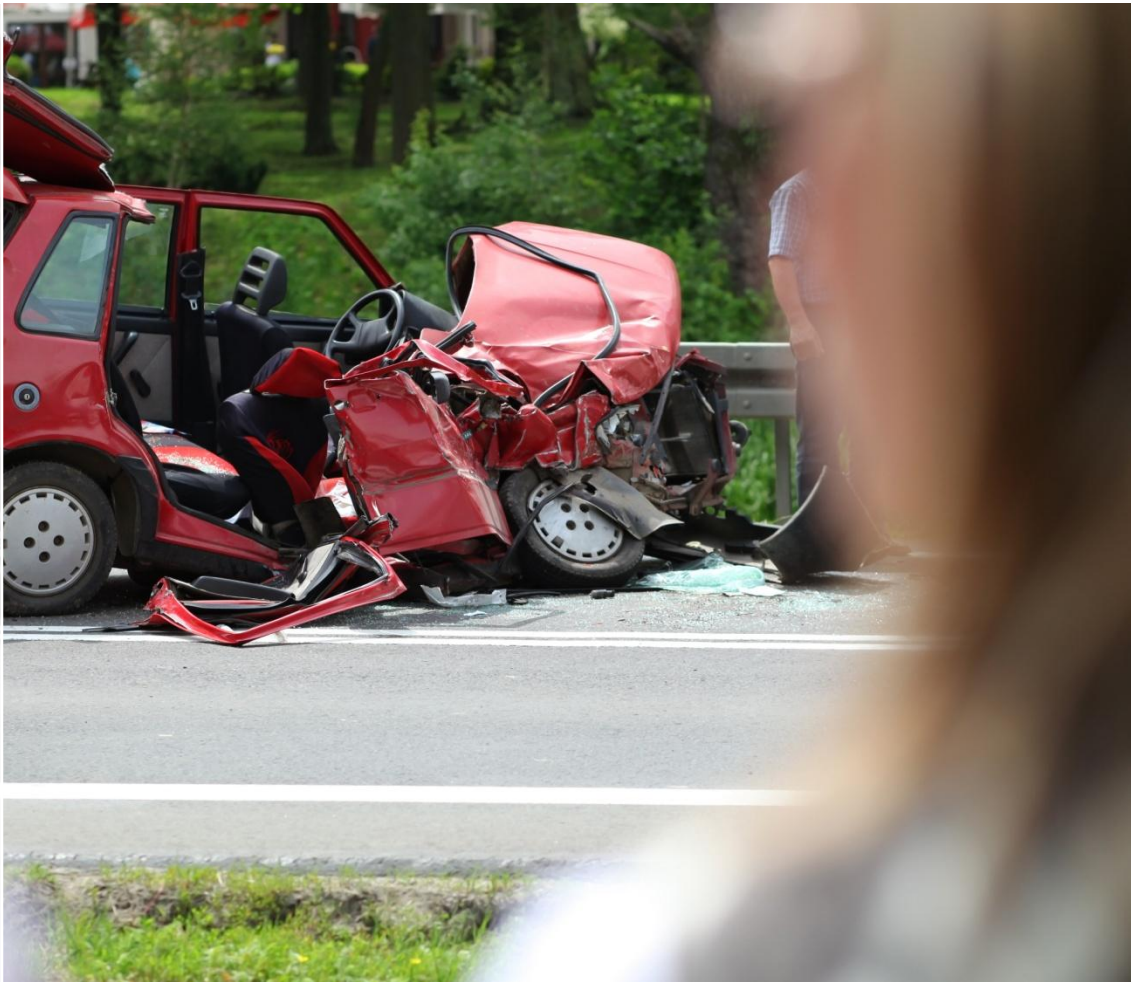


# Traffic Safety in Saskatchewan

Saskatchewan Government Insurance



This report on traffic safety in Saskatchewan was prepared for review by the Legislative Committee on Traffic Safety. It includes an overview of collision statistics and discusses opportunities for increasing safety on Saskatchewan roads.

**Traffic Safety in Saskatchewan**  
Saskatchewan Government Insurance  
May 2013

## Current status of traffic safety

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Saskatchewan's roads are the deadliest in Canada, per capita. While injury rates on Saskatchewan roads are trending downward, deaths and property-damage-only collisions are trending up. A 12% decrease in traffic deaths per capita in 2011 looked promising; however, the decrease was followed by one of the deadliest years on Saskatchewan roads in 2012 with 180 people losing their lives.

While the higher death rate on Saskatchewan roads can be explained in part by geography—long distance commutes on high-speed roads due to the province's proportion of population resident in rural communities—there are other factors that may explain why Saskatchewan's road safety lags behind other provinces.

SGI examined traffic safety programming, legislation, education and enforcement in Alberta, Manitoba and British Columbia to understand the differences in collision results. Although there are more similarities among the three provinces than differences, the differences are significant and impactful. For example, Alberta and Manitoba employ photo radar to apprehend speeders, while Saskatchewan does not. Saskatchewan's drinking and driving laws are similar to the other provinces, but lack the strength of new British Columbia and Alberta laws. British Columbia and Alberta now have longer immediate roadside driver's licence suspensions for impaired drivers, as well as vehicle impoundments. Manitoba's sanctions are also tougher than Saskatchewan's. Most importantly, Saskatchewan is dramatically behind both British Columbia and Alberta with respect to the number of traffic enforcement personnel on its roadways. Without adequate enforcement, or at least the perception of enforcement, even good traffic laws are ineffective as drivers are more likely to ignore them if they believe there is little chance of being caught.

Without a concerted effort to improve traffic safety, it is likely the death and injury toll on Saskatchewan roads will continue to be unacceptable and the province will continue to lag behind the rest of Canada on road safety. A strong Saskatchewan economy and growing population are resulting in more drivers and vehicles on Saskatchewan roads, and the recent development of Saskatchewan's Global Transportation Hub is increasing truck traffic – these factors have the potential to further increase the number of collisions in Saskatchewan.

Significant improvements in traffic safety are required to reduce collisions, save lives, prevent injuries, reduce claim costs, drive down premiums for basic auto insurance and reduce societal costs such as lost productive capacity, loss of quality of life, policing costs and court costs. Significant reductions in collisions will also reduce the burden on the health care system by freeing up doctors, nurses and beds for other patients.

## SGI's role in traffic safety

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SGI assumed responsibility for traffic safety in Saskatchewan from the Department of Highways (now the Ministry of Highways and Infrastructure) in the mid-1980s. While SGI is responsible for most road safety legislation, regulations, programs and policies, some aspects of commercial vehicle safety remain with the Ministry of Highways and Infrastructure. The enforcement of traffic laws is the responsibility of law enforcement agencies. Regulations for building safety enhancements into new vehicles are the responsibility of the federal government.

