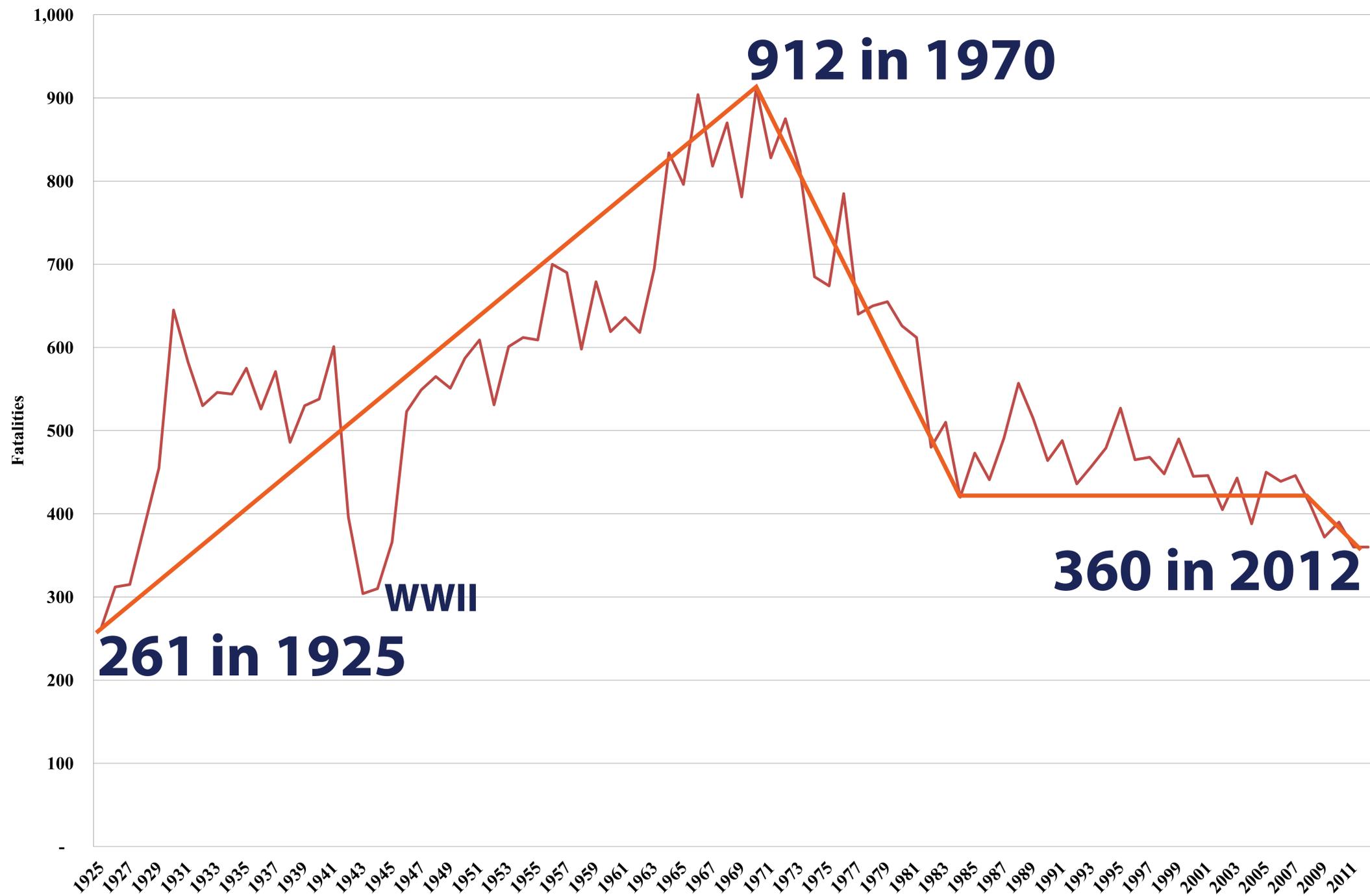


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Fatality History Iowa 1925 - 2012



