015.xlsx	3/25/2016 11:40 AM	Microsoft Excel W...	27,487 KB

ACCIDENT PERSON VEHICLE EMS CIRCUM_PERSON CIRCUM_VEHICLE CIRCUM_ROAD CIRCUM_WEATHER



Relationships are Bi-Directional

- Many People to One Car
 - Many-to-one
- One Crash to Many Cars
 - One-to-many
- FARS dataset has 20 tables related to crash layer.
- MSP dataset has 7 tables related to crash layer.



For More Information

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Data Sources

NHSTA/FARS Online Query and Data Extraction Tool

- www-fars.nhtsa.dot.gov/QueryTool

Maryland Open data Portal

- data.maryland.gov

National Transportation Atlas Database

- <http://tinyurl.com/zsoysdd>

