What is FARS?

FARS is a national fatality database created in 1975 by NHTSA to:

- provide an overall measure of traffic safety
- identify the behavioral factors behind traffic fatalities on our roads
- suggest countermeasures
- help evaluate effectiveness of motor vehicle safety standards and highway safety programs
Leading Types of Behavioral Factors Identified

• Impairment
• Speeding
• Unrestrained vehicle occupants
• Motorcyclist without helmets or non-DOT approved helmets
• Distracted driving
• Pedestrian/bicyclist issues
How Does FARS work?

• FARS is the sole source of national statistics on police-reported traffic deaths

• All FARS data on fatal motor vehicle traffic crashes is gathered from the state’s own source documents and translated into standardized federal codes
FARS Criteria

To be included in FARS, a crash must:

• Involve a motor vehicle
• Traveling on a trafficway customarily open to the public and
• Must result in the death of at least one person (occupant of vehicle or non-motorist)
• Within 30 days (720 hours) of the crash
FARS Exclusions

- Suicides
- Natural (medical) causes
- Homicides
- Private way
- Cataclysm
- Death over 30 days
Where does the FARS data come from?

- FARS *only* enters data from official documents:
  - Collision Reports completed by law enforcement officers
  - Vehicle registrations
  - Driver histories
  - Toxicology reports
  - Death Certificates
  - State highway department data
Why is it collected?

Specific Policy & Research uses of FARS data:

• Alcohol related legislation (.08%)
• Motorcycle helmet legislation
• Restraint use Legislation
• Speed limit laws
• Commercial & passenger vehicle safety design
• Effectiveness of new vehicle safety technology
Other Users of FARS data:

- Research and safety organizations
- Auto industry
- Insurance industry
- Medical community
- Transportation planners
- Congress
- Media
- Advocacy groups
How Can Law Enforcement and Traffic Safety Officials Use FARS Data?

- Understanding driver and non-occupant behaviors
- Identifying problem areas (old, new, emerging) speeding, impairment (including legalization of cannabis) and inattentive/distracted individuals
- Evaluating seatbelt use
- Understanding alcohol & drug use
- Defining target audiences for traffic safety programs
- Developing and evaluating traffic safety programs
What types of info does FARS want?

**CRASH Information**

- Date, time of crash
- Location: county and city, trafficway identifier, milepoint latitude/longitude
- Special Jurisdiction locations – Indian Reservation, Military base, National Parks, College/University Campus
- Relationship to trafficway – roadway/shoulder/median/roadside
- Type of Intersection
- Weather and light condition
- Sequence of Events from Crash narrative and diagram
- Manner of Collision
VEHICLE Information

- Vehicle make, model, body type, year
- VIN
- CMV: Motor carrier ID#, issuing authority, vehicle configuration, cargo body type
- Areas of impact, extent of damage
- Hit and run
- Rollover
DRIVER Information

- Non-CDL license type, status
- CMV license status
- License compliance with vehicle class
- Driver height, weight
- Driver history for past five years:
  - previous crashes, suspensions, DUIs, speeding, other moving violations
- Speeding – exceeding speed limit, too fast for conditions
- Condition (impairment – ill, asleep or fatigue, DUI,) at time of crash
PRE-CRASH Information

- MV contributing circumstances
- Trafficway description
- Lanes in roadway
- Roadway alignment, grade
- Roadway surface type, condition
- Pre-event movement (prior to crash)
- Attempted avoidance maneuver
- Driver distractions
VEHICLE OCCUPANT Information

- Age, gender, person type (driver, passenger)
- Injury severity (none, possible, minor, serious, fatal)
- Seating position
- Restraint use, helmet use
- Airbag deployment
- Ejection/ejection path
- Alcohol involvement, test results
- Drug involvement, test results
- Death date, time, individual's race
NON-OCCUPANT Information

