

FARS

FATALITY

ANALYSIS

REPORTING

SYSTEM

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What is FARS?

FARS is a national fatality data base 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

	WSDOT	WSP & FARS
Cataclysm	Includes any naturally-occurring event, e.g., rockslide or falling trees, that results in a fatality within the traffic way.	Excludes any crashes occurring as a direct result of or during a "cataclysmic" event, e.g. hurricane-force winds, earthquake, etc. ANSI D-16 2.4.5, 2.4.9
Private Way - Related	Does not include cases where crash occurred more than 20 feet from trafficway.	Includes these cases when no barrier to public access exists. 2.2.2
Non-Motorized Vehicle in Transport	Includes non-motorist crashes NOT involving a motor vehicle but occurring within the trafficway, e.g., a wheelchair impacting a utility pole or a bicyclist hitting curb.	Does NOT include non-motorist fatalities that don't involve a motorized vehicle in transport. 2.4.12 Does NOT include pedestrian-train fatalities.
Fetus-Involved	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.	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 NOT include that infant as a traffic fatality. 2.1.1

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
<http://www-fars.nhtsa.dot.gov/Main/index.aspx>

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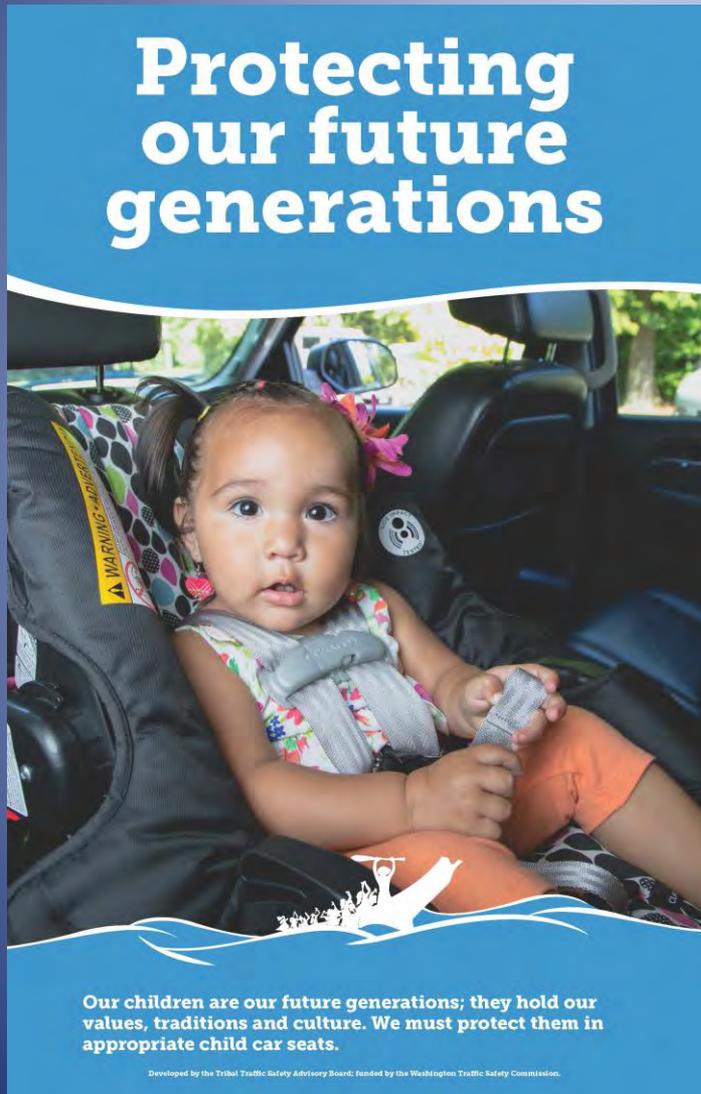
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tbd

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Seat Belt Use Rates on Reservations



- 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.

