



State of Idaho

Strategic Highway Safety Plan

Approved: _____ Date: _____

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Participants

AAA Idaho
Ada County Highway District
Ada County Sheriff's Department
Bannock County Prosecutor's Office
Boise State University
BoiseTraffic.com
Bonneville County Road and Bridge
Boundary Area Transportation Team
City of Lewiston
Community Planning Association of Southwest Idaho
Eiguren Driving School
Federal Highway Administration
Federal Motor Carrier Safety Administration
Idaho Adult Misdemeanor Probation/DUI Court
Idaho Chief's of Police Association
Idaho Coalition for Motorcycle Safety
Idaho Commission on Aging
Idaho Department of Education
Idaho Department of Health and Welfare
Idaho EMS Bureau
Idaho Highway Users
Idaho House of Representatives
Idaho Office of the Governor
Idaho Operation Lifesaver
Idaho Senate
Idaho Sheriff's Association
Idaho State Police
Idaho Supreme Court
Idaho Traffic Safety Commission
Idaho Transportation Board
Idaho Transportation Department
Idaho Trucking Association
J-U-B Engineers, Inc.
Kittelson & Associates
Kootenai County
Kuna Fire Department
Local Highway Technical Assistance Council
MarCon Inc.
Nampa Police Department
National Highway Traffic Safety Administration NW Region
Post Falls Highway District
Shoshone-Bannock Tribes
Teton Valley Trails and Pathways
Transpo Industries
Troutbeck and Associates
University of Idaho
Washington Group International
3M

Strategic Highway Safety Plan

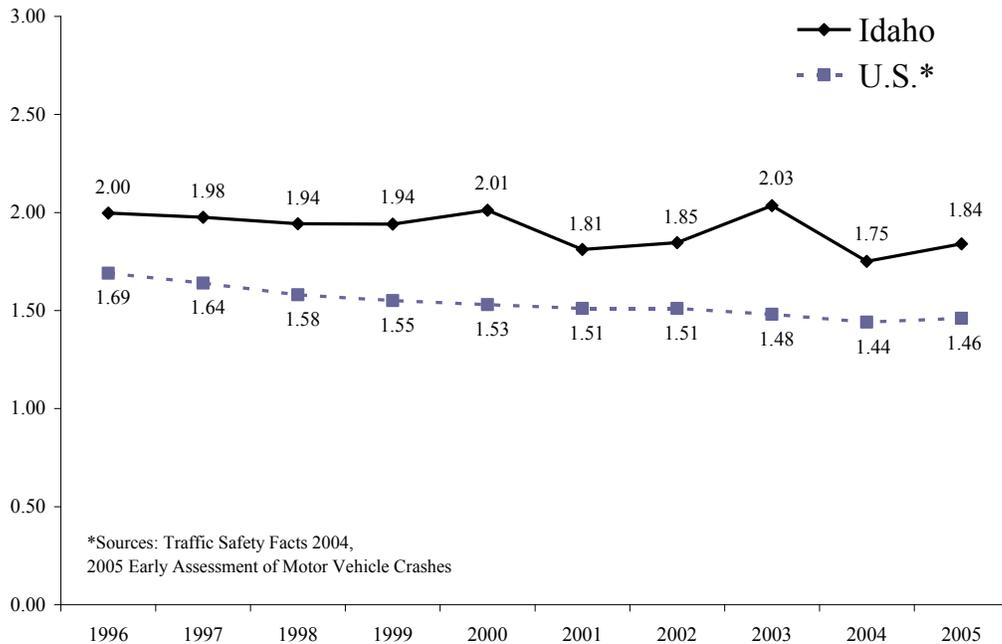
Executive Summary

Deaths and injuries resulting from traffic crashes are a serious public health concern and are not conducive to the high quality of life expected in the State of Idaho. In 2005, there were approximately 1.43 million people residing in Idaho.

In 2005, there were 275 people killed in 243 fatal crashes and traffic crashes continue to be the leading cause of death in children and young adults between the ages of three and Thirty-Three. The economic loss due to traffic crashes in Idaho in 2005 is estimated at \$1.8 billion. This substantial impact within local communities relative to medical costs, lost wages, insurance costs, taxes, police, fire and emergency medical services, legal and court costs, as well as property damage, is significant.

The corresponding traffic-related death rate was 1.84 deaths per 100 million annual vehicle miles traveled while nationally the average rate was 1.46 deaths per 100 million annual vehicle miles traveled. From 1996 to 2005, there has been a reduction in the Idaho fatality rate, but more must and can be done to eliminate this terrible loss of life and suffering. Deaths and injuries resulting from traffic crashes continue to be a serious public health issue.

**Traffic Fatality Rates per 100 Million Annual Vehicle Miles of Travel
For Idaho and the U.S.: 1996-2005**



The Governor’s Highway Safety Summit: “Toward Zero Deaths” was held in October 2005. Stakeholders throughout Idaho were invited to participate and answer the challenge of reducing highway-related fatalities and life-altering injuries. These stakeholders include those involved in planning, designing, constructing, operating, and maintaining the roadway infrastructure (Engineering), modifying road user behavior and preventing injury (Education and Enforcement), and also providing post-crash assistance (Emergency Medical Services). Challenges and strategies were solicited from all participants. From their input, ten data-driven emphasis areas were identified to focus immediate efforts (Refer to Figure 3.) These emphasis areas are:

- Aggressive Driving
- Commercial Vehicles
- Emergency Medical Services
- Highway-Railroad Grade Crossings
- Impaired Drivers
- Mature Drivers
- Occupant Protection
- Road Related Crashes
- Vulnerable Users
- Young Drivers

Our Mission: moving “Toward Zero Deaths”

Develop, implement, and manage an integrated multi-stakeholder process to improve the attributes of roads, users, and vehicles to reduce traffic-related deaths, life-altering injuries and the related economic losses on Idaho’s roadways. This will be accomplished through coordinating the efforts of stakeholders representing Education, Enforcement, Engineering, and Emergency Medical Services.

Our Vision: No Roadway System Deaths

We envision a safe roadway system in which no one dies during an entire year.

Our Goals: Reduce Fatalities and Serious Injuries

Reduce the number of traffic-related deaths from 275 in 2005 to 168 or fewer deaths by 2012 resulting in a fatality rate of 1.0 per 100 million vehicle miles traveled.

Immediate and aggressive actions must be taken to significantly reduce the number of traffic-related deaths and life-altering injuries in Idaho (Refer to Figure 2.) Idaho defines a traffic-related death as a highway user dying within 30 days of a crash and a life-altering injury as a highway user left physically or mentally diminished.

This Strategic Highway Safety Plan (SHSP) is a tool to assist Idaho in achieving its goal of reducing roadway deaths and serious injuries. In the past, the Idaho utilized three separate highway safety plans; the Highway Safety Performance Plan to address road user behavioral safety issues, the Highway Safety Improvement Program to increase roadway infrastructure safety, and a Motor Carrier Safety Assistance Program to improve commercial driver and vehicle safety. One of the purposes of the SHSP is to bring these plans together to achieve the common goal of reducing fatalities and life-altering injuries on Idaho roadways using performance-driven strategies.

All-encompassing themes include the importance of multi-stakeholder involvement, strong laws, adequate enforcement and judicial support.

Through integrating the work of stakeholders, this SHSP defines a system, organization, and process for managing the attributes of the road, driver, and vehicle to achieve the highest level of highway safety. To reduce the number of fatalities and life-altering injuries in Idaho, these stakeholders must commit resources (manpower, staff, time, dollars, etc.) to develop, implement, and maintain this SHSP.

Comprehensive, coordinated, and communicative safety strategies of Engineering, Education, Enforcement, and Emergency Medical Services will be developed collectively with the safety partners. Implementation plans with measurable objectives will be the products of these efforts. To that end, priority will be given to funding safety initiatives and projects supporting the SHSP goal.

Figure 2. Idaho Crash Data

	2001	2002	2003	2004	2005	% Change (2001-2005)
Fatal Crashes	225	230	261	240	243	2.2%
People Killed	259	264	293	260	275	1.9%
People Seriously Injured*	1,615	1,750	1,607	1,667	1,812	3.2%
Serious Injury Crash Rate (per 100 M VMT)	11.29	12.24	11.16	11.24	12.11	2.0%
Fatal Crash Rate (per 100 million VMT)	1.81	1.85	2.03	1.75	1.84	0.8%
Population (million)	1.32	1.34	1.37	1.39	1.43	2.0%
Registered Drivers (million)	0.90	0.91	0.93	0.95	0.98	1.3%
Registered Vehicles (million)	1.25	1.33	1.32	1.39	1.42	3.6%
VMT (billion)	14.30	14.30	14.40	14.83	14.97	1.2%

* Includes Type A injuries (incapacitating injury) defined as any injury, other than a fatal injury, which prevents the injured person from walking, driving, or normally continuing the activities he/she was capable of performing before the injury occurred. Includes severe lacerations, broken limbs, skull or chest injuries, and abdominal injuries.

Source: 2005 Idaho Traffic Collisions

Figure 3. 2005 Fatal Crash Statistics by Emphasis Area

EMPHASIS AREA	Nation		Idaho	
	Fatalities	% of Total Fatalities	Fatalities	% of Total Fatalities
*Aggressive driving	NA	NA	133	48.4%
Commercial vehicles	5,212	12.0%	37	13.5%
**Emergency Medical				
Highway-Railroad Grade	NA	NA	0	0.0%
Impaired drivers	16,885	38.9%	100	36.4%
Mature drivers	6,512	15.0%	48	17.5%
Occupant protection				
• Seat Belts (% Unrestrained)	31,415	(51.5%)	126	(45.8%)
• Child restraints, under 5 years of age (% Unrestrained)	450	(66.4%)	4	(100%)
Road related				
• Inattentive	NA	NA	81	29.5%
• Intersection	NA	NA	53	19.3%
• Roadway departure	NA	NA	134	48.7%
• Work zones	NA	NA	0	0.0%
Vulnerable users				
• Bicyclists	784	1.8%	3	1.1%
• Motorcycles	4,553	10.5%	26	9.5%
• Pedestrians/school children	4,881	11.2%	9	3.3%
Young Drivers (15-20 year old)	8,193	18.9%	47	17.1%
Total Fatalities	43,443		275	
Fatality Rate per 100 Million AVMT	1.47		1.84	

Source: Idaho Transportation Department

*Note: Aggressive driving is defined differently by NHTSA and ITD. NHTSA defines aggressive driving as the operation of a motor vehicle involving three or more moving violations as part of a single continuous sequence of driving acts, which is likely to endanger any person or property. ITD defines it as driving behaviors that include any one of the following: failure to yield the right of way, passing stop sign, exceeding posted speed limit, driving too fast for conditions, following too close, and disregarding a traffic signal. **Note: Emergency Medical Services crash data is not included in the table because EMS does not contribute to traffic crashes but is rather lifesaving efforts that take place after the crash has happened.

Stakeholder Committees/Groups

To identify and develop safety strategies, Action Plan Groups will be formed for each of the emphasis areas, with oversight by a Steering Committee. It is critical that each member of the team be committed to the success of the SHSP to reduce the number of traffic-related deaths and life-altering injuries in Idaho.

Steering Committee

The Steering Committee has the responsibility for the development, implementation and auditing of the plan. Membership consists of Agency/Group Executive Management or their designee that can commit resources (time, staff, dollars, and ideas) to the SHSP process.

Action Plan Groups

Action Plan Groups are responsible for the development of specific action plans and strategies, including priorities and detailed processes, to achieve the goals of the specific emphasis area. All information, data, and ideas will be assembled to create a “Tool Box” for each emphasis area. This Group will measure and evaluate the success of implemented strategies, reporting progress and making adjustment recommendations to the Steering Committee.

General Strategies

Safety partners can incorporate broad overall strategies that will generally heighten safety awareness and assist in reaching the SHSP goals. Idaho started with a focused approach to safety. A SHSP Steering Committee will guide the development of the plan and the coordination of various safety initiatives throughout the State. Other agencies and organizations may also have key point positions for safety activities that can be captured as overall strategies.

SHSP Format

The focus of this plan is on the ten emphasis areas identified during the Governor’s Highway Safety Summit. The information contained in the following pages is based on discussions from the Summit and input from subject matter experts. For each emphasis area the background and recent implemented strategies were described by subject matter experts; the challenges and potential new strategies included in this plan are based on the proceedings from the summit.

Aggressive driving

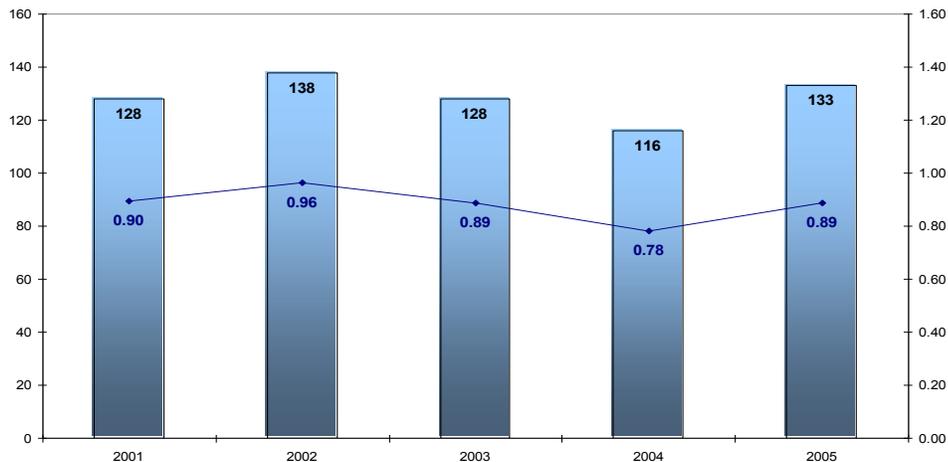
Background

In accordance with the 2005 Idaho Traffic Collisions report prepared by the Idaho Transportation Department, aggressive driving behaviors are defined as those that include: failure to yield the right of way, following too close, disregarding a stop sign, disregarding a traffic signal, exceeded the posted speed limit and driving too fast for conditions. Aggressive driving collisions are those where a law enforcement officer indicates that at least one aggressive driving behavior was a contributing factor.

The Problem

- Increasing vehicle miles of travel, traffic congestion and travel delays, the resulting frustration and impatience is reflected in driver behavior.
- Drivers, ages 19 and younger, are more than four times as likely to be involved in an aggressive driving collision as all other drivers.
- Aggressive driving collisions cost Idahoans just over \$934.6 million in 2005. This represented 53 percent of the total economic cost of collisions.