- Age, gender, person type (pedestrian, cyclist)
- Injury severity (none, possible, minor, serious, fatal)
- Location of non-motorist: crosswalk, roadway, shoulder
- Non-occupant actions – crossing roadway, movement along roadway with/against traffic, standing/lying in roadway
- Non-occupant contributing circumstances - impairment, distraction, inattention, failure to yield, not visible
- Safety equipment (helmets, reflective clothing, lighting)
- Alcohol involvement, test results
- Drug involvement, test results
- Death date, time, race
Data Elements

- Crash Level - 34 data elements per crash
- Vehicle level - 35 data elements per vehicle
- Driver Level - 23 data elements per driver
- Precrash Level - 23 data elements per vehicle
- Person Level - 28 per MV occupant, including drivers
  - 143 minimum elements per case
- Non-Motorist - 35 per non-vehicle occupant
  - 178 minimum elements per case
IMPORTANT NOTES

• FARS does not assign fault
• FARS works with many state data partners
• No names go into the FARS data base
• Privacy and security are protected
• Only FARS analysts see the crash reports
# WSDOT vs. Federal Definition of a Traffic Fatality

<table>
<thead>
<tr>
<th>Cataclysm</th>
<th><strong>WSDOT</strong></th>
<th><strong>WSP &amp; FARS</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Includes any naturally-occurring event, e.g., rockslide or falling trees, that results in a fatality within the traffic way.</td>
<td>Excludes any crashes occurring as a direct result of or during a &quot;cataclysmic&quot; event, e.g. hurricane-force winds, earthquake, etc. ANSI D-16 2.4.5, 2.4.9</td>
</tr>
<tr>
<td>Private Way - Related</td>
<td>Does not include cases where crash occurred more than 20 feet from trafficway.</td>
<td>Includes these cases when no barrier to public access exists. 2.2.2</td>
</tr>
<tr>
<td>Non-Motorized Vehicle in Transport</td>
<td>Includes non-motorist crashes NOT involving a motor vehicle but occurring <strong>within the trafficway</strong>, e.g., a wheelchair impacting a utility pole or a bicyclist hitting curb.</td>
<td>Does <strong>NOT</strong> include non-motorist fatalities that don’t involve a motorized vehicle in transport. 2.4.12</td>
</tr>
<tr>
<td>Fetus-Involved</td>
<td>If a pregnant woman is involved in a collision and her infant is born during or as a result of that collision and subsequently dies, WSDOT DOES include that infant as a traffic fatality.</td>
<td>Does <strong>NOT</strong> include pedestrian-train fatalities.</td>
</tr>
<tr>
<td></td>
<td>If a pregnant woman is involved in a collision and her infant is born during or as a result of that collision and subsequently dies, WSP and FARS do <strong>NOT</strong> include that infant as a traffic fatality. 2.1.1</td>
<td></td>
</tr>
</tbody>
</table>
SUMMARY

• NHTSA, via FARS works to ensure that complete, accurate, and timely data are collected, analyzed and made available to decision makers

• Analyzing reliable and accurate traffic is central to
  – Identifying traffic safety issues
  – Designing effective countermeasures to reduce traffic fatalities and serious injuries
  – Investing time, money, and manpower through grants to address the behavioral traffic safety issues
Resources

• Washington Traffic Safety Commission
  Research & Data Division
  http://wtsc.wa.gov/research-data/

• NHTSA
  http://www.nhtsa.gov/

• FARS Encyclopedia
Research & Data Division

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Seat Belt Use Rates on Reservations

Our children are our future generations; they hold our values, traditions and culture. We must protect them in appropriate child car seats.

