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FOR ROAD SAFETY



# Ontario Road Safety Annual Report 2001



*Success through partnership*

# ORSA Ontario Road Safety Annual Report 2001

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# Foreword

## Ontario's roads — the safest in North America in 2001

The *Ontario Road Safety Annual Report* offers a comprehensive perspective of road safety in the province. On the basis of comparative data for the number of fatalities per 10,000 licensed drivers in 2001, Ontario's roads are the safest in both Canada and all of North America. This is a significant improvement since 1995, when Ontario ranked second in Canada and sixth in North America.

The success achieved in 2001 is due, in large measure, to consistent and determined efforts by

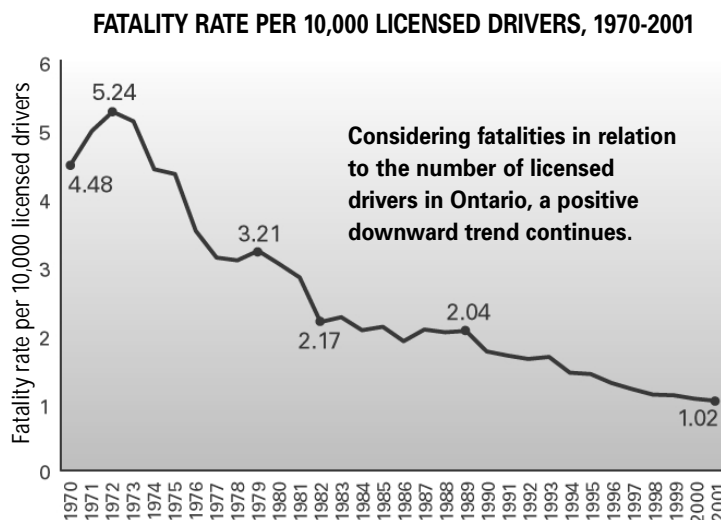
the government and a multitude of partners to continuously improve driver behaviour, vehicle condition and infrastructure safety.

The government has worked in close partnership with the police community, local community groups, industry, municipalities, safety organizations and the private sector to achieve its goal of a modern, safe and efficient transportation system for Ontario.

### Lowest fatalities since 1950

Keeping Ontario's roads safe continued to be one of the provincial government's top priorities in 2001. Ontario's growing population and economy generated record numbers of drivers and vehicles on the province's roads. There were almost 8.3 million licensed drivers and 7.3 million registered motor vehicles in the province in 2001.

In 2001, the positive downward trend of road fatalities continued — there were 845 road fatalities in Ontario — the lowest number since



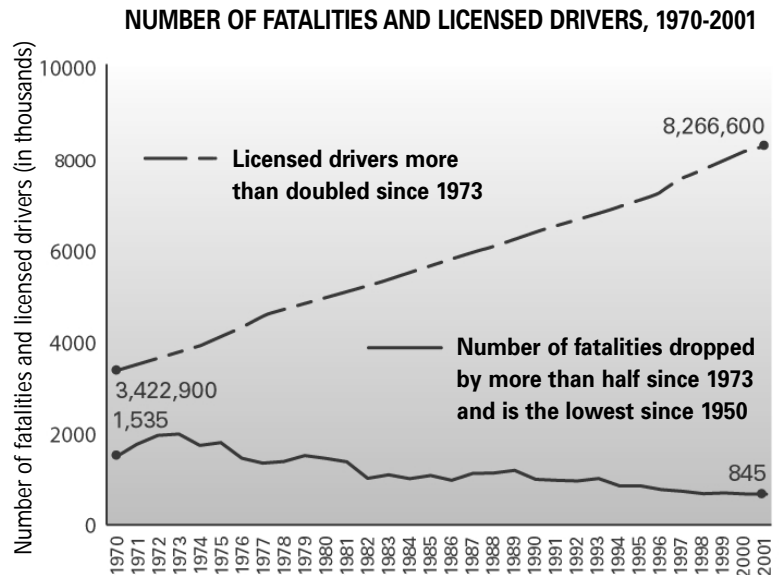
1950. The decrease in road fatalities occurred at the same time as the number of licensed drivers grew from 8,121,374 in 2000 to 8,266,616 in 2001, an increase of 145,242 drivers.

The number of fatalities per 10,000 licensed drivers is a commonly used measure of road user

safety in North America and other jurisdictions, thereby allowing comparisons of our performance. It is more reliable and has less variation across jurisdictions than other available measures. Other measures, such as total number of collisions, are

## Highlights

- The absolute number of fatalities for 2001 decreased from 849 in 2000 to 845 in 2001.
- The fatality rate decreased from 1.05 persons killed per 10,000 licensed drivers in 2000 to 1.02 per 10,000 licensed drivers in 2001.
- The number of collisions resulting in fatalities decreased from 737 in 2000 to 733 in 2001.
- The number of collisions resulting in injuries of all types decreased from 57,279 in 2000 to 54,479 in 2001.
- The number of property-damage-only collisions decreased from 182,614 in 2000 to 178,792 in 2001.
- The number of large truck involved in collisions decreased from 17,298 in 2000 to 16,516 in 2001.
- The number of fatalities in collisions involving drinking and driving decreased from 227 in 2000 to 204 in 2001.
- Since 1988, there has been a continuing positive decline in drinking and driving fatalities, from 439 in 1988 to 204 in 2001, a reduction of 53.5 per cent.



more subject to local conditions and procedures, such as the collision-reporting threshold. Similarly, using the number of licensed drivers rather than the number of registered vehicles gives us a better comparison because vehicle registration procedures differ greatly across jurisdictions.

## Road safety initiatives

The Ministry of Transportation (MTO), in conjunction with its road safety partners, including the Ministries of the Attorney General and Public Safety and Security, promotes a multifaceted approach to improve safety. Combined efforts target four key areas:

- **Legislation** — sets out the rules for road users.
- **Enforcement** — ensures that road users adhere to the rules.
- **Infrastructure investment** — ensures our roads are designed, constructed and maintained to maximize safety.
- **Education** — educates road users about the rules, and is the responsibility of all safety partners.

MTO engages in a broad range of safety education initiatives aimed at all Ontarians, from young children traveling in motor vehicles to pedestrians and senior drivers. These initiatives take place in all areas of the province.

## Drinking and driving

Since 1995, the Ontario government has introduced some of the toughest measures against drinking and driving in North America. But, despite the consequences, some people still get behind the wheel when impaired. The government and its road safety partners contend that even one impaired driver on Ontario's roads is one too many.

In 2001, the province introduced a new initiative to keep impaired drivers off our roads. As of December 23, 2001, individuals who are convicted of a drinking and driving offence under the *Criminal Code of Canada* are subject to the ignition interlock program. An ignition interlock is an in-car breath screening device that prevents a vehicle from starting if it detects a blood alcohol concentration over a pre-set threshold. The driver must blow into the device, which is connected to the engine's ignition system.



After serving the current provincial and *Criminal Code of Canada* sanctions, including licence suspension and mandatory remedial programs, those who are eligible to have their driver's licence reinstated will have an ignition interlock condition placed on their Ontario driver's licence for at least one year. The device must be installed in any vehicle the offender drives while the

condition is on the licence. The alternative is for the driver to refrain from driving altogether until the condition is removed from their licence.

This is just one of the many tough measures that the Ontario government has put in place to deter people from driving while impaired by alcohol. Other initiatives include:

- the 90-day Administrative Driver's Licence Suspension;
- increased fines for driving while suspended;
- doubling dedicated funding for the RIDE program;
- a mandatory remedial measures (assessment, education/treatment and follow-up) program;
- lengthening the period of time that previous *Criminal Code* convictions remain as part of the driver's record; and
- impounding the vehicles of persons caught driving while suspended for driving-related *Criminal Code* convictions.

## Seat belt safety

Based on Transport Canada's 2001 national urban seat belt survey, Ontario's seat belt compliance rate is currently about 92 per cent, the highest in Canada. Still, the Ontario Road Safety Annual Report shows that about one-third of fatally injured drivers were not buckled up. Unfortunately, more than one million people, or eight per cent of light-duty vehicle occupants in Ontario, do not regularly wear seat belts. Moreover, recent child





seat clinics held across Ontario show that four out of five child seats are installed or used incorrectly.

The government will continue to work closely with its road safety partners to raise seat belt compliance in the province to 100 per cent. Our initiatives incorporate public education programs and targeted campaigns with community groups, injury prevention advocates, public health professionals and police.

### **Seat belt campaign**

Our goal is to save lives by further increasing seat belt use. To help achieve this goal, the Annual Seat Belt Campaign was held across the province from September 29 to October 13, 2001. It coincided with Operation Impact, a national 24-hour police blitz targeting high-risk drivers and passengers who are not buckled up.

Another seat belt initiative was held from April 14 to 29, 2001. The Spring Seat Belt campaign focused on encouraging everyone to buckle up and emphasized keeping children safe through the proper use of child safety seats.

"Love Me — Buckle Me Right" day was one of the key events of the Spring Seat Belt Safety Campaign. Ontario held its first "Love Me — Buckle Me Right" day on April 21, 2001, to educate parents and caregivers about the proper use of child safety seats. In total, 92 child car seat inspection clinics were held across the province.



Organizers reported that 82 per cent of child car seats were incorrectly installed.

The Co-Operators General Insurance Company, Evenflo and DaimlerChrysler Canada were corporate sponsors for the Seat Belt Campaign.

### **Road Safety Challenge**

MTO sponsored and organized the 6th annual Road Safety Challenge in May 2001 to link communities and encourage partnerships among communities, business and government to build a safer, healthier Ontario. The week-long campaign challenged communities to reduce collision-related deaths and injuries through special road safety activities.

In 2001, the Road Safety Challenge took place in a record 35 communities across Ontario. Educational clinics addressed aggressive and unsafe driving practices. Participants were invited to compete for awards in various categories to promote road safety.

### **Commercial vehicle safety**

Ontario has the distinction of having some of the toughest truck safety laws in North America. The following are some of the measures the province has taken to promote commercial vehicle safety:

- Ontario has the highest fines in North America for unsafe trucks — up to \$20,000;
- Ontario passed legislation that made wheel separations an absolute liability offence, with a fine of up to \$50,000;
- Ontario was the first jurisdiction in North America to impound trucks for operating with critical safety defects;

- the province introduced a Carrier Safety Rating system that provides public access to safety performance records of carriers; and
- MTO is working with industry partners to improve truck driver testing and licensing standards.

In 2001/02, MTO conducted 59,237 truck safety inspections, checked approximately 122,000 drivers and weighed 305,442 commercial vehicle units.

### RoadCheck 2001

RoadCheck is an annual, 72-hour safety blitz of commercial motor vehicles conducted in Canada, the United States and Mexico. The 2001 campaign was held on June 5, 6 and 7. During the blitz, unsafe trucks and trailers were removed from highways. The results are used to measure the effectiveness of ministry enforcement initiatives and the trucking industry's compliance with safety laws.

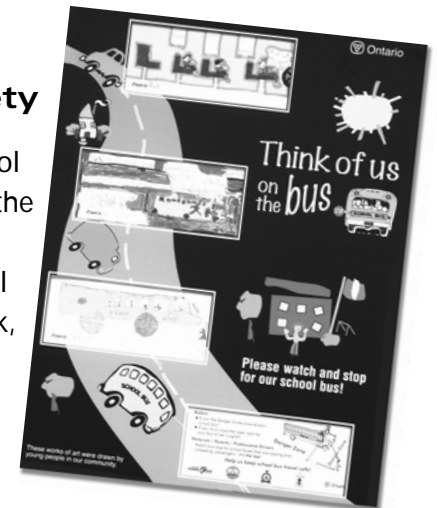
Since 1995, Ontario's RoadCheck results show that the average number of trucks taken off the road for defects during vehicle inspections has decreased by 56 per cent. The most common defects have been problems with brakes, suspension and tires.

Ontario enforcement officers inspected 3,050 trucks during the three-day 2001 campaign and found fewer safety defects per vehicle than in 2000. Of the vehicles examined, 88 per cent passed inspection or displayed a recently affixed safety inspection decal. Ontario's results were two per cent better in 2001 than the national average of 86 per cent compliance.

Of the trucks subject to full mechanical inspections, during RoadCheck 2001, 22 per cent were placed out-of-service. This marks a notable improvement over the 43 per cent out-of-service rate Ontario experienced in 1995.

### School bus and school zone safety

Ontario promotes school bus safety throughout the year, with increased focus during the annual School Bus Safety Week, held October 15 to 18, 2001. During the week, MTO strengthened partnerships with police services, school bus operators, school boards, educators, parents, students and public health services. In 2001, MTO launched a new campaign to encourage and facilitate school bus safety education for children called "Think of Us on the Bus." As part of the campaign, children's artwork promoting safe driving and passenger behaviour near school buses was displayed in schools.



The penalties for school bus violations are among the highest in Ontario's *Highway Traffic Act*.

### Community support programs

The Ontario government recognizes the importance of supporting community initiatives. Local priorities can be best identified and addressed at a grass-roots level. In 2001, as part of the Action Plan for Safer Roads, MTO implemented a comprehensive public education plan that included market research, public education, media advertising and community programs. As well, MTO's Community Partnership Support Program provided matching grants for groups conducting public education activities to address road user safety issues.

In 2001, the province provided \$650,000 to local community road user safety groups to counter aggressive and unsafe driving habits and promote safe driving practices. This was the second year

that the government provided special funding for the Aggressive Driving Community Support (ADCS) program to help community groups develop projects that educate motorists about safe driving.

As well, groups were encouraged to develop projects targeting specific areas of unsafe driving behaviour identified by the Ontario Advisory Group on Safe Driving, including: impaired driving, aggressive driving, speeding and driver inattention and fatigue. The ADCS program is one element of the Ontario government's overall Action Plan for Safer Roads.