Aggressive Driving Fatalities & Fatality Rate per 100 Million Vehicle Miles Traveled



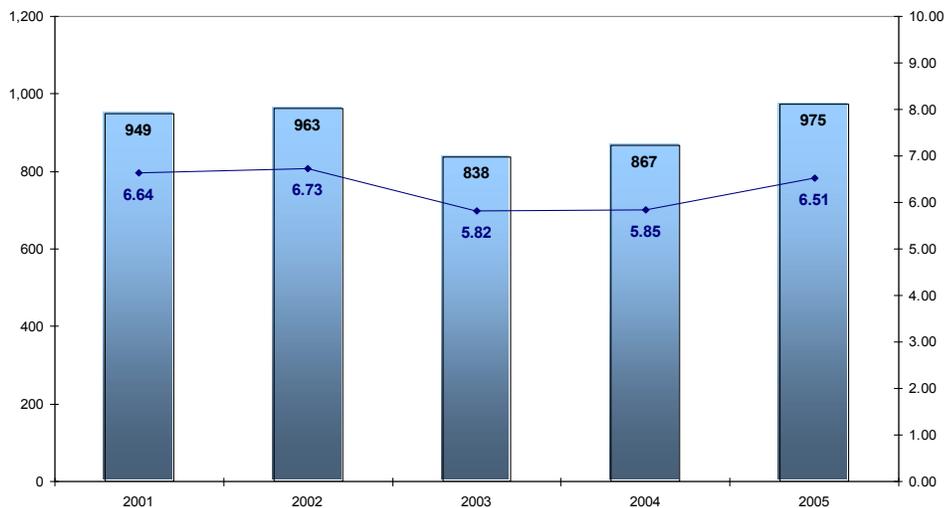
Legend

The left vertical axis represents the number of fatalities

The horizontal axis represents the calendar year.

The right vertical axis represents the fatality rate, expressed in crashes per 100 million vehicle miles traveled

Aggressive Driving Serious Injuries & Serious Injury Rate per 100 Million Vehicle Miles Traveled



Legend

The left vertical axis represents the number of serious injuries

The horizontal axis represents the calendar year.

The right vertical axis represents the serious injury rate, expressed in crashes per 100 million vehicle miles traveled

Challenges

- Technology – Funding/implementation of existing technology
- Education – lack of: knowledge, respect for others, laws, etc.
- Political – Inadequate funds for ISP at peak hours
- Political – Lack of incentive to businesses for staggered shifts
- Systems (traffic flow) – Congestion
- People – No system to allow individuals to report inappropriate driving
- People – Behavior (culture)
- People – Culture of officers-collisions investigations becoming common place

Sample of Recent Implemented Strategies

- Three-month intensive law enforcement campaign, in conjunction with the Youth Program, targeting aggressive driving.
- A multi-media ad campaign targeting aggressive drivers to support the law enforcement campaign and to raise awareness.
- Year-long aggressive driving grants with agencies in areas that experience a large number of aggressive driving-related crashes.
- Distribution of public awareness materials to educate the public regarding aggressive driving behaviors.
- Establishment of Selective Traffic Enforcement Program (STEP) Teams.
- Use of performance measures to identify focus areas..

Potential New Strategies

- Technology – Increase number of traffic cameras
- Technology – Increase number of dynamic message signs
- Technology – Continue implementation of 511 system
- Technology – Improvements to Web site with easy link
- Education – School programs (PSAs, check 511, Web)
- Political – Pass primary seat belt law (would make Idaho eligible for additional safety funds)
- Systems (traffic flow) – HOV lanes, roundabouts
- Systems – Predictable delay
- Systems – Bypass
- People – Reporting inappropriate driving
- People – Provide seat belt education/demos, i.e., Seat Belt Barbie, change attitudes of youth

Commercial Vehicles

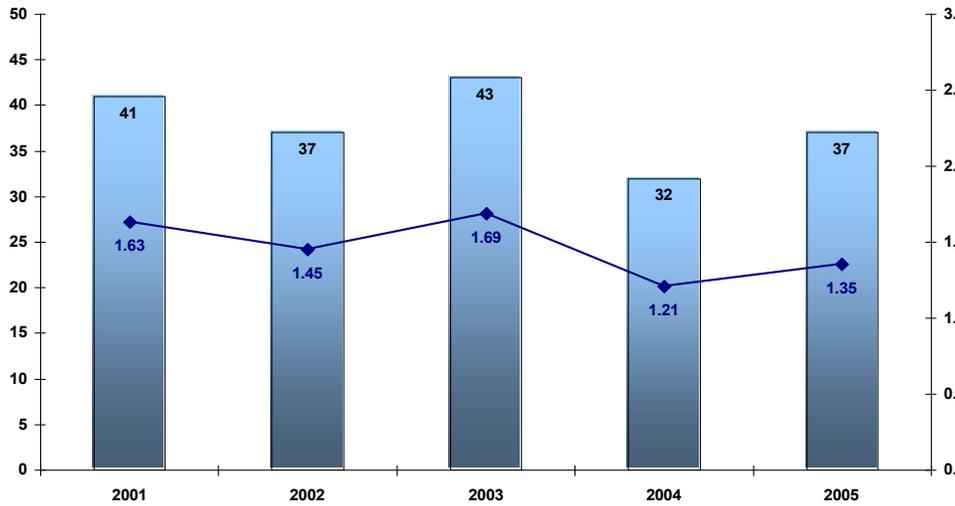
Background

For the purposes of this report, commercial motor vehicles are defined as buses, truck tractors, truck-trailer combinations, trucks with more than two axles, trucks with more than two tires per axle, or trucks exceeding 8,000 pounds gross vehicle weight that are primarily used for the transportation of property.

The Problem

- In 2005, 37 people died in collisions with commercial motor vehicles. This represents 14 percent of all motor vehicle fatalities in Idaho. Of the persons killed in collisions with commercial motor vehicles, 59 percent were occupants of passenger cars, vans, sport utility vehicles and pickup trucks.
- In 2005, 55 percent of all collisions and 63 percent of all fatal collisions involving commercial motor vehicles occurred on rural roadways. Rural roadways are defined as any roadway located outside the city limits of cities with a population of 5,000 or more.
- The majority of commercial motor vehicle collisions (43 percent) occurred on local roadways, while the majority of fatal commercial motor vehicle collisions (57 percent) occurred on U.S. and state highways.
- Commercial motor vehicles collisions cost Idahoans nearly \$142 million in 2005. This represents 8 percent of the total economic cost of collisions.

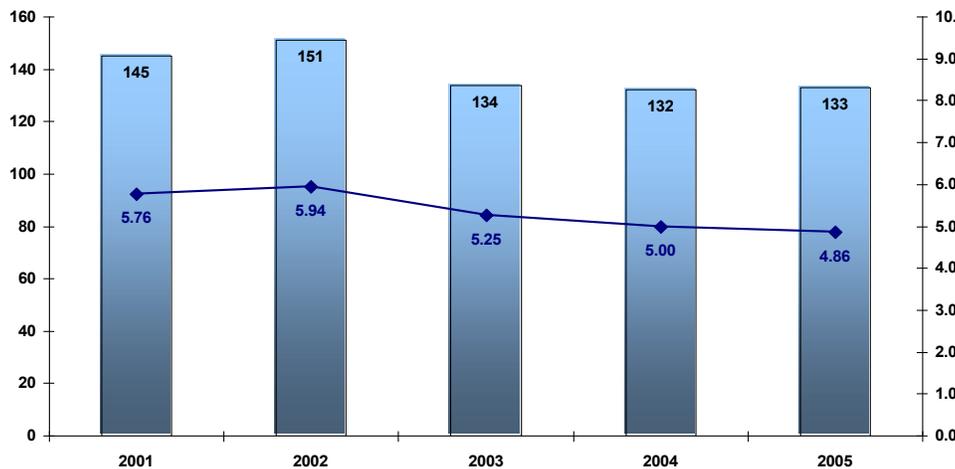
Commercial Motor Vehicle Fatalities & Fatality Rate per 100 Million Commercial Vehicle Miles Traveled



Legend

The left vertical axis represents the number of fatalities
 The horizontal axis represents the calendar year.
 The right vertical axis represents the fatality rate, expressed in crashes per 100 million vehicle miles traveled

Commercial Motor Vehicle Serious Injuries & Serious Injury Rate per 100 Million Commercial Vehicle Miles Traveled



Legend

The left vertical axis represents the number of serious injuries
 The horizontal axis represents the calendar year.
 The right vertical axis represents the serious injury rate, expressed in crashes per 100 million commercial vehicle miles traveled

Challenges

Enforcement

- Safety violations
- Rumble strips enable driver inattention
- Lack of enforcement by local officers
- Drivers using drugs and alcohol
- Too little overweight enforcement
- Driving too fast
- Trucks pulling triple trailers going too fast
- Drivers can't see triple trailer

Education/Attitudes:

- Fatigued drivers
- Heavy vehicles hitting lighter ones
- Safety devices only required on vehicles weighting more than 6500 lbs
- Trucks not yielding to traffic entering the interstate

Improved Laws

- Uncovered loads
- No chain-up law in Idaho in bad weather
- Exemptions: intrastate operations like logging, agriculture, and sand and gravel
- Unsafe passing

Sample of Recent Implemented Strategies

- Established partnerships within the State of Idaho to address the low seat belt usage among commercial motor vehicle (CMV) drivers.
- While performing a Compliance Review or Safety Audit, distributed informational brochure regarding positive effects of CMV seat belt usage and provide seat belt presentations during CMV safety meetings.
- Utilizing Commercial Vehicle Information Systems and Networks to improve quality and timeliness of enforcement of CMV laws.
- Using a proactive approach of education and enforcement for passenger carriers.
- Educating and evaluating new commercial carriers utilizing the New Entrant Safety Audit Program.
- Target identified commercial vehicle high crash corridors and provide funding for partner agencies to enhance education and enforcement of hazardous moving traffic violations by commercial motor vehicles.
- Improved accuracy and timely submission of crash reports.

Potential New Strategies

- Reduce commercial vehicle related deaths by improving laws and enforcement
- Increase the number of Commercial Vehicle Safety Officers.
- Get (or gain) legislative and Idaho State Police buy-in to increase the number of full time employees.
- Use (or take advantage of) the available federal funding currently left on the table.
- Get (or remove) unsafe vehicles off the road by reducing exemptions from laws and safety standards for intrastate vehicles

Impaired Drivers

- Legalize sobriety checkpoints
- Mandate judicial support of laws by instituting mandatory penalties for impaired driving
- Provide a DUI/drug court in every Idaho County with supervised DUI probation

Aggressive Drivers

- Implement automated enforcement
- Educate non-CMV drivers on aggressive driving around CMVs and its impact on fatality numbers in Idaho.

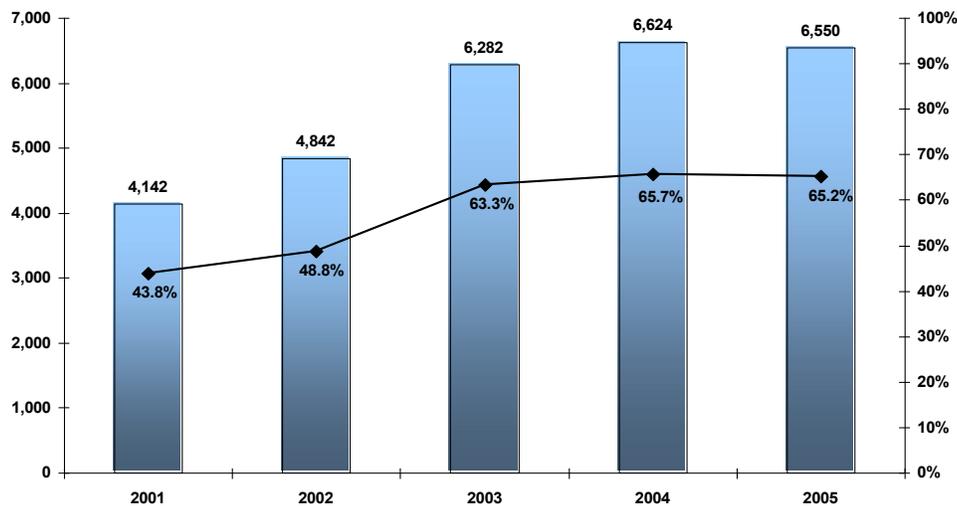
Emergency Medical Services

Background

Emergency Medical Services Response Emergency Medical Services (EMS) is a coordinated system to respond to injured drivers, passengers, and pedestrians, members of the traveling public experiencing a medical emergency, and the public at large for injuries and medical emergencies. Using a combination of agency configurations including quick response units, ground ambulances and helicopters, the EMS system brings medical intervention, trauma stabilization, and rapid transportation to motor vehicle crash victims. EMS personnel may be salaried or volunteer, and vary in their clinical capability, up to and including the paramedic and flight nurse.

The availability and quality of services provided by local EMS agencies may mean the difference between life and death for someone injured in a traffic collision. Improved post-crash victim care reduces the severity of trauma incurred by collision victims. The sooner someone receives appropriate medical care, the better the chances of recovery. This care is especially critical in rural areas because of the time it takes to transport a victim to a hospital

Emergency Medical Services - Number and Percent of Fatal & Injury Crashes EMS Responded To



Legend

The left vertical axis represents the number of fatal and injury crashes that EMS has responded to

The horizontal axis represents the calendar year.

