



CMF / CRF Details

CMF ID: 10222

Change posted speed limit from X MPH to Y MPH

Description: Change the posted speed limit from X miles per hour to Y miles per hour

Prior Condition: Posted speed limit of X MPH

Category: Speed management

Study: [Estimation of bicycle crash modification factors \(CMFs\) on urban facilities using zero inflated negative binomial models, Raihan et al., 2019](#)

Star Quality Rating:

8 Stars

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Crash Modification Factor (CMF)

Value:

$$CMF = e^{(-0.045234 * [Y - X])}$$

Y = proposed posted speed limit in MPH

X = existing posted speed limit in MPH

Adjusted Standard Error:

Unadjusted Standard Error:

Crash Reduction Factor (CRF)

Value:

$$CRF = 100 * (1 - e^{(-0.045234 * [Y - X])})$$

Y = proposed posted speed limit in MPH

X = existing posted speed limit in MPH

Adjusted Standard Error:

Unadjusted Standard Error:

Applicability

Crash Type:

Vehicle/bicycle

Crash Severity:

All

Roadway Types:

Not specified

Number of Lanes:

4

Road Division Type:

Divided by Median

Speed Limit:

35-60 MPH

Area Type:

Urban

Traffic Volume:

2300 to 120000 *Annual Average Daily Traffic (AADT)*

Time of Day:

All

If countermeasure is intersection-based

Intersection Type:

Intersection Geometry:

Traffic Control:

Major Road Traffic Volume:

Minor Road Traffic Volume:

Development Details	
Date Range of Data Used:	2011 to 2014
Municipality:	
State:	FL
Country:	USA
Type of Methodology Used:	7
Sample Size Used:	

Other Details	
Included in Highway Safety Manual?	No
Date Added to Clearinghouse:	Dec-07-2019
Comments:	This CMF applies to vehicle/bicycle crashes on urban four-lane divided segments.

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