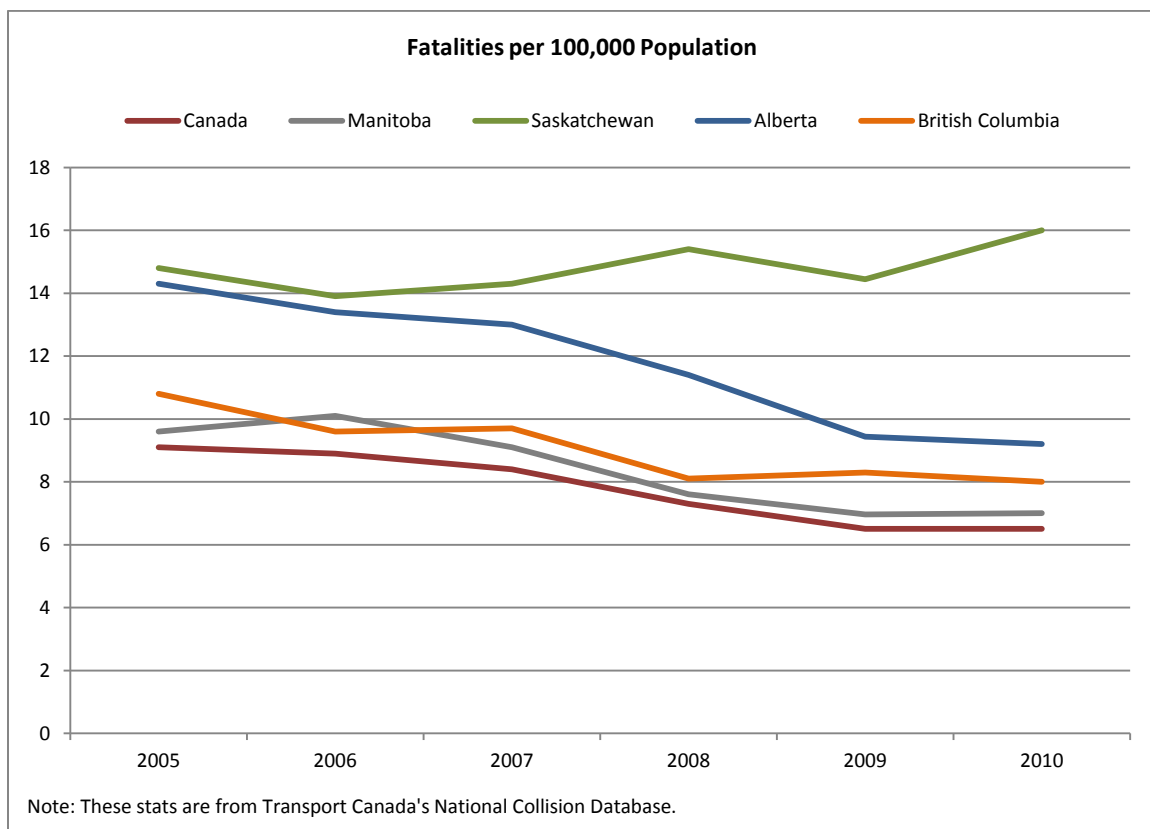
In addition to administering road safety legislation, regulations, programs and policies, SGI currently invests around 3% of the insurance premiums collected by the Saskatchewan Auto Fund into traffic safety.

## Collision statistics

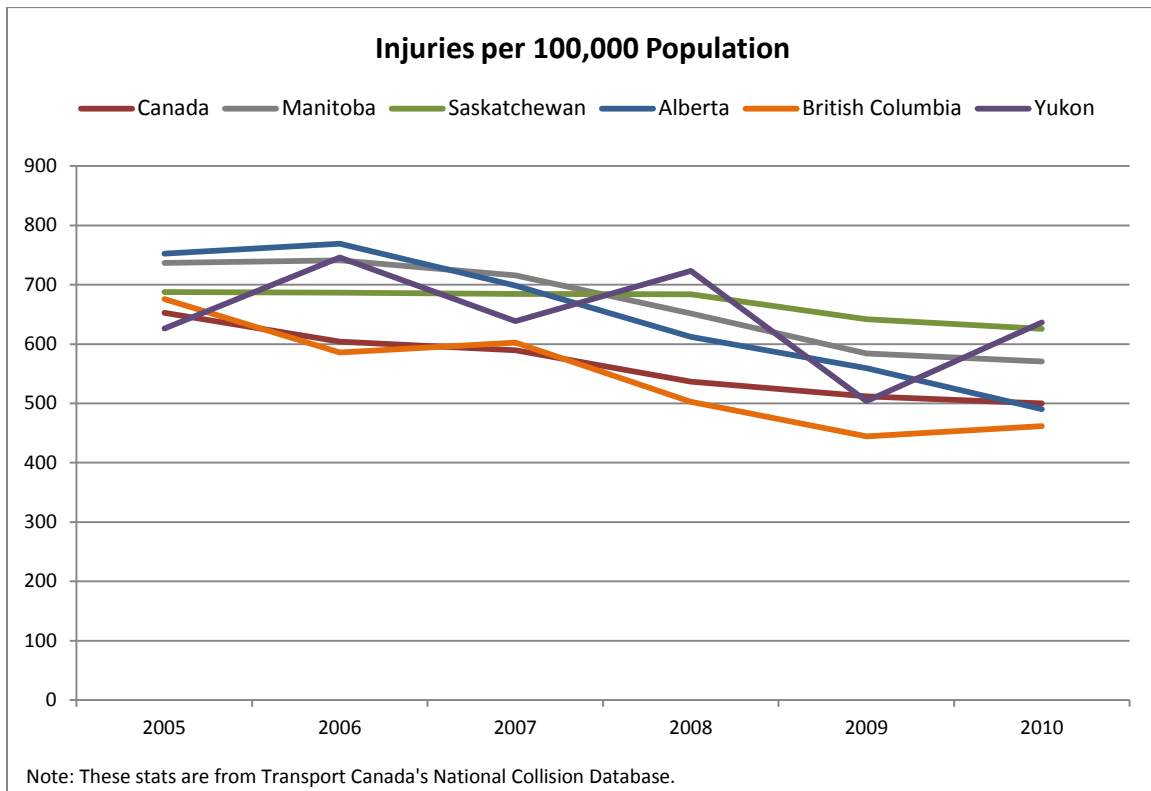
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### Overview of collisions:

Per capita, more people die on Saskatchewan roads than anywhere else in Canada. While traffic fatalities are trending down in most of the country, they are trending up here.



Saskatchewan also has the second highest traffic injury rate in Canada.



Preliminary numbers for 2012 indicate that 180 people were killed on Saskatchewan roads, making it one of the worst years for fatalities in the past two decades – second only to 1999 with 189 deaths.

These deaths are tragic and preventable – consider the following collisions reported by the media in 2012:

March 15 – Three people killed and two seriously injured in a rollover on Highway 1 near Chaplin – alcohol, inattention and speed were contributing factors. Investigators reported the victims may not have been wearing seatbelts.

June 10 – Four people killed and three injured in a two-vehicle collision on Highway 7 near Rosetown. The driver was attempting to pass a transport truck. A father and his two teenage daughters were among the deceased.

July 5 – One person killed and three injured in a collision on a grid road in the Esterhazy area – alcohol and speed were believed to be contributing factors.

July 20 – An RCMP officer was killed following a collision with a moose on Highway 14 near Wilkie.

July 21 – A 73-year-old woman was struck by a suspected impaired driver when crossing the street at a marked crosswalk in Saskatoon. She later died of her injuries.

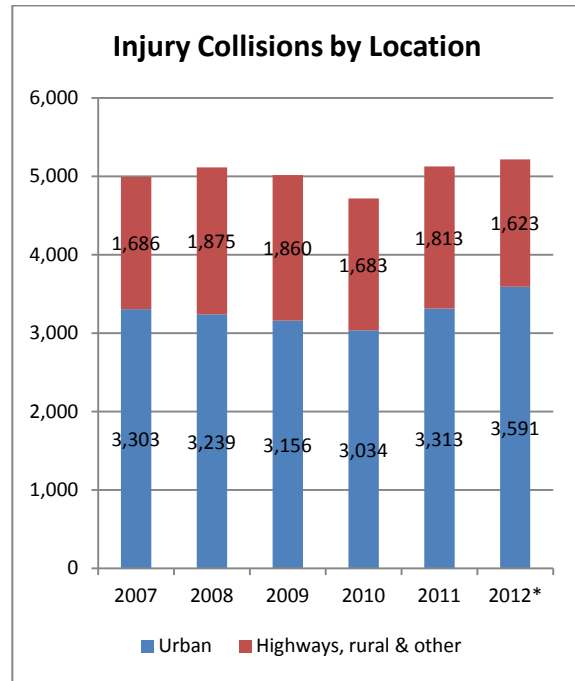
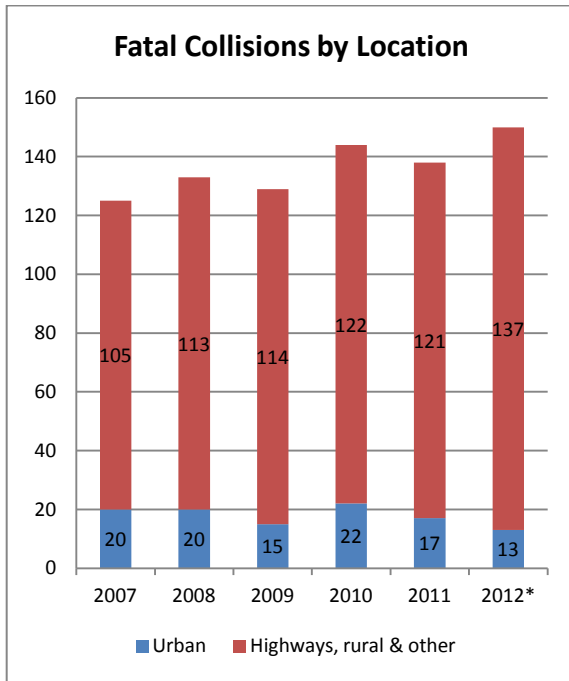
September 15 – Four people killed and three injured in a collision on Highway 12 near Blaine Lake – alcohol was believed to be a contributing factor.

