Priority Level One: Run-off-the-Road Collisions

Review Draft

A run-off-the-road crash occurs when a vehicle leaves the road during a collision. In Washington State between 2006 and 2008, run-off-road crashes contributed to 2,510 serious injuries and 738 deaths. This represents 43% of all fatalities and 30% of all serious injuries during this period. Run-off-the-road collisions are especially high on county roads, making up 63% percent of all fatalities or serious injuries on rural county roads, and 35% on urban county roads, between 2006 through 2008. Due to the frequency of run-off-the-road as a factor in serious and fatal crashes, this issue has been elevated to a Priority One area in Target Zero.

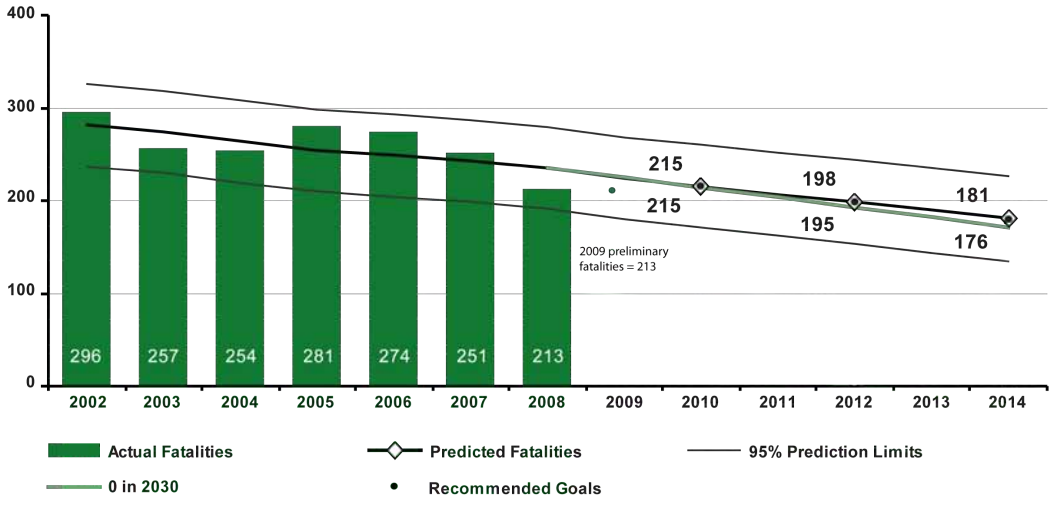
Based on 2006-2008 Washington State collision data, once a vehicle leaves the roadway, the most harmful event is most likely to be an overturn (40%), an impact with a tree (13%), an impact with a utility pole (9%), an impact with a ditch (6%), or an impact with a fence (5%).

Improving driver behavior will continue to be a strong factor in preventing run-off-the-road collisions: from 2006 through 2008, speed was a factor for 39% of drivers involved in fatal or serious injury run-off-the-road crashes; impairment was a factor 30% of the time; and driver distraction was a factor in 9%. By implementing effective strategies to combat impaired driving, speed, and distracted driving, Washington State hopes to reduce the behavioral issues causing a vehicle to leave the roadway in the first place. Strategies to address these behaviors are listed under those categories. In addition, applying engineering strategies such as installing rumble strips, flattening curves, or improving signing and striping can also decrease the likelihood that a vehicle will leave the roadway. These are the first set of strategies listed at the end of this chapter.

Although preventing a vehicle from leaving the road in the first place is the ideal solution, run-off-the-road collisions are still occuring. Therefore, the second set of strategies for reducing run-off-the-road fatalities and serious injuries involve minimizing the consequences of leaving the road. By removing or relocating roadside objects, flattening slopes, and improving ditch design, roadway engineers can reduce deaths and injuries from a vehicle crashing or overturning. In addition, installing roadside safety hardware can reduce the severity of impacts that do occur.

Run-off-the-road collisions were part of 63% percent of all fatalities or serious injuries on rural county roads from 2006 through 2008

Run-Off-The-Road Fatalities: Trends, Forecasts, and Goals



Source: Washington Traffic Safety Commission - Fatality Analysis Recording System