### **Modern technology for improved road safety**

The government continued to expand the COMPASS freeway traffic management system in 2001. This system enables MTO to detect and respond to incidents quickly on major provincial freeways in the Greater Toronto and Ottawa areas.

MTO also increased the number of advanced road weather information system (ARWIS) stations. These stations measure road and weather conditions in a local area and provide forecasting tools to help optimize MTO's winter maintenance activities. Approximately 25 stations were installed in 2001 bringing the total to 65. As well as improving road safety, ARWIS technology provides accurate information that is used to reduce the amount of salt needed on Ontario's roads.

The ministry is finalizing a major update of its geometric design and roadside safety manuals to ensure that designers are using state-of-the-art knowledge and best practices to enhance infrastructure safety.

## **Building a safer future**

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In 2001, MTO took further steps to plan for future transportation needs. This planning is in keeping with the government's Smart Growth initiative to build a strong economy, strong communities and a healthy environment. Since 1995, the government's goal has been to build a safe, efficient and modern transportation network to support a healthy economy over the next 20 years and beyond. Between 1995 and 2001, the government invested more than \$6.5 billion in Ontario's highways. By the end of the fiscal year 2002-2003, the total investment is expected to climb to more than \$7.5 billion.

### **Highway corridor expansion**

In 2001, the province moved forward with a series of major transportation initiatives to support the significant population and economic growth expected over the next 15 years. MTO worked with a wide range of partners to promote better coordination and integration of local land use and transportation planning decisions.

The planning initiatives considered include:

- extending Highway 407 easterly;
- extending Highway 404 and establishing a Bradford Bypass;
- building a new transportation corridor north of the current end of Highway 427;
- expanding Highway 11 and Highway 17;
- expanding Highway 7 from two to four lanes from Highway 417 to Carleton Place;
- expanding Highway 69 to four lanes from Sudbury to Parry Sound;
- providing additional capacity at the Windsor-Detroit border crossing; and
- establishing a new mid-Niagara peninsula corridor.

## Highway improvement

The driving environment plays a critical role in improving highway safety across the province. As a result, safety of the existing highway system has been a key focus of the ministry. Significant investments have been made over the last several years to enhance safety and operations of the roadway system, in addition to preserving and maintaining the infrastructure. As part of the commitment to creating a safe and efficient driver environment, a number of highway improvement projects have been undertaken.

### Greater Toronto Area (GTA)

The Ontario government has invested over \$3.5 billion on transportation in the GTA since 1995. These investments helped improve safety, relieve traffic congestion and ensure the economic prosperity of the province.

The following are some of the examples of the highway work undertaken:

- Highway 401 — \$234 million invested since 1998 for rehabilitation and widening.
- Highway 400 — \$46 million invested since 1995 for expansion and resurfacing from Highway 401 to Steeles Avenue and from Langstaff Road to Major Mackenzie Drive.
- QEW — \$16.8 million invested to build additional eastbound and westbound lanes from Trafalgar Road to Highway 403 and \$26.7 million invested to reconstruct the Erin Mills Parkway interchange.

### Eastern Ontario

The following are examples of highway work undertaken in Eastern Ontario:

- Highway 416 — \$215 million invested to construct the new Veteran's Memorial Highway.
- Highway 417 Extension to Arnprior — \$48.9 million on a new four-lane freeway;

the investment includes 18.2 kilometres of new highway and six new structures.

### Northern Ontario

The following are some examples of highway work undertaken in Northern Ontario:

- Highway 69 — \$206 million invested for four-laning Highway 69. The investment includes extending the four-laning of Highway 69 from Port Severn northerly for 26 kilometres and from Parry Sound southerly for 10 kilometres. It also included the construction of 21 new bridges.
- Highway 11 — \$138 million for four lane expansion. This investment includes the completion of 32 kilometres of new pavement, extending the four-laning south of North Bay a further 11.8 kilometres and 4.2 kilometres north of Huntsville, including 12 new bridges.
- Highway 17 — Large sections of Highway 17 were paved to improve the road surface, including a 22-kilometre section east of Highway 101 and a five kilometre resurfacing project that included reconstruction of the Highway 71 intersection at Longbow Corners.

### Niagara area

Since 1995, the Ontario government has continued to invest significant amounts to improve transportation infrastructure in the Niagara area, including;

- QEW — \$243 million invested on the QEW for expansion and rehabilitation, including improvements between Grimsby and Highway 406 in St. Catharines.
- Highway 3 — \$13.2 million for reconstruction of Highway 3 between Fort Erie and the Niagara Regional boundary.

### Southwestern Ontario

- Highway 402 — \$80.7 million for reconstructing 236 lane kilometres of roadway, adding new

rumble strips and completing 15 bridge rehabilitations.

- Highway 7 — \$49 million for reconstructing and resurfacing Highway 7 in the Kitchener-Waterloo area. This investment includes widening the Conestoga Parkway from Frederick Street to Courtland Avenue, widening of eight bridges, improving the interchange at Ottawa Street and about six kilometres of new median barrier between Courtland Avenue and Lancaster Street.

### **Investing in transit**

On September 27, 2001, the Ontario government announced a 10-year, \$9-billion investment plan for transit, \$3.25 billion of which will be funded by the province.

Three programs are being implemented to deliver this provincial commitment. The Golden Horseshoe Transit Investment Partnerships (GTIP) initiative will provide up to \$1.25 billion for the expansion of inter-regional transit services inside the Golden Horseshoe. Outside the Golden Horseshoe, the Transit Investment Partnerships (TIP) initiative will provide \$250 million for transit expansion. In addition, the province has assumed the base capital and operating needs for GO Transit involving a \$1-billion commitment.

In its first year, the government allocated \$100 million for transit fleet renewal under the Ontario Transit Renewal Program.

These initiatives demonstrate the province's commitment to Smart Growth by building a strong economy, strong communities and a healthy environment. This, in turn, contributes positively to safety performance on roads in Ontario.

### **Keeping trade flowing through international trade corridors**

The governments of Canada, the United States, Ontario and Michigan initiated a study aimed at improving traffic flow at the Windsor-Detroit border — one of the busiest international crossings in the world. The study will help the four governments assess the existing transportation network and long-range transportation plans in southeast Michigan and southwest Ontario. The project will help to ensure the efficient movement of people and goods through this vital trade corridor. All four governments are jointly funding the study.

The need for enhanced and uniform security remains urgent in light of the events of September 11, 2001, and the heavy commercial and passenger cross-border traffic between Ontario and the United States. Ontario is working with our North American partners on enhancing identification and security strategies for driver licences.

### **Research on road user safety issues**

The government invested \$150,000 to support research at five universities on aggressive driving and other critical road user safety issues. In 2001, MTO targeted research topics that support its priorities and those of the Ontario Advisory Group on Safe Driving. The priority topics included driving while impaired, driving at excessive speeds, driver inattention, driver compliance with road conditions, driver fatigue, poor lane discipline, tailgating and sharing the road with large commercial vehicles.

## CONCLUSION

The Ontario government is determined to maintain and improve the province's excellent road safety record. In 2001, Ontario had the safest roads in all of North America. Throughout the year, the government focused on further developing partnerships with police, other governments, communities and businesses to forge a common goal of keeping all Ontarians safe on the province's roads.

The government will continue to work to ensure that Ontario has the transportation system it needs to support economic development, the growth of strong communities and a clean environment during the next 20 years and beyond.

### Road Safety Programs and Initiatives: Recommendations for Action

While we can be proud of our road user safety record and the improvements that have been achieved since 1995, we must continue to build on this record to further reduce fatalities and injuries on Ontario's roads.

These injuries and fatalities continue to exact an unacceptable toll on our families, friends, quality of life and health-care resources.

Direct and indirect costs associated with unintentional injury related to collisions include medical care, hospitalization, police costs, rehabilitation, social costs and lost productivity.

Improvements in road user safety in the province can have a significant positive effect in reducing this burden to society. In order to achieve these improvements, the province will:

- promote a safe driving culture through advocacy, legislation, enforcement and awareness;

- increase passenger protection provisions in legislation, regulation, and through public education. Specific initiatives will include mandating booster seats for children who have outgrown child seats but are still too small for seat belts to be effective. We will encourage effective enforcement campaigns and promote best practices through public awareness and education;
- support effective drinking and driving counter-measures through a combination of legislation, public education and community support programs;
- promote partnerships among government, non-government organizations, police, safety advocates, community groups and the public;
- develop initiatives to address public concerns about emerging issues, including driver distraction and fatigue, lane discipline and drug-impaired driving;
- ensure that infrastructure improvements to the province's highway system continue to be made to improve safety and mobility, and to support economic viability, a healthy environment and strong communities;
- continue the significant road maintenance operations that are a key contributor to Ontario's road safety success; and
- work with partners on local programs that can have a measurable impact on road safety at a community level.

If each and every road user in Ontario takes responsibility for his or her behaviour and attitude on our roads, we will be successful in attaining our ultimate goal of achieving the safest roads in the world.

## LATEST DEVELOPMENTS

In December 2002, the government introduced a new road safety bill, the *Road Safety Act, 2002*, which, if passed, would further help implement the government's goal of achieving a safer driving environment by introducing many new measures, including:

- **cracking down on street racing**, with immediate roadside sanctions;
- **tackling poor lane discipline** by creating a new law against driving in the left lane on highways with three or more lanes, unless passing slower traffic;
- **making child booster seats mandatory** for children too big for a car seat and too small for seat belts;
- **giving the police greater ability to remove vehicles** that are blocking our highways so highway re-opening can occur more quickly;
- **providing new enforcement tools** to crack down on illegal passenger van operations; and
- **improving construction zone safety** by doubling speeding fines through construction zones and simplifying how municipalities set lower speed limits within construction zones.

# Overview

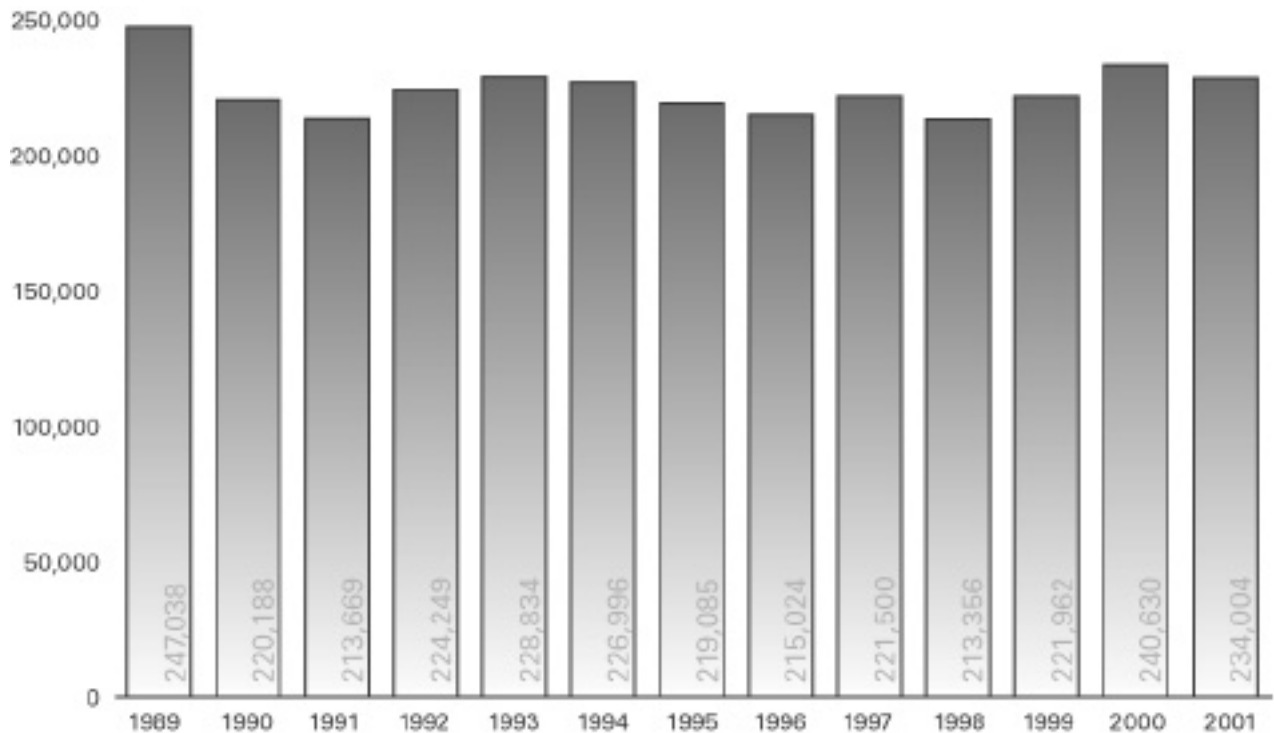
## 1 Overview

This section provides a brief overview of road safety in the province. Selected characteristics of motor vehicle collisions are presented from a health perspective.

The statistics show a decline in collisions in 2001 from the previous year. The downward trend is shown in the number of total reported collisions, total drivers involved in collisions, total vehicles involved in collisions, fatal collisions, personal injury collisions and property damage collisions.

The primary measure of road user safety in Ontario is the number of fatalities per 10,000 licensed drivers. This is a commonly used measure of road user safety in North America and elsewhere. It allows us to compare our performance against other jurisdictions. This year in Ontario there were only 1.02 fatalities per 10,000 licensed drivers. Based on this measure, that makes Ontario roads the safest in North America.