In addition to the lives lost and injuries sustained, traffic collisions cost the Saskatchewan Auto Fund in excess of \$621 million each year – the average cost for a property damage claim is \$3,600, \$42,000 for an injury claim and \$142,000 for a fatality claim. These costs are passed on to Saskatchewan vehicle owners through their basic auto insurance premiums.

Based on analysis of collision statistics, SGI has identified key factors contributing to the cause and/or severity of traffic collisions in the province, including impaired driving, distracted driving, excessive speed, intersection safety, seatbelt use and wildlife. Collision location is also of interest.

### Collisions by location:

The vast majority (over 80%) of fatal collisions and roughly 40% of injury collisions on Saskatchewan roads occur outside of major cities and within RCMP jurisdictions.



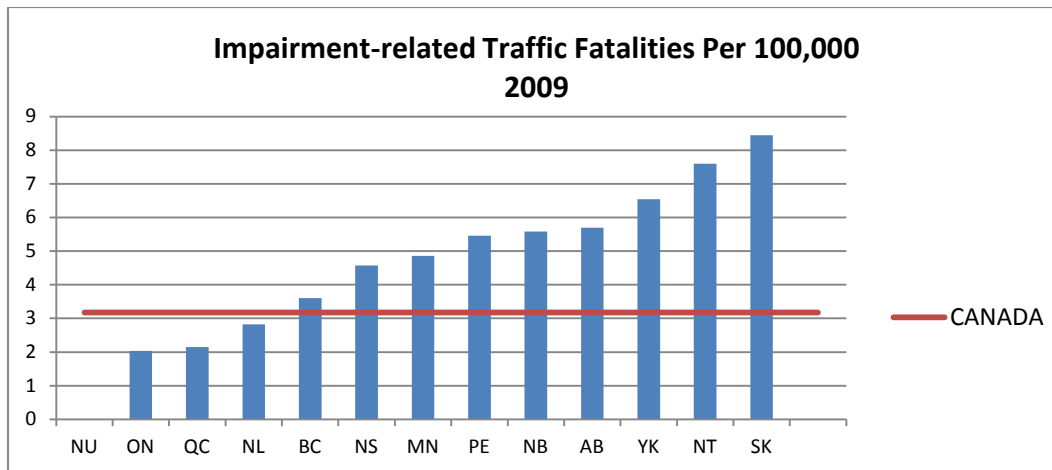
\*2012 collision data is preliminary and subject to change.  
 Note: These stats are from the Traffic Accident Information System.

On average, the collisions occurring in RCMP jurisdictions result in 3,201 injuries and 142 deaths each year. Although 2012 numbers are yet to be completed, preliminary figures indicate 3,217 injuries and 165 deaths have been reported in these areas.

### Alcohol-related collisions:

Impaired driving is the main contributing factor in fatal collisions in Saskatchewan. Between 2000 and 2012, 41% of deaths and 12% of injuries on Saskatchewan roads were alcohol-related.

Saskatchewan has the highest rate of impaired driving fatalities per capita in Canada.

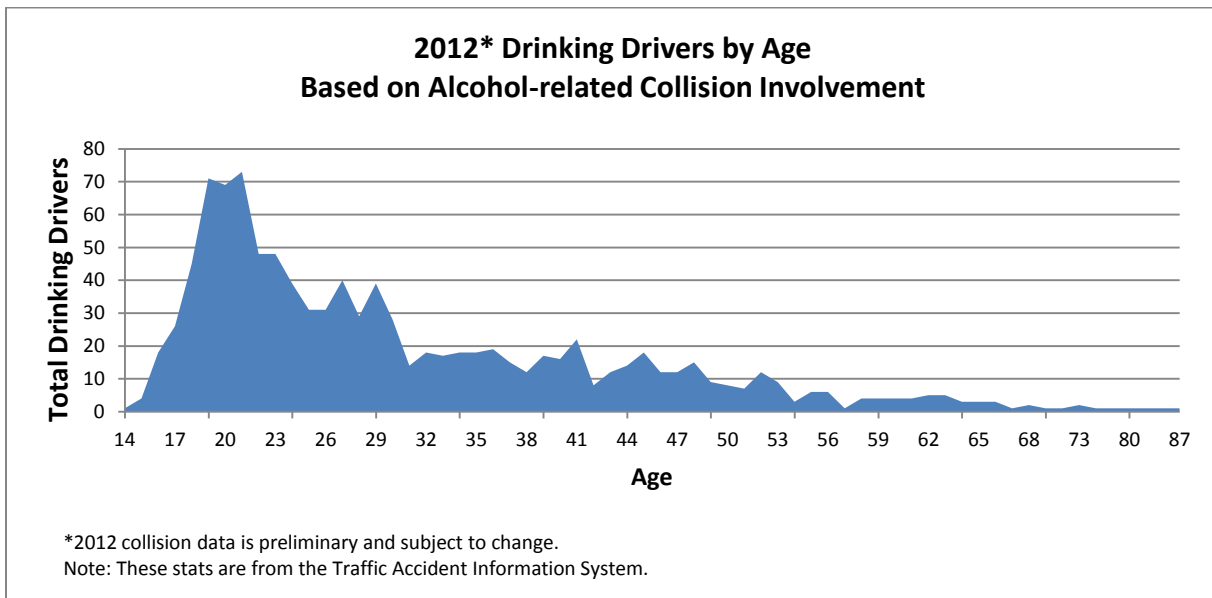


Note: These statistics are from MADD Canada.<sup>1</sup>

Alcohol-related crashes are generally more severe compared with all other crashes. In Saskatchewan, on average, 37% of alcohol-related crashes result in injury or death compared with 10% for all other crashes.

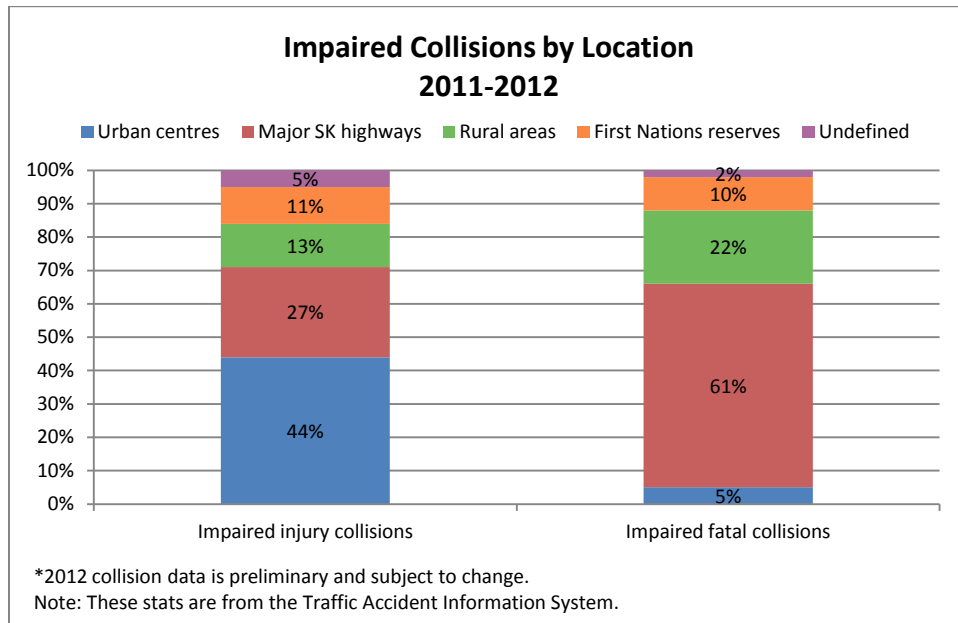
In preliminary crash data for 2012, 48 alcohol-related fatal collisions were reported – 36 (60%) of the resulting deaths were passengers or the operator of another vehicle.

Drivers 17 years of age and younger account for only 4% of licensed drivers in Saskatchewan and drivers 18 to 20 years old account for only 5%. Over the past five years, these two groups accounted for 8% and 18% respectively of all drivers involved in fatal alcohol-related collisions in the province.



