

# Estimating Benefits (Crash Reduction)



<http://safety.fhwa.dot.gov/tools/crf/resources/fhwasa08011/>

Desktop Reference for Crash Reduction Factors

Roadway Departure Crashes

Countermeasure(s)	Crash Type	Crash Severity	Area Type	Road Type	Daily Traffic Volume (veh/day)	Ref	Effectiveness			Study Type	
							Crash Reduction Factor / Function	Std Error	Range		
									Low		High
<b>SIGNS</b>											
Implement sign corrections to MUTCD standards	All	Injury	Urban	Local		5	15	10		Meta Analysis	
	All	PDO	Urban	Local		5	7	6		Meta Analysis	
Install chevron signs on horizontal curves	All	Fatal/Injury	Rural	2-lane		38	20				
	All	All				15	35				
	All	All	Urban	Arterial (urban)		5	64	49		Simple Before-After	
	All	All				15	20				
	All	All				15	35				
Install curve advance warning signs	All	Fatal/Injury	Rural	2-lane		38	10				
	All	Injury				5	30	71		Meta Analysis	
	All	PDO				5	8	76		Meta Analysis	
	All	All				15	30				
	All	Fatal				15	55				
	All	All				15	30				
	All	All				15	23				
	All	Injury				15	20				
	Head-on	All				15	29				
	ROR	All				15	30				
ROR	All	All	All		1	30					
Install curve advance warning signs (advisory speed)	All	Injury				5	13	9		Meta Analysis	
	All	PDO				5	29	23		Meta Analysis	
	All	All				15	29				
	All	All				15	20				