Iowa Strategic Highway Safety Plan

Iowa and National Resources for Topic Analysis and Selection

7/24/2012

Category	Topic	Sub-Topic	1998	2001		~2004	2006	2008	2010	2011
			AASHTO SHSP 22 ch	SMS 28 ch	NCHRP 23 vol	KEA 39 topics	IA CHSP 5 topics, 8 programs	KEA/CHSP 41 topics	TZD 15 ch	NHTSA 9 ch
Drivers										
	Younger Drivers	Younger Drivers- Graduated Licensing & Education	Goal 1	Ch 7	Vol 19	x	GDL	x	4.2.4	Ch 6
		Drivers Fully Licensed & Competent	Goal 2	Ch 5	Vol 02					
	Older Drivers	Older Drivers - Sustaining Proficiency	Goal 3	Ch 8	Vol 09	x	Senior Mobility	x	4.3	Ch 7
	Speed-Related	Curbing Aggressive (High Risk) Driving	Goal 4	Ch 4	Vol 01/23	Reckless, Speeding		Reckless, Speeding		Ch 3
	Impaired Driving	Reducing Impaired Driving	Goal 5	Ch 6	Vol 16	Impaired		Impaired		Ch 1
	Inattentive Driving	Reducing Distracted Driving		Ch 3	Vol 14	Inattentive		Inattentive, Cellphone		Ch 4
		Keeping Drivers Alert	Goal 6	Ch 3	Vol 14	Asleep		Asleep		Ch 4
		Increasing Driver Safety Awareness	Goal 7	Ch 1	Vol 14		Safety Train/Educ		4.2.3	
	Unprotected Persons	Increasing Seatbelt Usage & Airbag Awareness	Goal 8	Ch 2	Vol 11	Unbelted Persons	All positions belted	x	4.2	Ch 2
		Illegal Manuevers (Run Signal/Sign or Wrong Way)						x		
Highways										Ch 6
	Train	Reducing Vehicle-Train Crashes	Goal 14	Ch 21		Train		Trains		
		Reducing Vehicle-Animal Crashes		Ch 22		Animal		Animals		
	Lane Departures	Reducing Run-off-Road Crashes	Goal 15	Ch 17	Vol 03/06/07/08	SVROR, Lane Departure	Lane Departure	SVROR, Fixed Object		
	Lane Departures	Reducing Head-on & Across-median Crashes	Goal 18	Ch 18	Vol 04/07/20	x		MVCM/MVCC		
	Roadside Collisions	Minimizing Run-off-Road Consequences	Goal 16	Ch 17	Vol 03/06/07/08	Fixed Object		Fixed Object		
	Intersections	Improving Design/Operation of Intersections	Goal 17	Ch 16	Vol 05/12	Intersection	Intersections	Intersection		
		Accommodating Older Drivers		Ch 20	Vol 09					
	Work Zones	Designing Safer Work Zones	Goal 19	Ch 19	Vol 17	Work Zone			4.8	
		Rollover						Rollover		
	Local Roads	Local Roads					Local Roads		6.6	
		Unpaved Rural Roads					Unpaved Rural Rds			
	Winter Road Conditions	Icy, Snowy, Slushy				Icy, Snowy, Slushy		Icy, Snowy, Slushy		
Special Users										
	Pedestrians	Pedestrians	Goal 9	Ch 9	Vol 10	Pedestrian		Pedestrian	4.5	Ch 8
	Pedalcyclists	Bicyclists	Goal 10	Ch 10	Vol 18	Bicyclists		Bicyclists		Ch 9
Vehicles										Ch 5
	Other Vehicles	Schoolbuses, Public Transit, Farm Vehicles		11,12,15				Schoolbus, Bus, Farm		
	Motorcycles	Motorcycles	Goal 11	Ch 13	Vol 22	Motorcycle	Helmets	Motorcycle, Unprotected	4.7	Ch 5
	Heavy Trucks	Trucks	Goal 12	Ch 14	Vol 13	Heavy Truck		Heavy Truck	5.5	
		Safety Enhancements in Vehicles	Goal 13						5.4	
Health										
	Enhancing EMS	Enhancing Emergency Medical Capabilities	Goal 20	Ch 24	Vol 15					Ch 8
		Public Health								Ch 9
Management										
		Implementing Road Safety Audits		Ch 23						
		Improving Info & Decision Support Systems	Goal 21	Ch 25	Vol 21		Crash Data Records			Ch 10
		Creating More Effective Safety Processes/Systems	Goal 22	Ch 27	501 Report					
		Using ITS to Improve Highway Safety		Ch 26						
		Develop Multidisciplinary Safety Teams		Ch 28						
		Education								Ch 15
	Legislative Initiatives	Legislative Initiatives								Ch 7
		TSIP Funding					TSIP \$\$			
		Enforcement Funding					Enforcement \$\$			
		Safety Corridors					Safety Corridors			
	Safety Culture	Safety Culture								Ch 3
		Leadership & Organizations								Ch 11
		Performance Measures								Ch 12
		Communication								Ch 13
		Information & Knowledge Mgmt								Ch 14