<table>
<thead>
<tr>
<th>Traffic Death Rates</th>
<th>American Indian/Alaska Native (AIAN)</th>
<th>Hispanic</th>
<th>Black</th>
<th>White</th>
<th>Asian/Pacific Islander</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traffic Fatality Rate</td>
<td>27.6</td>
<td>9.0</td>
<td>7.6</td>
<td>7.2</td>
<td>3.4</td>
</tr>
<tr>
<td>Vehicle Occupant Traffic Fatality Rate</td>
<td>22.4</td>
<td>8.0</td>
<td>6.3</td>
<td>6.2</td>
<td>2.4</td>
</tr>
<tr>
<td>Unrestrained Vehicle Occupant Fatality Rate</td>
<td>13.2</td>
<td>2.8</td>
<td>2.3</td>
<td>1.7</td>
<td>0.6</td>
</tr>
</tbody>
</table>

- Unrestrained Vehicle Occupants is a priority level ONE (42.4% of vehicle occupant deaths on reservations).
- Seat Belt use rate estimates inform evaluation of program efforts.
- Identify areas for seat belt enforcement efforts.
Confederated Tribes of the Colville Reservation – Pilot Survey

• In 2016, the WTSC conducted a seat belt observation survey on the reservation in conjunction with the statewide survey.
• Surveyed 90 total sites, 18 had no traffic
• Total of 719 vehicles and 917 front seat passengers.
• Eleven different estimates were produced.
## Baseline Estimates

<table>
<thead>
<tr>
<th>Table 2</th>
<th>Seat Belt Use Rate For:</th>
<th>Weighted Seat Belt Use Rate Estimates</th>
<th>Standard Error</th>
<th>Estimate Confidence Intervals (95%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colville Indian Reservation – ALL</td>
<td>64.1%</td>
<td>0.0359</td>
<td>57.0 – 71.1%</td>
<td></td>
</tr>
<tr>
<td>Colville Indian Reservation – Major</td>
<td>77.6%</td>
<td>0.0157</td>
<td>74.5 – 80.6%</td>
<td></td>
</tr>
<tr>
<td>Colville Indian Reservation – Minor</td>
<td>61.6%</td>
<td>0.0420</td>
<td>53.3 – 69.8%</td>
<td></td>
</tr>
<tr>
<td>Omak Region</td>
<td>61.6%</td>
<td>0.0475</td>
<td>52.3 – 70.9%</td>
<td></td>
</tr>
<tr>
<td>Nespelem Region</td>
<td>83.3%</td>
<td>0.0570</td>
<td>72.1 – 94.5%</td>
<td></td>
</tr>
<tr>
<td>Keller Region</td>
<td>72.5%</td>
<td>0.0808</td>
<td>56.6 – 88.3%</td>
<td></td>
</tr>
<tr>
<td>Inchelium Region</td>
<td>61.9%</td>
<td>0.0682</td>
<td>48.5 – 75.3%</td>
<td></td>
</tr>
<tr>
<td>Cars</td>
<td>71.8%</td>
<td>0.0561</td>
<td>60.8 – 82.8%</td>
<td></td>
</tr>
<tr>
<td>Trucks</td>
<td>46.4%</td>
<td>0.0570</td>
<td>35.2 – 57.6%</td>
<td></td>
</tr>
<tr>
<td>SUVs</td>
<td>75.2%</td>
<td>0.0754</td>
<td>60.4 – 90.0%</td>
<td></td>
</tr>
<tr>
<td>Vans</td>
<td>82.0%</td>
<td>0.0885</td>
<td>64.7 – 99.3%</td>
<td></td>
</tr>
</tbody>
</table>
Compared to Statewide Sites
Lessons Learned

- Cleaning the roadway network (possibly exclude some sites)
  - We can turn PAPER maps into roadway networks!
- Need tribal representative to accompany site mapping
  - Too many no observation sites
  - High confidence interval ranges
- Do we need vehicle type estimates?
How to get involved!

• Next tribal survey is 2018 (funded by the Traffic Safety Commission)
• Separate estimates from the statewide survey
• Contact Staci Hoff to express interest and begin site mapping and timeline planning
• Develop a plan for using the results
• Develop plan for follow-up surveys