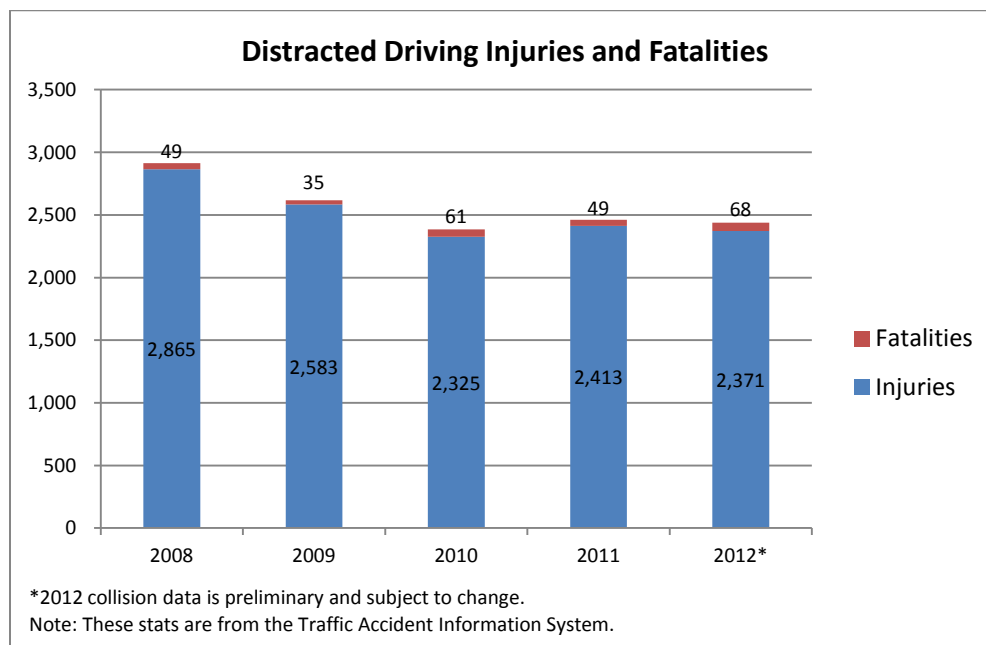
<sup>1</sup> [http://www.madd.ca/media/docs/MADD\\_Canada\\_2012\\_Provincial\\_and\\_Territorial\\_Legislative\\_Review\\_FINAL.pdf](http://www.madd.ca/media/docs/MADD_Canada_2012_Provincial_and_Territorial_Legislative_Review_FINAL.pdf)

Approximately 95% of fatal collisions and 56% of injury collisions involving impaired drivers occur outside of urban centres.



### Distracted driving collisions:

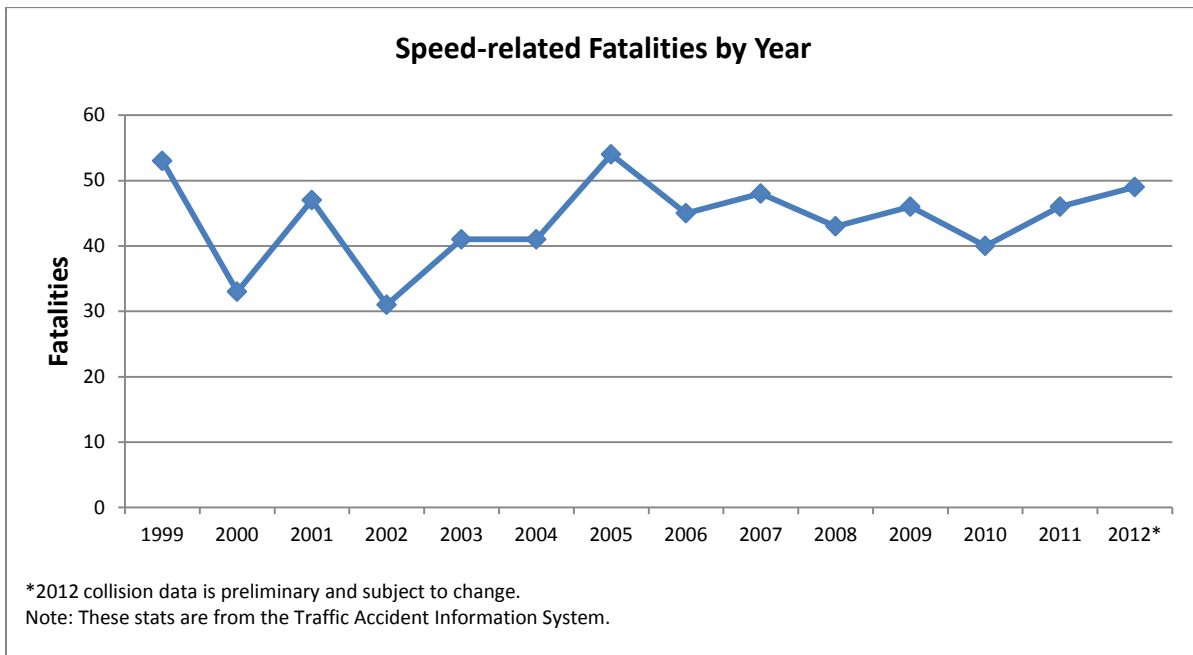
In Saskatchewan, driver inattention/distraction is the most cited contributory factor in all collisions, accounting for close to 25% of all factors reported in collisions. In fatal collisions, driver inattention/distraction is the second most commonly cited factor. It is likely that driver distraction is under-reported, as with many distractions, it is difficult to prove they were a factor in the collision if the driver or other vehicle occupant does not volunteer the information.



Unfortunately, Saskatchewan’s current distracted driving laws are difficult to enforce. While the challenges with enforcing distracted driving laws are not unique to Saskatchewan, the lack of enforceability enables the behaviour.

### Speed-related collisions:

Unsafe speed is a major contributing factor to traffic collisions in Saskatchewan – contributing to 31% of traffic deaths, 15% of traffic injuries and 9% of property-damage-only collisions. Current initiatives and enforcement efforts are not improving the situation.



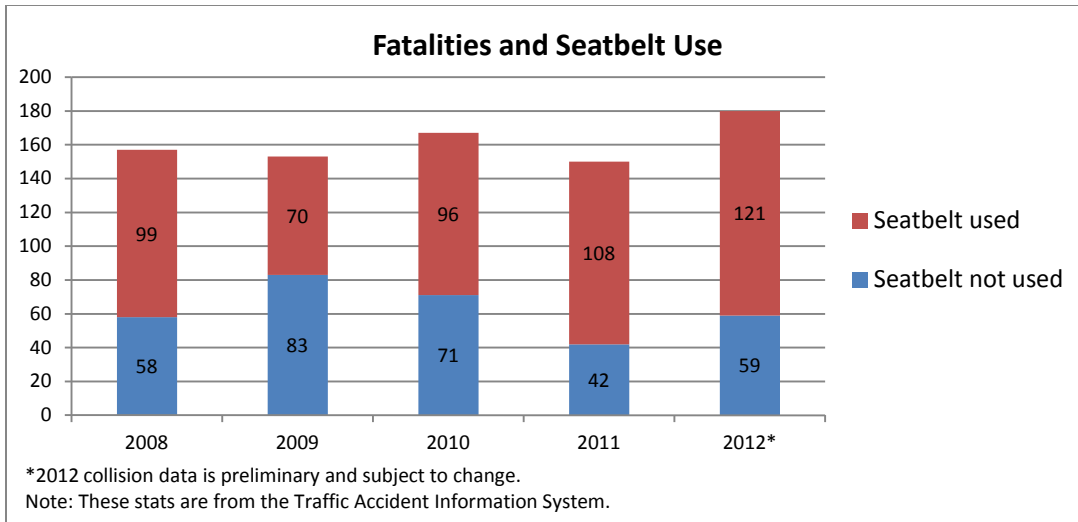
Each year, there is upwards of 24,600 unsafe speed-related collisions on Saskatchewan roads that claim 45 lives and injure 979 others.

Collisions due to excessive speeding are generally severe – about 67% of excessive speeding collisions result in injury or death compared with only 22% for non-speed related collisions.