The right vertical axis represents the percentage of fatal and injury crashes that EMS has responded to

Challenges

Interagency Cooperation: Turf wars/ Jurisdiction

- Too many islands (too many agencies operate without regard to what others are doing... no sharing of information or resources)
- No overall coordinating authority
- Personalities
- Lack of cooperation between agencies/districts
- Jurisdictional turf
- Jurisdictional boundaries delay response
- Closest agency/responder doesn't always respond first
- No strategic planning and tactical planning
- Multiple Fire/EMS districts or agencies

Inadequate Infrastructure

- Lack of funding
- Equipment
- Personnel
- Rural Areas
- Lack of planning
- Police and Fire sign off on plans

- Access issues
- Lack of interagency radio interoperability
- Technology changes over the years: hard to keep up with current and best
- Lack of comprehensive data analysis system
- Outdated equipment
- Insufficient/Ineffective communication between various agencies during response (technology issue)
- Inadequate proximity to facilities
- Air medical services (where are they located? Who do they serve?)
- State of Idaho doesn't designate hospitals as trauma centers

Ineffective Response Time

- Traffic congestion - can't get to hospital
- Slow scene clearance causing secondary crashes
- Response time due to rural areas
- Location and distance from crash to response center (response time)
- Current, accurate EMS info
- Inaccessibility
- Gaps in wireless communication (mountainous regions)
- Black holes in communication:
- Initial contact
- Radio holes
- Cell phone holes
- Dispatch confusion: agencies not speaking to each other
- Urban vs. Rural transport time
- Time of accident
- Notification
- EMS arrival
- Patient to hospital
- Too much distance from crash scene to ambulance
- Physical distance
- Geography
- Who's in charge of accident location?
- Weather
- Money incentive to respond or not respond?
- Response time: distance
- Physical distance

Education

- Bystander care
- 911 Centers that don't provide pre-arrival instructions
- Curricula update
- Training
- Lack of volunteer time and money restricts training capabilities

- Lack of training and minimum equipment standards
- Training
- Public Education
- Medical Assistance instruction needed for non-EMS responders

Politics

- Legislation
- Political will
- Unwillingness to politicians to raise level of priority

Technology

- Radio coordination
- Money
- Technology
- Many agencies
- Seamless agency response
- Lack of communication – dead areas
- Dispatch coordination
- Need standards for radio communication
- Uncoordinated radio dispatching
- Automatic dispatch – On-Star GPS – Impact trigger

Data Analysis

- Analysis of survival based on transport time
- Survival based on response time - the golden hour,
- How to track data and
- What needs to be collected
- Time
 - accident occurred
 - EMS notified
 - EMS arrives
 - Patient to hospital

Money

- Communication System/Devices lacking
- Lack of funding
- Need more extrication equipment
- Prioritization of funds elsewhere?
- Money lacking
- Limited funds - prioritization of funds elsewhere

Personnel

- Lack of personnel
- Need more paramedics
- Rural vs. urban: volunteers vs. paid professionals

Sample of Recent Implemented Strategies

- Statewide implementation of next generation patient care report. Select and implement an electronic EMS patient care reporting system that is both NEMSIS compliant (meets standards published by NHTSA) and capable of electronic linkage with crash records and hospital trauma registry data.
- Statewide implementation of Trauma Registry. Complete pilot, refine approach, and oversee contract for statewide implementation of a registry for all hospitals to file data about severely injured persons in Idaho; currently no such records are available to evaluate clinical and economic impact of motor vehicle related incidents whose victims survive.
- Web based Electronic Resource Tracking system (WERT). Pilot and implement a contemporaneous system of resource monitoring and self-reporting available to local EMS agencies, hospitals, and other emergency response resources via the Internet to allow for more appropriate decision making during multi-vehicle crashes and hospital destination decision making.
- Interagency Resource Operations Center. Participate in a multi-agency planning process with the Idaho Transportation Department and Ada County Highway District about the “next generation” communications center that will exploit contemporary technology in the avoidance and detection of motor vehicle related crashes and expedite deployment of resources to highway and main arterial incidents.
- Promulgate rules for EMS providers’ scope of practice. A law passed during the 2006 Legislative Session provided the EMS Physician Commission with the authority to define what skills can be performed by the various levels of EMS personnel in Idaho, thereby driving the minimum educational requirements related to vehicle extrication and the management of victims of motor vehicle related trauma.
- Overhaul practical exam process. Before they can be licensed to provide patient care, all EMS personnel undergo a “hands on” examination to demonstrate their knowledge and correct application of skills including those related to vehicle extrication and the management of victims of motor vehicle related trauma. This exam has not been revised in over ten years.
- Statewide Mass Casualty Incident (MCI) plan Develop a statewide field operations plan that coordinates multi-agency EMS response to scenes involving many injured patients; currently each local EMS agency’s plan varies for the on scene practices for multi-vehicle and/or multi-victim crashes.

- Critical Access Hospital (CAH) Regional Integration Plan. Research best practices for regionalized approaches to integration of EMS and Critical Access Hospital (CAH) resources; the majority of rural CAHs are unable to manage severely injured victims of motor vehicle crashes; this integration would facilitate the use of EMS personnel at the facility when necessary and for the inevitable inter-facility transfer of patients to regional medical centers with trauma care capability.
- Licensure rule draft revisions. Convene task force to initiate negotiated rule making and draft rules; these rules specify the local EMS agency requirements, to include what equipment must be carried as a condition of licensure. The state EMS advisory Committee specifically recommended that the process contemplate the certification and licensure of agencies' motor vehicle extrication capability.

Potential New Strategies

Response Time

- Intergovernmental agreement (MOU) between jurisdictions for cooperative effort
- Improve rural addressing through GIS for dispatch
- Support efforts to achieve statewide interoperability

Infrastructure

- Seek legislation for additional funding
- Provide emergency response agencies with the latest technology
- Strategic plan that coordinates an equipment plan between state and local responders
- Pursue data linkage between disparate sources

Interagency Cooperation

- Incident Control Strategies system ICS training broadened
- Regional multi-jurisdictional meetings to develop cooperation
- Post-incident review

Highway-Rail Grade Crossings

Background

Idaho has approximately 1665 miles of railroad line and 1439 public highway-railroad grade crossings. Of these crossings, 1260 or 88 percent, are on the local system. Furthermore, there are 1184 private highway-rail grade crossings and 16 pedestrian-railroad grade crossings in the State.

The railroad safety environment in Idaho is characterized by intense use of both the rail and highway systems. Rail ton-miles of travel, as well as highway vehicle

miles traveled, have both increased substantially over the past 10 years. In the same time frame, the number of rail-related incidents has declined by approximately 68 percent.

In 2005 there were no fatalities due to crashes at public highway-rail grade crossings. While vehicle-train crashes are not as frequent as other types of traffic crashes, they tend to be more severe than a typical vehicle-vehicle crash. A vehicle-train crash is over 40 times more likely to result in a fatality than a crash not involving a train.

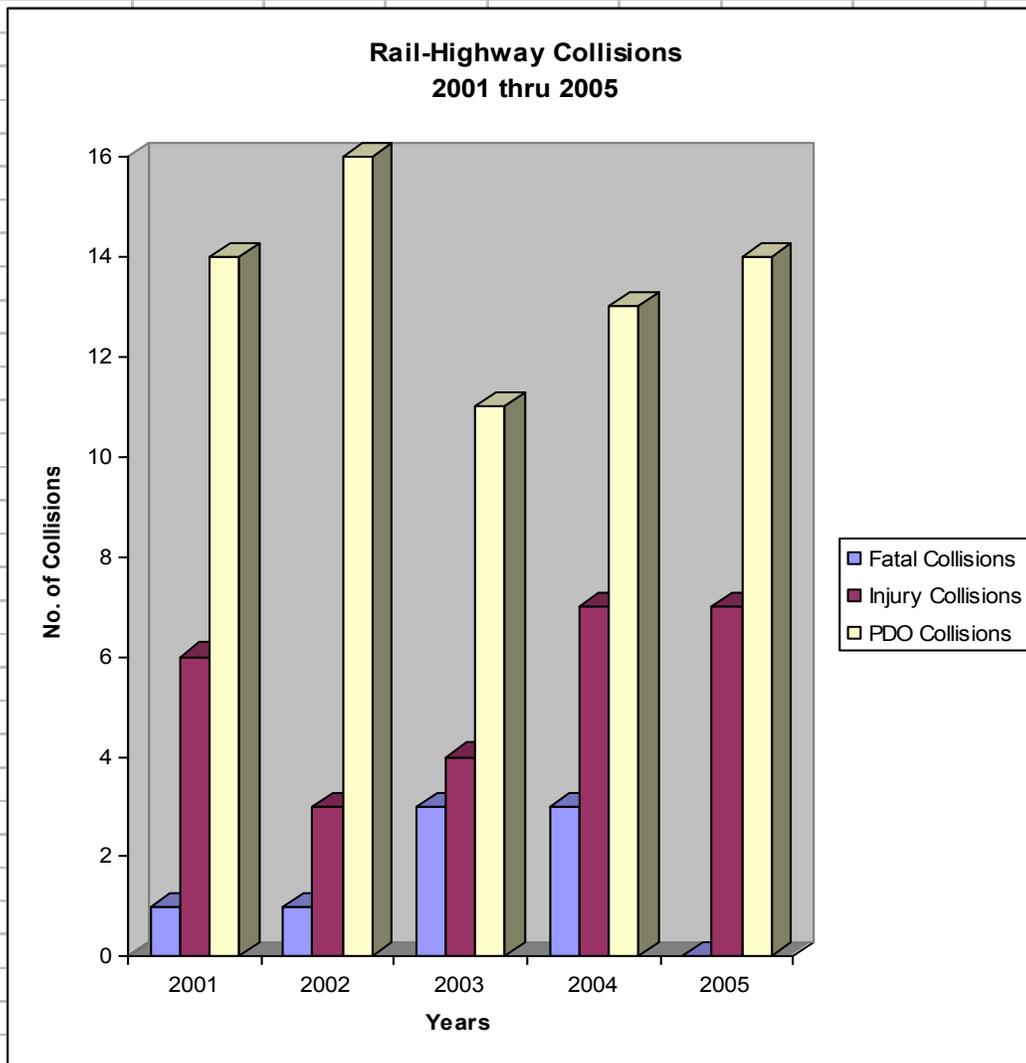
The Problem

- Train-vehicle collisions are rare, yet are often severe when they occur.
- Of the 20 collisions in 2005, 10 (50 percent) resulted in an injury.
- The majority of train-vehicle collisions occur in rural areas. Rural railroad crossings typically do not have gates or flashing lights to indicate an approaching train.
- Nationally, approximately 50% of all train-vehicle collisions occur at crossings equipped with flashing lights or flashing lights and gates
- Collisions with trains cost Idahoans almost \$930,000 in 2005. This represents less than 1 percent of the total economic cost of collisions in Idaho.

Rail-Highway Collisions 2001 Thru 2005 By Year

Year	Fatal			Injury		PDO	Total R/H
	Collisions	Fatalities	Injuries	Collisions	Injuries	Collisions	Collisions
2001	1	1	0	6	8	14	21
2002	1	1	0	3	4	16	20
2003	3	3	1	4	5	11	18
2004	3	3	1	7	9	13	23
2005				7	8	14	21
Total	8	8	2	27	34	68	103

Statewide Collision Rate: = 0.039



Challenges

Enforcement:

- Lack of enforcement for vehicles running stop signs and electric signals
- Weak penalties for driving around stop arms
- No automated enforcement
- Trespassing on tracks
- Lack of time and human resources to monitor tracks

Education

- Areas with whistle bans and quiet zones
- Inattention
- Ignoring warning devices
- Drivers become complacent because of low number of trains at some intersections
- Not enough use of Operation Lifesaver's "look, listen, and live" program

Engineering

- Multiple tracks
- Middle of train is hard to see at night (lack of reflective materials on rail cars)
- Crossings are unsafe for motorcycles
- Train stopping distance
- Lack of signalized crossings (people don't pay attention to stop signs at crossings)
- Limited funds for signalization and crossing upgrades

Sample of Recent Implemented Strategies

- Educate motorists on the hazards of highway-rail grade crossings and the motorists' responsibility to comply with existing laws.
- Enforcement of crossing laws
- Improved highway-railroad warning systems interconnected with highway traffic signal systems.
- Performed comprehensive engineering grade crossing reviews, including corridor-based studies.
- Initiated a statewide project to upgrade all crossings marked with only passive Crossbuck warning signs with Ida Shields.
- Initiated a light emitting diode (LED) signal upgrade program.
- Experimental use of polymer concrete bridge panel and edge beam crossing surface with flashing in-roadway warning lights.
- Experimental use of directional Wayside Horn warning system.
- Installation of crossing gates, signs and signals at crossings.
- Upgrading crossing signal equipment circuitry to constant warning time.

Potential New Strategies (Generalized)

Impaired Drivers:

- Legalize sobriety checkpoints
- Mandate Judicial support of laws by instituting mandatory penalties for impaired driving
- Provide a DUI/drug court in every Idaho County with supervised DUI probation

Aggressive Drivers:

- Increase the number of ISP troopers
- Implement automated enforcement:
- Educate Idahoans about what aggressive driving is and its impact on fatality numbers in Idaho.

Impaired Drivers

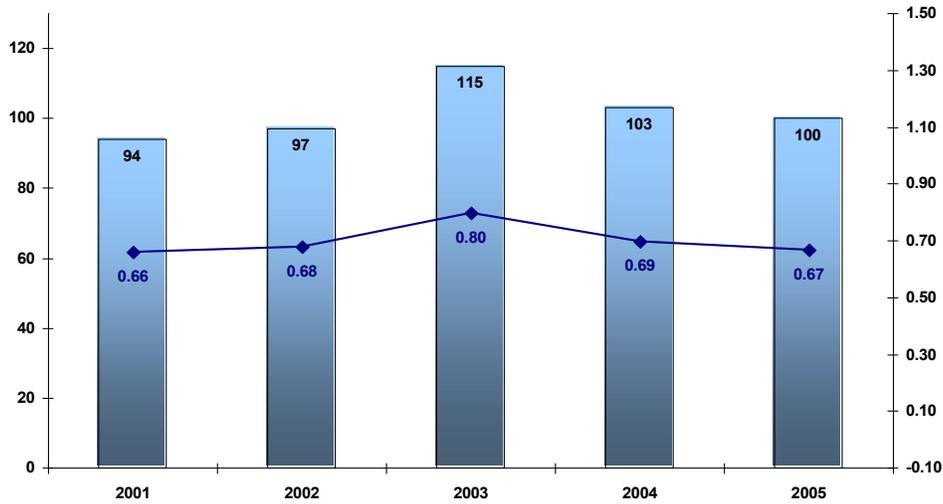
Background

An impaired driving collision is one in which alcohol or drugs may have contributed to the collision.

The Problem

- In 2005, 100 fatalities resulted from impaired driving collisions. This represents 36 percent of all fatalities.
- Only 27 (or 30 percent) of the 89 passenger vehicle occupants killed in impaired driving collisions were wearing a seat belt.
- Nearly 15 percent of impaired drivers in collisions were under the age of 21 in 2005, even though they are too young to legally purchase alcohol.
- Impaired driving collisions cost Idahoans nearly \$458 million in 2005. This represents 26 percent of the total economic cost of collisions.