**FIGURE 1 Total number of collisions in Ontario, 1989 to 2001**



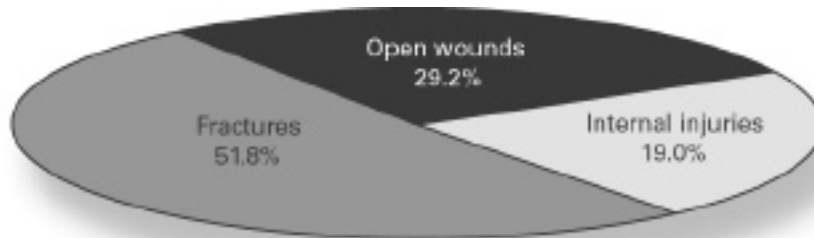


## 1a. Synopsis

### Selected Statistics

Total Reportable Collisions	234,004
Total Drivers Involved in Collisions	419,937
Total Vehicles Involved in Collisions	437,410
Fatal Collisions	733
Personal Injury Collisions	54,479
Property Damage Collisions	178,792
Persons Killed	845
Drivers Killed (excludes All Terrain Vehicle and Snow Vehicle Drivers)	495
Drivers Killed (Impaired or Had Been Drinking)	128
Passengers Killed	227
Pedestrians Killed	119
Other Road Users Killed	4
Persons Injured	81,782
Estimated Ontario Population (2001)	11,966,960
Licensed Drivers	8,266,616
Registered Motor Vehicles	7,336,574
Estimated Vehicle Kilometres Travelled (in millions)	115,943
Number of Persons Killed in Motor Vehicle Collisions per 100,000 People in Ontario	7.1
Number of Persons Killed in Motor Vehicle Collisions per 100 Million Kilometres Travelled	0.7
Collision Rate per 100 Million Kilometres Travelled	201.8
Fatal Collision Rate per 100 Million Kilometres Travelled	0.6
Number of Persons Killed in Motor Vehicle Collisions per 10,000 Licensed Drivers	1.02

## 1b. Selected characteristics of motor vehicle collisions

**FIGURE 1B Per cent of hospital admissions by injury type, 2001**

## 1c. The health perspective

**Table 1.1****Selected Diagnoses of Motor Vehicle Collision Injuries Hospitalized in Ontario, 2000/2001**

<b>Selected Diagnoses</b>	<b>Hospital Admissions</b>	<b>Hospital Days of Stay</b>
Fracture of skull	407	4,896
Fracture of neck and trunk	1,196	11,474
Fracture of upper limb	598	2,992
Fracture of lower limb	1,411	12,304
Dislocation, sprains and strains	260	1,125
Intracranial injury, excluding those with skull fracture	866	8,527
Internal injury of chest, abdomen and pelvis	556	4,860
Open wound of head, neck and trunk	143	437
Open wound of upper limb	35	141
Open wound of lower limb	55	447
Other injuries, burns and traumatic complications	1,946	35,697
<b>Total Admissions and Days</b>	<b>7,473</b>	<b>82,900</b>

**Table 1.2****Selected Surgical Procedures for Motor Vehicle Collision Injuries Hospitalized in Ontario, 2001**

<b>Selected Procedure</b>	<b>Hospital Admissions</b>	<b>Hospital Days of Stay</b>
Operations on skull, brain and cerebral meninges	137	2,970
Operations on spinal cord and canal structures	55	1,098
Operations on nose, mouth and pharynx	36	225
Operations on chest wall, pleura, mediastinum and diaphragm	112	1,119
Operations on bone marrow and spleen	68	1,131
Operations on kidney	7	70
Operation on facial bones and joints	101	796
Reduction of fracture and dislocation	1,759	16,364
Repair and plastic operations on joint structures	146	2,643
Operations on skin and subcutaneous tissue	274	1,885
Other surgical procedure	3,258	41,324
Sub-total of surgical admission and days	5,953	69,625
No surgical procedures reported	1,520	13,275
<b>Total Admissions and Days</b>	<b>7,473</b>	<b>82,900</b>

# The people

## 2 The people

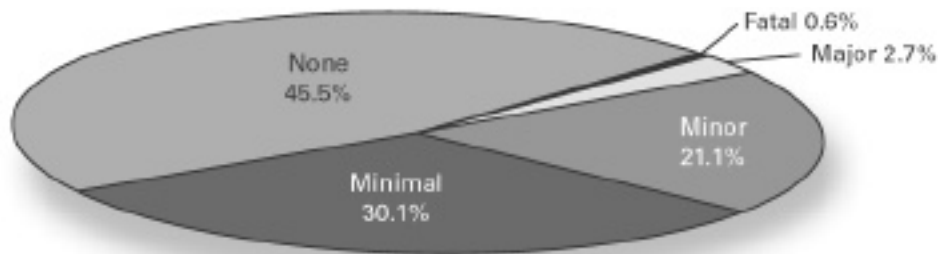
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This section highlights the characteristics of people involved in collisions in Ontario. Injuries sustained are shown both by severity and the category of the people involved in collisions. Data is broken down by age, sex, driver condition and driver action. Seventy years of key historical collision data from 1931 to 2001 is provided.

Highlights in this section include a decrease in fatalities on Ontario roads from 849 in 2000 to 845 in 2001. This is the lowest number of fatalities since 1950. While the number of drivers on Ontario roads continues to increase, the number of persons injured or killed has declined. The number of fatalities per 100,000 people in Ontario declined to 7.1, the lowest rate since 1988.

**FIGURE 2 Per cent of involved persons in collisions by severity of injury, 2001**

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2a. People in collisions

**Table 2.1**

**Category of Involved Person by Severity of Injury in Fatal and Personal Injury Collisions\* 2001**

Category of Involved Person	Severity of Injury					Total
	None	Minimal	Minor	Major	Fatal	
Driver	43,368	26,188	17,655	1,915	430	<b>89,556</b>
Passenger**	24,688	15,495	9,737	1,193	223	<b>51,336</b>
Pedestrian	192	2,045	2,469	549	119	<b>5,374</b>
Bicyclist	30	1,153	1,078	118	16	<b>2,395</b>
Bicycle Passenger	10	115	96	13	0	<b>234</b>
All Terrain Vehicle Driver	9	11	14	9	0	<b>43</b>
All Terrain Vehicle Passenger	12	3	7	5	0	<b>27</b>
Snow Vehicle Driver	10	6	17	11	3	<b>47</b>
Snow Vehicle Passenger	9	12	4	4	0	<b>29</b>
Motorcycle Driver	73	374	585	207	49	<b>1,288</b>
Motorcycle Passenger	52	91	160	67	3	<b>373</b>
Moped Driver	10	8	7	1	0	<b>26</b>
Moped Passenger	1	3	6	1	0	<b>11</b>
Hanger On	58	67	41	16	1	<b>183</b>
Other	492	128	86	12	1	<b>719</b>
<b>Total</b>	<b>69,014</b>	<b>45,699</b>	<b>31,962</b>	<b>4,121</b>	<b>845</b>	<b>151,641</b>

\* HTA (Highway Traffic Act) reportable collisions. For more information on special vehicles, see Chapter 6.

\*\* Includes bus passengers

Due to a change in the method of tabulating collision statistics, this table excludes individuals involved in property-damage-only collisions.

**Fatal** Person killed immediately or within 30 days of the motor vehicle collision.

**Major** Person admitted to hospital. Includes person admitted for observation.

**Minor** Person went to hospital and was treated in the emergency room but was not admitted.

**Minimal** Person did not go to hospital when leaving the scene of the collision. Includes minor abrasions, bruises and complaint of pain.

**None** Uninjured person.

**Table 2.2**  
**Category of Person Killed by Age Groups 2001**

Category of Person	Age Groups																Total
	0-4	5-9	10-15	16	17	18	19	20	21-24	25-34	35-44	45-54	55-64	65-74	75+	UK	
Driver	0	0	0	5	17	12	13	14	39	67	67	69	41	36	50	0	430
Passenger*	11	10	13	6	9	5	12	4	25	25	21	18	20	16	29	0	224
Pedestrian	3	2	10	3	2	2	2	2	8	8	11	18	6	16	26	0	119
Bicyclist	0	0	3	1	1	2	0	0	0	1	1	2	2	0	1	2	16
Bicycle Passenger	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
All Terrain Vehicle Driver	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
All Terrain Vehicle Passenger	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Snow Vehicle Driver	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	3
Snow Vehicle Passenger	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Motorcycle Driver	0	0	0	0	0	2	0	3	6	11	12	12	1	2	0	0	49
Motorcycle Passenger	0	0	0	0	0	0	0	0	0	1	0	2	0	0	0	0	3
Moped Driver	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Moped Passenger	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
<b>Total</b>	<b>14</b>	<b>12</b>	<b>26</b>	<b>17</b>	<b>30</b>	<b>23</b>	<b>27</b>	<b>23</b>	<b>78</b>	<b>113</b>	<b>112</b>	<b>121</b>	<b>70</b>	<b>70</b>	<b>107</b>	<b>2</b>	<b>845</b>

\* Includes hangers on

UK = Unknown

HTA (Highway Traffic Act) reportable collisions. For more information on special vehicles, see Chapter 6.

**Table 2.3**  
**Category of Persons Injured by Age Groups 2001**

Category of Person	Age Groups																Total
	0-4	5-9	10-15	16	17	18	19	20	21-24	25-34	35-44	45-54	55-64	65-74	75+	UK	
Driver	1	0	46	255	1,114	1,281	1,282	1,260	4,463	10,108	10,939	7,607	3,942	2,071	1,338	51	45,758
Passenger*	1,058	1,692	2,365	821	1,038	1,076	886	872	2,508	3,990	3,220	2,546	1,545	1,176	881	836	26,510
Pedestrian	99	352	694	162	119	105	99	94	313	675	715	517	380	296	293	150	5,063
Bicyclist	3	20	88	16	22	28	22	31	74	154	143	64	27	23	5	1,629	2,349
Bicycle Passenger	7	18	53	9	7	4	2	2	17	51	42	22	6	4	4	6	254
All Terrain Vehicle Driver	0	0	6	1	0	1	3	0	1	8	3	2	2	1	0	6	34
All Terrain Vehicle Passenger	0	1	3	1	1	1	0	0	1	2	0	2	1	0	2	2	17
Snow Vehicle Driver	0	0	3	2	6	1	3	0	3	8	3	2	1	1	0	1	34
Snow Vehicle Passenger	0	3	6	2	1	0	1	1	0	3	0	2	1	0	0	0	20
Motorcycle Driver	0	0	5	27	23	21	18	29	145	390	228	198	61	17	2	2	1,166
Motorcycle Passenger	1	6	13	5	7	10	9	6	43	67	72	59	18	1	2	4	323
Moped Driver	0	0	0	0	0	0	0	1	3	3	2	5	1	1	0	0	16
Moped Passenger	0	0	0	0	1	0	0	0	3	1	0	1	1	1	2	0	10
Other	4	7	7	2	5	3	8	7	19	30	41	33	26	8	6	22	228
<b>Total</b>	<b>1,173</b>	<b>2,099</b>	<b>3,289</b>	<b>1,303</b>	<b>2,344</b>	<b>2,531</b>	<b>2,333</b>	<b>2,303</b>	<b>7,533</b>	<b>15,490</b>	<b>15,408</b>	<b>11,060</b>	<b>6,012</b>	<b>3,600</b>	<b>2,536</b>	<b>2,709</b>	<b>81,782</b>

\* Includes hangers on HTA (Highway Traffic Act) reportable collisions. For more information on special vehicles, see Chapter 6.

**Table 2.4****Sex of Driver by Class of Collision 2001**

Sex of Driver	Class of Collision			Total
	Fatal	Personal Injury	Property Damage	
Male	960	62,619	197,488	<b>261,067</b>
Female	264	35,412	98,035	<b>133,711</b>
Unknown*	27	4,488	20,644	<b>25,159</b>
<b>Total</b>	<b>1,251</b>	<b>102,519</b>	<b>316,167</b>	<b>419,937</b>

\* This includes situations where the enforcement officer is unable to make a determination, e.g., hit and run.

**Fatal Collision**

A motor vehicle collision in which at least one person sustains bodily injury resulting in death. Prior to January 1, 1982, fatal collision statistics included deaths attributed to injuries sustained in the collision for up to one year after the collision. Since that date, only deaths within thirty days of the collision have been included.

**Personal Injury Collision**

A motor vehicle collision in which at least one person involved sustains bodily injury not resulting in death.

**Property Damage**

A motor vehicle collision in which no person sustains bodily injury, but in which there is damage to any public property or damage to private property including damage to the motor vehicle or its load.

The minimum reportable level for property-damage-only collision rose from \$200 to \$400 on January 1, 1978, and rose again to \$700 on January 1, 1985. As of January 1, 1998, the minimum reportable level for property-damage-only collisions is \$1,000.

On January 1, 1997, Collision Self-Reporting for property-damage-only collisions was introduced. See Appendix for further explanation of Collision Self-Reporting.

**Table 2.5****Driver Condition by Class of Collision 2001**

Condition of Driver	Class of Collision			Total
	Fatal	Personal Injury	Property Damage	
Normal	857	81,393	251,089	<b>333,339</b>
Had Been Drinking	45	1,519	2,798	<b>4,362</b>
Ability Impaired – Alcohol over .08	124	982	1,888	<b>2,994</b>
Ability Impaired Alcohol	13	486	835	<b>1,334</b>
Ability Impaired Drugs	22	86	129	<b>237</b>
Fatigue	18	585	1,058	<b>1,661</b>
Medical/Physical Disability	20	491	474	<b>985</b>
Inattentive	55	8,872	19,503	<b>28,430</b>
Other	3	254	710	<b>967</b>
Unknown*	94	7,851	37,683	<b>45,628</b>
<b>Total</b>	<b>1,251</b>	<b>102,519</b>	<b>316,167</b>	<b>419,937</b>

\* This includes situations where the enforcement officer is unable to make a determination, e.g., hit and run.

**Had Been Drinking**

Driver had consumed alcohol but his/her physical condition was not legally impaired.

**Ability Impaired Alcohol over .08**

Driver had consumed alcohol and upon testing was found to have a blood alcohol level in excess of .08 grams of alcohol per 100 millilitres of blood.