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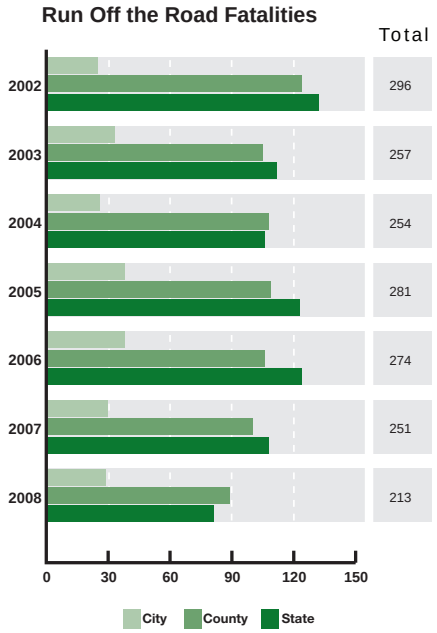
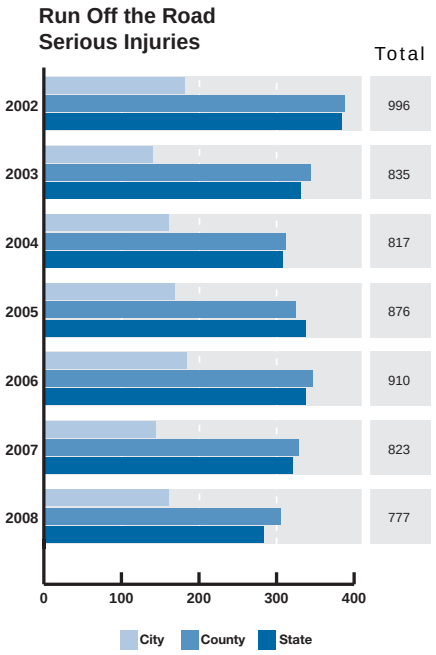
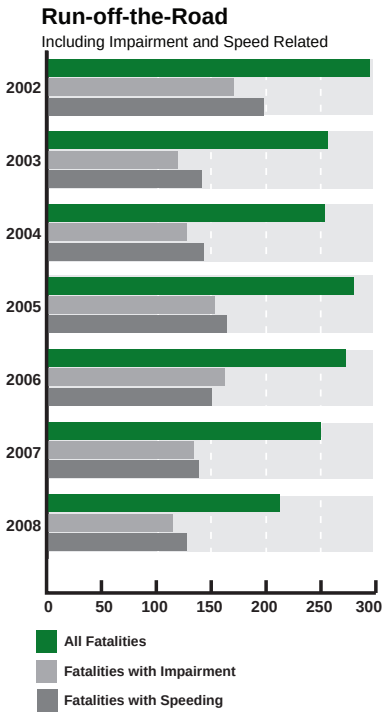


Source: Washington Traffic Safety Commission - Fatality Analysis Recording System

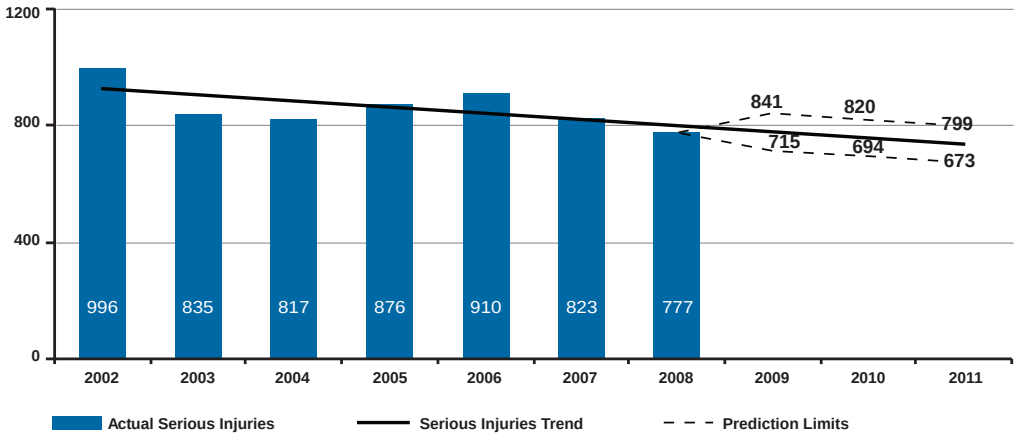


Source: WSDOT Collision Database



Source: Washington Traffic Safety Commission - Fatality Analysis Recording System (FARS)

Run-off-the-Road Serious Injuries: Trends and Forecasts



Source: WSDOT Collision Database

1.2 Strategies to Reduce Run-Off-Road Crashes	
1.2.A. Prevent Run-Off-the-Road collisions	1.2.A1. Establish or maintain programs to improve roadway maintenance to enhance highway safety. (P)
	1.2.A2. Install rumble strips where appropriate. (P)
	1.2.A3. Improve roadway geometrics. (P)
	1.2.A4 Improve the pavement surface and/or establish better maintenance practices in regard to wet pavements and snow and ice control.
1.2.B. Minimize the Consequences of Leaving the Roadway	1.2.B1. Expand the use of, and maintain, existing best practices for the selection, installation, and maintenance of roadside safety hardware. (P)
	1.2.B2. Develop and implement guidance to improve ditches and back slopes to minimize crash severity. (P)
	1.2.B3. Develop and implement guidelines for safe urban streetscape design.(P)
	1.2.B4. Install guardrail/barriers where necessary. (P)
	1.2.B5. Remove or replace all non-standard guardrail. (P)
	1.2.B6. Improve the clear zone. Enhance roadside safety by flattening slopes and removing hazardous objects. (P) • Reduce the hazard from roadside utility poles by removing, redesigning, relocating, shielding, or delineating them. (P) • Implement, in an environmentally acceptable manner, an effort to address hazardous trees. (P) • Locate and inventory fixed objects inside the clear zone.
	1.2.B7 Install safety edge on all resurfacing projects on high speed facilities .(P)
1.2.C Reduce speed-related Run-off-the-Road collisions	1.2.C1 Improve roadway geometrics. (P)
	1.2.C2 Improve roadway signage and delineation. (P)

P=Proven, T=Tried, E=Experimental