### Seatbelt use in collisions:

Failure to use occupant restraints, particularly seatbelts, is a significant contributor to fatalities and serious injuries in Saskatchewan. Sixty per cent of fatalities on rural roads, and almost all fatalities on roads in First Nation communities, involve unbelted (and often ejected) occupants. The use of occupant restraints, such as seatbelts, can increase an individual’s chance of surviving a crash, or sustaining a less serious injury, by 50%. Proper use of child restraint systems can reduce the likelihood of injury by 70% and fatality by 90%.

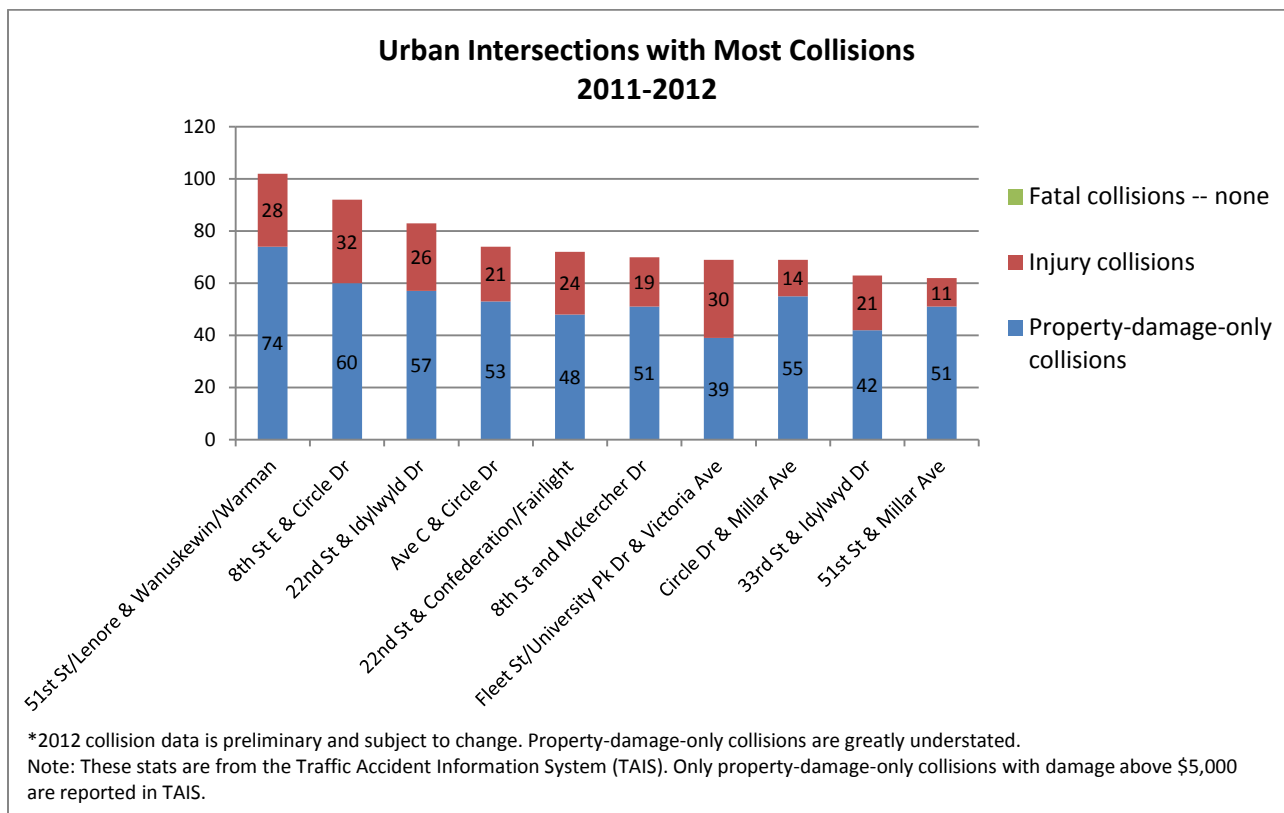




## Intersection collisions:

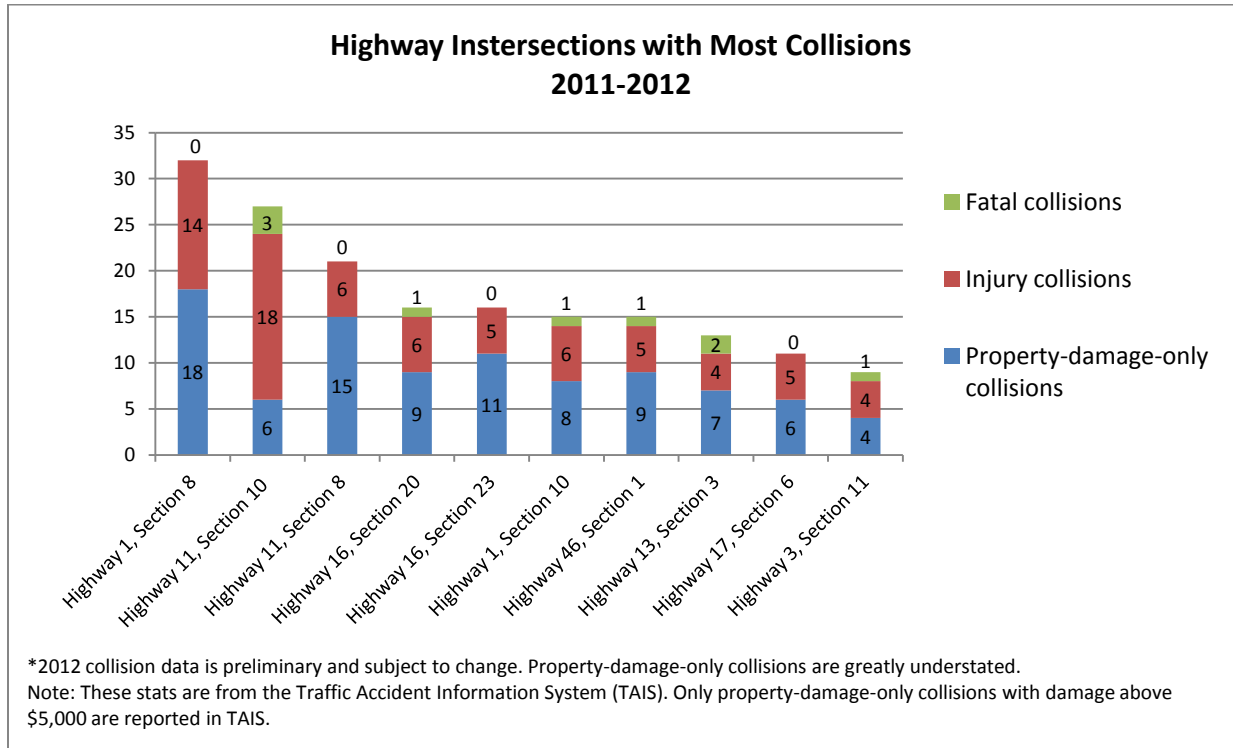
About 25% of fatal collisions, 57% of injury collisions and 40% of property-damage-only collisions occur at intersections. Approximately 55% of all injury collisions and 37% of all property-damage-only collisions occur at urban intersections.

In 2011 and 2012, the 10 urban intersections with the highest number of collisions in Saskatchewan were the site of 530 property-damage-only collisions and 226 injury collision. Nine of these 10 intersections are in Saskatoon, and one is in Regina (Fleet St./University Park Dr. and Victoria Ave.).



The five major contributing factors in these collisions intersections were driver inattention, failure to yield the right of way, following too closely, weather conditions and driving too fast for road conditions.

In 2011 and 2012, the 10 highway intersections with the highest number of collisions in Saskatchewan were the site of 530 property-damage-only collisions and 226 injury collision.