**Ability Impaired Alcohol**

Driver had consumed sufficient alcohol to warrant being charged with a drinking and driving offence.

**Inattentive**

Driver was operating a motor vehicle without due care and attention or placing less than full concentration on driving, e.g., changing cds, consuming food, reading, talking on phone or two-way radio, using headphones.



**Table 2.6**

**Driver Age By Driver Condition In All Collisions 2001\***

Driver Age	Driver Condition						Total
	Normal	Had Been Drinking	Impaired Alcohol over .08	Ability Impaired Alcohol	Other	Unknown	
Under 16	254	15	6	1	123	46	<b>445</b>
16	1,792	30	10	9	317	158	<b>2,316</b>
17	7,555	88	28	12	1,156	535	<b>9,374</b>
18	8,841	138	44	25	1,244	664	<b>10,956</b>
19	8,415	181	95	46	1,144	709	<b>10,590</b>
20	8,121	218	96	35	998	636	<b>10,104</b>
21-24	30,710	681	370	147	3,200	2,361	<b>37,469</b>
25-34	74,250	1,106	788	342	6,359	5,477	<b>88,322</b>
35-44	81,109	907	820	387	6,438	5,951	<b>95,612</b>
45-54	56,635	504	444	205	4,610	3,909	<b>66,307</b>
55-64	29,369	238	190	65	2,584	2,071	<b>34,517</b>
65-74	15,277	84	76	33	1,818	1,025	<b>18,313</b>
75 & over	8,163	28	19	10	1,536	697	<b>10,453</b>
Unknown	2,848	144	8	17	753	21,389	<b>25,159</b>
<b>Total</b>	<b>333,339</b>	<b>4,362</b>	<b>2,994</b>	<b>1,334</b>	<b>32,280</b>	<b>45,628</b>	<b>419,937</b>

\* Includes bicyclists, drivers of all-terrain vehicles, etc.

**Table 2.7**

**Recorded Occurrence of Driver Condition In Drivers Killed 2001\***

Recorded Occurrence	Number of Drivers	%
Normal	287	57.5
Had Been Drinking	23	4.6
Ability Impaired – Alcohol over .08	105	21.0
Ability Impaired Alcohol	0	0.0
Ability Impaired Drugs	22	4.4
Fatigue	9	1.8
Medical/Physical Disability	20	4.0
Inattentive	11	2.2
Other	0	0.0
Unknown	22	4.4
<b>Total</b>	<b>499</b>	<b>100.0</b>

\* Total includes drivers of all vehicle types killed in HTA reportable collisions.

\* In years prior to 1996, Table 2.7 only included fatally injured drivers who were either normal or had been drinking. In order to better examine the other pre-crash factors related to deaths of all drivers, this table has now been expanded to include the driver conditions of

all fatally injured drivers. These data can be recombined into the older format by recalculating the percentages using only the alcohol-involved and normal drivers' data.

**Table 2.8**

**Apparent Driver Action by Class of Collision 2001**

Apparent Driver Action	Class of Collision			Total
	Fatal	Personal Injury	Property Damage	
Driving Properly	540	48,826	153,820	<b>203,186</b>
Following Too Close	9	10,113	26,763	<b>36,885</b>
Speed Too Fast	77	1,257	2,019	<b>3,353</b>
Speed Too Fast for Conditions	72	4,678	13,232	<b>17,982</b>
Speed Too Slow	0	56	203	<b>259</b>
Improper Turn	28	4,103	13,470	<b>17,601</b>
Disobey Traffic Control	69	4,710	6,910	<b>11,689</b>
Fail to Yield Right of Way	72	10,035	25,293	<b>35,400</b>
Improper Passing	16	713	3,091	<b>3,820</b>
Lost Control	171	7,395	18,922	<b>26,488</b>
Wrong Way on One Way Road	2	96	203	<b>301</b>
Improper Lane Change	18	1,710	9,715	<b>11,443</b>
Other*	103	6,239	18,959	<b>25,301</b>
Unknown	74	2,588	23,567	<b>26,229</b>
<b>Total</b>	<b>1,251</b>	<b>102,519</b>	<b>316,167</b>	<b>419,937</b>

\* Includes actions defined as careless driving, inattentive driving, fell asleep, hit and run, driving on wrong side of road, improper parking, impaired driving, illegally parked, dangerous driving, inexperience, etc.

**Table 2.9**

**Seat Belt Usage by Severity of Driver Injury in Fatal and Personal Injury Collisions 2001**

Safety Equipment Used	Severity of Injury					Total
	Killed	Major	Minor	Minimal	Not Injured	
Seat Belt Used	250	1,407	15,591	24,351	39,923	<b>81,522</b>
Other Equipment*	11	95	549	581	307	<b>1,543</b>
Equipment Not Used	104	221	495	265	191	<b>1,276</b>
No Safety Equipment	0	7	23	26	48	<b>104</b>
Use Unknown	65	185	997	965	2,899	<b>5,111</b>
<b>Total</b>	<b>430</b>	<b>1,915</b>	<b>17,655</b>	<b>26,188</b>	<b>43,368</b>	<b>89,556</b>

\* Other equipment includes construction and motorcycle helmets, etc., used in a motor vehicle. It also includes the use of air bags. Seat belt usage in conjunction with air bag deployment is unknown.

The tables on this page include only seat belt usage in collisions in which there were personal injuries or fatalities. Property-damage-only collisions are excluded. ORSARs published prior to 1988 included seat belt usage in all collisions.

**Table 2.10**

**Seat Belt Usage by Severity of Passenger Injury in Fatal and Personal Injury Collisions 2001**

Safety Equipment Used	Severity of Injury					Total
	Killed	Major	Minor	Minimal	Not Injured	
Seat Belt Used	126	808	7,850	13,417	20,554	<b>42,755</b>
Child Safety Seat Used Incorrectly	0	3	22	26	63	<b>114</b>
Child Safety Seat Used Correctly	5	16	156	351	1,566	<b>2,094</b>
Other Equipment*	4	31	157	145	87	<b>424</b>
Equipment Not used	53	173	551	360	255	<b>1,392</b>
No Safety Equipment	11	50	461	654	863	<b>2,039</b>
Use Unknown	25	121	515	521	1,252	<b>2,434</b>
<b>Total</b>	<b>224</b>	<b>1,202</b>	<b>9,712</b>	<b>15,474</b>	<b>24,640</b>	<b>51,252</b>

\* Other equipment includes construction helmets, etc., used in a motor vehicle. It also includes the use of air bags. Seat belt usage in conjunction with air bag deployment is unknown.

**Table 2.11**

**Restraint Use for Children (0 - 4 Years) Killed in Collisions 1997-2001**

Year Used	Child Restraint Used Correctly	Child Restraint Used Incorrectly	Lap/Lap & Shoulder Belt	Restraint Not Available	Available Not Used	Use Unknown	Total
1997	8	0	4	0	2	2	<b>16</b>
1998	2	0	6	0	0	0	<b>8</b>
1999	3	1	3	0	0	0	<b>7</b>
2000	1	0	3	0	0	1	<b>5</b>
2001	5	0	2	1	2	1	<b>11</b>

**Table 2.12**

**Restraint Use for Children (0 - 4 Years) Involved in Fatal and Personal Injury Collisions by Severity of Injury 2001**

Restraint Used	Injury Level		
	Major / Fatal %	Minimal/Minor %	No Injuries %
Child Restraint Used Correctly	38.0	46.0	50.4
Child Restraint Used Incorrectly	4.0	4.5	1.9
Lap/Lap-Shoulder Belt	38.0	40.5	41.4
Not Available	4.0	4.7	2.8
Available/Not Used	8.0	1.6	0.3
Other	0.0	0.2	0.2
Unknown	8.0	2.5	3.0
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

It is known from observational surveys that many child safety seats are not used correctly. This is not clear in these tables since children are often removed from the child safety seat before the police officer arrives on the scene. Both correct installation of the seats according to the manufacturer's instructions and correct use of the device in the vehicle are important for the child's protection.

**Table 2.13****Pedestrian Condition by Severity of Injury 2001**

<b>Condition of Pedestrian</b>	<b>Killed</b>	<b>Injured</b>
Normal	74	3,206
Had Been Drinking	3	252
Ability Impaired Alcohol over .08	24	15
Ability Impaired Alcohol	0	69
Ability Impaired Drugs	6	10
Fatigue	0	3
Medical or Physical Defect	6	101
Inattentive	1	734
Other	0	163
Unknown	5	510
<b>Total</b>	<b>119</b>	<b>5,063</b>

**Table 2.14****Apparent Pedestrian Action by Severity of Injury 2001**

<b>Apparent Pedestrian Action</b>	<b>Killed</b>	<b>Injured</b>
Crossing Intersection With Right of Way	9	1,592
Crossing Intersection Without Right of Way	27	830
Crossing Intersection No Traffic Control	22	358
Crossing Pedestrian Crossover	1	117
Crossing Marked Crosswalk Without Right of Way	3	127
Walking on Roadway With Traffic	11	141
Walking on Roadway Against Traffic	0	74
On Sidewalk or Shoulder	8	359
Playing or Working on Highway	1	94
Coming from Behind Parked Vehicle or Object	1	145
Running onto Roadway	9	468
Getting On/Off School Bus*	0	3
Getting On/Off Vehicle	0	60
Pushing/Working on Vehicle	1	23
Other	26	672
Unknown	0	0
<b>Total</b>	<b>119</b>	<b>5,063</b>

\* Calendar Year

## 2b. Putting the people in context

Table 2.15

## Category of Persons Killed and Injured 1988-2001

Year	Ontario Population (Est.)**	Driver		Passenger*		Pedestrian		All Others		Persons Killed In All Classes		Persons Injured In All Classes	
		Killed	Injured	Killed	Injured	Killed	Injured	Killed	Injured	Number	Rate Per 100,000	Number	Rate Per 100,000
1988	9,439,600	563	63,339	350	39,157	186	6,344	138	9,318	1,237	13.1	118,158	1,251.7
1989	9,598,600	627	66,334	369	39,950	161	6,187	129	8,181	1,286	13.4	120,652	1,257.0
1990	9,743,300	540	55,073	321	33,606	154	5,839	105	7,057	1,120	11.5	101,575	1,042.5
1991	10,084,900	542	48,021	298	30,230	157	5,352	105	6,916	1,102	10.9	90,519	897.6
1992	10,098,600	548	49,259	317	30,567	140	5,177	85	6,022	1,090	10.8	91,025	901.4
1993	10,813,200	595	49,628	296	30,584	146	5,181	98	5,756	1,135	10.5	91,149	842.9
1994	10,927,800	508	49,632	273	29,570	127	5,344	91	5,484	999	9.1	90,030	823.9
1995	11,100,000	527	49,916	276	29,440	126	5,261	70	4,955	999	9.0	89,572	807.0
1996	11,320,456	459	49,614	270	28,997	144	5,336	55	4,458	928	8.2	88,405	780.9
1997	11,500,329	474	47,861	224	27,915	133	5,154	68	4,597	899	7.8	85,527	743.7
1998	11,675,497	437	47,088	222	26,422	121	4,978	74	4,704	854	7.3	83,192	712.5
1999	11,513,700	452	47,943	221	26,774	132	4,894	63	4,451	868	7.5	84,062	730.1
2000	11,695,110	437	48,068	243	27,206	112	5,190	57	4,544	849	7.3	85,009	726.9
2001	11,966,960	430	45,758	224	26,510	119	5,063	72	4,451	845	7.1	81,782	683.4

\* Excludes motorcycle passengers who are included with "All Others".

\*\* Source: Ministry of Finance

Table 2.16

## Sex of Driver Population by Age Groups 2001

Sex of Driver	Age Groups							Total
	16-19	20-24	25-34	35-44	45-54	55-64	65+	
Male	241,035	352,706	819,077	1,016,481	825,582	537,141	590,014	<b>4,382,036</b>
Female	208,818	318,718	761,681	930,232	752,338	453,604	459,189	<b>3,884,580</b>
<b>Total</b>	<b>449,853</b>	<b>671,424</b>	<b>1,580,758</b>	<b>1,946,713</b>	<b>1,577,920</b>	<b>990,745</b>	<b>1,049,203</b>	<b>8,266,616</b>

**Table 2.17****Driver Population by Age Groups 1988-2001**

Year	Age Groups							Total
	16-19	20-24	25-34	35-44	45-54	55-64	65+	
1988	310,764	643,691	1,588,516	1,353,841	898,103	714,266	608,931	<b>6,118,112</b>
1989	323,109	631,470	1,634,187	1,409,053	931,991	720,788	639,826	<b>6,290,424</b>
1990	322,542	629,478	1,666,474	1,467,699	964,925	728,380	669,385	<b>6,448,883</b>
1991	319,584	627,931	1,673,502	1,501,765	1,018,365	736,652	696,432	<b>6,574,231</b>
1992	314,685	623,707	1,665,433	1,528,726	1,082,883	745,759	727,568	<b>6,688,761</b>
1993	326,389	621,934	1,655,573	1,566,083	1,136,365	758,840	758,244	<b>6,823,428</b>
1994	358,817	622,704	1,645,962	1,611,972	1,190,442	770,882	783,181	<b>6,983,960</b>
1995	360,847	614,094	1,621,989	1,659,749	1,240,072	782,871	806,396	<b>7,086,018</b>
1996	361,571	612,060	1,608,567	1,717,050	1,297,289	805,486	856,144	<b>7,258,167</b>
1997	394,512	624,532	1,611,708	1,789,110	1,360,555	837,606	919,584	<b>7,537,607</b>
1998	412,589	634,053	1,593,744	1,845,474	1,415,258	872,426	954,212	<b>7,727,756</b>
1999	426,643	642,808	1,576,673	1,895,323	1,475,588	907,235	994,044	<b>7,918,314</b>
2000	438,170	659,331	1,582,207	1,935,150	1,540,499	939,838	1,026,179	<b>8,121,374</b>
2001	449,853	671,424	1,580,758	1,946,713	1,577,920	990,745	1,049,203	<b>8,266,616</b>

