

MOUNTAIN-PLAINS CONSORTIUM

PROJECT BRIEF | October 2014

Impact of Energy Sector Growth on Perceived Transportation Safety in the Seventeen-County Oil Region of Western North Dakota: A Follow-Up Study



the **ISSUE**

The growing energy sector in western North Dakota has resulted in additional traffic using rural roadways. Since the oil boom began in 2004, most crash metrics have grown rapidly and many have outpaced growth in vehicle miles traveled over the same period.

the **RESEARCH**

A survey questionnaire was administered to drivers living in the 17-county oil region to better understand traffic safety perceptions and priorities. From the survey, a factor analysis resulted in four areas to be studied in-depth: perceptions of danger, danger avoidance, driver behavior, and large truck-passenger vehicle interaction. Results from the survey also show differences across key driver groups. In addition to the survey, crash reports were compiled for a study period of 2003 - 2014. These reports highlighted trends inside of oil counties as compared to the rest of North Dakota. Crash metrics in the oil region are growing quickly, and many of these metrics outpace changes in vehicle miles traveled. Based on information from these two data sources, it is clear that perceptions from drivers meet reality: drivers believe conditions to be dangerous, and historical crash patterns prove that driving in this part of the state subjects roadway users to more danger than in the rest of North Dakota.



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Project Title

Impact of Energy Sector
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the FINDINGS

Some crash metrics, such as fatal crashes, injury crashes, and large truck crashes occur more frequently in the 17-county oil region than in the rest of North Dakota. When these metrics are normalized by 100,000 population and by 100 million vehicle miles traveled, the rate at which certain crash types occur in the oil region is considerably higher than elsewhere in North Dakota. Therefore, western North Dakota residents have a greater likelihood of being involved in a traffic crash and their perceptions of dangerous driving conditions are justified.

the IMPACT

This study shows how crash patterns near oil extraction activity differ from crash patterns in the rest of North Dakota. Traffic safety experts, practitioners, and drivers alike can use this information to promote safer driving in western North Dakota. Multiple recommendations are made for a region in need of many traffic safety improvements.

For more information on this project, download the entire report at <http://www.ugpti.org/resources/reports/details.php?id=775>

For more information or additional copies, visit the Web site at www.mountain-plains.org, call (701) 231-7938 or write to Mountain-Plains Consortium, Upper Great Plains Transportation Institute, North Dakota State University, Dept. 2880, PO Box 6050, Fargo, ND 58108-6050.



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