Rural Highway Safety Visualization and Analysis

SafeRoadMaps

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Sponsored by the University of Minnesota’s Center for Excellence in Rural Safety
SafeRoadMaps: Introduction

- SafeRoadMaps is a publicly accessible website that visually communicates public health issues related to rural and urban road transportation safety.

- The goal of the website is to raise awareness and motivate actions by transportation policy makers and private citizens.

- The goal of this webinar is to provide an overview of SRM and to explore collaborations with NACO partner entities.
Traffic injuries are the number one non-disease related cause of death in the world and top cause of death among teenagers.

It has been estimated that throughout the world close to 1.2 million people die each year due to traffic accidents, with 35,000 annually in the US.

Outside of the loss and harm to human life, there are also considerable economic impacts that result from vehicular accidents.

Explores crash fatality patterns found throughout the United States based on spatial (rural/urban) and temporal (all year/summer) dimensions.

SRM seeks to provide experts and citizens alike with tools to increase awareness of and improve upon traffic safety.
It is where most fatal accidents occur

Drivers more prone to risk-taking on rural highways

High proportion of fatalities attributable to drinking and driving

83 percent of respondents considered winter to be the most dangerous however one in three fatal accidents occurs during the summer on rural highways

Key to changing people's attitudes lies with enforcement and with public education campaigns

V2 (2009) - include national “heat maps” as a visual means for communicating the spatial density of traffic fatalities. 100 Hot Spots found.

Introducing Version 3.0:
Featuring
New Interactive Tools & Filters
to help locate crash data.

Mouse-over the buttons above to learn more.

SafeRoadMaps v3 Website
My Travel

- Provides ability to map out route
- Overlays heat map and past incidents on route
My Community

- Ability to understand community safety issues
- Assist with traffic safety improvement initiatives
My State

- Analysis of state level incidents and hot spots
- Option to toggle rural and urban zones and search radius
- Ability to print out PDF of state level rural and urban hot spots
National Maps

- Ability to analyze national-level traffic safety as visualized by heat maps
- Opportunities to toggle on overlay displays such as Rural and Urban hot spots
National Maps: Rural Summer HotSpots
Customized and Local Analysis

- Sophisticated analysis tools for professional crash and safety entities
- Analysis and Visualization tools that allow for specialized queries and access to crash data
- Regional and organization specific data sets
- Controlled access to sensitive crash data information
Analysis & Tools

Please login:
Username: example@gmail.com
Password: ********
Login

Certain features require a member account.
If you would like to become a member, please contact us at saferoadmaps@gmail.com.
SRM Teenage Driver Analysis

Teenage Driver, Teenage Death, 10:00 PM - 5:00 AM (Minnesota)

Data
SafeRoadMaps utilizes data from the Fatality Analysis Reporting System (FARS) provided by the National Highway Traffic Safety Administration. To be included in FARS, a crash must involve a motor vehicle travelling on a traffic way customarily open to the public, and result in the death of a person (either an occupant of a vehicle or a non-motorist) within 30 days of the crash. Each case has more than 100 coded data elements that characterize the crash, the vehicles, and the people involved.

The FARS data utilized to produce these maps is from the years 2001 – 2008 (the most currently available).

Analysis
<table>
<thead>
<tr>
<th>Event</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teenage Driver, Teenage Death, 10:00 PM – 5:00 AM (Minnesota)</td>
<td>175</td>
</tr>
<tr>
<td>Persons involved in accident with teenage driver</td>
<td>439</td>
</tr>
<tr>
<td>Teenage deaths with teenage driver</td>
<td>131</td>
</tr>
<tr>
<td>Teenage deaths not wearing seat belt</td>
<td>100</td>
</tr>
<tr>
<td>Rural Teenage deaths not wearing seat belt / Teenage deaths with teenage driver</td>
<td>76%</td>
</tr>
</tbody>
</table>

[Image of map with dot distribution]
How do we keep our young people alive?

Wednesday, 08 June 2010

By Rachel Kytonen
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Shreya Rekha Dixit, of Eden Prairie, lost her life on Nov. 1, 2007 due to a distracted driver.

She was one of four passengers in a car heading to the Twin Cities to visit her family for a weekend. The driver of the car turned around to look for a napkin in the backseat and crashed.

“The car crushed my daughter,” said Vijay Dixit. “We have been suffering for two and a half years now. The one answer I can give you is education. What we need to do is educate.”

Dixit talked about the death of his daughter during a teen safety forum held Friday, June 4 at the Anoka Ramsey Community College Cambridge Campus.

The event was sponsored by the University of Minnesota Center for Transportation Studies, ITS Institute and Center for Excellence in Rural Safety.

Several local leaders attended the forum, as well as Congressman James Oberstar; Isanti County Judge James Dehn; Lee Munrich from the Center for Excellence in Rural Safety and Gordy Pehrson from the Office of Traffic Safety.
SRMWisconsinEdition
SafeRoadMaps crossed 10 million hits in mid-2010

Coverage has been over 200 media outlets ranging from New York Times, US Today, UPI, Consumer Reports, Reuters, CBS Radio, NPR and numerous local and blog outlets.
Survey inquiring about consumer perception of SRM website value (N=150)

- 85% felt as though it assisted in raising highway safety awareness
- 75% felt as though site resources were useful
Linkages and uses in regional and local planning

Consumer highway safety awareness tools

Use for local efforts such as educating consumers and organizations on highway fatality factors such as drinking and driving, seat-belts and teenage drivers

Tools for leveraging highway safety data for policy and legislation initiatives

Nationwide mapping and visualization tools for NACO

Partnerships and collaborations invited!
Contact Us

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