Overview

- Crash Data
- Crash Analysis
- High Crash Location Prioritization
Crash Reporting

- Based on MMUCC elements and guidance
- Built-in edit checks in electronic version

Crash Analysis

Location Data Section

Sequence of Events

Safety Equipment

Driver Distract By
**Obtaining Data**

- GIS Crash Analysis Tool (GCAT)
  - Open to County Engineers and MPO's
- Ohio Department of Public Safety (ODPS)
  - Open Source
  - Crash Data for the past 5 years

**GIS Crash Analysis Tool (GCAT)**

- [http://www.dot.state.oh.us/Divisions/TransSysDev/ProgramMgt/CapitalPrograms/Pages/GCAT.aspx](http://www.dot.state.oh.us/Divisions/TransSysDev/ProgramMgt/CapitalPrograms/Pages/GCAT.aspx)

**GIS Crash Analysis Tool Resources**

- GIS Crash Analysis Tool (GCAT)
- GCAT Help File
- How to Upload Spatial Crash Data for GCAT - Help File
- How to View Map Web Page - SP5 Images
- More Information on View & Handling of Spatial Information (Crash Reports)
- Related Information Fields on the Crash Report
- PDF Data Access Documentation

- [https://gcat.dot.state.oh.us/](https://gcat.dot.state.oh.us/)
GIS Crash Analysis Tool (GCAT)

- Data can be selected using a polygon tool to select corridors, intersections, etc.
- Results set can be exported to Excel for further analysis.

GIS Crash Analysis Tool (GCAT)

- Individual records can be selected
- Scanned crash reports can be viewed.

GIS Crash Analysis Tool (GCAT)

- Crash Analysis Module
  - CAM Tool

Scanned crash reports can be viewed.
GIS Crash Analysis Tool (GCAT)

CAM Tool (Continued)

GIS Crash Analysis Tool (GCAT)

CAM Tool (Continued)

ODPS Data

- Obtain crash data
- Data is similar to the information obtained from GCAT
- Requires separate spatial analysis
  - Intergraph or ESRI products
Import the downloaded text file into the Microsoft Access Template Provided by ODPS.

Can be obtained from the help menu.

To download the MS Access template file for FULL Crash data or Generating CSI Report, click here.

To download the MS Access template file for MS Access Template or Generating CSI Report, click here.

To download the MS Access template file for M/A Signal template, click here.

To download the MS Access template file for H/M Template, click here.
High Crash Location Prioritization

- State System Analysis (IR, US, SR)
- Spatially locate crashes
- Aggregation the crash details to segments
- Weight each location based on Total Number of Crashes, Crash Severity (Fatal, Incapacitating Injuries, & Minor Injuries), and Average Daily Traffic (ADT)

High Crash Location Prioritization

Crash Analysis Tools

Crash Data: 2007 to 2009
High Crash Location Prioritization

Crash Data: 2007 to 2009

High Crash Location Prioritization

Crash Data: 2007 to 2009

High Crash Location Prioritization

Crash Data: 2007 to 2009
Crash Data:
2007 to 2009
High Crash Location Prioritization

Safety Analyst
Crash Analysis Tools

Agencies That Participated in Safety Analyst Development
- California Department of Transportation
- Colorado Department of Transportation
- Florida Department of Transportation
- Georgia Department of Transportation
- Illinois Department of Transportation
- Indiana Department of Transportation
- Louisiana Department of Transportation
- Maryland State Highway Administration
- Massachusetts Highway Department
- Michigan Department of Transportation
- Minnesota Department of Transportation
- Mississippi Department of Transportation
- Nevada Department of Transportation
- New Jersey Transportation Planning Authority
- New York State Department of Transportation
- Ohio Department of Transportation
- Oregon Department of Transportation
- Pennsylvania Department of Transportation
- Virginia Department of Transportation
- Washington State Department of Transportation
- Wisconsin Department of Transportation
- North Jersey Transportation Planning Authority

Traffic Improvement Association, Oakland County,

Number of crashes in any given time is unpredictable due to
Random error

State-of-the-Art Safety Methodology
- Number of crashes in any given time is unpredictable due to Regression-to-the-Mean
- Average expected number of crashes can be predicted (More reliable than short-term observed crash counts)
- Safety is measured by statistical methods
- Crash counts used to estimate long-term averages along with Regression analysis of similar sites (Safety Performance Functions - SPFs)
Safety Analyst

- Development of Safety Priority Locations
- Sections
- Intersections

Questions

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