AASHTO: American Association of State Highway Transportation Officials SHSP Model

SMS: Iowa Safety Management System Toolbox of Safety Strategies

NCHRP: 2005 forward National Cooperative Highway Research Program multi-disciplinary "500 Series" of topical guides for SHSP Safety Strategies

CHSP: Iowa Comprehensive Highway Safety Plan

TZD: Draft: Toward Zero Deaths AASHTO update of the SHSP model

NHTSA: National Highway Traffic Safety Administration "Countermeasures that Work" includes Governor's Highway Safety Association input

KEA: Key emphasis area data analysis

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Crash Severity Frequency Fatalities and Major Injuries Iowa 2007-2011

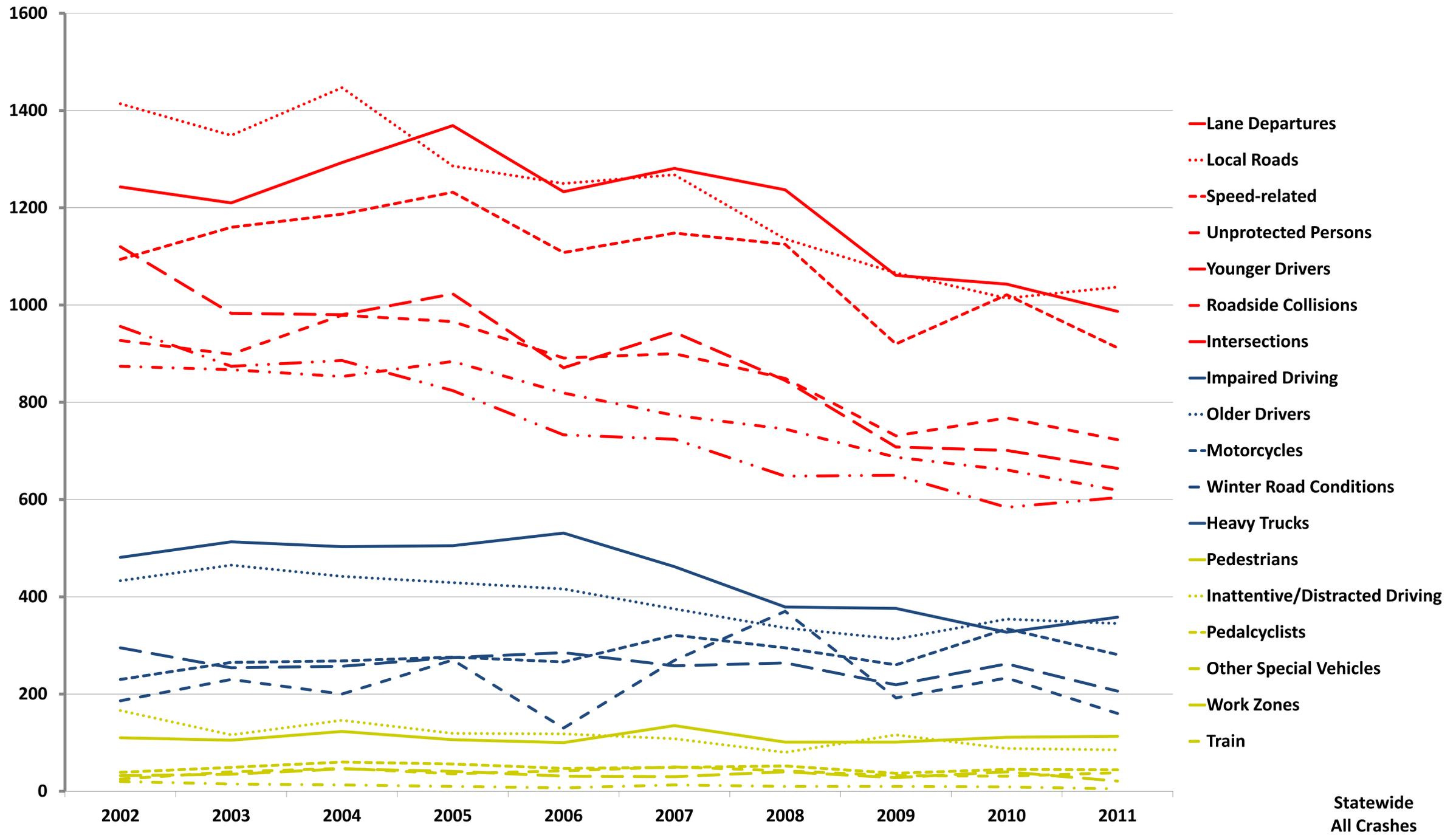
2007 - 2011

Category	Topic Totals	Crash			Injury			Severe Injury Rank	2006 CHSP	%age of Severe Injuries	
		Fatal	Major	Severe*	Fatalities	Major	Severe*				
		1774	6969	8743	1977	8598	10575				
Drivers											
	Younger Drivers	522	2531	3053	607	3255	3862	5	x	36.52%	D _{YNG}
	Older Drivers	388	1033	1421	431	1292	1723	9	x	16.29%	D _{OLD}
	Speed-related	890	3337	4227	991	4135	5126	3		48.47%	D _{SPD}
	Impaired Driving	435	1086	1521	492	1410	1902	8		17.99%	D _{IMP}
	Inattentive/Distracted Driving	54	315	369	66	411	477	14	x	4.51%	D _{I/D}
	Unprotected Persons	930	2192	3122	1044	2927	3971	4	x	37.55%	D _{UP}
Highway											