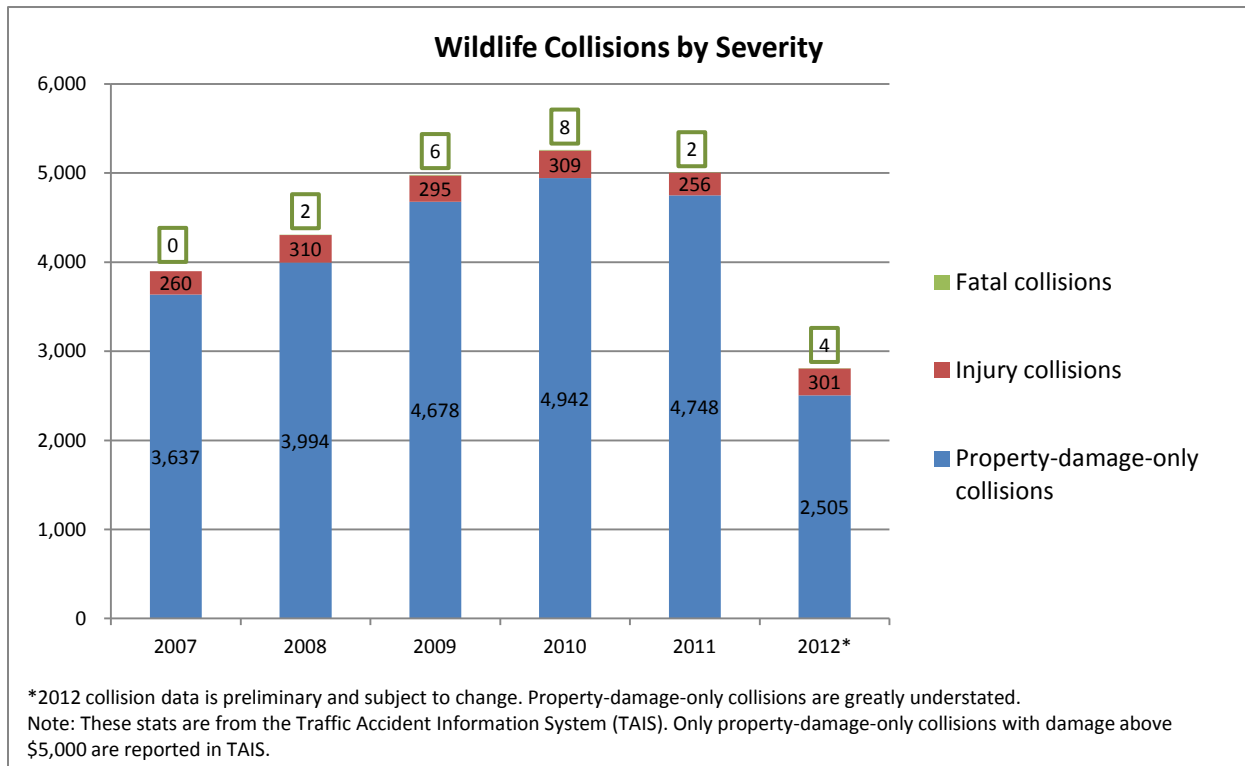


Highway Control Section	Identifying Cities	Control Section Length
Hwy 1, Section 8	Balgonie to Regina	18.44 km
Hwy 11, Section 10	Saskatoon to Warman	56.51 km
Hwy 11, Section 8	Dundurn to Saskatoon	41.27 km
Hwy 16, Section 20	Elstow to Saskatoon	31.83 km
Hwy 16, Section 23	Saskatoon to Langham	15.83 km
Hwy 1, Section 10	Regina to Junction of Hwy 301	54.43 km
Hwy 46, Section 1	Balgonie to Regina	62.78 km
Hwy 13, Section 3	Carlyle to Stoughton	41.18 km
Hwy 17, Section 6	Lloydminster to Onion Lake	23.08 km
Hwy 3, Sect 11	Prince Albert to Shellbrook	19.69 km

The five major contributing factors in these collisions were driver inattention, failure to yield the right of way, traffic control devices disregarded, driving too fast for road conditions and following too closely.

## Collisions with wildlife:

Collisions with wildlife, mostly deer and increasingly moose, are a serious concern on Saskatchewan roads. These collisions typically occur on provincial highways and rural roads, and contribute to most of the property-damage-only collisions on these roads. From 2007 to 2012, 22 people were killed on Saskatchewan roads due to wildlife collisions and 2,098 were injured.



The costs associated with wildlife collisions, including property damage, injury and fatal claims, are significant and growing – \$36.5 million in 2006 to \$51.6 million in 2012.

## SGI's approach to traffic safety

To address traffic safety issues, SGI applies a safe system framework that requires the presence of four variables: strong legislation; adequate/visible enforcement; timely and targeted education; and, good engineering of vehicles, roads and related infrastructure. Without all four variables, it is challenging to achieve long-term traffic safety benefits.

Historically, SGI's focus has been on strong legislation, and timely and targeted education, as these components are more directly within SGI's influence. While SGI works with law enforcement agencies and other partners to increase enforcement and improve engineering, SGI has limited influence. Some traffic safety initiatives SGI has been involved with are highlighted below.

## **Strong legislation:**

**Addiction screening** – Addiction screening was introduced in 1996 for drivers convicted of drinking and driving offences, and certain types of roadside suspensions for alcohol offences. These drivers are screened to find out if they have an alcohol addiction problem, and those deemed as having an alcohol problem are referred to a recovery program.

**Driver’s licence suspensions** – In 1996, the provincial driver’s licence suspensions for Criminal Code driving convictions were also expanded.

**Low blood alcohol concentrations (BAC)** – In 1996, Saskatchewan introduced 24-hour roadside administrative driver’s licence suspensions for .04 BAC. In 2005, legislative changes were made to increase the administrative driver’s licence suspension for experienced drivers to 15 days.

**Zero alcohol tolerance for new drivers** – In 2001, Saskatchewan implemented a zero alcohol tolerance level for probationary or new drivers.

**Ignition Interlock** – In 2001, an optional Ignition Interlock program for first-time drinking and driving offenders was introduced. In 2007, the program was expanded to allow repeat offenders to voluntarily participate in the program.

**Safe Driver Recognition** – This program was introduced in 2002 to reward drivers who have safe driving records with a discount on their vehicle insurance, while penalizing drivers who display risky behaviour with smaller discounts or financial penalties.

**Graduated Driver Licensing** – Introduced in 2005, this program incrementally exposes new drivers to higher levels of risk as they gain more experience driving. It has three stages – learner, novice 1 and novice 2.

**Handheld cellphone ban** – In 2010, legislation was introduced to specifically prohibit the use of handheld cellphones on Saskatchewan roads. The law allows the use of hands-free devices by experienced drivers, but imposes a total ban on cellphone use for all new drivers.

**Motorcycle Graduated Driver Licensing** – Introduced in 2011, this program exposes new motorcycle drivers to incremental levels of risk, so they gain driving experience before receiving a full motorcycle endorsement. It is a three-stage program – learner, novice 1 and novice 2.

## **Adequate/visible enforcement:**

**Enforcement Overdrive** – The Enforcement Overdrive program increases the number of roadside check stops for impaired driving in communities across Saskatchewan. SGI pays the voluntary overtime of police officer participants.

**Report Impaired Drivers (RID)** – Introduced in 2010, RID encourages residents to call 911 to report a suspected impaired driver, allowing the public to assist law enforcement in finding and removing impaired drivers from Saskatchewan roads. RID has been effective, but it is SGI’s

understanding that approximately 58% of reported incidents are not attended because there are not enough resources.

**Automated Licence Plate Readers** – SGI provides funding for the purchase of Automated Licence Plate Readers for major police agencies in Saskatchewan. The readers, which are mounted on police cars, read licence plates on passing or parked vehicles, and automatically checks them against SGI and Canadian Police Information Centre data.

**Aerial speed enforcement in Saskatoon** – SGI cost-shared the painting of lines on Circle Drive in Saskatoon that were used to calculate speed for enforcement from aircraft. SGI also cost-shared signs which were installed on Circle Drive to make the public aware of the program.

### **Timely and targeted education:**

**Education and awareness campaigns** – SGI invests a significant amount of money in education and awareness campaigns on various road safety topics – drinking and driving, distracted driving, seatbelts and child restraints, motorcycle safety, wildlife, etc.

**Speed reader boards** – In 2006, SGI and the Saskatchewan Association of Chiefs of Police cost-shared the purchase of Intelligent Speed-Reader boards to assist in managing excessive speeding.

**Students Against Drinking and Driving** – SGI provides funding to Students Against Drinking and Driving (SADD) for overall operation, so the provincial office can support SADD chapters around the province

**SGI Safe Ride app** – In 2012, SGI launched a mobile app that makes planning a safe ride home even easier. The SGI Safe Ride app allows users to access taxis, designated driving companies and bus routes in their community, as well as a personal list of designated drivers from their smartphone or tablet.

**Seatbelt challenges** – The community-driven rural and First Nations seatbelt challenge raises awareness about buckling up through roadside activities and community-based events.

