



Road User Safety Task Force

Bicycle Crash Initial Study Summary Report

September 3, 2008

Background

The City of Bend's Traffic Safety Advisory Committee created the Road User Safety Task Force in order to investigate bike-motor vehicle crashes and develop strategies for reducing these crashes. The task force¹ is supported by the Deschutes County Bike and Pedestrian Committee as well as Commute Options for Central Oregon.

Task Force Goals

Phase 1 included an investigation into the issues with the specific goal of answering the following questions as posed by the Deschutes County Bike and Pedestrian Committee and the City of Bend Traffic Safety Advisory Committee:

- Who was at fault?
- What were the environmental conditions (time of day, weather, etc)?
- What were the roadway (infrastructure) conditions (traffic control, bike lanes, crosswalks, etc.)?
- Have the number of crashes increased in recent years?

Phase 2 included providing suggestions for decreasing the incidence of bike-motor vehicle crashes in the City of Bend by:

- Identify and prioritize infrastructure improvements;
- Identify what types of educational programs can be implemented; and
- Identify what types of enforcement programs can be implemented.

This summary report concludes Phase 1 of the Task Force efforts and provides suggestions for Phase 2.

Data

This initial study of bicycle crashes in Bend, Oregon was performed using the Oregon Department of Transportation and City of Bend Police crash database summary spanning January 2005 through June 24, 2008. This initial study also included a detailed review of on-line crash reports which were posted for 2007 and 2008 by case number.

The study data included information on: Case Number; Date; Time; Location; Event Location; Class; Crash Type; Vehicle Number; Injury; Fatality; Road Conditions; Age; Sex; Seat; and other Factors. This study did not include a detailed review of crash reports prior to 2007.

Results & Discussion

SUMMARY TABLE OF OPERATOR ERROR
JANUARY 2007 THROUGH JUNE 24, 2008

Driver	Rider	Both	Neither
8	15	2	3
29%	54%	7%	11%

The following observations are made for the 28 on-line crash reports:

- Almost all of the “Driver” error crashes were failure to yield right of way to the bicycle at an intersection or at a driveway.
- A majority of “Rider” error crashes were from riding the wrong way either in the bike lane or on the sidewalk.
- The rider failing to yield or running stop signs or traffic signals accounted for the remaining crashes and was also a significant factor in the ‘riding the wrong way’ crashes.
- The “Both” error crashes were when both the driver and rider ran stop signs.
- The “Neither” crashes were truly accidents and neither the driver nor the rider were cited.
- Helmet use also was low for the reported crashes.

SUMMARY TABLE OF ENVIRONMENTAL AND ROADWAY FACTORS
JANUARY 2005 THROUGH JUNE 24, 2008

Event Location	Intersection	Driveway	Non-intersection
	56	14	18
	64%	16%	20%
Weather	Dry	Wet	Snow
	79	8	1
	90%	9%	1%
Time of day	Daytime	Nighttime	
	74	14	
	84%	16%	

The following observations are made for the 88 crashes in the Bend Police crash database:

- Infrastructure, traffic control or maintenance were not contributing factors.
- A majority of crashes occurred at intersections and driveways.
- Most of the non-intersection crashes appear to be in parking lots.
- There were a few mid-block single rider crashes involving drugs or alcohol.
- Dark clothing and lack of bike lights and/or reflectors appear to be a contributing factor in nighttime crashes.

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SUMMARY TABLE OF CRASH SEVERITY
YEARS 2005, 2006, 2007

Year	2007	2006	2005
Fatal Crashes	1	0	0
Injury Crashes	14	26	39
Property Damage Only	0	0	1
Total Crashes	15	26	40

This data is from the ODOT crash summaries for Bend. As shown in this table, reported crashes decreased each consecutive year. The reported crashes for the first six months of 2008 indicate crash numbers will be similar to 2007 crash numbers.

Conclusion

There are some opportunities for crash reduction by reducing the occurrence of specific behaviors that contribute to certain crash types. The recommendations of the subcommittee include:

- Developing an Education Campaign targeting:
 - ◆ wrong way bike riding, and
 - ◆ motor vehicle driver awareness of and precaution for bikes on the road especially at intersections and driveways.
- Enforcement activities should complement the education program.

¹ Road Users Safety Task Force
webpage: www.bendmpo.org/SharetheRoad.html