



CMF / CRF Details

CMF ID: 10218

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:	
<input type="text" value="8 Stars"/>	[View score details]

Crash Modification Factor (CMF)	
Value:	$CMF = e^{(-0.06230*[Y-X])}$ <p>Y = proposed posted speed limit in MPH</p> <p>X = existing posted speed limit in MPH</p>
Adjusted Standard Error:	
Unadjusted Standard Error:	

Crash Reduction Factor (CRF)

Value:

$$CRF = 100 * (1 - e^{(-0.06230 * [Y - X])})$$

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:

2

Road Division Type:

Divided by Median

Speed Limit:

30-55 MPH

Area Type:

Urban

Traffic Volume:

1300 to 42000 *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 two-lane divided segments.

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