Table 2.18

## Driver Licence Class by Sex 2001

Licence Class	Driver Sex				Total	%
	Male	%	Female	%		
A	93,536	2.13	1,997	0.05	<b>95,533</b>	<b>1.16</b>
AB	4,575	0.10	544	0.01	<b>5,119</b>	<b>0.06</b>
ABM	2,591	0.06	136	0.00	<b>2,727</b>	<b>0.03</b>
ABM1	57	0.00	21	0.00	<b>78</b>	<b>0.00</b>
ABM2	134	0.00	15	0.00	<b>149</b>	<b>0.00</b>
AC	19,300	0.44	674	0.02	<b>19,974</b>	<b>0.24</b>
ACM	8,829	0.20	125	0.00	<b>8,954</b>	<b>0.11</b>
ACM1	340	0.01	5	0.00	<b>345</b>	<b>0.00</b>
ACM2	572	0.01	16	0.00	<b>588</b>	<b>0.01</b>
AM	30,076	0.69	205	0.01	<b>30,281</b>	<b>0.37</b>
AM1	1,353	0.03	16	0.00	<b>1,369</b>	<b>0.02</b>
AM2	2,120	0.05	41	0.00	<b>2,161</b>	<b>0.03</b>
B	16,434	0.38	16,813	0.43	<b>33,247</b>	<b>0.40</b>
BM	4,584	0.10	916	0.02	<b>5,500</b>	<b>0.07</b>
BM1	113	0.00	67	0.00	<b>180</b>	<b>0.00</b>
BM2	219	0.00	139	0.00	<b>358</b>	<b>0.00</b>
C	5,997	0.14	596	0.02	<b>6,593</b>	<b>0.08</b>
CM	1,706	0.04	55	0.00	<b>1,761</b>	<b>0.02</b>
CM1	59	0.00	3	0.00	<b>62</b>	<b>0.00</b>
CM2	108	0.00	11	0.00	<b>119</b>	<b>0.00</b>
D	218,475	4.99	16,877	0.43	<b>235,352</b>	<b>2.85</b>
DE	107	0.00	18	0.00	<b>125</b>	<b>0.00</b>
DEM	29	0.00	1	0.00	<b>30</b>	<b>0.00</b>
DEM1	1	0.00	0	0.00	<b>1</b>	<b>0.00</b>
DEM2	2	0.00	0	0.00	<b>2</b>	<b>0.00</b>
DF	2,069	0.05	124	0.00	<b>2,193</b>	<b>0.03</b>
DFM	916	0.02	18	0.00	<b>934</b>	<b>0.01</b>
DFM1	29	0.00	3	0.00	<b>32</b>	<b>0.00</b>
DFM2	56	0.00	5	0.00	<b>61</b>	<b>0.00</b>
DM	55,917	1.28	1,151	0.03	<b>57,068</b>	<b>0.69</b>
DM1	1,399	0.03	71	0.00	<b>1,470</b>	<b>0.02</b>
DM2	2,582	0.06	131	0.00	<b>2,713</b>	<b>0.03</b>
E	1,275	0.03	2,071	0.05	<b>3,346</b>	<b>0.04</b>
EM	166	0.00	44	0.00	<b>210</b>	<b>0.00</b>
EM1	4	0.00	4	0.00	<b>8</b>	<b>0.00</b>
EM2	13	0.00	6	0.00	<b>19</b>	<b>0.00</b>

Continued on next page

Table 2.18

## Driver Licence Class by Sex 2001

Continued

Licence Class	Driver Sex				Total	%
	Male	%	Female	%		
F	6,888	0.16	5,073	0.13	<b>11,961</b>	<b>0.14</b>
FM	1,512	0.03	233	0.01	<b>1,745</b>	<b>0.02</b>
FM1	70	0.00	24	0.00	<b>94</b>	<b>0.00</b>
FM2	149	0.00	56	0.00	<b>205</b>	<b>0.00</b>
G	2,962,776	67.61	3,186,399	82.03	<b>6,149,175</b>	<b>74.39</b>
G1	200,227	4.57	270,493	6.96	<b>470,720</b>	<b>5.69</b>
G1M	56	0.00	15	0.00	<b>71</b>	<b>0.00</b>
G1M1	1,204	0.03	139	0.00	<b>1,343</b>	<b>0.02</b>
G1M2	730	0.02	104	0.00	<b>834</b>	<b>0.01</b>
G2	336,619	7.68	312,826	8.05	<b>649,445</b>	<b>7.86</b>
G2M	423	0.01	59	0.00	<b>482</b>	<b>0.01</b>
G2M1	3,238	0.07	261	0.01	<b>3,499</b>	<b>0.04</b>
G2M2	3,482	0.08	345	0.01	<b>3,827</b>	<b>0.05</b>
GM	333,670	7.61	53,057	1.37	<b>386,727</b>	<b>4.68</b>
GM1	21,184	0.48	4,724	0.12	<b>25,908</b>	<b>0.31</b>
GM2	31,888	0.73	7,448	0.19	<b>39,336</b>	<b>0.48</b>
M	1,063	0.02	210	0.01	<b>1,273</b>	<b>0.02</b>
M1	422	0.01	62	0.00	<b>484</b>	<b>0.01</b>
M2	692	0.02	133	0.00	<b>825</b>	<b>0.01</b>
Other	0	0.00	0	0.00	<b>0</b>	<b>0.00</b>
<b>Total</b>	<b>4,382,036</b>	<b>100</b>	<b>3,884,580</b>	<b>100</b>	<b>8,266,616</b>	<b>100</b>



**Table 2.19****Licensed Drivers, Total Collisions, Persons Killed and Injured 1931– 2001**

<b>Year</b>	<b>Licensed Drivers</b>	<b>Total Collisions</b>	<b>Persons Killed</b>	<b>Persons Injured</b>
1931	666,266	9,241	571	8,494
1932	648,710	9,171	502	8,231
1933	638,710	8,634	403	7,877
1934	665,743	9,645	512	8,990
1935	707,457	10,648	560	9,839
1936	755,765	11,388	546	10,251
1937	802,765	13,906	766	12,092
1938	866,729	13,715	640	11,683
1939	899,572	13,710	652	11,638
1940	937,551	16,921	716	13,715
1941	986,773	18,167	801	14,275
1942	961,883	13,490	567	10,205
1943	919,457	11,025	549	8,628
1944	905,650	11,004	498	8,373
1945	971,852	13,458	598	9,804
1946	1,087,445	17,356	688	12,228
1947	1,144,291	22,293	734	13,056
1948	1,209,408	27,406	740	14,970
1949	1,278,584	34,472	830	17,469
1950	1,366,388	43,681	791	19,940
1951	1,461,538	54,920	949	22,557
1952	1,556,559	58,515	1,010	23,643
1953	1,656,259	65,866	1,082	24,353
1954	1,747,567	62,509	1,045	24,607
1955	1,856,845	63,219	1,111	26,246
1956	1,967,789	71,399	1,180	28,626
1957	2,088,551	76,302	1,279	30,414
1958	2,176,417	76,884	1,112	30,106
1959	2,270,246	81,518	1,187	31,602
1960	2,355,567	87,186	1,166	34,436
1961	2,414,615	85,577	1,268	37,146
1962	2,469,425	94,231	1,383	41,766
1963	2,555,015	104,919	1,421	47,801
1964	2,694,023	111,232	1,424	54,560
1965	2,739,138	128,462	1,611	60,917
1966	2,821,648	139,781	1,596	65,210
1967	3,004,654	145,008	1,719	67,280
1968	3,128,509	155,127	1,586	71,520
1969	3,247,979	169,395	1,683	74,902
1970	3,422,892	141,609	1,535	75,126
1971	3,563,197	158,831	1,769	84,650
1972	3,688,541	189,494	1,934	95,181

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**Table 2.19****Licensed Drivers, Total Collisions, Persons Killed and Injured 1931– 2001****Continued**

<b>Year</b>	<b>Licensed Drivers</b>	<b>Total Collisions</b>	<b>Persons Killed</b>	<b>Persons Injured</b>
1973	3,841,628	193,021	1,959	97,790
1974	3,972,980	204,271	1,748	98,673
1975	4,160,623	213,689	1,800	97,034
1976	4,315,925	211,865	1,511	83,736
1977	4,562,903	218,567	1,420	95,664
1978	4,725,546	186,363	1,450	94,979
1979	4,858,351	197,196	1,560	101,321
1980	4,993,531	196,501	1,508	101,367
1981	5,123,177	198,372	1,445	100,321
1982	5,247,198	187,943	1,138	92,815
1983	5,380,259	181,999	1,204	91,706
1984	5,513,911	194,782	1,132	97,230
1985	5,660,422	189,750	1,191	109,169
1986	5,817,799	187,286	1,102	108,839
1987	5,978,105	203,431	1,229	121,089
1988	6,118,112	228,398	1,237	118,158
1989	6,290,424	247,038	1,286	120,652
1990	6,448,883	220,188	1,120	101,575
1991	6,574,231	213,669	1,102	90,519
1992	6,688,761	224,249	1,090	91,025
1993	6,823,428	228,834	1,135	91,149
1994*	6,983,960	226,996	999	90,030
1995	7,086,018	219,085	999	89,572
1996	7,258,167	215,024	929	88,445
1997	7,537,607	221,500	899	85,527
1998	7,727,756	213,356	854	83,192
1999	7,918,314	221,962	868	84,062
2000	8,121,374	240,630	849	85,009
2001	8,266,616	234,004	845	81,782

\* Graduated Licensing System (GLS) began on April 1, 1994. See Appendix for further details on GLS.

Table 2.20

## Driver Age Groups — Number Licensed, Collision Involvement and Per Cent Involved in Collisions 2001

Drivers Age	Drivers Licensed			Drivers Involved in Collisions*			% of Drivers of Each Age Involved in Collisions		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Under 16	-	-	-	202	72	<b>274</b>	-	-	-
16	47,219	39,982	<b>87,201</b>	1,490	784	<b>2,274</b>	3.2	2.0	<b>2.6</b>
17	60,070	52,101	<b>112,171</b>	5,985	3,335	<b>9,320</b>	10.0	6.4	<b>8.3</b>
18	65,221	56,615	<b>121,836</b>	7,076	3,832	<b>10,908</b>	10.8	6.8	<b>9.0</b>
19	68,525	60,120	<b>128,645</b>	7,038	3,504	<b>10,542</b>	10.3	5.8	<b>8.2</b>
20	69,326	61,901	<b>131,227</b>	6,604	3,446	<b>10,050</b>	9.5	5.6	<b>7.7</b>
21-24	283,380	256,817	<b>540,197</b>	24,526	12,789	<b>37,315</b>	8.7	5.0	<b>6.9</b>
25-34	819,077	761,681	<b>1,580,758</b>	57,649	30,191	<b>87,840</b>	7.0	4.0	<b>5.6</b>
35-44	1,016,481	930,232	<b>1,946,713</b>	61,821	33,178	<b>94,999</b>	6.1	3.6	<b>4.9</b>
45-54	825,582	752,338	<b>1,577,920</b>	43,118	22,744	<b>65,862</b>	5.2	3.0	<b>4.2</b>
55-64	537,141	453,604	<b>990,745</b>	23,951	10,367	<b>34,318</b>	4.5	2.3	<b>3.5</b>
65-74	370,177	285,926	<b>656,103</b>	12,670	5,562	<b>18,232</b>	3.4	1.9	<b>2.8</b>
75 & over	219,837	173,263	<b>393,100</b>	6,836	3,591	<b>10,427</b>	3.1	2.1	<b>2.7</b>
Unknown	-	-	-	40,194	-	<b>40,194</b>	-	-	-
<b>Total</b>	<b>4,382,036</b>	<b>3,884,580</b>	<b>8,266,616</b>	<b>299,160</b>	<b>133,395</b>	<b>432,555</b>	<b>6.8</b>	<b>3.4</b>	<b>5.2</b>

\* This table includes collisions with parked vehicles and excludes drivers of bicycles, snow vehicles, off-road vehicles, construction equipment, farm equipment, railway trains and snow plows.

