Wisconsin Predictive Analytics for Roadway Safety and Enforcement

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Levels of Situational Awareness

- Action
- Threat Recognized
- Situationally Aware
- Unaware
• Great way for individual Agencies to do analysis
• Collecting more data
  • Citizen Contact
  • Warnings
  • Citations
WisTransPortal
Wisconsin MV4000 Crash Data

Crash Reports (2008) and Statewide GIS Crash Map (2012)
Community Maps - Wisconsin County TSC Crash Mapping

This is a TEST crash map generated from preliminary police crash report data - it does not represent an official source of Wisconsin motor vehicle crashes.

Search Input

Select the form below to filter the crash map based on high level crash attributes. Click Apply to apply your filters or Reset to go back to the default settings.

- Fatalities
- Injury (A)
- Injury (B)
- Injury (C)
- Property Damage

There are 300 of 320 total crashes displayed.

Apply | Reset

Counties

ALL

Date Range

Begin Year/Month: 2017 JAN
End Year/Month: 2017 DEC

Crash Severity

- (K) Fatality
- (A) Suspected Major Injury
- (B) Suspected Minor Injury
- (C) Possible Injury
- (O) No Apparent Injury

Crash Flags

- Alcohol Flag
- Bike Flag
State Patrol Resource Allocation

• Time Series Analysis
  • May have limitations for weather and other ‘random’ variables

• GIS Based Hotspots and Optimization Tools
  • Route Choice Analysis Toolkit (with over 40 variables)
    • Distance
    • Travel Time
    • Speed Statistics
    • Number of Intersections
    • Number of Stop signs/stop lights
• How to measure effectiveness?
  • Hours of staff
  • Contact summary
  • More warnings/citations
  • Crashes?
    • Balloon theory?

• Statistical Significance
• Validity of Model
• Building connections in the system
• Flag by causation not injury severity
• Elimination of some types
• Layer data elements
• Prototype

• Build analytics
• Reporting tools
• Evaluation tools
Any questions?