CSET rural isolated tribal indigenous

Newsletter

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Center for Safety Equity in Transportation

If you have a right to get there, you have a right to get there safely.

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CSET Research Showcase

Documenting the Characteristics of Traffic Crashes for RITI Communities in Idaho

A University of Idaho project documented the characteristics of traffic crashes in rural, isolated, tribal, and indigenous (RITI) communities in Idaho and established an in-depth understanding of the baseline traffic safety conditions in RITI communities. Three different roadway datasets were used in the analysis including the state highway network, the local (county and city) highway networks, and the U.S. Forest service roadway network.

The results of the analysis clearly show that ATVs and pickup trucks are the two most common vehicle types involved in crashes on rural roads. The results also showed that the majority of fatal and severe injury crashes on unpaved roads involved male drivers and occupants 24 years or younger. The results also showed that the majority of these crashes happened during daylight and in clear or cloudy weather conditions. Inclement weather was not a factor that influenced crashes on unpaved roads. Alcohol impairment, inattention, and speeding seem to be the three major contributing circumstances in fatal and severe injury crashes on unpaved roads.

A comparative safety analysis was conducted to identify and document the differences between crashes that occurred on unpaved and on paved rural roads in Idaho. The results of the analysis show that the percent of fatal and severe injury crashes where no restraining device was used is much higher on unpaved roads (50.4% and 38.3% on unpaved roads compared to 37.9 and 22.8 on paved roads). The same trend also exists in helmet use which shows the critical need for more aggressive seat belt and helmet use enforcement among communities who use rural unpaved roads in Idaho. The results also show a substantial difference in ATV crashes on unpaved versus paved. This is not surprising considering ATV usage is largely implemented on these roads due to the environment and location. Teenagers or children that are 14 years or younger are more susceptible to fatal and severe injuries on unpaved roads compared to paved roads. Crash injuries for age groups from 15 to 44 are also higher on unpaved roadways. A proportion statistical test results show that many of these results have a calculated p-value less than 0.05, indicating that these results are statistically significant at the 95% confidence level.

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Announcements

CSET has positions open for post-doctoral researchers, graduate and undergraduate students interested in RITI transportation equity and safety research. Please contact us at cset.utc@alaska.edu.

In rural communities, agriculture vehicles might share the roadway with regular traffic, particularly during harvest time.

An ATV rider travels along the highway shoulder near Challis, Idaho.

CSET has been funded through the 2016 University Transportation Center Program by the US Department of Transportation as part of the FAST Act at approximately $1.4 million in each of the next five years.

UAF University of Alaska Fairbanks · University of Washington · University of Idaho · University of Hawai'i Mānoa

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Road Dust Webinar Series

Road dust from unpaved roads is a major air quality concern in many tribal communities. Dust (also called Particulate Matter (PM)) has negative impacts on health, road safety and quality of life. A series of four webinars to help tribal environmental and transportation staff to manage road dust, resulting in improved air quality was offered by CSET researchers in collaboration with the Institute of Tribal Environmental Professionals at Northern Arizona University.

Presenters from US Environmental Protection Agency, University of Alaska, Alaska Department Environmental Conservation, Alaska Native Tribal Health Consortium and the Institute for Tribal Environmental Professionals will provide information to help tribal environmental and transportation staff create community partnerships to:

1) Assess current roads,

2) Develop community education messages leading to behavioral changes,

3) Develop plans to improve road design,

4) Consider appropriate use of dust suppressants,

5) Continue with air quality assessments,

6) Create a dust management plan and

7) Identify potential funding sources.

Participants will also be introduced to a variety of online resources to help with planning for road dust management.

Webinar #1 - Introduction to Managing Road Dust (Completed, Recording Available,

https://mediaspace.nau.edu/media/0_f7vtnwkn)

Webinar #2 - Introduction to Dust Suppressants (palliatives) (Completed, Recording Avaialable,

https://mediaspace.nau.edu/media/0_5snobqrf)

Webinar #3 - Engaging Community Leaders in Road Dust Management (Completed, Recording Available, https://mediaspace.nau.edu/media/0_hwnsryl5)

Webinar #4 - Case Studies on Road Dust Management

(Completed, Recording Available, https://mediaspace.nau.edu/media/1_7qqqp0k6).

Dust pallative being spread on a road in Ruby, Alaska.

Idaho Roads (continued from page 1)

A county-based crash rate analysis was conducted to investigate the relative crash rates in rural roads for different counties in Idaho. The comparative analysis identified counties that have consistently higher rural crash rates compared to the state average (Boise County and Clark County). Other counties showed highest relative crash rates but produce less consistent results (Custer County and Lincoln County). A more formal statistical analysis that accounts for the spatial variability of these factors and exposure measures would be required to demonstrate that these results are statistically significant.

A pick-up truck driver hauls an all-terrain vehicle for off-road activities.

UAF Come study with us!

The University of Alaska Fairbanks is actively seeking graduate students interested in research related to rural, isolated, tribal and indigenous transportation safety. Civil engineering is preferred, but also looking for interdisciplinary and Alaskan Native students. For more information contact Nathan Belz at npbelz@alaska.edu.

A remote rural highway with long sight lines and limited traffic.