Crash Data Overview

Introduction and Demonstration of two Point Level Data Sets

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Two Data Sets

- **<u>Fatality Analysis Reporting System</u>**

  (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.
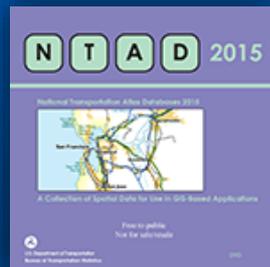
- **<u>Maryland State Police Vehicle Crashes</u>**

  (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.

  - **Injury Severity** (INJ_SEV)
    - ○ Describes the severity of the injury to each person in the crash.

2011-Later

Code	Description
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

SAS Name: INJ_SEV

Attribute Codes

1975-2012	2013-Later	Description
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

Baltimore Metropolitan Council

MSP Crash Data

The **data dictionary**, and all data is provided by the Maryland State Police in excel format.

- I built a **relational geodatabase** from these files.
- The ACCIDENT file contains the x, y data.

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

Crystal McDermott

(410) 732-0500 Ext. 1024

cmcdermott@baltometro.org

www.baltometro.org

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

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