

Challenges to the Vision of Using Crash Data to Development Effective Countermeasures

A Prince George's County Experience

Presentation Overview

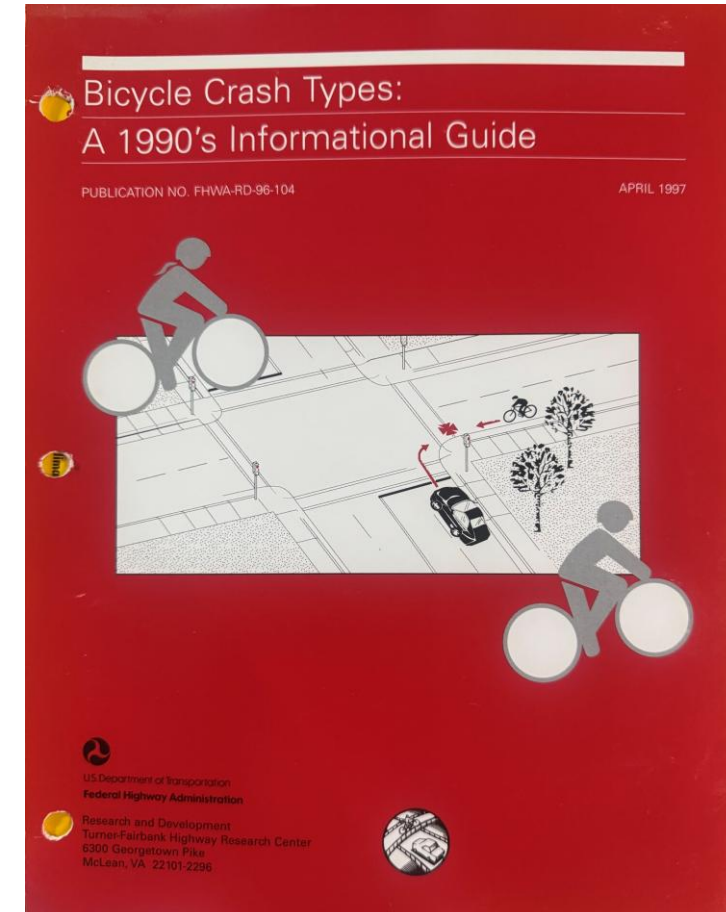
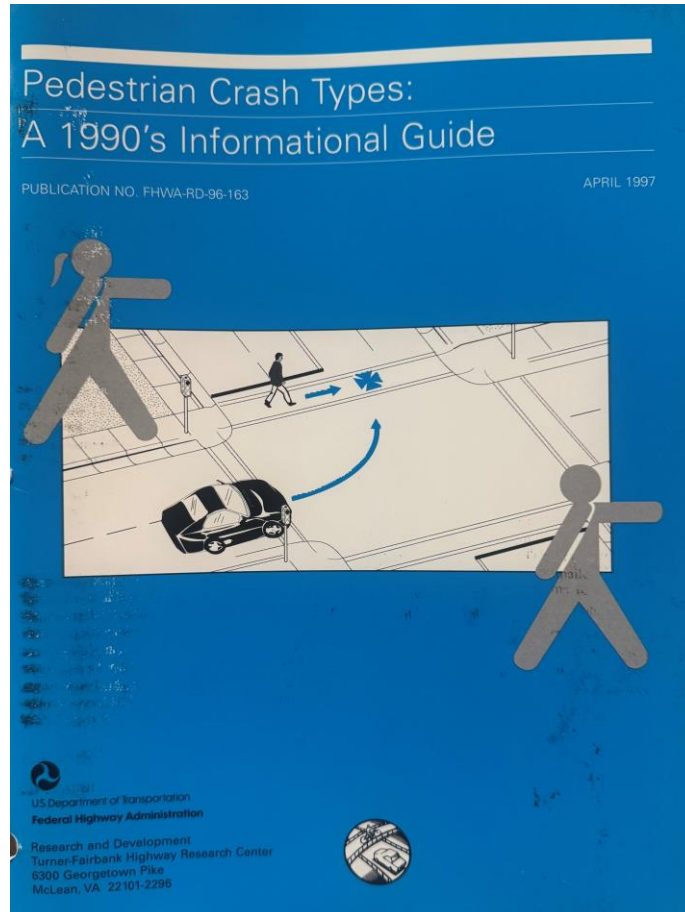
- Vision – Creating crash typologies and analyses using FHWA's Pedestrian Bicyclist Crash Analysis Tool (PBCAT) free software
- Requirement – Must use police crash reports and collision diagrams
- Challenge – Accessing county police crash reports
- Result – Vision deferred

The largest percentage of pedestrian traffic fatalities within Maryland occurred in Prince George’s County.

Statewide 5-Year Average 2020-2024 Source: Maryland Highway Safety Office

Jurisdiction	Percent Involved
Prince George’s	24.5
Baltimore County	16.7
Baltimore City	15.7
Montgomery	9.9

The Vision – Use of Pedestrian and Bicycle Crash Typologies & Analyses



FHWA Pedestrian Crash Typology Illustration & Analysis Example

- Frequency & severity of all pedestrian crashes shown
- Easy to understand illustration
- Summary analysis
- Pedestrian age chart

Midblock— Other

Frequency: 548 cases; 10.8% of all crashes
Severity: 49% resulted in serious or fatal injuries



Description: The crash occurred at midblock but does not conform to any of the specified crash types.