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

Confederated Tribes of the Colville Reservation – Pilot Survey

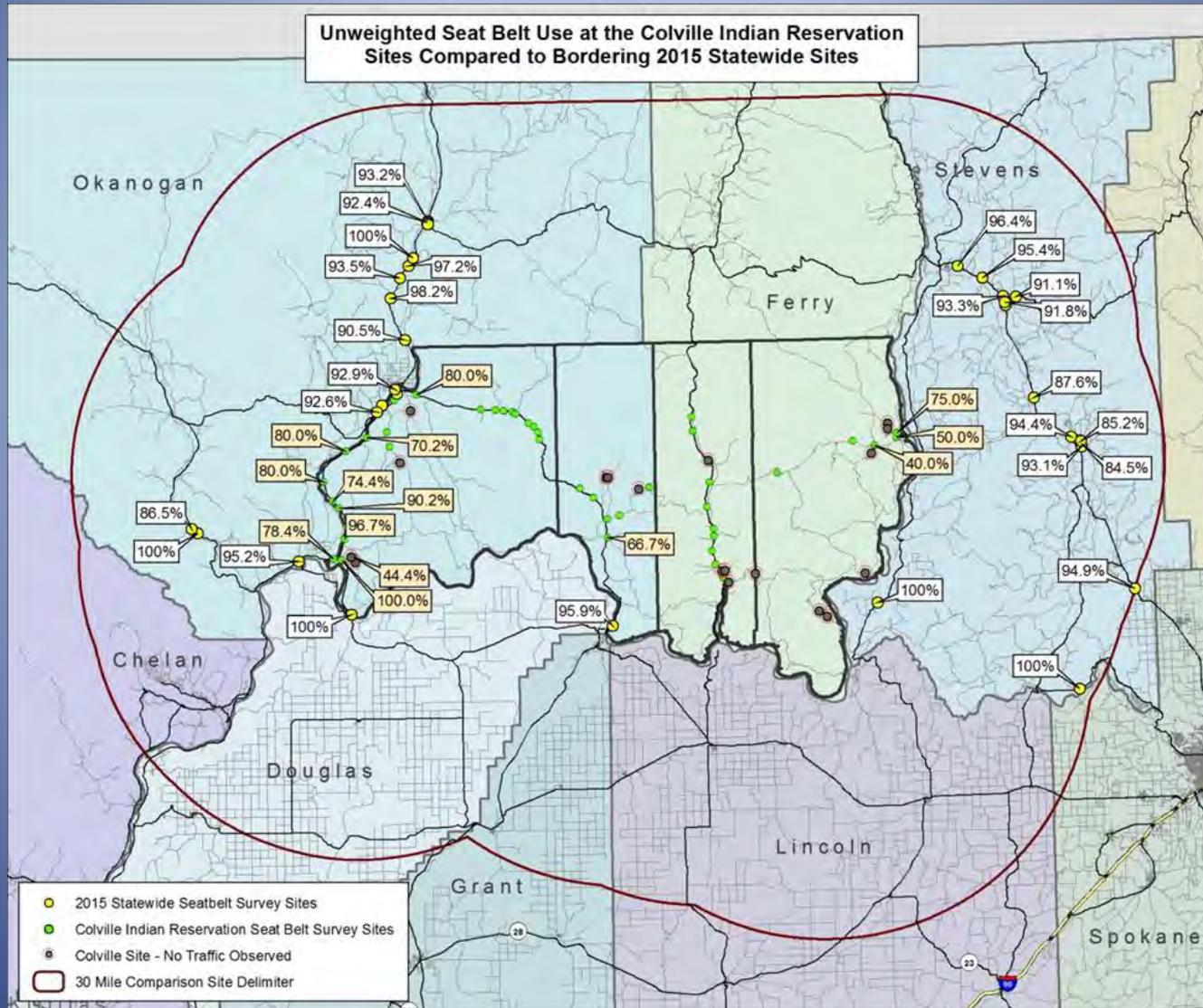
- In 2016, the WTSC conducted a seat belt observation survey on the reservation in conjunction with the statewide survey.
- Surveyed 90 total sites, 18 had no traffic
- Total of 719 vehicles and 917 front seat passengers.
- Eleven different estimates were produced.



Baseline Estimates

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

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