**Child restraint clinics** – SGI child restraint clinics teach parents and caregivers how to properly install child restraint systems.

### **Good engineering:**

**Sanding truck/snowplow in Regina** – In 2009, SGI bought a sanding truck/snowplow for the City of Regina winter road maintenance fleet to be used to improve the road surface friction on high-speed roadways, with priority given to Ring Road.

**Road infrastructure improvements** – SGI provides targeted investments in road infrastructure improvements in Regina, Saskatoon, Prince Albert and on Saskatchewan highways.

**Deer fencing** - In 2007, SGI and the Ministry of Highways and Infrastructure fenced a five kilometre section of Highway 7, starting from the town of Harris in a southwest direction, to manage wildlife collisions.

## **Possible solutions identified by SGI**

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SGI recommends the implementation of a Saskatchewan Traffic Safety Strategy that involves various stakeholders, such as SGI, the Ministry of Justice, the Ministry of Highways and Infrastructure, etc., to combat road safety issues and reduce the number of lives lost and people injured on Saskatchewan roads.

To achieve the greatest crash reductions, SGI also recommends seeking solutions that will address one or more of the factors previously identified as contributing to the cause and/or severity of traffic collisions in the province: impaired driving; distracted driving; excessive speed; intersection safety; seatbelt use; and, wildlife-vehicle collisions. SGI's research and analysis indicates the following traffic safety measures will materially reduce collisions and be the most cost-effective use of traffic safety funding.

### **Strong legislation:**

**Adopt tougher drinking and driving counter-measures for repeat offenders and offenders with high blood alcohol concentrations (BACs) to address the main contributing factor in fatal collisions.**

Saskatchewan used to have the toughest drinking and driving legislation in Canada. Currently, British Columbia, Alberta and Manitoba have tougher legislation than Saskatchewan. SGI recommends exploring the following drinking and driving counter-measures:

1. Expand zero tolerance for alcohol to include all drivers 21 years and under.

While drivers 17 years of age and younger account for only 4% of licensed drivers in Saskatchewan and drivers 18 to 20 years old account for only 5%, over the past five years, they have accounted for 8% and 18% respectively of all drivers involved in fatal alcohol-related collisions in the province.

2. Increase the duration of immediate roadside suspensions for Graduated Driver Licensing program drivers who fail a drug standardized field sobriety test to 30 days.

Currently, new drivers who consume any amount of alcohol and drive receive a 30-day roadside suspension. However, if a new driver is stopped at roadside and the results of a standardized field sobriety test suggests impairment by drugs, the driver receives only a 24-hour roadside suspension.

3. Make addiction screening user pay.

Saskatchewan is one of the only provinces that pays for addiction screenings. To increase the deterrent effect, these costs should be covered by the offending driver – not through basic auto premiums paid by other motorists.

4. Introduce mandatory vehicle impoundments and increase immediate roadside suspensions.

British Columbia introduced tougher drinking and driving legislation in September 2010, which gave police the ability to impound cars and hand out roadside suspensions to drivers with BAC .05 and over. From September 2010 to September 2012, British Columbia experienced a 44% decrease in alcohol-related traffic fatalities. Alberta followed British Columbia's lead and passed similar legislation to deal with impaired drivers in 2012.

A review of SGI's vehicle impoundment program found the risk of reoffending for those whose vehicles were impounded was significantly less for both first-time (25% lower) and multiple-time offenders (13% lower) when compared to similar drivers prior to the introduction of the program. Multiple-time offenders whose vehicles were impounded were also 30% less likely to have a *Criminal Code* drinking and driving offence in the two-year period following impoundment.

5. Introduce mandatory ignition interlock.

A review of Saskatchewan's ignition interlock program confirmed findings from other jurisdictions. Offenders who installed an interlock device were 81% less likely to receive an alcohol-related conviction or suspension than those who did not install the device. Three years following removal of the device, that group continued to perform better, experiencing a 21% reduction in risk of reoffence.

6. Increase Safe Driver Recognition program penalties for repeat offenders.

Safe Driver Recognition points are assessed based on an individual's driving record and the risk associated with their driving behaviour. A driver who continues to drink and drive or drives with a BAC over .08 has an increased likelihood of being involved in a collision – the impact to their safety rating and the associated financial penalties should reflect this.

Attachment 1 – Highlights possible changes to existing drinking and driving legislation.

Implementing the proposed changes to drinking and driving penalties is estimated to cost \$1 million for the initial program development and \$906,000 for annual operating and maintenance. The proposed changes are estimated to save nine to 19 lives and prevent 70 to 140 injuries each year. SGI's annual claim savings would be approximately \$5.5 million to \$11.2 million.

There may also be merit in exploring other options with respect to sanctions attached to Criminal Code convictions, bearing in mind Criminal Code sanctions fall within the jurisdiction of the federal government. In 2005, South Dakota introduced the 24/7 Sobriety Project. The program was designed for people who have been arrested for multiple alcohol-related Criminal Code offences, including drinking and driving. "The 24/7 Sobriety Project sets the standard of

no use of alcohol and no use of illegal drugs as a condition of continuing to drive and remaining in the community, rather than being incarcerated.” Program participants are subject to twice-daily breathalyzers or other forms of drug and alcohol monitoring. If they test positive for drugs or alcohol, they are taken into custody and brought to court where they typically receive escalating jail terms (e.g. a first violation may result in one night in jail). “This combination of a strict monitoring and a no-use standard with swift, certain, and meaningful, but usually not severe, consequences has been extremely successful.” South Dakota saw a 33% drop in alcohol-related traffic deaths from 2006 to 2007 and preliminary data for 2007 to 2008 indicated an additional drop of 45%.<sup>2</sup>

### **Adequate/visible enforcement:**

**Develop a dedicated rural traffic enforcement program to increase the number of RCMP dedicated to enforcing traffic laws on highways and rural roads – thus, increasing compliance with traffic laws and reducing collisions.**

As previously stated, approximately 40% of injuries and over 80% of deaths on Saskatchewan roads occur in RCMP jurisdictions. Approximately 57% of injuries and 63% of deaths occurring on these roads are associated with traffic violations. Eliminating such violations could significantly reduce traffic injuries and deaths. However, there are not enough enforcement officers to effectively deter traffic violations on Saskatchewan’s highways and rural roads.

In the 1990s, there were 211 RCMP Highway Patrol resources in Saskatchewan; today there are 63 RCMP officers dedicated to traffic enforcement in Saskatchewan (only 48 are “on-road” enforcement positions). In addition to their regular RCMP complement, British Columbia has 170 RCMP officers dedicated to traffic enforcement, and Alberta has 178 RCMP Traffic Services officers and 107 traffic sheriffs.

Additional enforcement would increase the perception and reality of violator apprehension, which would help change driver behaviour and decrease injuries and deaths. SGI’s analysis determined the minimum ideal scenario is an additional 120 RCMP positions dedicated to traffic enforcement, which could be added over four phases. A phased approach allows for a gradual increase in the number of officers and provides an opportunity to assess program effectiveness prior to a full implementation.

Attachment 2 – Highlights one approach to a phased in implementation.

The estimated annual cost of the dedicated rural traffic enforcement program is \$3.52 million in phase 1, \$7.48 million in phase 2, \$11.44 million in phase 3 and \$15.6 million in phase 4. Full program implementation is estimated to reduce traffic injuries and deaths by 11% and property-damage-only collisions by 21%. It is also anticipated to generate annual claim savings of up to \$24.0 million.

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<sup>2</sup> [http://leg.mt.gov/content/Committees/Interim/2009\\_2010/Law\\_and\\_Justice/Meeting\\_Documents/Apr2010/IBH%20Commentary%2024-7%20Program.pdf](http://leg.mt.gov/content/Committees/Interim/2009_2010/Law_and_Justice/Meeting_Documents/Apr2010/IBH%20Commentary%2024-7%20Program.pdf)



**Broaden the use of photo radar beyond highway work zones, starting with a two-year photo radar pilot project on Circle Drive in Saskatoon, Ring Road in Regina, the Highway 1 corridor at Moose Jaw and school zones, to reduce speed-related collisions by calming traffic.**

Enforcement of speed laws in Saskatchewan is limited to manual techniques and low levels of enforcement, which are inefficient and inadequate to effectively deter speeding. As a result, the perceived risk of being ticketed is low.