	Train	12	31	43	13	34	47	18		0.44%	H _{TRN}
	Lane Departures	1184	3307	4491	1332	4277	5609	1	x	53.04%	H _{LD}
	Roadside Collisions	685	2274	2959	752	2733	3485	6		32.96%	H _{RCD}
	Intersections	390	2261	2651	425	2785	3210	7	x	30.35%	H _{INT}
	Work Zones	29	101	130	35	124	159	17		1.50%	H _{WZ}
	Local Roads	864	3887	4751	931	4590	5521	2	x	52.21%	H _{LR}
	Winter Road Conditions	191	794	985	213	1011	1224	11		11.57%	H _{WRC}
Special Users											
	Pedestrians	105	420	525	112	449	561	13		5.30%	S _{PED}
	Pedalcyclists	27	195	222	27	200	227	15		2.15%	S _{CYC}
Vehicles											
	Motorcycles	244	1095	1339	257	1234	1491	10	x	14.10%	V _{MOT}
	Heavy Trucks	321	669	990	371	838	1209	12		11.43%	V _{TRK}
	Other Special Vehicles	45	117	162	47	146	193	16		1.83%	V _{OSV}

* Severe = Fatal + Major for both crashes and injuries, respectively.

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Topic Area Trends Fatalities and Major Injuries Iowa 2002 – 2011



Statewide
 All Crashes

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Crash Severity Frequency Fatalities and Major Injuries Iowa 2007-2011

2007 - 2011

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Sample Haddon Matrix Applied to Motor Vehicle Crashes

Dr. William Haddon Jr.: Lifetime crusader for safer automobiles and first director of the National Highway Traffic Safety Administration.