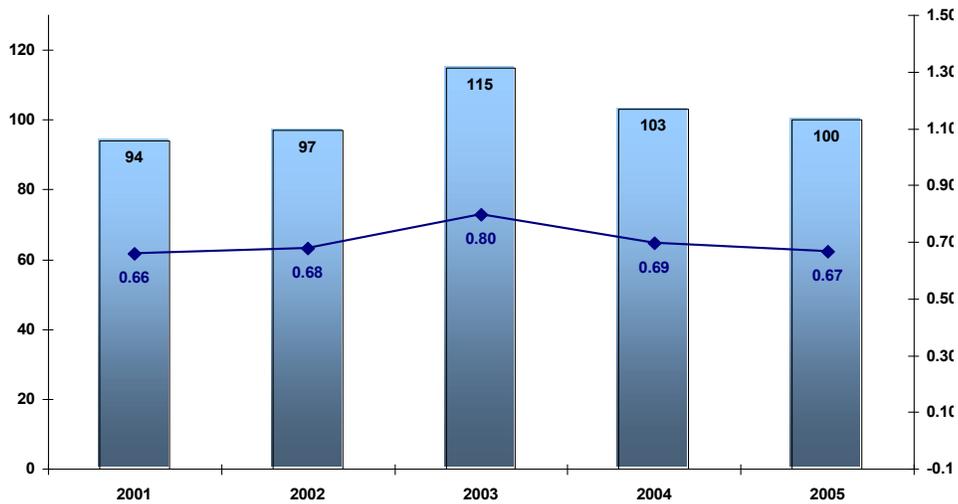
Impaired Fatalities & Fatality Rate per 100 Million Vehicle Miles Traveled



Legend

The left vertical axis represents the number of fatalities
 The horizontal axis represents the calendar year.
 The right vertical axis represents the fatality rate, expressed in crashes per 100 million vehicle miles traveled

Impaired Serious Injuries & Serious Injury Rate per 100 Million Vehicle Miles Traveled



Legend

The left vertical axis represents the number of serious injuries
 The horizontal axis represents the calendar year.
 The right vertical axis represents the serious injury rate, expressed in crashes per 100 million vehicle miles traveled

Challenges

- People – Peer pressure, over-serving, alcoholic, sickness, community values, family-pressure
- Political – Funding – alcohol beverage control, lack of political support, lack of clear laws
- Political – Lack of recognition of DUI court success
- Systems – non-uniform court decisions
- Systems – Time consuming and complex for DUI arrests
- Systems - Three to four hours the officer is off the street
- Technology - Lack of funding for technology
- Technology – Lack of auto technology for DUI drivers
- Education – Problem getting media involvement
- Education – Lack of support by media for public service projects
- Education – Training for officers/public
- Education – Impaired motorcyclist program not graphic enough
- Other – alcohol companies support sporting events

Sample of Recent Implemented Strategies

- Conducting intensive law enforcement campaign each year targeting impaired drivers.
- Developing and delivering a multi-media ad campaign targeting impaired drivers to support the law enforcement campaigns and to raise awareness.
- Distributing public awareness materials to educate the public regarding impaired driving.
- Implementing year-long impaired driving grants with law enforcement agencies in areas that experience a large number of crashes.
- Helping law enforcement agencies establish Selective Traffic Enforcement Program (STEP) Teams that target impaired driving.
- Funding for the Traffic Safety Resource Prosecutor position.
- Funding DUI courts.
- Funding DUI probation officers.
- Supporting the Drug recognition Program.
- Evaluating the effectiveness of program components to identify performance measures and finding ways in which to improve the program.

Potential New Strategies

- Increase patrol and enforcement by:
 - Funding additional officers
 - Streamlining paper work
 - Remove 15-minute observation period

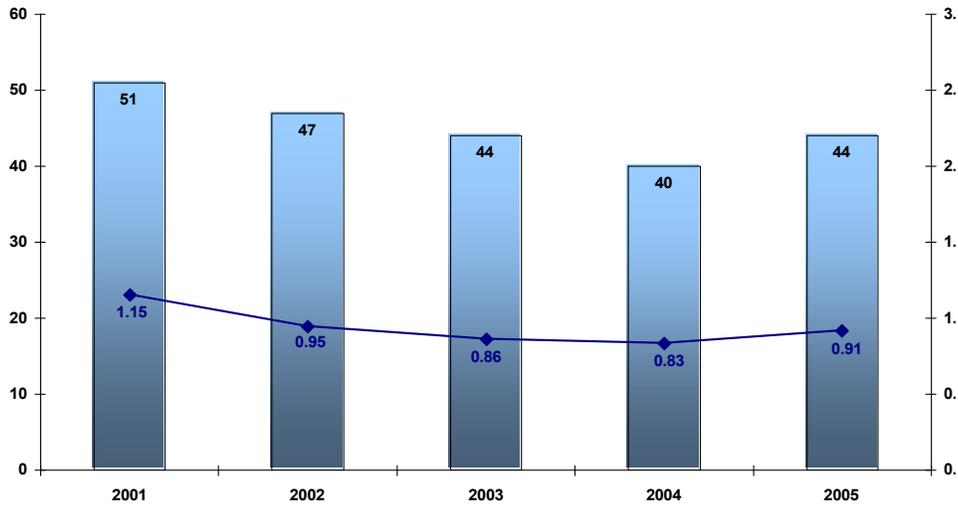
- MADD/other support groups make case to public for needed resources
 - Eliminate notary requirement
- Increase use of motor vehicle inter-lock system
- Form community coalitions to raise issues/resolutions

Mature Drivers

Background

- Mature drivers, drivers over the age of 65, were involved in 3,362 collisions in 2005. This represents 12 percent of the total number of collisions. Collisions involving mature drivers resulted in 17 percent of the total number of fatalities in 2005.
- Mature drivers are underrepresented in fatal and injury crashes. Drivers over the age of 65 represent 14.3 percent of licensed drivers, but represent just 7.6 percent of drivers in fatal and injury collisions.
- National research indicates drivers and passengers over the age of 75 are more likely than younger persons to sustain injuries or death in traffic collisions due to their physical fragility.
- Collisions involving drivers, age 65 and older, cost Idahoans nearly \$267 million dollars in 2005. This represents 15 percent of the total economic cost of collisions.

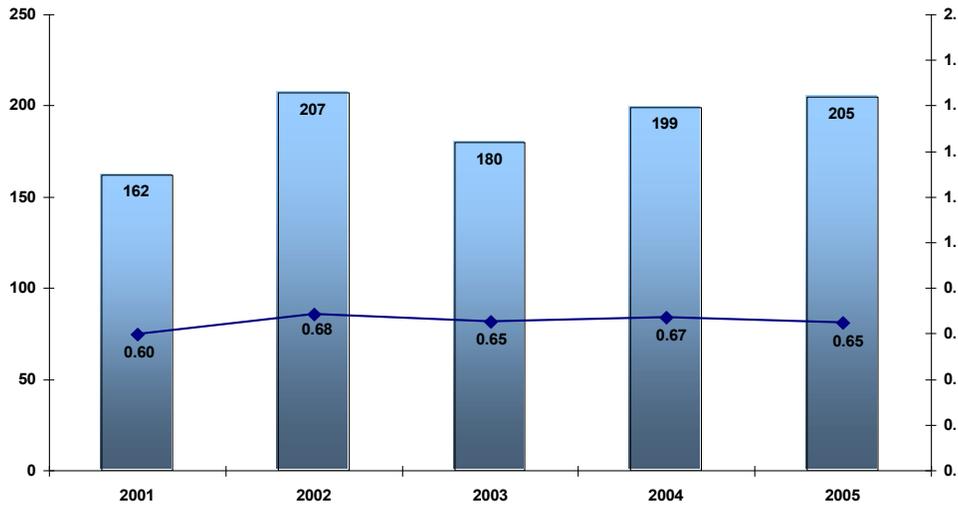
Mature Drivers in Fatal Collisions & Involvement Rate in Fatal Collisions



Legend

The left vertical axis represents the number of fatalities
 The horizontal axis represents the calendar year.
 The right vertical axis represents the involvement rate in fatal collisions

Mature Drivers in Serious Injury Collisions & Involvement Rate in Serious Injury Collisions



Legend

The left vertical axis represents the number of serious injury collisions
 The horizontal axis represents the calendar year.
 The right vertical axis represents the involvement rate in serious injury collisions

Challenges

Regulatory (Enforcement)

- Insufficient agency intervention and communication
- Speed (too fast/too slow)

Deteriorating Physical Condition

- Night driving/lighting needs
- Slower reaction times
- Opposing headlights
- Loss of strength
- Impaired hearing
- Medications
- Frailty/loss of strength
- Drowsy
- Mental competency (confusion, dementia, lack of concentration)

Attitudes and Behaviors

- Bad habits
- No seatbelts
- Overconfidence
- Fear for loss of independence
- Stubbornness
- Overly cautious
- Too much vehicle (motor homes)

Lack of Institutional Priority

- No transportation alternatives
- Signs are too small
- Not enough lighting on roadways
- Road designs

Sample of Recent Implemented Strategies

- The Idaho Department of Transportation - Driver Services accepts and responds to observation-based requests for re-evaluation of driving competency from Law Enforcement, Driver License Examiners, Physicians and immediate family members.
- Accident prevention courses are offered statewide for persons fifty-five and older. Those taking a class are offered an insurance rate reduction.
- Free ID cards are offered to individuals who have voluntarily and permanently relinquished driving privileges based on reasons of impairment, incompetence or inability of the licensed driver to safely operate a motor vehicle. Website and pamphlet information on

transportation alternatives is made available to these individuals and any individual preferring not to drive.

- In a public/private partnership, a computer based self-evaluation tool developed designed especially for seniors to check their physical and mental driving abilities was made available this year to libraries statewide, in hopes that this tool can loaned to the public through the library system.

Potential New Strategies

- Decrease fatalities by improving or increasing awareness of reaction time for mature drivers.
 - Improve lighting on roadways
 - Have a public awareness campaign to increase knowledge of reaction time issues
- Decrease fatalities for mature drivers by increasing agency intervention
 - Change to a 2 year license instead of a 4 year past age XX (to be determined) that includes frequent vision testing and other skill and competency testing
- Mandatory medical reporting
- Increase support services
- Improve transportation alternatives
- Increase education outreach
- Introduce graduated license restrictions (testable)
- Have a vision tester for night sight
- Improved public agency and public/private partnerships
- Educate law enforcement
- Use “best” striping materials
- Evaluate headlight technology use
- Illumination technologies laws (restrict glaring light systems)
- Improve lighting, signage, pavement markings, rumble strips (center and or shoulder)
- State screening
- Self screening mechanisms at home
- Education campaign
- Restrictions to familiar areas (non freeway, low traffic areas, time of day/low traffic times)
- Lower insurance rates for mature drivers who take defensive driving and aging awareness class

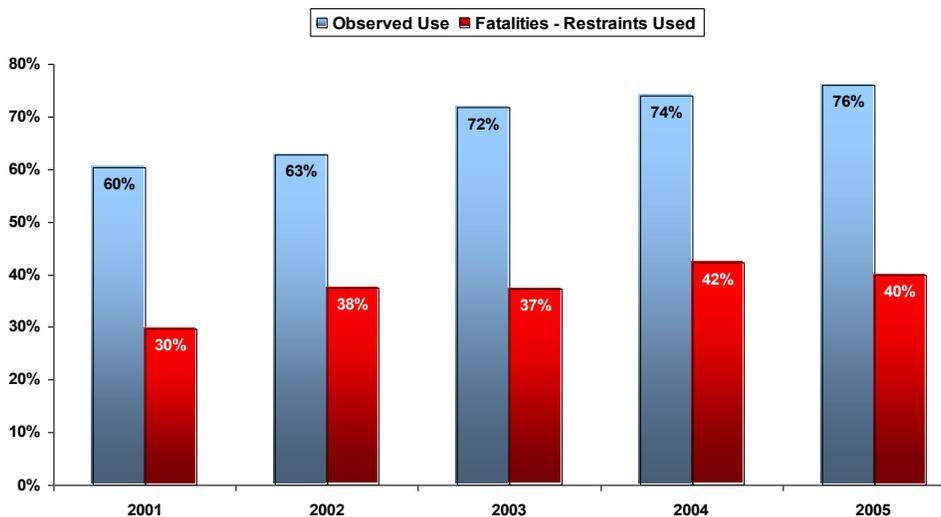
Occupant Protection

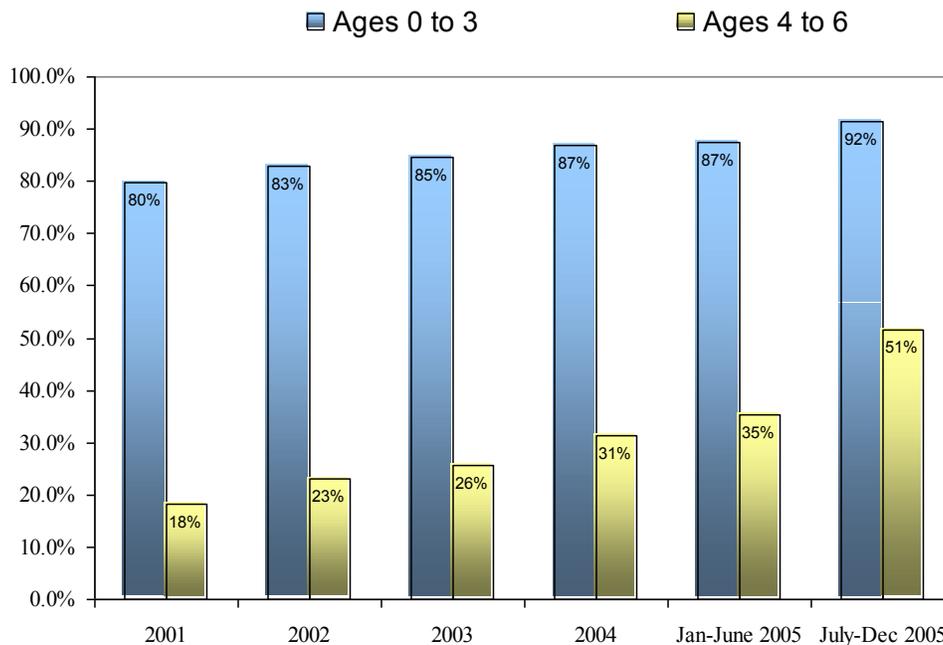
(Seat Belts and Child Restraints)

Background

- In 2005, only 76 percent of Idahoans were using seat belts, based on seat belt survey observations.
- In 2005, seat belt usage varied by region around the state from a high of 85 percent in District 3 (southwestern Idaho) to a low of 55 percent in District 5 (southeastern Idaho).
- Only 40 percent of the individuals killed in passenger cars, pickups and vans were wearing a seat belt in 2005. Seatbelts are estimated to be 50 percent effective in preventing serious and fatal injuries. By this estimate, we can deduce that 88 lives were saved in Idaho in 2005 because they were wearing a seat belt and an additional 63 lives could have been saved if everyone had worn their seat belt.
- There were 5 children under the age of 7 killed (all 5 were restrained) and 36 were seriously injured (17 were restrained) while riding in passenger vehicles in 2005. The National Highway Traffic Safety Administration estimates that child safety seats are 69 percent effective in reducing fatalities and serious injuries. By this estimate we can deduce that child safety seats saved 7 lives in 2005. Additionally, 25 serious injuries were prevented and 13 of the 19 unrestrained serious injuries may have been prevented if they had all been properly restrained

Observed Seat Belt Use Rate & Seat Belt Use by Motor Vehicle Occupants Killed in Collisions





Challenges

- Current State/Problem – Poorly designed and enforced seat belt law
- Desired State – Voluntary, habitual use of safety belts
- People – 26% don't buckle up
- People - Loud opponents resist change
- Political – Legislators believe public is against stronger law
- Political – Low priority for cops, fine is a joke, difficult to enforcement
- Systems – Enforcement is handicapped and lacking
- Technology – People don't know that seat belts are still supposed to be used, even with airbags
- Technology – Vehicles designed for seat belt use
- Education – Drivers and police need more education about enforcement
- Education – More education (fact based) about value of seat belts
- Other - Youth & Parents – Review need for a pickup truck “Kids as Cargo” law
- Other - Youth & Parents – Target areas with low belt use for attention

Sample of Recent Implemented Strategies

- Conduct two month-long intensive law enforcement campaigns each year to promote proper use of seat belts and child safety seats.
- Develop and deliver a multi-media ad campaign concerning the proper use of seat belts and child safety seats to support the law enforcement campaigns and to raise awareness.

- Distribute public awareness materials to educate the public regarding occupant protection usage.
- Implement year-long occupant protection grants with agencies in low safety restraint usage areas.
- Build partnerships to promote proper use of seat belts and child safety seats by increasing the messages and programs stressing belt use.
- Fund child passenger safety programs including purchase of child safety seats for the needy, training child safety seat technicians, and providing safety seat inspection sites statewide.
- Within legal and funding limitations, provide for support to others who are seeking effective seat belt and child passenger safety laws.
- Evaluate the effectiveness of program components to identify performance measures and find ways in which to improve the program.

Potential New Strategies

- Pass a strong (primary) safety belt law—all seats, all vehicles
- Use the national “Click It or Ticket” campaign
- U.S. DOT will pay for ads
- Take the \$5,000,000 Federal Incentive. Use it to make roads safer.
- High school reward program to encourage belt use

Road Related

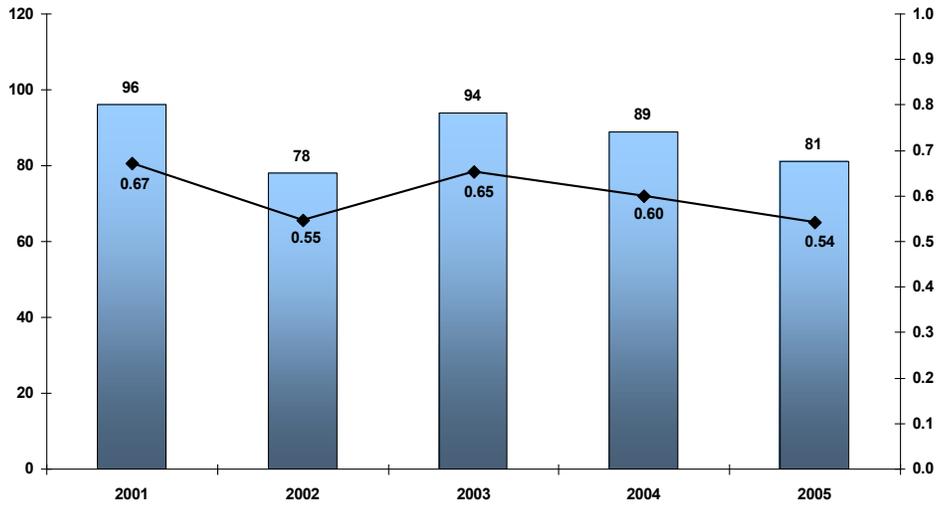
(Inattentive, Intersection, Roadway Departure and Work Zones)

Inattentive

Background

- In 2005, 28% percent of all collisions involved an inattentive driver.
- Inattention is a “catch all” contributing circumstance. Collisions typically occur because at least one of the drivers was not paying attention,
- According to the National Highway Safety Administration, there are no effective counter measures.
- Inattentive driving collisions cost Idahoans almost \$559 million in 2005, representing 31 percent of the total economic cost of collisions.

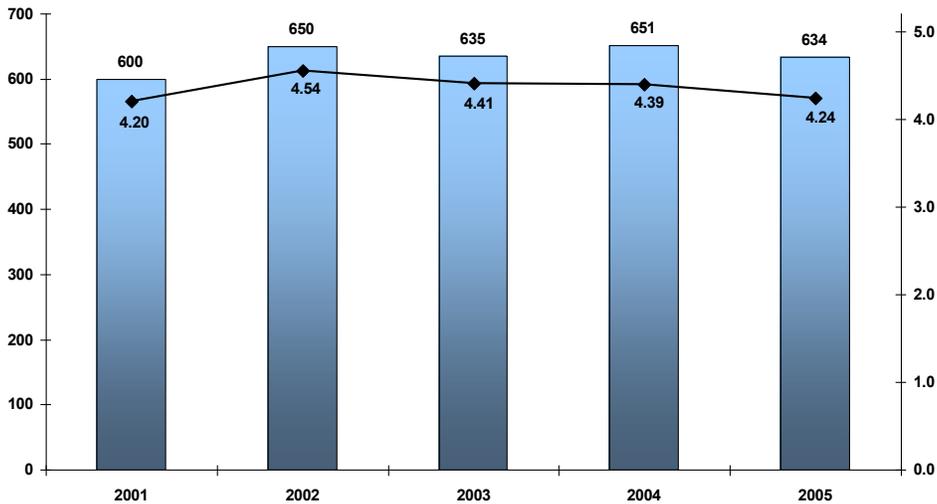
Inattention Fatalities & Fatality Rate per 100 Million Vehicle Miles Traveled



Legend

The left vertical axis represents the number of fatalities
 The horizontal axis represents the calendar year.
 The right vertical axis represents the fatality rate, expressed in crashes per 100 million vehicle miles traveled

Inattention Serious Injuries & Serious Injury Rate per 100 Million Vehicle Miles Traveled



Legend

The left vertical axis represents the number of serious injuries
 The horizontal axis represents the calendar year.
 The right vertical axis represents the serious injury rate, expressed in crashes per 100 million vehicle miles traveled

Challenges

- Education – Driver education is OK, but it's only 6 weeks
- Education – lack of education (real facts) about number and % of collisions due to inattention
- Education – Lack of media involvement
- Education – Not enough awareness of problem
- Education – Not enough awareness of reduced busy-ness
- Government agencies have conceded there is no effective solution
- People – Over committed
- People – Elderly drivers
- People – People are overconfident over decisions they make
- Political – No laws about doing distracting things while driving
- Political – write tickets to obvious offenders
- Political – Long commutes
- Political – Planning and Zoning Policy
- Political – Lack of sustainable transportation systems
- Political – Too liberal trucker hours of service laws
- Systems – Lack of funding for roadside safety improvements (rumble strips, clear zones, shoulders, recovery)
- Systems – Lack of a convenient public transportation system
- Technology – Too much technology – CDs, cell phones, DVDs/VCRs, iPods
- Technology – Lack of advancements in highway technology
- Other – Enforcement of existing laws
- Other – Cite main cause on collision reports, not just three contributing causes

Potential New Strategies

- Continuous Public Service Announcements
- Convenient mass transit
- Driver refresher classes
- Adopt uniform and statewide standards for rumble strip construction and implementation.
- Provide incentives for employers to pay more attention to employee work schedules.
- Review all existing rest areas for improvements in lighting, facilities, maintenance, etc. Make this the first priority and new construction a secondary goal.
- Refocus financing to make roadside improvements a priority and make recovery zones a part of all project strategies.
- Effective and personalized crash information, e.g.; “Last year 18 Idahoans died because of a drowsy driver. Joe Smith was one.”

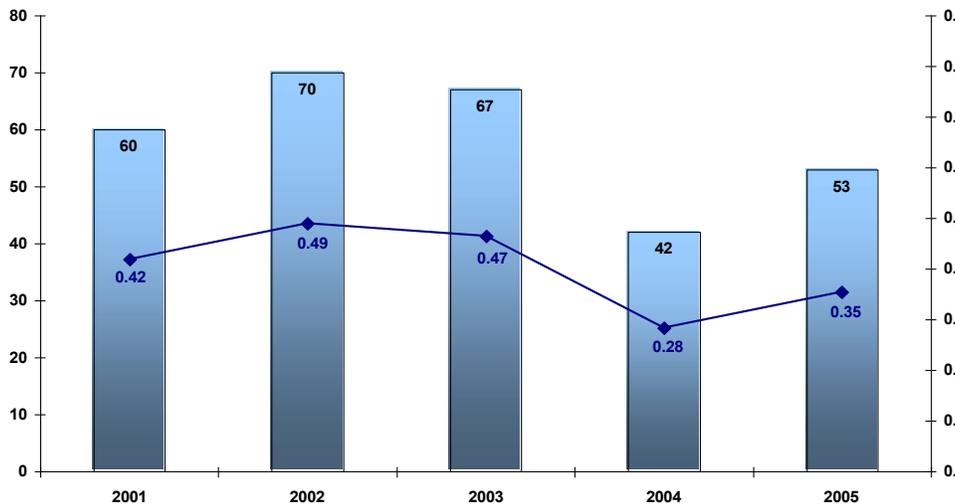
Intersections

Background

Although intersections only constitute a small portion of the overall highway system, in Idaho they are the location of 33 percent of all traffic crashes in urban areas and 8 percent of those occurring in rural areas. The majority (59 percent) of all fatal crashes occur at non-intersection locations, suggesting that the severity of intersection crashes is lower than elsewhere. Furthermore, it is expected that crashes are concentrated at intersections, since they create numerous conflict points where differing traffic movements converge in one place.

TABLE 2	2005 Idaho Fatalities
All Intersections	53
Rural Intersections	
<i>Stop Sign</i>	25
<i>Traffic Signal</i>	1
<i>Unsignalized</i>	5
Urban Intersections	
<i>Stop Sign</i>	15
<i>Traffic Signal</i>	4
<i>Unsignalized</i>	3

Intersection Fatalities & Fatality Rate per 100 Million Vehicle Miles Traveled



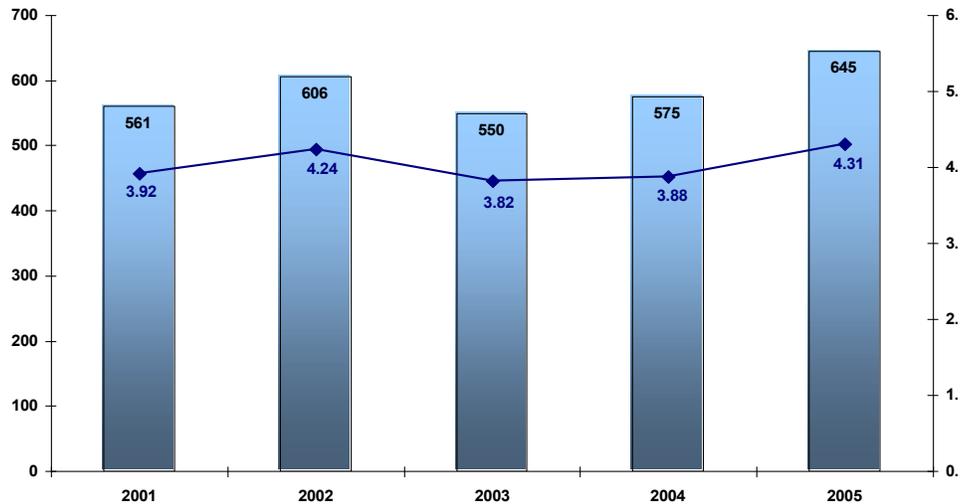
Legend

The left vertical axis represents the number of fatalities

The horizontal axis represents the calendar year.

The right vertical axis represents the fatality rate, expressed in crashes per 100 million vehicle miles traveled

Intersection Serious Injuries & Serious Injury Rate per 100 Million Vehicle Miles Traveled



Legend

The left vertical axis represents the number of serious injuries

The horizontal axis represents the calendar year.

The right vertical axis represents the serious injury rate, expressed in crashes per 100 million vehicle miles traveled

Challenges

Intersections - Signalized

Drivers

- Right turns on red without adequate clearance
- Older/younger drivers
- Red light running
- Driver knowledge of traffic control devices
- Staying in lane through intersection
- Insufficient turn lanes
- Driver inattention
- Aggressive driving
- Disregard for signal
- Sleepy driver
- Geometry of intersection confuses drivers
- Access management needed – drivers pull into oncoming cars path
- Impaired drivers

Roadway

- Sight distance
- Geometrics and design

- Lack of roundabouts
- Access management needed
- Visibility of traffic control device (signal)
- Poorly timed signals
- Poor signing

Weather

- Poor visibility/fog
- Slick conditions make it tough for drivers to stop on red

Political

- Need to legalize red light running cameras

People/Social

- Yellow means “go faster”
- Red light running is socially acceptable
- Personal rights versus safety of society
- Funding
- Funding capacity for intersections

Technical

- Lack of coordination to signalize lights
- LOS capacity
- Signal timing – leads to driver impatience
- Single point Interchanges SPUI

Intersections - Unsignalized

Drivers

- Older/younger drivers
- Driver inattention
- Aggressive driving
- Disregard for stop sign
- Impaired drivers
- Bad decisions

Vehicles

- Tinted windows/driver intentions unknown

Roadway

- Pavement markings
- Lack of roundabouts
- Access management needed
- Visibility of traffic control device (signal)
- Poorly timed signals
- Poor signing
- Vision obstructions/ trees, crops

- Poor sight distance

Weather

- Poor visibility/fog
- Slick conditions make it tough to stop

Political

- Laws don't stand up in court
- Void between misdemeanors and felonies
- Aggressive penalties
- Licensing younger/older drivers
- Allowing young drivers to have passengers
- Removal of unwarranted signs is difficult

People/Social

- Vandalism of stop signs/other traffic signs
- Educations about slowing/stopping
- Awareness of pedestrians/cyclists
- Unawareness of other vehicles and right of way
- Pedestrians/cyclists unaware of vehicles
- Funding
- Lack of funding for bike lanes

Technical

- Roundabouts
- Access management
- Lack of right of way to add signals
- Lack of proper mechanisms for traffic control

Sample of Recent Implemented Strategies

- Increased roadway safety enhancements:
 - LED signals
 - In-pavement lighting
 - Interconnected signals
 - Experimental use of flashing yellow arrows
 - Exclusive left-turn lanes
 - Roadway lighting
 - Audible pedestrian signals
 - Countdown pedestrian crosswalk signals
 - Blue "tattle tale" lights
- Also see Aggressive Driving for behavior related strategies

Potential New Strategies

- Safety audit plans
- Promote agency coordination - identify stakeholders/decision makers
- Maintenance audit
- Increased enforcement/fines
- Change societal and cultural views on driving behavior
- Target youthful drivers
- Primary seat belt law
- Continue to support national safety issues and federal laws
- Better roads- better engineering and maintenance
- Better pavement markings
- Signal timing and coordination
- Alternatives – roundabouts
- Red light running cameras

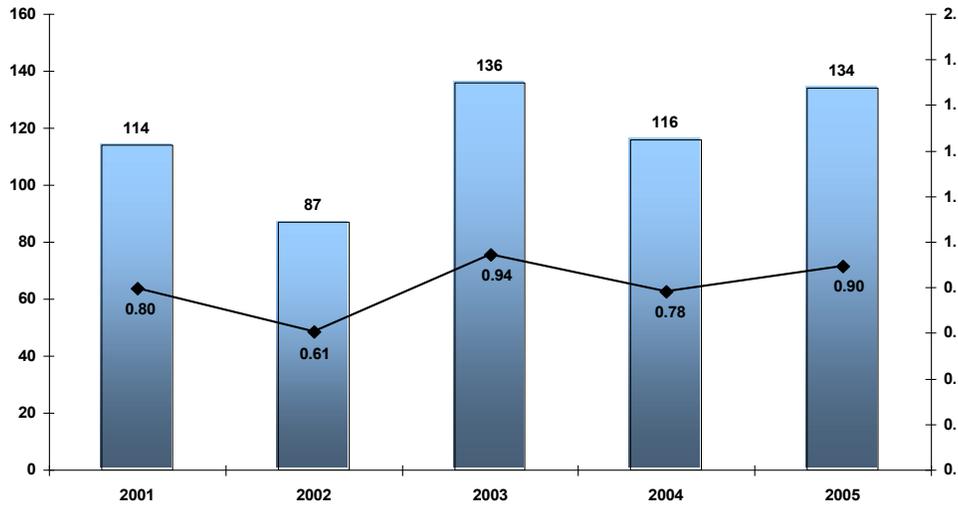
Roadway Departure

Background

Each year, roadway departure crashes account for more than 183 deaths, or about two-thirds of all Idaho highway fatalities. One of the most serious lane departure crashes is a “head-on” crash, which occurs when a vehicle departs its travel lane and collides with an oncoming vehicle. Another lane departure crash that often results in fatalities and life-altering injuries is a “run-off-road” crash, which occurs when a vehicle departs its travel lane and collides with a fixed object or overturns.

The ideal solution to roadway departure crashes is to keep vehicles from leaving the travel lane. One means of doing so is to identify cost-effective strategies that reduce unintentional lane departures. For events when departure is imminent, the primary objective is to alert the driver beforehand. The secondary objective is to assist the driver in safely returning to the travel lane and minimize the consequences of departure by creating clear zones along the roadside. The most common fixed objects involved in run-off-road crashes are trees, and the results of such crashes are generally quite severe

Single-Vehicle Run-Off-Road Fatalities & Fatality Rate per 100 Million Vehicle Miles Traveled



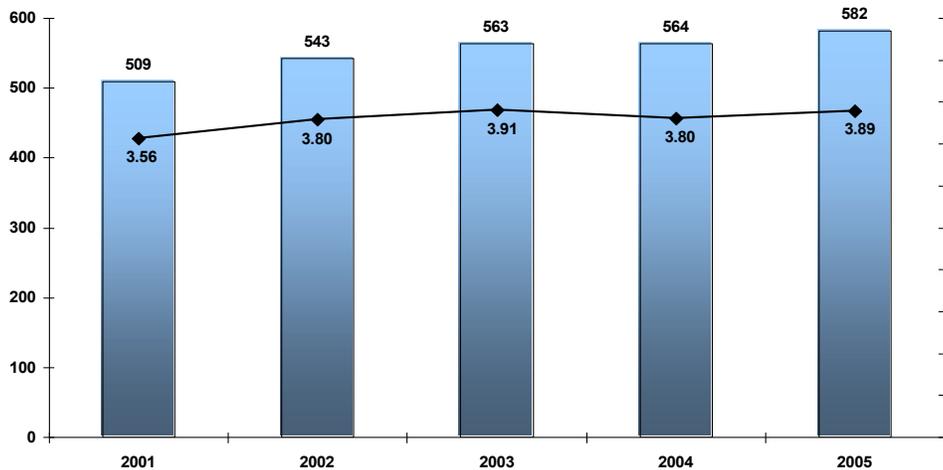
Legend

The left vertical axis represents the number of fatalities

The horizontal axis represents the calendar year.

The right vertical axis represents the fatality rate, expressed in crashes per 100 million vehicle miles traveled

Single-Vehicle Run-Off-Road Serious Injuries & Serious Injury Rate per 100 Million Vehicle Miles Traveled



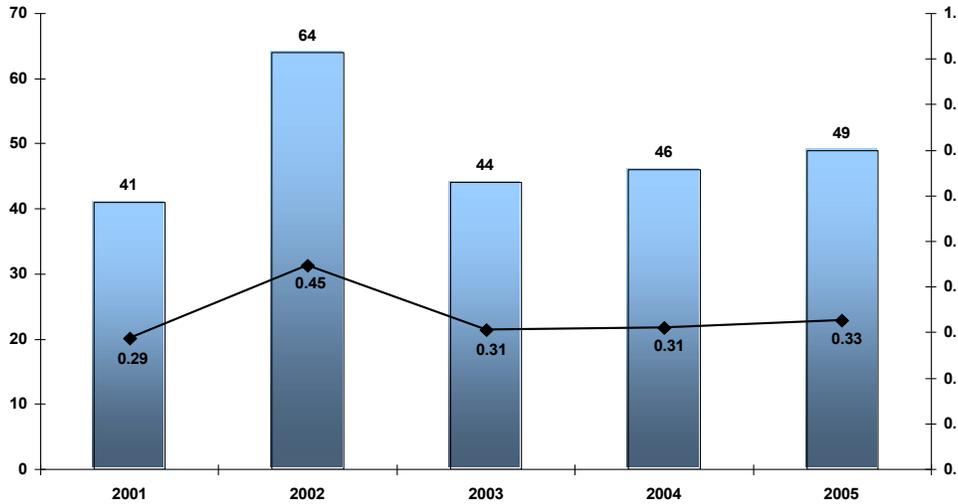
Legend

The left vertical axis represents the number of serious injuries

The horizontal axis represents the calendar year.

The right vertical axis represents the serious injury rate, expressed in crashes per 100 million vehicle miles traveled

Head-On and Side Swipe Opposite Fatalities & Fatality Rate per 100 Million Vehicle Miles Traveled



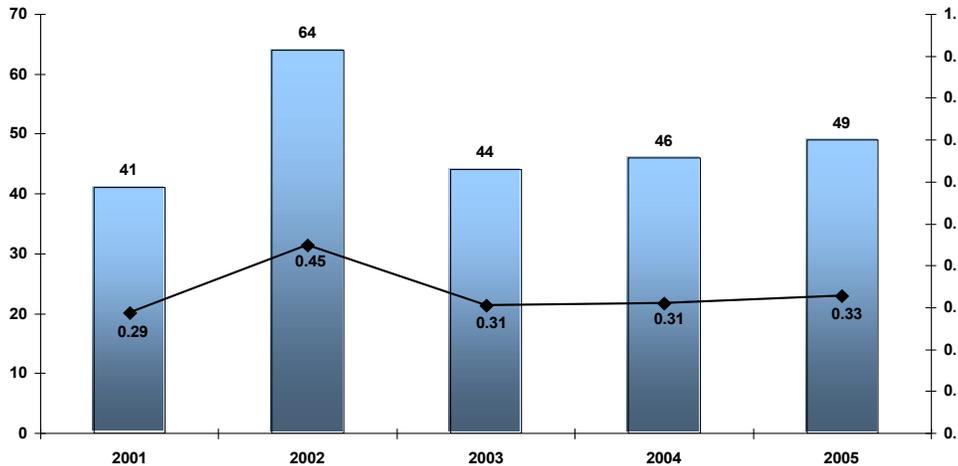
Legend

The left vertical axis represents the number of fatalities

The horizontal axis represents the calendar year.

The right vertical axis represents the fatality rate, expressed in crashes per 100 million vehicle miles traveled

Head-On and Side Swipe Opposite Serious Injuries & Serious Injury Rate per 100 Million Vehicle Miles Traveled



Legend

The left vertical axis represents the number of serious injuries

The horizontal axis represents the calendar year.

The right vertical axis represents the serious injury rate, expressed in crashes per 100 million vehicle miles traveled

Utility poles represent one of the more substantial objects that are intentionally placed on roadsides and the United States has more than 88 million utility poles on highway right-of-way. Due to a pole's structural strength and small vehicle contact area, crashes involving them are often severe and are second only to trees for fatal fixed-object crashes.

Challenges

Single Vehicle – Run Off Road

Vehicle Problems

- Mechanical breakdown
- Tire blow out

Drivers

- Blinded by bright lights or sun
- Distractions
- Sleep/drowsy
- Cell phones
- Passengers
- Signs
- Accidents
- Coffee/drinks –hands not on the wheel
- CDs, tape players
- Inattentive driving
- Speeding
- Inexperienced drivers
- Dropping food/drink
- Over correction
- Long Distances of no break of interest
- Low volume of vehicles
- Seat belt usage/car Seats
- Impaired/alcohol
- Aggressive driving
- Speeding
- Swerving to avoid animals
- Going too fast for conditions/snow and ice

Roadway

- Edge drop off,
- Too high speed for number of intersections,
- Curves requiring slower speeds than straight ways, Inconsistent road design,

- Poor highway delineation - pavement marking - Delineators - signing, curves, speed limit, poor pavement markings,
- Inadequate sight distance (local roads),
- Highway design issues,
- Bad signage,
- Material of traffic control devices,
- Sharp curves,
- Poor visibility - night,
- Avoiding other vehicles,
- Work Zone changes (markings with no work occurring in area makes drivers impatient),
- Illumination (night time driving),
- Roadway alignment (horizontal and vertical),
- Gravel on pavement

Weather

- Icy conditions
- Rain/snow

Political

- Elected officials have autonomy
- Speed limits - sometimes set too high
- No driver/safety maintenance inspections
- Drivers testing law – need to have written test more often
- Need stronger impaired driving laws
- No cell phone law
- Reluctance to pass primary seat belt law

People/Social

- Mobility over safety
- Increased use of SUV's
- Lack of desire to use mass transit
- Individual rights
- Culture of DUI is acceptable
- Acceptable to multi-task while driving
- Socially acceptable to speed/drive aggressively

Funding

- Maintenance cannot meet expectations
- Lack of coordination of systems –ITS etc.
- ISP-not enough officers, too many duties –puts burden on local police

Technical

- Emphasis on Right of Way rather than safety
- Land use/zoning

- Need more access management

Head-on

Vehicles:

- Tire blow outs
- Misaligned headlights

Drivers

- Distraction
- Speed kills
- Driver education
- Sleepy/drowsy
- Aggressive driving
- Distracted drivers
- Distraction inside of vehicle
- Headlight glare
- Visibility (obstruction, snow, dust, smoke),
- Driver dropping food - cigarette - drink - dialing cell phone,
- Medical issues - cause unconscious driver
- Inattentive driving
- Impaired drivers
- Impatience
- Drowsiness
- Driver judgment
- Improper/unsafe passing
- Animal avoidance
- Police pursuit

Roadway

- Roadway design inadequate median and markings
- Horizontal alignment
- Narrow lanes
- Poor sight distance
- Geometric long vertical curves
- Pavement markings
- Pavement conditions
- Edge drop offs
- Roadway geometry (horizontal/vertical)
- Hazards road obstruction
- Vehicle/bicycle conflicts
- Trucks/Vehicles turning wide into opposing lane
- Avoiding obstacles
- Wrong way on one way

- Lack of passing opportunities
- Roadside obstacles

Political

- Speed limits
- Seat belt use – need primary law
- Safety inspections
- Traffic fines –too low

People/Social

- Seat belt use
- Acceptable to drink and drive
- Doctors don't notify state agencies about drivers impaired by prescription drugs or age
- Personal rights versus a safer society
- Transit system doesn't meet needs of seniors/others
- Reluctance to use transit or other modes
- Driver education needs to be tougher - GDL

Funding

- Less effective, short-term solutions versus long term fix
- No money for DUI court/campaigns
- No money for increased law enforcement
- Maintenance cannot meet expectations

Technical

- Need more/better median barriers
- Poorly maintained roads designed for higher speed than is posted-leads to speeding drivers
- Edge drop offs
- No passing zones leads to unsafe/impatient passing
- Road debris
- Animals-hard to control in state like Idaho

Potential New Strategies

Education:

- Campaign to change personal rights to societal concerns
- ITS speed signs - tell - more variable signs for weather conditions
- Better driver training, education
- Media campaign – paid
- Safety peers/committee in schools
- Awards/recognition for good driving behavior
- Incentives toward advocates of safe driving

EMS

- Golden hour (An expression used by emergency medical personnel to highlight the benefits of rapid treatment after an injury. As time elapses, chances of survival diminish and the severity of the injuries increases.)
- Equipment/Training in rural/remote areas
- Improve communications/technology

Engineering

- Vehicle design – need safer, more crash resistant vehicles
- Speed limits, engineers design for higher speeds which encourages speeding - more appropriate design need to slow down drivers
- Rumble strips
- Clearer pavement markings
- Bring rural roads up to standards
- Weather systems and reporting needs improvement
- 511
- Better signal timing

Enforcement

- Increase enforcement/citations
- Possible reserve force
- Private enforcement/pay off-duty officer to work O.T.
- Refocus on traffic patrols instead of homeland security
- Automated enforcement

Legislation

- Increase fines
- Fund ISP (double force)
- Private security/law enforcement to patrol
- Tougher driving training
- Seat belts – need primary Law
- Automated Enforcement
- Chain up law in mountainous, snowy-icy areas

Obstacles:

- Money is not there for more officers
- Officers are stretched thin with other activities
- Liabilities to reserve force

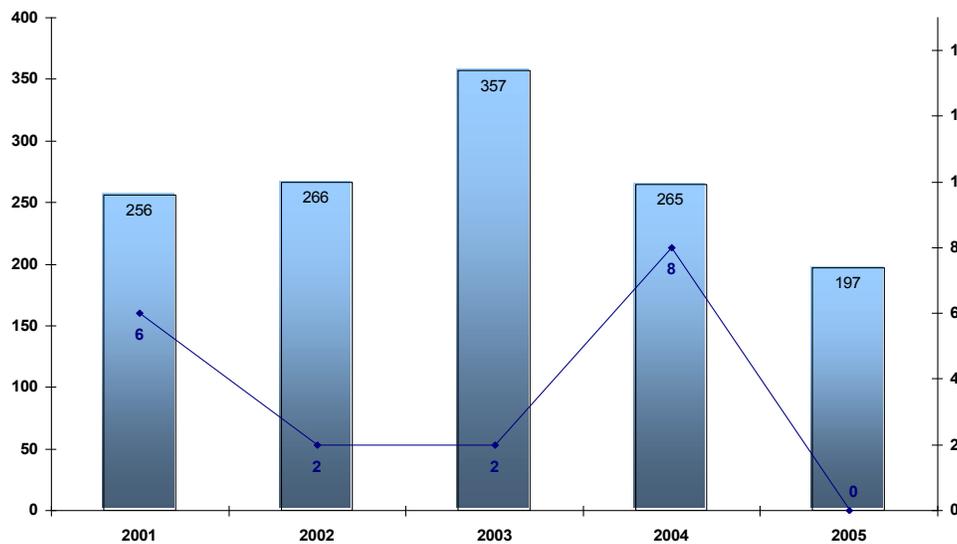
Work Zone

Background

Each year, hundreds of work zones present hazards, inconveniences, and delays to motorists. The definition of a work zone-related motor vehicle crash is a crash that occurs in the vicinity of a work zone (construction, maintenance, or utility) or

within an area marked by appropriate signing. This designation does not imply that the crash was caused by the work activity or zone. Most work zone crashes that occur on US and State Highways, involve passenger vehicles (96%), and occur between 8:00 AM and 4:00 PM. To improve work zone safety, increased communication, coordination, and cooperation among stakeholders is necessary. To facilitate this process, ITD formed a Work Zone Safety Team in response to high-profile fatal crashes and includes a wide range of stakeholders.

Idaho Work Zone Crashes and Fatalities



Legend

The left vertical axis represents the number of crashes
 The horizontal axis represents the calendar year.
 The right vertical axis represents the number of fatalities

Challenges

Drivers

- Speeding
- Aggressive driving
- Driver inattention
- Spectator slow down
- Confusion
- Aggressive driving
- Impaired drivers
- Bad decisions
- Work zones without workers
- Lack of enforcement

Roadway/zone

- Poor signing
- Lack of short, well-defined work zones
- Control devices
- Confusing work zones
- Maintenance of TCDs
- Pavement condition/drop off
- Equipment in roadway
- Worker training
- Lighting
- No separation between vehicles/workers
- Inappropriate speed reductions
- Low bid
- Blunt ends on barrels
- Focus on ease of construction not safety

Political

- Poor work zone laws in regards to speed limits
- Signs put up by contractors may not be legal
- Hard to prosecute violations
- Void between misdemeanors and felonies
- Aggressive penalties
- Licensing younger/older drivers
- Allowing young drivers to have passengers
- Removal of unwarranted signs is difficult

People/Social

- Vandalism of stop signs/other traffic signs
- Educations about slowing/stopping
- Awareness of pedestrians/cyclists
- Unawareness of other vehicles and right of way
- Pedestrians/cyclists unaware of vehicles
- Funding
- Belief that money is saved by not providing more funding

Technical

- Crashed aren't tracked correctly by system
- Crash report forms are confusing
- The way crashes are reported makes a difference
- Safety is not included in design – contractors do not do a good job of balancing worker versus driver safety
- Designing for needs of truck/motorcycles ignoring pedestrians/cyclists

Sample of Recent Implemented Strategies

- Training and certification of traffic control personnel and flaggers.
- Development of a policy to address worker/traveler safety and mobility.
- Annual safety evaluation of work zones.

Potential New Strategies

- Improve design and maintenance of work zones
- Increase safety for driver and worker
- Educate workers about personal safety

Vulnerable Users

(Bicyclists, Motorcycles, and Pedestrians/School Children)

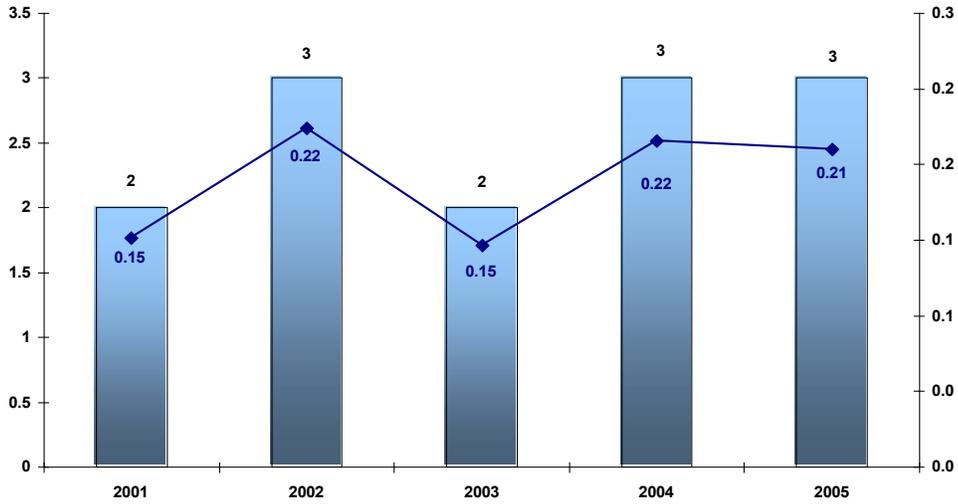
Bicyclists

Background

In 2005, 3 bicyclists were killed in traffic collisions. The bicyclists killed represented 1 percent of all fatalities in Idaho.

- Children, ages 4 to 14, accounted for 33 percent of the fatalities and injuries sustained in bicycle collisions.
- Collisions involving bicyclists cost Idahoans nearly \$30 million dollars in 2005. This represents 2 percent of the total economic cost of collisions.

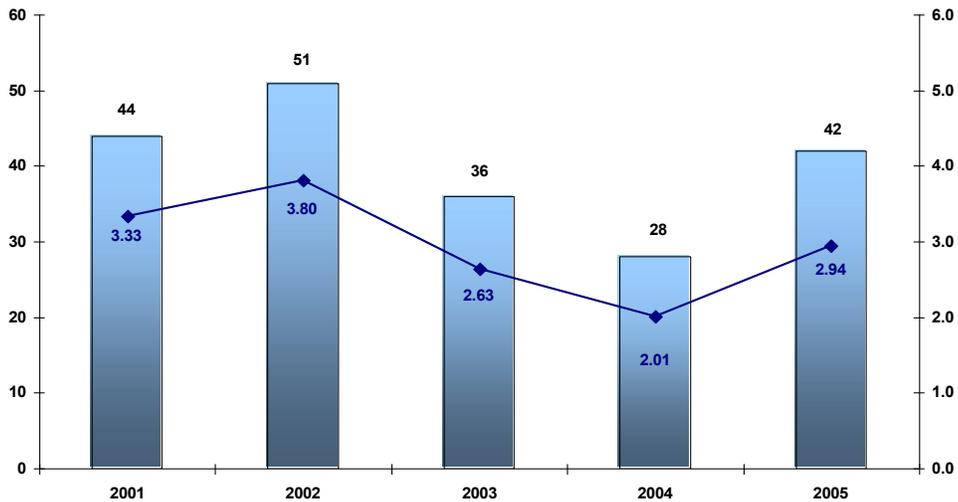
Bicyclist Fatalities & Fatality Rate per 100 Thousand Population



Legend

The left vertical axis represents the number of fatalities
 The horizontal axis represents the calendar year.
 The right vertical axis represents the fatality rate, expressed in fatalities per 100 thousand population

Bicyclist Serious Injuries & Serious Injury Rate per 100 Thousand Population



Legend

The left vertical axis represents the number of serious injuries
 The horizontal axis represents the calendar year.
 The right vertical axis represents the serious injury rate, expressed in crashes per 100 thousand population

Challenges

Enforcement

- Wrong-way riding
- Night riding without lights
- Right of way conflicts
- Laws for bikes and cars not consistent (i.e. stoplight rules)

Targeted Education

- Car drivers not aware of bicycles
- Lack of bicycle rider education
- No training on speed differences between bikes and highway users
- Cars and bikes sharing space
- Drinking pedestrians and bicyclists
- Pedestrian rules not understood or followed
- Not wearing helmets
- Who has the right of way
- Lack of tolerance [for bikes and pedestrians]
- Difference between car rules and bike rules

Infrastructure

- Roads designed for cars only- not multiple users
- Lack of bike/pedestrian paths
- Lack of information sharing (across agency)
- Sidewalk riding
- Schools built in residential areas without the path systems to handle increased bike and pedestrian traffic

EMS

- Lack of training for removal of helmets on injured cyclists by EMS personnel
- Lack of training in motorcycle-specific injuries

Sample of Recent Implemented Strategies

- Established bicycle/pedestrian advisory committees in most major cities
- All federal-aid projects in Idaho are reviewed to check for adequate bicycle accommodations.
- Over 50,000 copies of Idaho Bicycling Street Smarts are in the process of being distributed to the public at no cost.
- Updated the Idaho Bicycle Commuter Guide.
- Idaho has 11 League Cycling Instructors (six added in 2006), certified by the League of American Bicyclists
- Incorporated bicycling facilities in roadway projects
- Establishing bicycle advisory committees

- Established, the Treasure Valley Cycling Alliance, a nonprofit organization.
- Establish a Safe Routes to School program
- Established a Safe Kids program

Potential New Strategies

- Stop Impaired Driving
 - Legalize sobriety checkpoints
 - Mandate Judicial support of laws by instituting mandatory penalties for impaired driving
- Have a DUI/drug court in every Idaho County with supervised DUI probation
- Get legislative and ISP buy-in for increased FTE
- Use the available federal funding currently left on then table.
- Eliminate Aggressive Drivers:
 - Increase the number of ISP troopers by 90 and support staff by 15 within 5 years.
 - Implement electronic enforcement:
 - Educate Idahoans about what aggressive driving is and its impact on fatality numbers in Idaho.

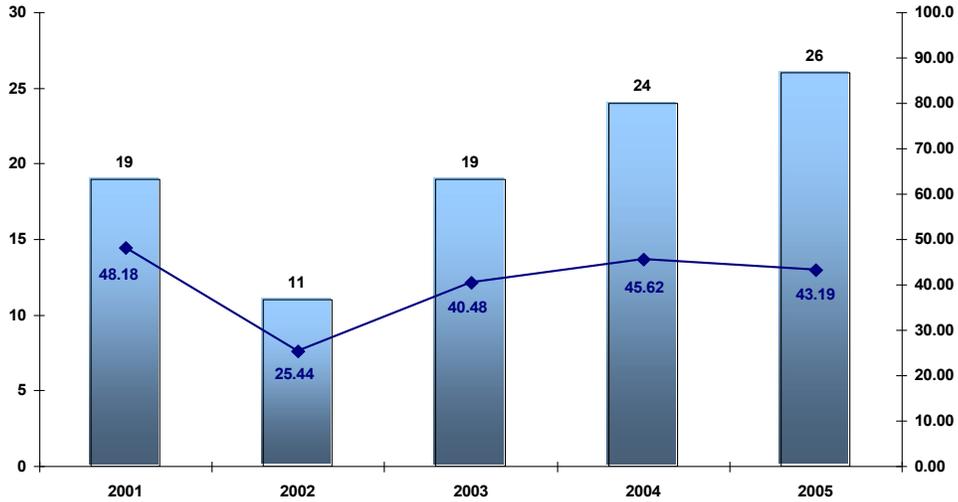
Motorcycles

Background

- In 2005, motorcycle collisions represented just over 1.9 percent of the total number of collisions, yet accounted for just over 10 percent of the total number of fatalities and serious injuries.
- Just over half (52 percent) of all motorcycle collisions involved a single vehicle, and 54 percent of fatal motorcycle collisions involved a single vehicle.
- Idaho code requires all motorcycle operators and passengers under the age of 18 to wear a helmet. In 2005, only 18 of the 28 (64 percent) motorcycle drivers and passengers, under the age of 18 and involved in collisions, were wearing helmets.
- The National Highway Traffic Safety Administration estimates helmets are 29 percent effective in preventing motorcycle fatalities. In 2005, only 35 percent of motorcyclists killed in collisions were wearing helmets.

- Motorcycle collisions cost Idahoans nearly \$142 million dollars in 2005. This represents 8 percent of the total economic cost of collisions.

Idaho Motorcycle Fatalities & Fatality Rate per 100,000 Registered Motorcycles



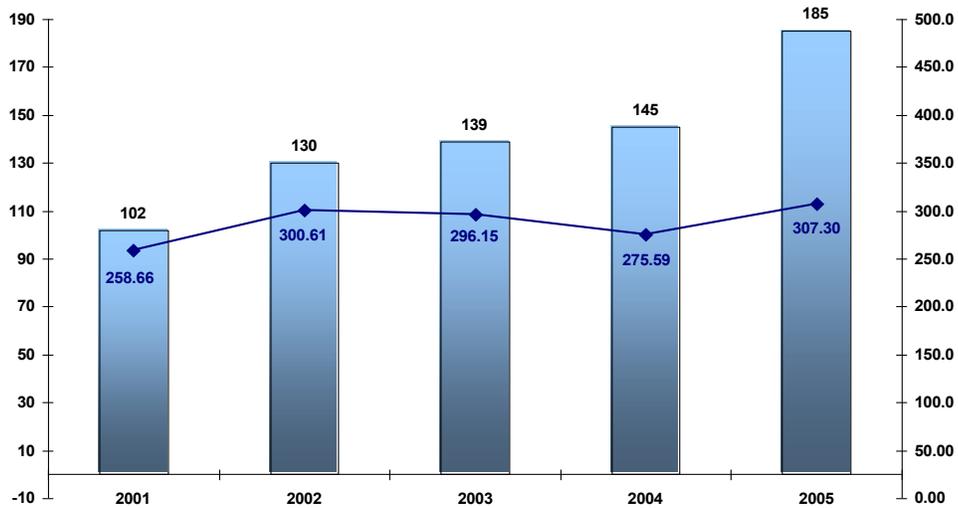
Legend

The left vertical axis represents the number of fatalities

The horizontal axis represents the calendar year.

The right vertical axis represents the fatality rate, expressed in crashes per 100,000 registered motorcycles

Idaho Motorcycle Serious Injuries & Serious Injury Rate per 100,000 Registered Motorcycles



Legend

The left vertical axis represents the number of serious injuries

The horizontal axis represents the calendar year.

The right vertical axis represents the serious injury rate, expressed in crashes per 100,000 registered motorcycles

Challenges

Education

- Not wearing helmets
- Lack of high-speed training
- Motorcyclists not following the rules in congested areas
- Daring attitudes
- Scooters operated by youth
- Lack of ongoing education
- Lack of Visibility to Others (Awareness of Drivers)
- Lack of Training for all riders

Enforcement

- Impaired driving
- Definition of street legal not clear
- Too fast in curves
- Running between lanes of stalled traffic
- Not losing motorcycle endorsement for violations
- Aggressive Driving

Engineering

- Low visibility of scooters
- Scooters sold as toys
- Road hazards for motorcycles (i.e. pavement crack sealant, manhole covers in curves, slick road markings, etc.)

Sample of Recent Implemented Strategies

- Provided basic and experienced rider training through the statewide Skills Training Advantage for Riders (STAR) program.
- Provided motorcycle skills testing
- Increased motorist awareness by:
 - Supporting “Motorcycle Awareness Month,” as proclaimed by the Governor.
 - Provided driver education presentations on sharing the roadway with motorcycles.
- Operated several booths promoting motorist awareness as well as rider training.
- Formed and supported the Governor’s Idaho Motorcycle Safety Advisory Council.