Photo radar can increase the perceived risk of being ticketed and consequently increase compliance levels. When used strategically on high-risk and high-collision roadways in conjunction with public awareness, it also reduces collisions.

To effectively increase the perceived risk of being ticketed and, thus, increase compliance with posted speed limits and reduce collisions, signs would need to be posted in all photo radar areas to make motorists aware of its use. If photo radar were used, SGI's goal would be zero tickets and zero collisions. While photo radar is commonly perceived to be a cash grab, SGI's view is that if used effectively, photo radar will calm traffic, no tickets will need to be issued and no collisions will occur. To achieve this goal, signage would be critical, as would the use of fixed photo radar locations.

Saskatoon's Circle Drive, Regina's Ring Road and the Moose Jaw corridor were selected as pilot sites due to their high-speed and high-crash risk. These sites also pose a high safety risk for law enforcement officers to pull over vehicles. In the past four years, there have been 238 speed-related collisions at these sites, resulting in 70 injuries and a cost to SGI of approximately \$1.4 million. Photo radar analysis indicates that other crash types are also affected by the use of photo radar. Based on this, the four deaths and 745 injuries from non-speed related collisions at these sites could also be impacted by this photo radar pilot project.

School zones are a vulnerable area – similar to work zones. To calm traffic and protect Saskatchewan youth, it is recommended that photo radar be approved for use in these zones. Since school zones, like work zones, are not high-collision areas, photo radar is expected to have little impact on injuries, fatalities or claim costs. However, its use will reinforce the lower speed limits in these vulnerable areas and even further lower the risk of a child being injured or killed. It would also free up the enforcement officers who currently enforce speed in school zones, allowing them to be redeployed to other high-risk areas.

SGI anticipates the two-year pilot project would result in a 14% reduction in speed-related injuries and a 25% reduction in speed-related property-damage-only collisions in the immediate vicinities of the photo radar. Additionally, SGI anticipates a 17% reduction in deaths and a 9% reduction in injuries associated with other types of collisions in these areas. Based on these assumptions, the two-year pilot project would prevent one fatality and 78 injuries. SGI's annual claim savings would be approximately \$1.2 million.

## **Timely and targeted education:**

### **Introduce usage-based insurance for motorcyclists and/or new drivers.**

Usage-based insurance (UBI) is an emerging trend in the automobile insurance industry. It is a way of charging insurance rates that are more reflective of an individual's driving behaviour and likelihood of being involved in a collision. A device is used to electronically transmit driving information, including speed, braking, mileage, location and time of day. This information is captured and analyzed to develop more accurate individualized pricing.

UBI programs can also improve traffic safety by making drivers aware of their risky driving behaviour and incentivising them to improve these behaviours – thus, reducing collisions, injuries and deaths. For the best results, drivers must receive regular reporting on their driving behaviour – timely and targeted information will allow drivers to more aptly correct the behaviour.

While UBI is relatively new in Canada, initial results have shown significant reductions claim costs. The concept of introducing a UBI program in Saskatchewan is still in its infancy, but SGI sees potential, especially with respect to new motorcycle drivers, new car drivers, taxi fleets and high-risk drivers.

## **Good engineering:**

### **Reduce the number of wildlife in high-traffic locations.**

Finding cost-effective ways of managing these collisions has been a challenge to Saskatchewan because of the geographical spread of this problem over the highway network and the fluctuating animal population. Many approaches have been explored over the past two decades to managing vehicle collisions with wildlife. To date, none has proven effective on a scale that can effectively mitigate this problem. Examples of initiatives researched are deer whistles, reflectors, larger signage, high-tech deer warning system, etc.

SGI will continue to invest in wildlife fencing where there is a cost benefit. However, SGI believes the only way to significantly reduce wildlife collisions is to reduce the number of wildlife in high-traffic locations.

## Summary of solutions:

Dedicated rural traffic enforcement and usage-based insurance have significant potential for reducing collisions and improving traffic safety, as they address the greatest number of factors contributing to the cause and severity of collisions. While stronger drinking and driving counter-measures address only one factor, they too are expected to have a significant impact on collisions and road safety.

		Impaired driving	Distracted driving	Excessive speed	Seatbelt use	Intersection safety	Wildlife collisions
<b>Traffic Safety Initiatives</b>	Stronger drinking and driving counter-measures						
	Dedicated rural traffic enforcement						
	Photo radar						
	Usage-based insurance						
	Wildlife management						

In addition to addressing contributory collision factors, the effectiveness of traffic safety programming relies on the severity, certainty and swiftness of punishment. The proposed solutions strike a balance with those three criteria:

- Stronger drinking and driving counter-measures would increase the severity of punishment associated with impaired driving;
- Dedicated rural traffic enforcement would increase the certainty and swiftness of people in rural areas being caught and charged for violating all traffic laws;
- Photo radar would increase the certainty of being caught and charged with speeding; and,
- Usage-based insurance would increase the severity associated with risky driving behaviour by increasing the driver’s insurance rates, as well as the certainty and swiftness of risky driving behaviours being identified and acted upon.

It is estimated that full implementation of the proposed drinking and driving counter-measures, dedicated rural traffic enforcement program and photo radar pilot program would prevent 32 deaths, 424 injuries and 3,600 property-damage-only collisions each year. These initiatives will cost approximately \$17.3 million annually and are expected to generate annual claim savings of \$38.3 million. As the usage-based insurance and wildlife management solutions are not fleshed out, no cost-benefit analysis is available for them at this time.

## Motorcycle safety

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While motorcycles are only involved in approximately 1% of collisions on Saskatchewan roads (4% of injury collisions and 3% of fatal collisions), motorcycle collisions result in significant claim costs for SGI. SGI is in the process of consulting with key motorcycle stakeholders to review motorcycle safety programming, rating structure and injury benefit levels. The goal of this review is to reduce motorcycle collisions, claim costs and required premiums. Following the review, SGI will be making recommendations to the Minister Responsible for SGI.

## Attachment 1: Possible changes to drinking and driving counter-measures

SGI proposed the following low-BAC (.04 to .08) offence changes:

	Current	Proposed
Zero tolerance for alcohol	New drivers – in the Graduated Driver Licensing (GDL) program Minimum 30-day roadside suspension	Drivers 21 years of age and under and all GDL drivers Minimum 30-day roadside suspension
Vehicle impoundment	n/a	Second & subsequent offences: 7 days
Ignition interlock	n/a	Third & subsequent: 1 year
Drug-impaired driving	24-hr roadside suspension	GDL drivers that fail a drug standardized field sobriety test receive an immediate 30-day roadside suspension for first and subsequent offences.
Safe Driver Recognition program	Second offence: -4 points Third & subsequent: -4 points	Second offence: Move to -12 in the penalty zone (equivalent to \$300); if the driver is already in the penalty zone, deduct an additional 12 points from their rating. Third & subsequent: Move to -18 in the penalty zone (equivalent to \$450); if the driver is already in the penalty zone, deduct an additional 18 points from their rating.
Addiction screening	Funded by SGI	User pay
Additionally, a letter will be sent to all first-time low-BAC offenders informing them of the consequences of drinking and driving.		

SGI proposes the following high-BAC (over .08), impaired driving or refusal to provide a breath sample offence changes:

	Current	Proposed
Roadside suspension	Immediate 24-hour suspension; extended to 90 days after SGI is notified	.08 to .15 BAC or impaired driving: immediate 90-day suspension .16 BAC & over or refusal: immediate 120-day suspension
Vehicle impoundment	n/a	.08 to .15 BAC or impaired: 30 days .16 BAC & over or refusal: 60 days
Ignition interlock	Voluntary	Second offence: 1 year Third offence: 3 years Fourth & subsequent: 5 years
Safe Driver Recognition program	\$500	.08 to .15 BAC or impaired: \$1,000 .16 BAC & over or refusal: \$2,000
Addiction screening	Funded by SGI	User pay

## Attachment 2: Phased in approach to a dedicated rural traffic enforcement program

Four-phase deployment of additional RCMP officers to increase compliance with traffic laws and reduce collisions on Saskatchewan highways.

Phase	Positions Added	Total Positions Added	Position Costs	Program Costs
1	20	20	\$ 3.02 million	\$ 3.52 million
2	33	53	\$ 7.38 million	\$ 7.48 million
3	33	86	\$11.34 million	\$11.44 million
4	34	120	\$15.44 million	\$15.60 million

Map of enforcement increases:

