SAFETY INVESTIGATION MANUAL

Online Training

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Manual Overview and Purpose (Ch. 1)

• Outline the steps for Safety Investigations
  • Six step process
• Provide a resource for ODOT safety investigators
  • Screening, Evaluation, Documentation
Safety Investigations (Ch. 2)

• Data driven approach to selecting countermeasures
• Two approaches:
  • Hotspot
  • Systemic
• Two principles:
  • Crashes are rare events
  • Humans make errors
Data Types and Sources (Ch. 3)

• A variety of types and sources of data is helpful in safety investigations
• Basic information:
  • Crash data – location, severity, causes
  • Route numbers, functional class, roadway characteristics
• Several sources for data:
  • Crash Data System
  • Digital Video Log
  • TransGIS
  • Virtual Highway Corridor (VHC) tool
  • Site Investigation (Ch. 5)
Crash Pattern Identification (Ch. 4)

- Crash Pattern Worksheet
  - Tests individual parameters
  - Highlights unusual patterns
- Additional training material for Workbook available

![Collision Diagram showing five years of crash data. Include severity, pavement conditions, time of day, and light conditions. Indicate vehicle at fault with red arrow. Include description of symbols/abbreviations.](image)
Countermeasure Selection (Ch. 5 and 6)

• Several tables available (Ch. 5)
  • Intersection and Mid-block crashes
  • Provides crash pattern, probable cause, what to document, and general countermeasures
• Cost, availability, feasibility, and effectiveness considered in selection process
• Other sources include:
  • FHWA Safety Emphasis Area websites
  • FHWA CMF Clearinghouse
Documentation (Ch. 7)

• Final step in safety investigation process
• Documenting evaluation and project recommendations
• SIM Workbook contains *SIM Report* tab
• It is important to check if solutions have delegated authority processes
Additional Content (Appendix)

- Site Distance Evaluation
  - Intersection site distance (with examples)
  - Stopping site distance
  - Decision site distance
  - Passing site distance
  - Sign legibility/message comprehension distance
- SIM Worksheet Instructions