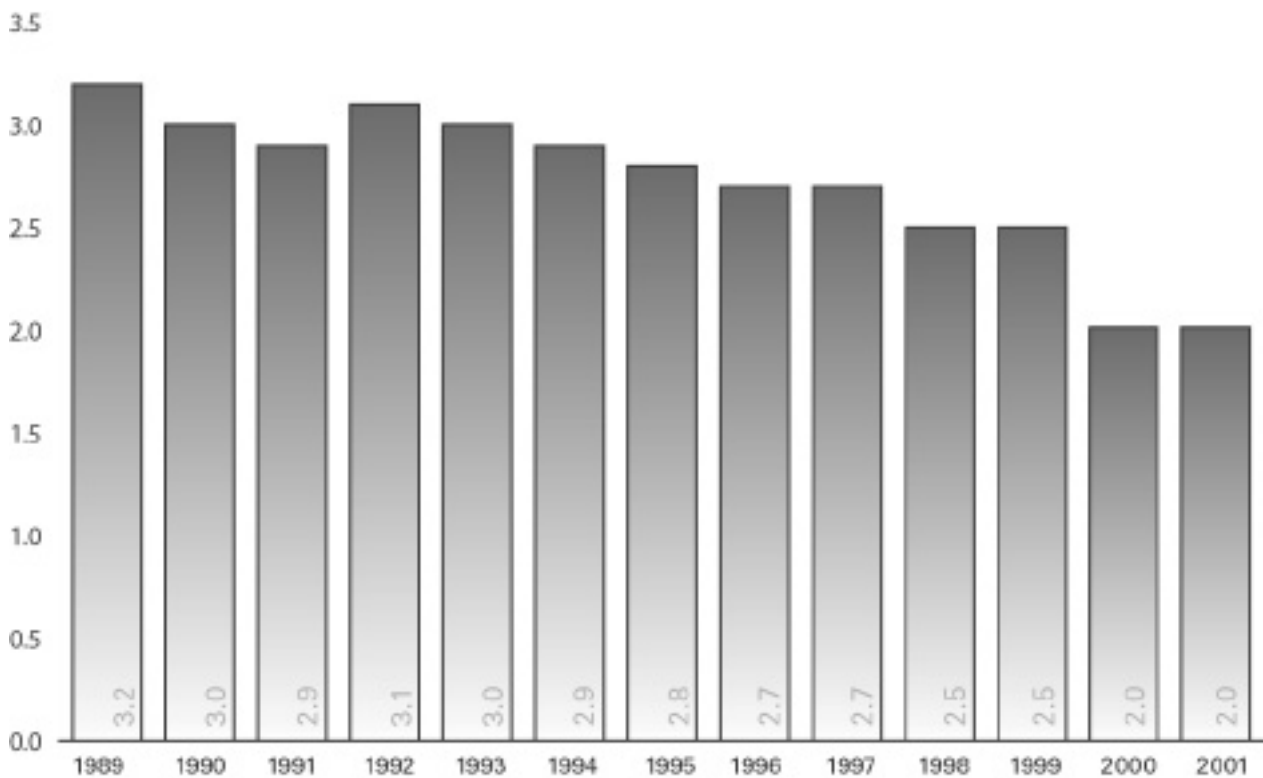
# The collision

## 3 The collision

This section illustrates the types of collisions that occur in Ontario. Key statistics include the collision rate per kilometres travelled, the nature of the impact, breakdowns of when and where collisions occurred, as well as environmental conditions.

Fatal collisions, injury collisions and property-damage-only collisions all decreased in 2001 from 2000. These decreases are reflected in the lowest collision rate per one million kilometres travelled in Ontario since 1988.

**FIGURE 3 Collision rate per one million kilometres travelled in Ontario, 1989 to 2001**



\*Based on Statistics Canada estimates of vehicle kilometres travelled.

## 3a. Types of collisions

**Table 3.1****Class of Collision 1988-2001**

Year	Class of Collision			Total
	Fatal	Personal Injury	Property Damage	
1988	1,076	76,724	150,598	<b>228,398</b>
1989	1,106	77,852	168,080	<b>247,038</b>
1990	959	65,912	153,317	<b>220,188</b>
1991	956	59,242	153,471	<b>213,669</b>
1992	942	58,889	164,418	<b>224,249</b>
1993	987	58,932	168,915	<b>228,834</b>
1994	875	58,525	167,596	<b>226,996</b>
1995	860	58,273	159,952	<b>219,085</b>
1996	816	57,791	156,417	<b>215,024</b>
1997	807	56,121	164,572	<b>221,500</b>
1998	768	55,441	157,147	<b>213,356</b>
1999	763	55,764	165,435	<b>221,962</b>
2000	737	57,279	182,614	<b>240,630</b>
2001	733	54,479	178,792	<b>234,004</b>

**Table 3.2****Collision Rate Per One Million Kilometres Travelled 1988-2001**

Year	Collision Rate
1988	3.2
1989	3.2
1990	3.0
1991	2.9
1992	3.1
1993	3.0
1994	2.9
1995	2.8
1996	2.7
1997	2.7
1998	2.5
1999	2.5
2000	2.0*
2001	2.0*

\*Based on Statistics Canada estimates of vehicle kilometres Travelled.

Table 3.3

## Motor Vehicles Involved in Collisions Based on Initial Impact 2001\*

Motor Vehicle in Collision Involving Moveable Objects:	Class of Collision			Total
	Fatal	Personal Injury	Property Damage	
Other Motor Vehicles	781	82,271	267,465	<b>350,517</b>
Unattended Vehicles	6	611	15,167	<b>15,784</b>
Pedestrian	104	4,534	185	<b>4,823</b>
Cyclist	16	2,560	469	<b>3,045</b>
Railway Train	8	22	34	<b>64</b>
Street Car	0	47	257	<b>304</b>
Farm Tractor	1	33	88	<b>122</b>
Domestic Animal	0	72	567	<b>639</b>
Wild Animal	4	490	10,632	<b>11,126</b>
Other Moveable Objects	2	65	308	<b>375</b>
<b>Sub-total</b>	<b>922</b>	<b>90,705</b>	<b>295,172</b>	<b>386,799</b>
<b>Fixed Objects:</b>				
Cable Guide Rail	4	56	287	<b>347</b>
Concrete Guide Rail	4	249	744	<b>997</b>
Steel Guide Rail	4	179	790	<b>973</b>
Pole (Utility Tower)	4	374	1,338	<b>1,716</b>
Pole (Sign/Parking Meter)	1	89	760	<b>850</b>
Fence/Noise Barrier	0	28	215	<b>243</b>
Culvert	1	22	29	<b>52</b>
Bridge Support	0	32	109	<b>141</b>
Rock Face	1	25	33	<b>59</b>
Snow Bank or Drift	2	94	420	<b>516</b>
Ditch	4	308	706	<b>1,018</b>
Curb	13	487	1,565	<b>2,065</b>
Crash Cushion	0	14	55	<b>69</b>
Building or Wall	1	39	185	<b>225</b>
Water Course	0	3	9	<b>12</b>
Construction Marker	0	12	44	<b>56</b>
Tree, Shrub, or Stump	2	139	349	<b>490</b>
Other Fixed Object	9	246	1,441	<b>1,696</b>
<b>Sub-total</b>	<b>50</b>	<b>2,396</b>	<b>9,079</b>	<b>11,525</b>
<b>Other Events:</b>				
Ran Off Road	112	3,606	7,685	<b>11,403</b>
Skidding/Sliding	140	5,006	14,360	<b>19,506</b>
Jack-knifing	1	22	111	<b>134</b>
Load Spill	1	15	95	<b>111</b>
Fire/Explosion	0	3	321	<b>324</b>
Submersion	0	1	4	<b>5</b>
Rollover	3	244	346	<b>593</b>
Debris on Road	1	98	822	<b>921</b>
Debris off Vehicle	5	95	943	<b>1,043</b>
Other Non-Collision Event	31	1,379	3,636	<b>5,046</b>
<b>Sub-total</b>	<b>294</b>	<b>10,469</b>	<b>28,323</b>	<b>39,086</b>
<b>Total</b>	<b>1,266</b>	<b>103,570</b>	<b>332,574</b>	<b>437,410</b>

\* Table 3.3 reflects the number of motor vehicles involved in collisions by initial impact.

**Table 3.4****Initial Impact Type by Class of Collision 2001**

<b>Initial Impact Type</b>	<b>Class of Collision</b>			<b>Total</b>
	<b>Fatal</b>	<b>Personal Injury</b>	<b>Property Damage</b>	
Approaching	131	1,397	2,284	<b>3,812</b>
Angle	84	7,142	16,646	<b>23,872</b>
Rear End	32	16,395	46,295	<b>62,722</b>
Sideswipe	66	3,143	21,666	<b>24,875</b>
Turning Movement	71	10,330	32,494	<b>42,895</b>
With Unattended Motor Vehicle	6	649	15,298	<b>15,953</b>
Single Motor Vehicle	342	15,216	41,110	<b>56,668</b>
Other	1	207	2,999	<b>3,207</b>
Unknown	0	0	0	<b>0</b>
<b>Total</b>	<b>733</b>	<b>54,479</b>	<b>178,792</b>	<b>234,004</b>

## 3b. Time and environment

Table 3.5

## Month of Occurrence by Class of Collision 2001

Month of Occurrence	Class of Collision						Total	
	Fatal	%	Personal Injury	%	Property Damage	%		
January	35	4.8	4,179	7.7	17,024	9.5	<b>21,238</b>	<b>9.1</b>
February	65	8.9	4,127	7.6	16,017	9.0	<b>20,209</b>	<b>8.6</b>
March	37	5.0	4,025	7.4	14,699	8.2	<b>18,761</b>	<b>8.0</b>
April	43	5.9	3,746	6.9	11,330	6.3	<b>15,119</b>	<b>6.5</b>
May	62	8.5	4,419	8.1	12,910	7.2	<b>17,391</b>	<b>7.4</b>
June	65	8.9	4,866	8.9	13,693	7.7	<b>18,624</b>	<b>8.0</b>
July	66	9.0	4,887	9.0	13,396	7.5	<b>18,349</b>	<b>7.8</b>
August	81	11.1	4,945	9.1	13,846	7.7	<b>18,872</b>	<b>8.1</b>
September	77	10.5	4,669	8.6	13,548	7.6	<b>18,294</b>	<b>7.8</b>
October	66	9.0	4,901	9.0	16,390	9.2	<b>21,357</b>	<b>9.1</b>
November	71	9.7	4,708	8.6	17,095	9.6	<b>21,874</b>	<b>9.3</b>
December	65	8.9	5,007	9.2	18,844	10.5	<b>23,916</b>	<b>10.2</b>
<b>Total</b>	<b>733</b>	<b>100.0</b>	<b>54,479</b>	<b>100.0</b>	<b>178,792</b>	<b>100.0</b>	<b>234,004</b>	<b>100.0</b>

Table 3.6

## Day of Week by Class of Collision 2001

Day of Occurrence	Class of Collision						Total	
	Fatal	%	Personal Injury	%	Property Damage	%		
Monday	88	12.0	7,597	13.9	25,522	14.3	<b>33,207</b>	<b>14.2</b>
Tuesday	94	12.8	7,506	13.8	25,062	14.0	<b>32,662</b>	<b>14.0</b>
Wednesday	78	10.6	7,945	14.6	26,293	14.7	<b>34,316</b>	<b>14.7</b>
Thursday	100	13.6	8,162	15.0	27,829	15.6	<b>36,091</b>	<b>15.4</b>
Friday	135	18.4	9,588	17.6	32,687	18.3	<b>42,410</b>	<b>18.1</b>
Saturday	133	18.1	7,610	14.0	23,317	13.0	<b>31,060</b>	<b>13.3</b>
Sunday	105	14.3	6,071	11.1	18,082	10.1	<b>24,258</b>	<b>10.4</b>
<b>Total</b>	<b>733</b>	<b>100.0</b>	<b>54,479</b>	<b>100.0</b>	<b>178,792</b>	<b>100.0</b>	<b>234,004</b>	<b>100.0</b>



Table 3.7

## Hour of Occurrence by Class of Collision 2001

Hour of Occurrence A.M.	Class of Collision						Total	%
	Fatal	%	Personal Injury	%	Property Damage	%		
12 to 1 a.m.	27	3.7	810	1.5	2,865	1.6	<b>3,702</b>	<b>1.6</b>
1 to 2 a.m.	22	3.0	763	1.4	2,650	1.5	<b>3,435</b>	<b>1.5</b>
2 to 3 a.m.	29	4.0	780	1.4	2,630	1.5	<b>3,439</b>	<b>1.5</b>
3 to 4 a.m.	18	2.5	624	1.1	2,177	1.2	<b>2,819</b>	<b>1.2</b>
4 to 5 a.m.	13	1.8	410	0.8	1,586	0.9	<b>2,009</b>	<b>0.9</b>
5 to 6 a.m.	9	1.2	465	0.9	1,970	1.1	<b>2,444</b>	<b>1.0</b>
<b>Sub-total</b>	<b>118</b>	<b>16.1</b>	<b>3,852</b>	<b>7.1</b>	<b>13,878</b>	<b>7.8</b>	<b>17,848</b>	<b>7.6</b>
6 to 7 a.m.	15	2.0	1,171	2.1	4,213	2.4	<b>5,399</b>	<b>2.3</b>
7 to 8 a.m.	28	3.8	2,131	3.9	7,352	4.1	<b>9,511</b>	<b>4.1</b>
8 to 9 a.m.	30	4.1	3,120	5.7	10,706	6.0	<b>13,856</b>	<b>5.9</b>
9 to 10 a.m.	14	1.9	2,318	4.3	7,964	4.5	<b>10,296</b>	<b>4.4</b>
10 to 11 a.m.	30	4.1	2,294	4.2	7,850	4.4	<b>10,174</b>	<b>4.3</b>
11 to 12 noon	36	4.9	2,871	5.3	9,142	5.1	<b>12,049</b>	<b>5.1</b>
<b>Sub-total</b>	<b>153</b>	<b>20.9</b>	<b>13,905</b>	<b>25.5</b>	<b>47,227</b>	<b>26.4</b>	<b>61,285</b>	<b>26.2</b>

Hour of Occurrence P.M.	Class of Collision						Total	%
	Fatal	%	Personal Injury	%	Property Damage	%		
12 to 1 p.m.	39	5.3	3,298	6.1	10,630	5.9	<b>13,967</b>	<b>6.0</b>
1 to 2 p.m.	41	5.6	3,329	6.1	10,179	5.7	<b>13,549</b>	<b>5.8</b>
2 to 3 p.m.	37	5.0	3,513	6.4	10,892	6.1	<b>14,442</b>	<b>6.2</b>
3 to 4 p.m.	49	6.7	4,490	8.2	13,637	7.6	<b>18,176</b>	<b>7.8</b>
4 to 5 p.m.	44	6.0	4,739	8.7	14,078	7.9	<b>18,861</b>	<b>8.1</b>
5 to 6 p.m.	57	7.8	4,470	8.2	14,353	8.0	<b>18,880</b>	<b>8.1</b>
<b>Sub-total</b>	<b>267</b>	<b>36.4</b>	<b>23,839</b>	<b>43.8</b>	<b>73,769</b>	<b>41.3</b>	<b>97,875</b>	<b>41.8</b>
6 to 7 p.m.	50	6.8	3,594	6.6	11,761	6.6	<b>15,405</b>	<b>6.6</b>
7 to 8 p.m.	34	4.6	2,618	4.8	8,555	4.8	<b>11,207</b>	<b>4.8</b>
8 to 9 p.m.	35	4.8	1,966	3.6	6,348	3.6	<b>8,349</b>	<b>3.6</b>
9 to 10 p.m.	29	4.0	1,787	3.3	6,050	3.4	<b>7,866</b>	<b>3.4</b>
10 to 11 p.m.	24	3.3	1,467	2.7	5,034	2.8	<b>6,525</b>	<b>2.8</b>
11 to 12 midnight	18	2.5	1,183	2.2	4,300	2.4	<b>5,501</b>	<b>2.4</b>
<b>Sub-total</b>	<b>190</b>	<b>25.9</b>	<b>12,615</b>	<b>23.2</b>	<b>42,048</b>	<b>23.5</b>	<b>54,853</b>	<b>23.4</b>
Unknown	5	0.7	268	0.5	1,870	1.0	<b>2,143</b>	<b>0.9</b>
<b>Total</b>	<b>733</b>	<b>100.0</b>	<b>54,479</b>	<b>100.0</b>	<b>178,792</b>	<b>100.0</b>	<b>234,004</b>	<b>100.0</b>

