Variable Speed Limit Study Upstream of an Indiana Work Zone with Vehicle-Matching
Michelle M. Mekker¹, Stephen M. Remias², Wayne A. Bunnell¹, Drake W. Krohn¹, Edward D. Cox³, Darcy M. Bullock³
1: Purdue University; 2: Wayne State University 3: Indiana Department of Transportation

Variable Speed Limits Signs

Single Variable Speed Limit Sign at I-65 NB Mile Marker 79
Paired Variable Speed Limit Signs at I-65 NB Mile Marker 79

Longitudinal Comparison of Distributions of Speed Changes

Studies 2 (New), 5, and 4 (New)
Studies 8, 9, and 10
Studies 2 (New), 6, and 7

Comparison of Distributions of Speed Changes for Different Variable Speed Limit Combinations

After 1 Sign Location
Study 2 (New) vs. Study 8
After 2 Sign Locations
Study 5 vs. Study 9
Study 4 (New) vs. Study 10
After 3 Sign Locations
Studies 8, 9, and 10
Studies 2 (New), 6, and 7

Passenger Vehicles
Commercial Vehicles

Median speed change increases from 0.2 MPH to 3.3 MPH
Median speed change increases from 0.3 MPH to 4.7 MPH
Median speed change increases by 2.1 MPH
Median speed change increases by 3.4 MPH
Median speed change increases by 2.1 MPH
Median speed change increases by 4.4 MPH
Median speed change increases by 2.1 MPH
Median speed change increases by 4.4 MPH

Studies 2 (New), 5, and 4 (New)
Studies 8, 9, and 10
Studies 2 (New), 6, and 7

Studies 2 (New), 5, and 4 (New)
Studies 8, 9, and 10
Studies 2 (New), 6, and 7

Commercial Vehicles

Median speed change increases from 0.2 MPH to 3.3 MPH
Median speed change increases from 0.3 MPH to 4.7 MPH
Median speed change increases by 2.1 MPH
Median speed change increases by 3.4 MPH
Median speed change increases by 2.1 MPH
Median speed change increases by 4.4 MPH
Median speed change increases by 2.1 MPH
Median speed change increases by 4.4 MPH

Passenger Vehicles
Commercial Vehicles

Median speed change increases from 0.2 MPH to 3.3 MPH
Median speed change increases from 0.3 MPH to 4.7 MPH
Median speed change increases by 2.1 MPH
Median speed change increases by 3.4 MPH
Median speed change increases by 2.1 MPH
Median speed change increases by 4.4 MPH
Median speed change increases by 2.1 MPH
Median speed change increases by 4.4 MPH