A physician and engineer with degrees from the Massachusetts Institute of Technology, Harvard Medical School and Harvard School of Public Health

PHASES	FACTORS			
	Host/ Driver or Passenger	Vehicle/Vector <i>(objects that transmit kinetic energy)</i>	Physical Environment	Social Environment (Traffic Safety Culture)
Pre-Event (Before the crash occurs)	<ul style="list-style-type: none"> ➤ Driver vision ➤ Alcohol Impairment ➤ Driver experience/ ability ➤ Driver knowledge ➤ Restraint/ helmet choice ➤ Driver rested and attentive 	<ul style="list-style-type: none"> ➤ Maintenance of brakes and tires ➤ Speed of travel ➤ Load characteristics ➤ Anti-lock braking system (ABS) ➤ Electronic stability control (ESC) 	<ul style="list-style-type: none"> ➤ Adequate roadway markings ➤ Divided highways ➤ Roadway lighting ➤ Intersection configuration ➤ Road curvature ➤ Adequate shoulders and rumble strips 	<ul style="list-style-type: none"> ➤ Public / community attitudes on drinking and driving ➤ Impaired driving laws ➤ Graduated licensing laws ➤ Speed limits ➤ Enforcement and adjudication of traffic laws ➤ Support for injury prevention programs
Event (During the crash)	<ul style="list-style-type: none"> ➤ Spread out energy in time and space with seat belt/ airbag use ➤ Child restraint use 	<ul style="list-style-type: none"> ➤ Vehicle size ➤ Crashworthiness of vehicle- crash space, crush resistance, safety rating 	<ul style="list-style-type: none"> ➤ Guard rails, median barriers ➤ Presence of fixed objects near roadway ➤ Roadside embankments 	<ul style="list-style-type: none"> ➤ Adequate seat belt and child seat laws ➤ Motorcycle helmet laws
Post-Event (After the crash)	<ul style="list-style-type: none"> ➤ Crash victim's overall health ➤ Age of victim 	<ul style="list-style-type: none"> ➤ Gas tanks designed to minimize fires ➤ On-Star or other automated crash notification and GPS locator 	<ul style="list-style-type: none"> ➤ Availability of effective EMS systems and staffing ➤ Effective incident site management ➤ Distance to quality trauma care ➤ Rehabilitation programs available 	<ul style="list-style-type: none"> ➤ Policies and funding supporting emergency and medical response systems ➤ Public support for trauma care and rehabilitation ➤ EMS training ➤ Resources and programs for psychological recovery from trauma

Adapted from: Injury Prevention: Meeting the challenge. AJPM, 1989; Christoffel T. Gallagher S. Prevention and Public Health, Gaithersburg, MD. 1999

Iowa Strategic Highway Safety Plan (SHSP) website

<http://www.iowadot.gov/traffic/shsp/default.html>

Iowa Department of **TRANSPORTATION**

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Iowa Strategic Highway Safety Plan (SHSP) 2012

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- Sign shop
- Traffic engineering
- Transportation safety
- Utility accomodation
- Work zone safety

What is a Strategic Highway Safety Plan (SHSP)?

An SHSP is a statewide-coordinated safety plan that provides a comprehensive framework for reducing highway fatalities and serious injuries on all public roads. The SHSP strategically establishes statewide goals, objectives and key emphasis areas developed in consultation with federal, state, local and private sector safety stakeholders.

The SHSP plan process is a requirement of the Federal Highway Administration's Highway Safety Improvement Program (HSIP). In general, the federal HSIP requires that state transportation departments develop an SHSP that:

- Includes consultation from a variety of stakeholders during the development process.
- Analyzes and makes effective use of crash data.
- Addresses the 4Es plus management and operations. (The 4Es are engineering, enforcement, education and emergency services.)
- Considers the safety needs of all public roads.
- Describes a program of projects or strategies to reduce or eliminate safety hazards.
- Is implemented and evaluated.

When will Iowa's SHSP be revised?

Over the next few months, the Iowa DOT, along with many highway safety interests, will discuss and then develop an updated Strategic Highway Safety Plan.

Why now?

The Iowa Comprehensive Highway Safety Plan was developed in 2006 and a peer review was conducted in 2011. It is time for an update.

How is the Iowa SHSP developed?

This effort is led by the Office of Traffic and Safety and will be similar to the 2006 Iowa Comprehensive Highway Safety Plan. The process will include collaboration to analyze Iowa safety data, and identify safety improvement strategies and opportunities.

 For more information, contact: [SHSP program manager](#)



[View the complete Iowa Comprehensive Highway Safety Plan.](#)



[SHSP webinar recording from Nov. 13, 2012](#)



SHSP WORKSHOP
January 23, 2013



Save the date!