**Table 3.8**

**Statutory Holidays, Holiday Weekends - Fatal Collisions, Persons Killed and Injured 2001**

Statutory Holiday*	Number of Fatal Collisions	Drivers		Passengers		Others		Total	
		Killed	Injured	Killed	Injured	Killed	Injured	Killed	Injured
Easter Weekend	7	6	3	1	4	1	0	8	7
Victoria Day	10	6	4	2	5	2	2	10	11
Canada Day	15	10	7	7	21	1	0	18	28
Civic Holiday (Simcoe Day)	8	3	7	8	2	1	0	12	9
Labour Day	7	6	3	1	3	0	0	7	6
Thanksgiving Day	10	6	5	5	5	1	0	12	10
Christmas/Boxing Day	2	1	3	1	7	0	0	2	10

\* Actual length may vary depending on the calendar year. For certain holidays, it might include the whole weekend.

**Table 3.9**

**Light Condition by Class of Collision 2001**

Light Condition	Class of Collision						Total	
	Fatal	%	Personal Injury	%	Property Damage	%		
Daylight	425	58.0	38,756	71.1	120,270	67.3	159,451	68.1
Dawn	12	1.6	803	1.5	3,237	1.8	4,052	1.7
Dusk	23	3.1	1,688	3.1	6,462	3.6	8,173	3.5
Darkness	273	37.2	13,211	24.2	48,481	27.1	61,965	26.5
Other	0	0.0	21	0.0	342	0.2	363	0.2
<b>Total</b>	<b>733</b>	<b>100.0</b>	<b>54,479</b>	<b>100.0</b>	<b>178,792</b>	<b>100.0</b>	<b>234,004</b>	<b>100.0</b>

**Table 3.10**

**Visibility by Class of Collision 2001**

Visibility	Class of Collision						Total	
	Fatal	%	Personal Injury	%	Property Damage	%		
Clear	565	77.1	42,577	78.2	133,459	74.6	176,601	75.5
Rain	85	11.6	6,907	12.7	23,244	13.0	30,236	12.9
Snow	52	7.1	3,377	6.2	15,610	8.7	19,039	8.1
Freezing Rain	8	1.1	468	0.9	2,208	1.2	2,684	1.1
Drifting Snow	5	0.7	420	0.8	1,358	0.8	1,783	0.8
Strong Wind	5	0.7	136	0.2	454	0.3	595	0.3
Fog, Mist, Smoke, or Dust	13	1.8	450	0.8	1,709	1.0	2,172	0.9
Other	0	0.0	144	0.3	750	0.4	894	0.4
<b>Total</b>	<b>733</b>	<b>100.0</b>	<b>54,479</b>	<b>100.0</b>	<b>178,792</b>	<b>100.0</b>	<b>234,004</b>	<b>100.0</b>

3c. The collision location

**Table 3.11**  
**Road Jurisdiction by Class of Collision 2001**

Road Jurisdiction	Class of Collision			Total
	Fatal	Personal Injury	Property Damage	
Municipal (Excl. Twp. Rd.)	232	34,181	109,538	<b>143,951</b>
Provincial Highway	227	7,951	28,333	<b>36,511</b>
Township	51	1,952	6,675	<b>8,678</b>
County or District	122	2,923	9,647	<b>12,692</b>
Regional Municipality	95	7,374	24,190	<b>31,659</b>
Federal	3	60	291	<b>354</b>
Other	3	38	118	<b>159</b>
<b>Total</b>	<b>733</b>	<b>54,479</b>	<b>178,792</b>	<b>234,004</b>

**Table 3.12**  
**Road Jurisdiction for All Collisions 1990 – 2001**

Road Jurisdiction*	Year	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
	Municipal	117,218	112,651	117,800	119,421	117,478	114,848	112,980	112,980	123,423	123,112	126,063	136,499
Provincial	43,513	44,234	46,537	48,275	48,895	46,365	46,867	46,867	41,947	33,590	37,139	38,366	36,511
Township	10,684	10,332	10,777	10,667	10,497	9,774	9,236	9,236	9,557	8,696	8,672	9,844	8,678
County or District	8,582	8,482	9,186	9,076	8,839	8,815	8,381	8,381	9,574	11,114	11,217	12,847	12,692
Regional Municipality	39,004	36,956	38,810	40,230	40,165	38,279	36,738	36,738	36,341	36,295	38,360	42,464	31,659
Federal**	913	769	899	863	825	753	662	662	504	392	400	439	354
Other	274	245	240	302	297	251	160	160	154	157	111	171	159
<b>Total</b>	<b>220,188</b>	<b>213,669</b>	<b>224,249</b>	<b>228,834</b>	<b>226,996</b>	<b>219,085</b>	<b>215,024</b>	<b>215,024</b>	<b>221,500</b>	<b>213,356</b>	<b>221,962</b>	<b>240,630</b>	<b>234,004</b>

\* Collisions may not be comparable across the different years due to transfer of highways between jurisdictions.

\*\* Since January 1, 1988, the Motor Vehicle Accident Report form allows the recording of jurisdiction for federal roads.

**Table 3.13**

**Collision Location by Class of Collision 2001**

Road location	Class of Collision						Total	%
	Fatal	%	Personal Injury	%	Property Damage	%		
Non-intersection	440	60.0	19,213	35.3	72,578	40.6	<b>92,231</b>	<b>39.4</b>
Intersection Related	108	14.7	13,559	24.9	44,231	24.7	<b>57,898</b>	<b>24.7</b>
At Intersection	113	15.4	15,222	27.9	33,216	18.6	<b>48,551</b>	<b>20.7</b>
At/Near Private Drive	51	7.0	5,985	11.0	26,744	15.0	<b>32,780</b>	<b>14.0</b>
At Railway	9	1.2	97	0.2	293	0.2	<b>399</b>	<b>0.2</b>
Underpass or Tunnel	2	0.3	46	0.1	207	0.1	<b>255</b>	<b>0.1</b>
Overpass or Bridge	8	1.1	308	0.6	1,205	0.7	<b>1,521</b>	<b>0.6</b>
Other	2	0.3	49	0.1	318	0.2	<b>369</b>	<b>0.2</b>
<b>Total</b>	<b>733</b>	<b>100.0</b>	<b>54,479</b>	<b>100.0</b>	<b>178,792</b>	<b>100.0</b>	<b>234,004</b>	<b>100.0</b>

**Table 3.14**

**Road Surface Condition by Class of Collision 2001**

Road Surface Condition	Class of Collision						Total	%
	Fatal	%	Personal Injury	%	Property Damage	%		
Dry	480	65.5	37,309	68.5	115,037	64.3	<b>152,826</b>	<b>65.3</b>
Wet	156	21.3	11,396	20.9	37,883	21.2	<b>49,435</b>	<b>21.1</b>
Loose Snow	25	3.4	1,705	3.1	8,272	4.6	<b>10,002</b>	<b>4.3</b>
Slush	27	3.7	1,129	2.1	4,914	2.7	<b>6,070</b>	<b>2.6</b>
Packed Snow	10	1.4	815	1.5	4,167	2.3	<b>4,992</b>	<b>2.1</b>
Ice	25	3.4	1,636	3.0	6,719	3.8	<b>8,380</b>	<b>3.6</b>
Mud	1	0.1	20	0.0	92	0.1	<b>113</b>	<b>0.0</b>
Loose Sand or Gravel	9	1.2	307	0.6	876	0.5	<b>1,192</b>	<b>0.5</b>
Spilled Liquid	0	0.0	13	0.0	51	0.0	<b>64</b>	<b>0.0</b>
Other	0	0.0	149	0.3	781	0.4	<b>930</b>	<b>0.4</b>
<b>Total</b>	<b>733</b>	<b>100.0</b>	<b>54,479</b>	<b>100.0</b>	<b>178,792</b>	<b>100.0</b>	<b>234,004</b>	<b>100.0</b>

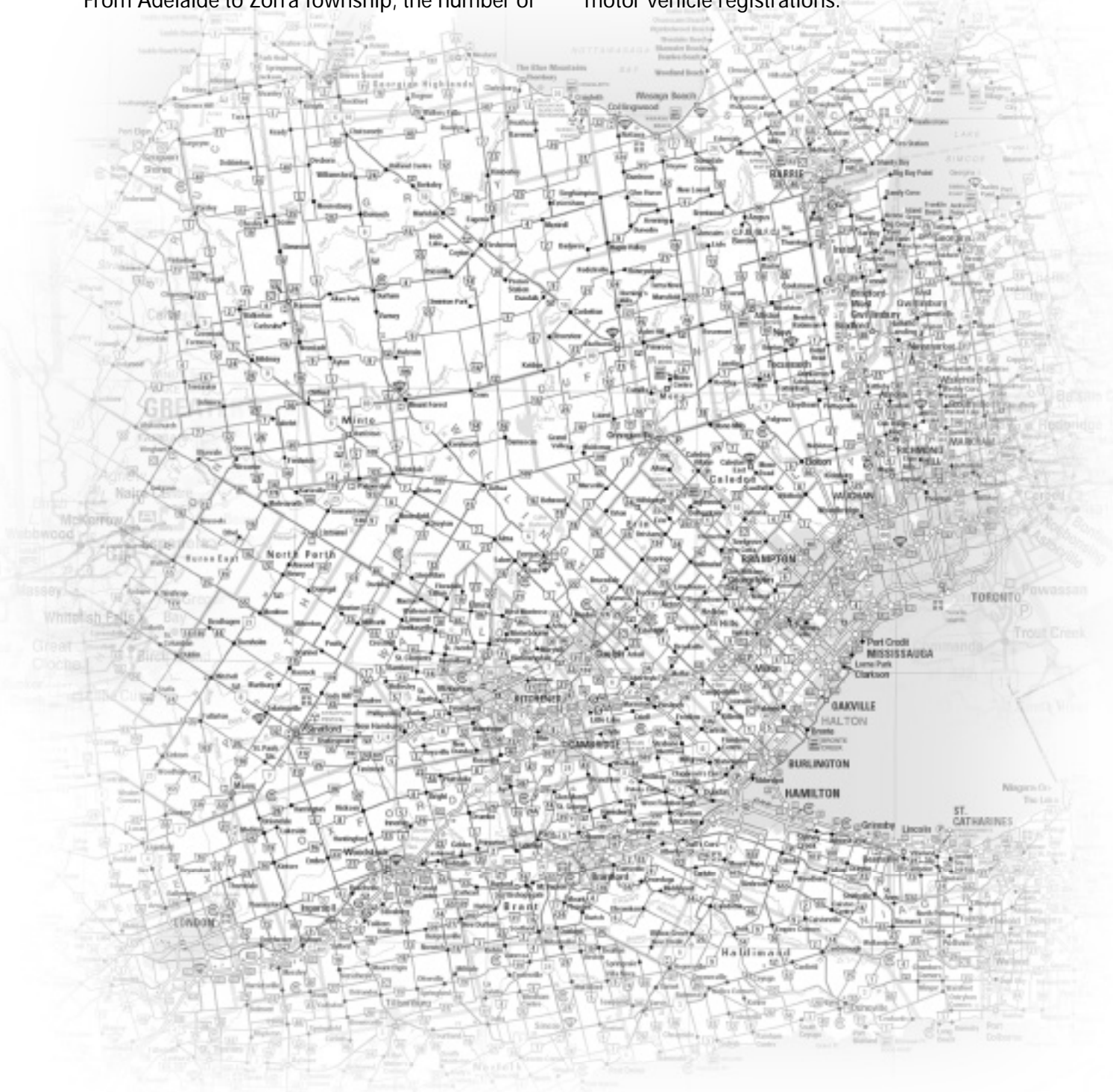


# Place of collision

## 4 Place of collision

This section lists the counties, districts and municipalities that make up Ontario's road system. From Adelaide to Zorra Township, the number of

collisions by class are highlighted against the estimated population of each jurisdiction and motor vehicle registrations.