These crashes were much more severe than average.

Summary: In comparison to all crashes, this crash was more likely to involve adult pedestrians ages 25 and older.

Six percent of the pedestrians misjudged the crossing gap, 9 percent had been standing in the roadway, 11 percent stepped into the travel lane and were instantly struck, and 36 percent had been walking in the travel lane prior to impact. Thirty-eight percent were undetermined.

More than half of these crashes occurred under conditions of darkness, and 41 percent on weekends.

Overall, 33 percent of pedestrians had been drinking, and 45 percent of those ages 20 to 64.

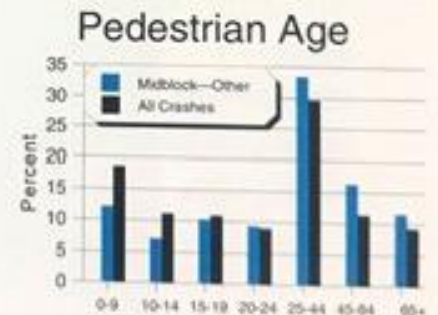


Figure 54. Pedestrian age in "Midblock—Other."

FHWA Bicycle Crash Typology Example

Analysis shows:

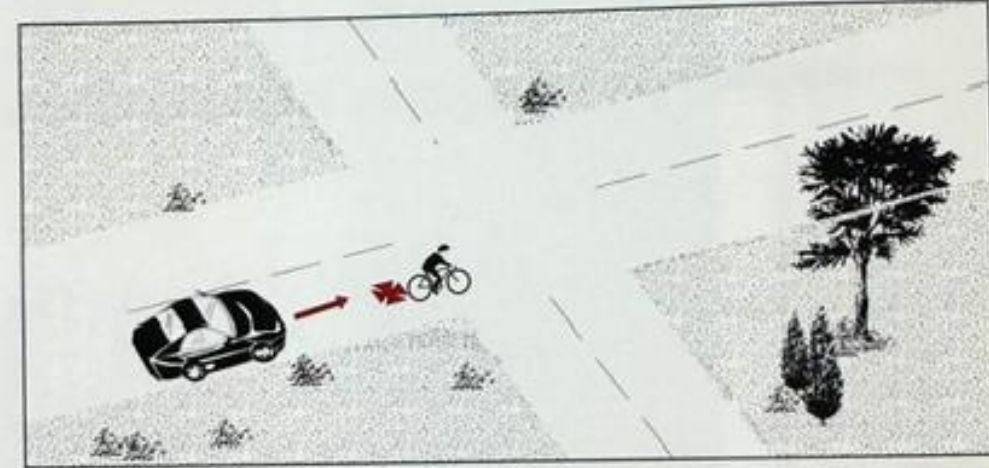
This crash type only comprised 3.9% of all bicycle/motor vehicle crashes.

More likely to occur to adults, on high-speed roadways, and at night.

Alcohol use by 16% of bicyclists and 6% of motorists.

Motorist Overtaking—Other

Frequency: 117 cases; 3.9% of all crashes
Severity: 28% resulted in serious or fatal injuries



Description: The motorist was overtaking a bicyclist and the circumstances could not be specified.

Summary: In comparison to all crashes, this crash was more likely to involve young adult (age 20 to 24), adult (age 25 to 44) and middle adult (age 45 to 64) bicyclists, take place at night, and occur on very high-speed (80+ km/h) roads. Almost 40 percent occurred during darkness.

While the large majority occurred at midblock, 15 percent occurred at or near an intersection. Twelve percent of bicyclists were on the shoulder and 3 percent were in a bike lane. Nine percent were on a curve.

Sixteen percent of adult bicyclists age 25 and older and 6 percent of motorists had been drinking.

Forty-one percent were hit & run. Injury severity was worse than the average of all crashes.

Bicyclist Age

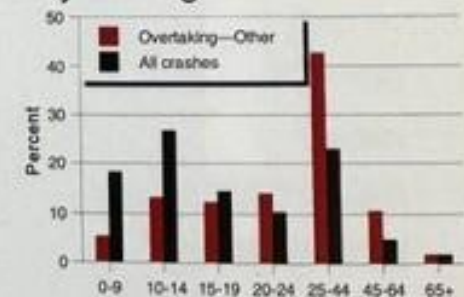


Figure 36. Bicyclist age in "Motorist Overtaking—Other."

Free Software to Analyze Ped/Bike Crashes

“FHWA’s free Pedestrian Bicycle Crash Analysis Tool **creates crash typologies and accompanying analyses.**”

Must have access to police traffic crash reports to create crash typologies with PBCAT software.

PBCAT Pedestrian and Bicycle Crash Analysis Tool Version 3.0 User Guide

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The Challenge:

Accessing Prince George's County Crash Data

- Maryland State Police are the custodian of police crash reports.
- State law requires MSP to charge at least \$4.00 per crash report.
- Department budget shortfalls hamper obtaining funds.
- Personal identifiable information concerns require redaction of P.I.I. from crash reports at an additional, unknown total cost.

Result – Vision Deferred

- Detailed information regarding why Prince George's County has the state's highest percentage of pedestrian fatalities is unavailable.
- Existing countermeasures focus on general infrastructure improvements on roadways with the highest rate of pedestrian injuries.
- Road user behaviors that lead to pedestrian and bicyclist crashes can not be analyzed without access to police crash reports.
- Without detailed information planned countermeasures are not as effective.

Questions and/or Suggestions?

Thank you,

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