Potential New Strategies (Generalized)

Stop Impaired Driving:

- Legalize sobriety checkpoints
- Mandate Judicial support of laws by instituting mandatory penalties for impaired driving
- Have a DUI/drug court in every Idaho County with supervised DUI probation

Increase Education, Enforcement and awareness:

- Increase training by having training facilities and staff available within 50 miles of all motorcycle users.
- Increase the number of citizen awareness programs regarding motorcycle, scooter, etc. rules and issues (targeted at all Idahoans)
- Require training for all motorcycle users who are ticketed and do not have a motorcycle operator's endorsement to avoid license forfeiture

Get legislative and ISP buy-in for increased FTE

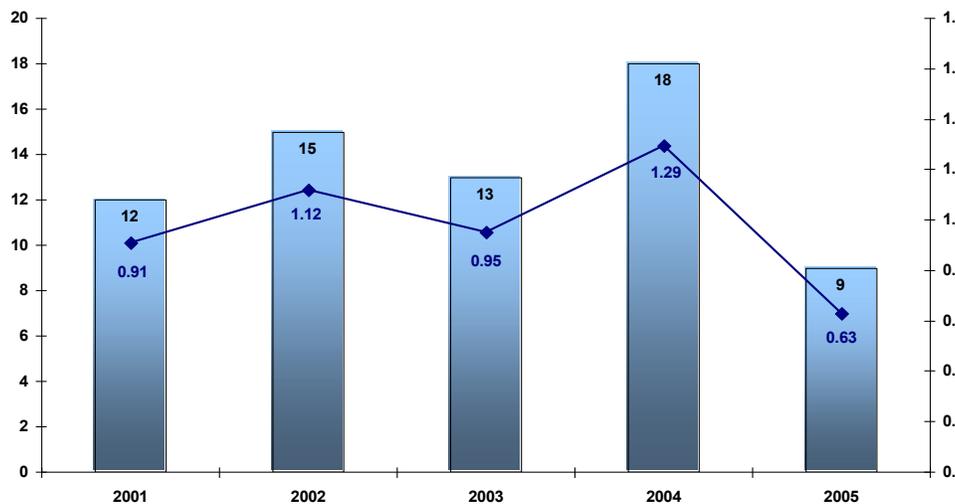
- Use the available federal funding currently left on then table.
- Implement electronic enforcement:

Pedestrians/School Children

Background

- In 2005, 9 pedestrians were killed in traffic collisions. The pedestrians killed represented 3 percent of all fatalities in Idaho.
- Children, ages 4 to 14, accounted for 22 percent of the fatalities and injuries sustained in pedestrian collisions.
- Collisions involving pedestrians cost Idahoans over \$47 million dollars in 2005. This represents 3 percent of the total economic cost of collisions.

Pedestrian Fatalities & Fatality Rate per 100 Thousand Population



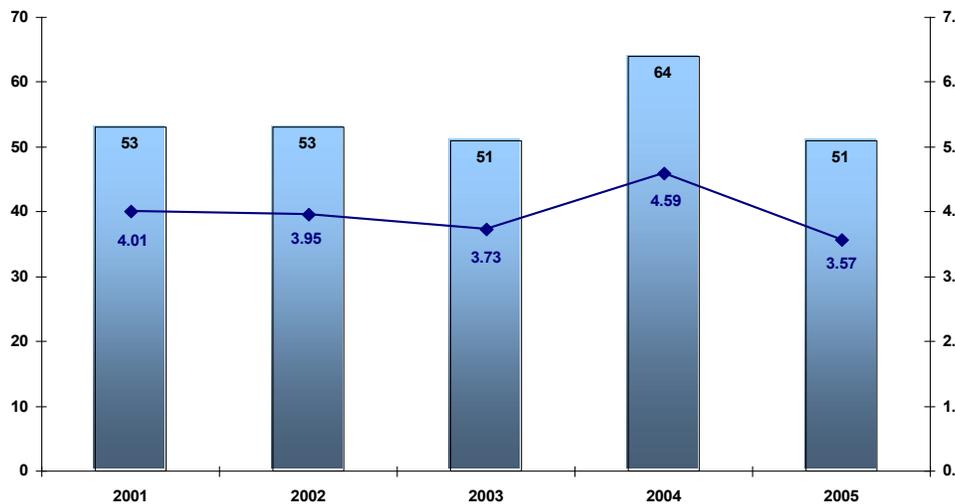
Legend

The left vertical axis represents the number of fatalities

The horizontal axis represents the calendar year.

The right vertical axis represents the fatality rate, expressed in crashes per 100 thousand population

Pedestrian Serious Injuries & Serious Injury Rate per 100 Thousand Population



Legend for Graphs

The left vertical axis represents the number of serious injuries

The horizontal axis represents the calendar year.

The right vertical axis represents the serious injury rate, expressed in crashes per 100 thousand population

Challenges

Enforcement

- Right of way conflicts

Targeted Education

- No training on speed differences between bikes and highway users
- Drinking pedestrian
- Pedestrian rules not understood or followed
- Who has the right of way
- Lack of tolerance (for bikes and pedestrians)
- Difference between car rules and bike rules

Infrastructure

- Roads designed for cars only- not multiple users
- Lack of bike/pedestrian paths
- Lack of information sharing (across agency)
- Sidewalk riding
- Schools built in residential areas without the path systems to handle increased bike and pedestrian traffic

EMS

- Lack of training for removal of helmets on injured cyclists by EMS personnel
- Lack of training in motorcycle-specific injuries

Sample of Recent Implemented Strategies

Implementation of Statewide Safe Routes to School Program

Potential New Strategies

Stop Impaired Driving

- Legalize sobriety checkpoints
- Mandate Judicial support of laws by instituting mandatory penalties for impaired driving
- Have a DUI/drug court in every Idaho County with supervised DUI probation
- Get legislative and ISP buy-in for increased FTE
- Use the available federal funding currently left on then table.

Eliminate Aggressive Drivers:

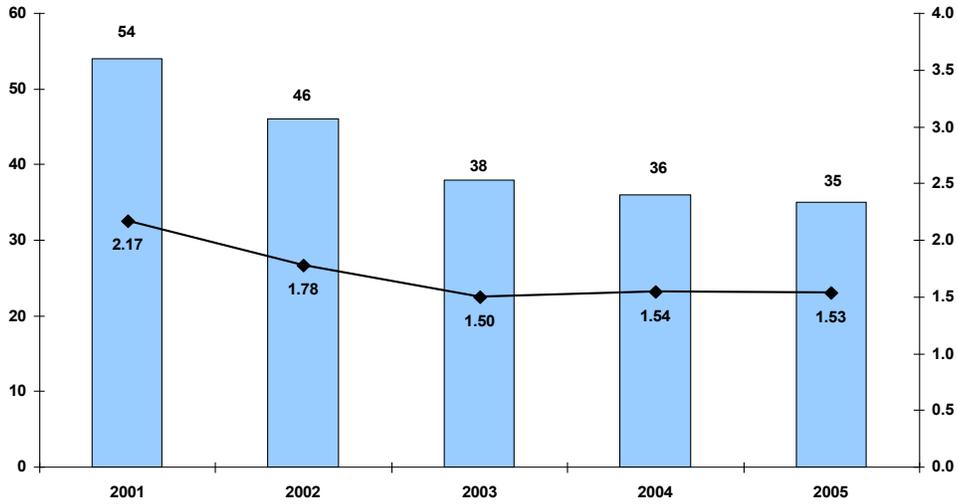
- Increase the number of ISP troopers by 90 and support staff by 15 within 5 years.
- Implement electronic enforcement
- Educate Idahoans about what aggressive driving is and its impact on fatality numbers

Young Drivers

Background

- Drivers, age 15 to 19, represented 7 percent of licensed drivers in Idaho in 2005, yet they were involved in 14 percent of the fatal and serious injury collisions.
- In 2005, drivers age 15 to 19 constituted 10 percent of the impaired drivers involved in collisions, despite the fact they were too young to legally consume alcohol.
- National and international research indicates youthful drivers are more likely to be in single-vehicle crashes, to make one or more driver errors, to speed, to carry more passengers than other age groups, to drive older and smaller cars that are less protective, and are less likely to wear seat belts.
- Only 18 of the 35 (51 percent) youthful drivers involved in fatal crashes were wearing a seat belt.
- Collisions involving youthful drivers cost Idahoans over \$338 million in 2005. This represents 19 percent of the total economic cost of collisions.

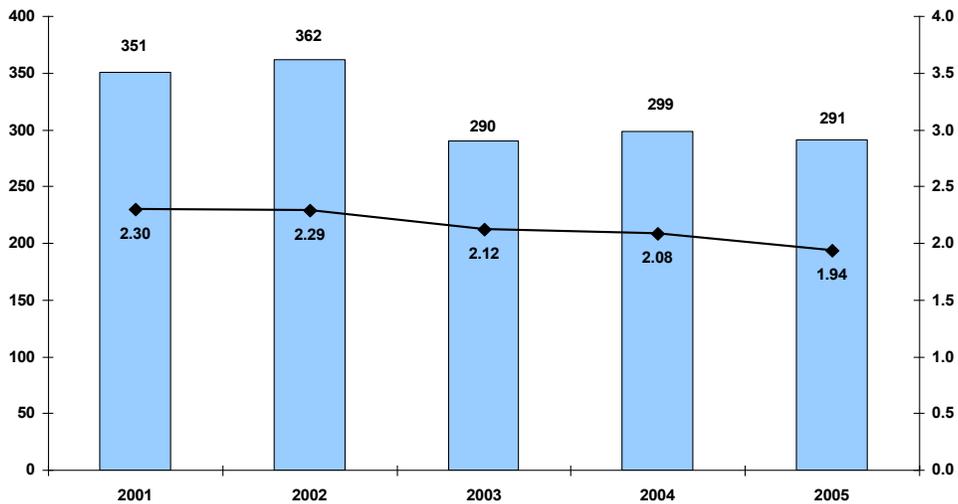
Youthful Drivers in Fatal Crashes and Involvement Rate



Legend

The left vertical axis represents the number of fatalities
 The horizontal axis represents the calendar year.
 The right vertical axis represents the involvement

Youthful Drivers in Serious Injury Crashes and Involvement Rate



Legend

The left vertical axis represents the number of serious injuries
 The horizontal axis represents the calendar year.
 The right vertical axis represents the serious injury involvement rate

Challenges

Regulatory (Enforcement)

- Driving too young
- Number of passengers
- Speed
- Distractions (cell phones, music, food, and friends)
- Supervisor's age too young
- Open campus rules

Impairment

- Alcohol
- Drugs
- Fatigue

Youth Competency and Behavior

- Night driving
- Driving too young
- Inexperience
- Lack of opportunity for unofficial informal practice
- Lack of parental oversight
- Immature brain and physical and emotional development
- Inadequate training
- Speeding
- Being male
- Having too many passengers
- Showing off and risk taking
- Having no fear of consequences
- Feeling invulnerable
- Driving during school for lunch
- Defiant attitude
- Too many distractions (food, friends, cell phones)

Distractions

- Multiple passengers
- Friends
- Cell phones
- Lack of concentration
- Music too loud

Vehicle Condition/Type

- Too much car for young driver
- Lift kits
- Altered equipment
- Parental influences
- Junky cars (no airbags, unsafe)

Sample of Recent Implemented Strategies

- Three-month intensive law enforcement campaign, in conjunction with the Aggressive Driving Program, targeting youthful aggressive drivers.
- A multi-media ad campaign to support the law enforcement campaign and to raise awareness.
- Support the XTR4.com teen driver website through maintenance, advertising, and development of new content.
- Distribute public awareness materials to educate parents concerning their teen drivers and provide teens the information they need to become better drivers.
- Implement the Drive Program to Idaho driver's education instructors in partnership with the Department of Education
- Fund Motivational Media Assembly Production's high school multi-media presentations at high schools statewide.
- Implement year-long youthful driving grants with agencies in areas that experience a large number of youthful driver-related crashes.
- Evaluate the effectiveness of program components to identify performance measures and find ways in which to improve the program.

Potential New Strategies

- Change law to limit number of passengers
- Change law to raise the age of supervising driver
- Change the law to limit driving at night with passengers
- Change Idaho State Law to the DGL of the National Insurance Institute
- Increase the number of enforcement personnel on the road
- Institute a primary law seat belt law.
- Increase fine for no seat belt use
- Create a primary seatbelt law for under 18 year olds (to transition to a law for all)
- Apply for federal funding for education
- Create a teen focused anti-drinking ad campaign
- Engage in stakeholder work to introduce legislation and sell public to increase the driver age for licensure
- Educate public of passenger restriction benefits for teen drivers
- Coordinate and cooperate between agencies and various stakeholders
- Propose legislation to change to a 2 year license instead of 4 year for mature drivers
- Include more thorough vision test and create a motor skills and mental

- Raise cost of citation for non seatbelt use
- Consider making seat belt violation a moving violation
- Increase education with “click it or ticket”
- Media use of seat belted accident survivors
- Appeal directly to age groups by using youth to promote use on-line advertising
- Increase employer education on mandatory belt usage (tie to worker comp issue for on-the job injuries)
- Lower insurance money for compliance
- Award certification of usage linked to insurance policy coverage
- Void or reduce insurance coverage if not buckled
- Find additional methods to increase youth accountability
- Juvenile DUI courts (first)
- Increase sanctions for selling or providing alcohol
- Mandatory education programs (in schools/drivers ed)
- Route sin tax money to education/DUI courts
- .00 per se implied consent
- MIP impact driving privileges
- Campaign/media appeal to age groups for alcohol/drug abstinence
- Increase night time driving restrictions
- Driving experience through 3 stages of exposure
- Transfers between states agreements
- Create campaign for parent/teen agreement
- Stiffen penalties for violations of passenger restrictions – include suspensions
- Provisional licenses until 17 or 18

Next Steps

This Strategic Highway Safety Plan acts as the beginning point to decrease the number of fatalities and serious injuries on Idaho’s roadways. It is expected that this plan will be periodically updated as Idaho learns from the implementation of this plan.

If they do not currently exist, Action Plan Groups will be created by the Steering Committee for all ten emphasis areas. When possible, members will be representative of engineering, enforcement, education, and emergency medical services. These committees will develop action plans, including priorities and detailed processes, to begin implementing strategies for the emphasis areas. Routine meetings will be held and minutes will be recorded to document past efforts, reviews of databases, potential new strategies, and results from prior implementations. All information, data, and ideas will be assembled to create a “Tool Box” for each emphasis area.

One year following the implementation of the plan, the Action Plan Group will

begin measuring the success of implemented strategies through evaluation and investigation in order to determine their effectiveness. In particular, they will analyze whether fatality and serious injury rates and numbers have increased or decreased and where they are being best influenced. The Group will recommend whether strategies should be further implemented in other areas. Following their recommendations, strategies will be added, removed, or modified to enhance the safety of Idaho roadways. The Steering Committee will oversee this process. In support of the Action Plan Group, ITD's Traffic Records Committee will continue to work toward providing accurate, timely and complete highway crash data.