## 4a. Place of Collision in Ontario

Table 4.1

Location	Estimated Population 2001*	Class of Collision				Persons		Motor Vehicle Registrations**
		Total Collisions	Fatal	Personal Injury	Property Damage	Killed	Injured	
<b>ONTARIO</b>	<b>11,237,898</b>	<b>234,004</b>	<b>733</b>	<b>54,479</b>	<b>178,792</b>	<b>845</b>	<b>81,782</b>	<b>7,275,976</b>
BLIND RIVER T	3,400	40	0	12	28	0	20	
ELLIOT LAKE C	M 11,542	40	0	9	31	0	13	
MICHIPICOTEN TP	M 3,241	2	0	2	0	0	3	
SAULT STE. MARIE C	M 74,413	1509	2	321	1186	2	470	
PROVINCIAL HIGHWAY		554	10	108	436	16	230	
OTHER AREAS	14,719	242	2	57	183	4	96	
<b>ALGOMA</b>	<b>107,315</b>	<b>2,387</b>	<b>14</b>	<b>509</b>	<b>1,864</b>	<b>22</b>	<b>832</b>	<b>88,636</b>
BRANTFORD C	M 79,463	1718	0	370	1348	0	515	
PROVINCIAL HIGHWAY		200	1	52	147	1	92	
OTHER AREAS	29,361	604	3	142	459	4	233	
<b>BRANT</b>	<b>108,824</b>	<b>2,522</b>	<b>4</b>	<b>564</b>	<b>1,954</b>	<b>5</b>	<b>840</b>	<b>81,066</b>
KINCARDINE	M 10,948	79	0	14	65	0	20	
PROVINCIAL HIGHWAY		209	2	57	150	2	95	
OTHER AREAS	49,616	869	9	189	671	11	317	
<b>BRUCE</b>	<b>60,564</b>	<b>1,157</b>	<b>11</b>	<b>260</b>	<b>886</b>	<b>13</b>	<b>432</b>	<b>54,043</b>
COCHRANE T	5,457	54	0	6	48	0	9	
HEARST T	5,468	68	0	15	53	0	21	
KAPUSKASING T	M 9,325	96	0	18	78	0	26	
SMOOTH ROCK FALLS T	1,782	5	0	0	5	0	0	
TIMMINS C	M 44,179	647	2	161	484	2	243	
PROVINCIAL HIGHWAY		323	3	81	239	5	130	
OTHER AREAS	13,798	247	1	60	186	1	91	
<b>COCHRANE</b>	<b>80,009</b>	<b>1,440</b>	<b>6</b>	<b>341</b>	<b>1,093</b>	<b>8</b>	<b>520</b>	<b>64,699</b>
AMARANTH TP	3,413	47	0	11	36	0	17	
MELANCTHON TP	2,427	24	0	7	17	0	9	
MONO T	6,329	48	0	11	37	0	14	
MULMUR TP	2,774	18	0	6	12	0	8	
ORANGEVILLE T	M 21,620	315	0	54	261	0	78	
SHELBURNE T	M 3,663	56	0	8	48	0	10	
PROVINCIAL HIGHWAY		154	2	34	118	3	53	
OTHER AREAS	4,535	627	6	132	489	7	209	
<b>DUFFERIN</b>	<b>44,761</b>	<b>1,289</b>	<b>8</b>	<b>263</b>	<b>1,018</b>	<b>10</b>	<b>398</b>	<b>36,378</b>
AJAX T	73,753	828	1	203	624	1	295	
BROCK TP	12,110	123	1	29	93	1	46	
OSHAWA C	139,051	2202	3	525	1674	3	776	
PICKERING C	87,139	1006	6	204	796	8	321	
SCUGOG TP	20,173	290	3	75	212	5	110	
UXBRIDGE TP	17,377	340	3	96	241	5	157	
WHITBY T	87,413	1184	1	273	910	1	415	
PROVINCIAL HIGHWAY		1486	8	326	1152	9	502	
OTHER AREAS	69,885	875	7	245	623	8	378	

Table 4.1

Continued

Location	Estimated Population 2001*	Class of Collision				Persons		Motor Vehicle Registrations**
		Total Collisions	Fatal	Personal Injury	Property Damage	Killed	Injured	
<b>DURHAM</b>	<b>506,901</b>	<b>8,334</b>	<b>33</b>	<b>1,976</b>	<b>6,325</b>	<b>41</b>	<b>3,000</b>	<b>330,455</b>
AYLMER T	M 6,440	85	0	14	71	0	17	
BAYHAM	M 5,679	47	0	20	27	0	28	
MALAHIDE TP	8,081	62	1	15	46	1	22	
ST. THOMAS C	M 30,776	383	1	128	254	1	186	
PROVINCIAL HIGHWAY		137	1	37	99	1	66	
OTHER AREAS	25,009	499	3	107	389	6	145	
<b>ELGIN</b>	<b>75,985</b>	<b>1,213</b>	<b>6</b>	<b>321</b>	<b>886</b>	<b>9</b>	<b>464</b>	<b>63,127</b>
AMHERSTBURG T	M 19,600	138	0	28	110	0	35	
ESSEX T	M 19,205	189	0	29	160	0	40	
KINGSVILLE T	M 18,684	108	0	29	79	0	38	
LEAMINGTON	M 24,768	400	1	65	334	1	103	
TECUMSEH T	24,486	190	0	36	154	0	47	
WINDSOR C	M 202,431	5187	5	1039	4143	5	1460	
PROVINCIAL HIGHWAY		284	3	81	200	5	135	
OTHER AREAS	50,858	998	4	260	734	5	398	
<b>ESSEX</b>	<b>360,032</b>	<b>7,494</b>	<b>13</b>	<b>1,567</b>	<b>5,914</b>	<b>16</b>	<b>2,256</b>	<b>249,743</b>
KINGSTON C	M 108,158	1611	5	374	1232	6	529	
PROVINCIAL HIGHWAY		325	1	78	246	1	129	
OTHER AREAS	21,918	456	2	108	346	2	176	
<b>FRONTENAC</b>	<b>130,076</b>	<b>2,392</b>	<b>8</b>	<b>560</b>	<b>1,824</b>	<b>9</b>	<b>834</b>	<b>93,531</b>
CHATSWORTH TP	5,924	52	2	11	39	2	16	
HANOVER T	M 6,585	124	0	18	106	0	25	
OWEN SOUND C	M 19,870	342	2	85	255	2	131	
SOUTHGATE TP	6,070	51	1	15	35	1	27	
WEST GREY TP	11,074	72	0	12	60	0	15	
PROVINCIAL HIGHWAY		339	5	89	245	6	157	
OTHER AREAS	33,337	845	8	189	648	8	301	
<b>GREY</b>	<b>82,860</b>	<b>1,825</b>	<b>18</b>	<b>419</b>	<b>1,388</b>	<b>19</b>	<b>672</b>	<b>62,531</b>
PROVINCIAL HIGHWAY		200	3	70	127	4	111	
OTHER AREAS	96,297	1331	7	285	1039	8	484	
<b>HALDIMAND-NORFOLK</b>	<b>96,297</b>	<b>1,531</b>	<b>10</b>	<b>355</b>	<b>1,166</b>	<b>12</b>	<b>595</b>	<b>84,427</b>
MINDEN HILLS TP	4,932	31	0	8	23	0	12	
DYSART ET AL TP	4,671	32	0	4	28	0	7	
PROVINCIAL HIGHWAY		180	3	38	139	4	55	
OTHER AREAS	4,498	228	2	50	176	2	90	
<b>HALIBURTON</b>	<b>14,101</b>	<b>471</b>	<b>5</b>	<b>100</b>	<b>366</b>	<b>6</b>	<b>164</b>	<b>14,313</b>
BURLINGTON C	150,836	2082	3	387	1692	3	532	
HALTON HILLS T	48,184	497	2	89	406	2	111	
MILTON T	31,471	631	4	155	472	5	234	
OAKVILLE T	144,738	2010	5	307	1698	5	426	
PROVINCIAL HIGHWAY		1877	3	271	1603	3	422	
OTHER AREAS	0	105	0	23	82	0	27	



Table 4.1

Continued

Location	Estimated Population 2001*	Class of Collision				Persons		Motor Vehicle Registrations**
		Total Collisions	Fatal	Personal Injury	Property Damage	Killed	Injured	
<b>HALTON</b>	<b>375,229</b>	<b>7,202</b>	<b>17</b>	<b>1,232</b>	<b>5,953</b>	<b>18</b>	<b>1,752</b>	<b>262,632</b>
HAMILTON C	490,268	5127	10	1997	3120	11	3000	
PROVINCIAL HIGHWAY		732	3	204	525	4	328	
OTHER AREAS	0	369	4	151	214	5	230	
<b>HAMILTON-WENTWORTH</b>	<b>490,268</b>	<b>6,228</b>	<b>17</b>	<b>2,352</b>	<b>3,859</b>	<b>20</b>	<b>3,558</b>	<b>282,708</b>
BANCROFT T	3,571	73	0	14	59	0	19	
BELLEVILLE C	M 42,855	930	0	205	725	0	324	
DESERONTO T	M 1,656	10	0	2	8	0	5	
MARMORA AND LAKE	M 3,634	43	0	12	31	0	17	
TYENDINAGA TP	3,457	32	0	14	18	0	18	
PROVINCIAL HIGHWAY		558	10	119	429	13	214	
OTHER AREAS	62,733	918	5	213	700	6	322	
<b>HASTINGS</b>	<b>117,906</b>	<b>2,564</b>	<b>15</b>	<b>579</b>	<b>1,970</b>	<b>19</b>	<b>919</b>	<b>98,853</b>
ASHFIELD-COLBORNE-WAWANOSH TP	5,360	25	0	6	19	0	6	
CENTRAL HURON	M 7,430	24	0	6	18	0	12	
HOWICK TP	3,515	16	0	5	11	0	5	
HURON EAST	M 9,427	16	0	4	12	0	5	
MORRIS-TURNBERRY	M 3,439	25	0	8	17	0	20	
NORTH HURON TP	4,936	19	0	2	17	0	4	
SOUTH HURON	M 9,896	7	0	2	5	0	2	
PROVINCIAL HIGHWAY		144	1	37	106	1	58	
OTHER AREAS	14,063	845	11	169	665	12	313	
<b>HURON</b>	<b>58,066</b>	<b>1,121</b>	<b>12</b>	<b>239</b>	<b>870</b>	<b>13</b>	<b>425</b>	<b>43,436</b>
DRYDEN C	M 8,198	119	0	12	107	0	18	
IGNACE TP	1,709	3	0	0	3	0	0	
KENORA C	15,838	327	3	39	285	3	66	
RED LAKE	M 4,233	20	0	2	18	0	3	
SIoux LOOKOUT T	5,336	39	0	8	31	0	9	
PROVINCIAL HIGHWAY		752	9	125	618	15	208	
OTHER AREAS	26,488	153	0	33	120	0	48	
<b>KENORA</b>	<b>61,802</b>	<b>1,413</b>	<b>12</b>	<b>219</b>	<b>1,182</b>	<b>18</b>	<b>352</b>	<b>40,136</b>
PROVINCIAL HIGHWAY		129	1	36	92	3	59	
OTHER AREAS	103,824	1350	11	388	951	11	584	
<b>KENT</b>	<b>103,824</b>	<b>1,479</b>	<b>12</b>	<b>424</b>	<b>1,043</b>	<b>14</b>	<b>643</b>	<b>84,507</b>
BROOKE-ALVINSTON	M 2,773	26	1	5	20	1	11	
ENNISKILLEN TP	3,224	32	0	9	23	0	18	
PETROLIA T	M 4,750	46	1	7	38	1	9	
PLYMPTON-WYOMING T	7,126	34	1	7	26	1	8	
POINT EDWARD V	2,171	30	0	4	26	0	6	
SARNIA C	M 69,850	947	3	195	749	3	276	
ST. CLAIR TP	14,796	2	0	0	2	0	0	
WARWICK TP	M 3,983	22	0	7	15	0	10	
PROVINCIAL HIGHWAY		194	0	48	146	0	89	
OTHER AREAS	13,732	488	9	106	373	11	160	

Table 4.1

Continued

Location	Estimated Population 2001*	Class of Collision				Persons		Motor Vehicle Registrations**
		Total Collisions	Fatal	Personal Injury	Property Damage	Killed	Injured	
<b>LAMBTON</b>	<b>122,405</b>	<b>1,821</b>	<b>15</b>	<b>388</b>	<b>1,418</b>	<b>17</b>	<b>587</b>	<b>92,625</b>
CARLETON PLACE T	M	8,310	114	0	24	90	0	35
MONTAGUE TP		3,054	16	1	3	12	1	3
PERTH T	M	5,694	186	0	43	143	0	81
SMITHS FALLS ST	M	8,640	192	0	25	167	0	37
PROVINCIAL HIGHWAY			202	3	47	152	4	78
OTHER AREAS		32,179	698	6	96	596	6	127
<b>LANARK</b>	<b>57,877</b>	<b>1,408</b>	<b>10</b>	<b>238</b>	<b>1,160</b>	<b>11</b>	<b>361</b>	<b>46,974</b>
AUGUSTA TP		7,261	36	0	6	30	0	11
BROCKVILLE C	M	19,970	391	0	74	317	0	101
EDWARDSBURGH/CARDINAL TP		6,169	30	0	5	25	0	6
ELIZABETHTOWN-KITLEY TP		9,555	46	0	11	35	0	13
FRONT OF YONGE TP		2,442	13	0	2	11	0	2
PRESCOTT ST	M	3,783	78	0	13	65	0	25
PROVINCIAL HIGHWAY			562	5	137	420	7	247
OTHER AREAS		41,156	938	6	178	754	6	260
<b>LEEDS &amp; GRENVILLE</b>	<b>90,336</b>	<b>2,094</b>	<b>11</b>	<b>426</b>	<b>1,657</b>	<b>13</b>	<b>665</b>	<b>73,713</b>
PROVINCIAL HIGHWAY			274	4	70	200	4	140
OTHER AREAS		35,425	531	4	106	421	4	174
<b>LENNOX &amp; ADDINGTON</b>	<b>35,425</b>	<b>805</b>	<b>8</b>	<b>176</b>	<b>621</b>	<b>8</b>	<b>314</b>	<b>26,554</b>
PROVINCIAL HIGHWAY			190	3	30	157	5	58
OTHER AREAS		7,417	135	0	29	106	0	52
<b>MANITOULIN</b>	<b>7,417</b>	<b>325</b>	<b>3</b>	<b>59</b>	<b>263</b>	<b>5</b>	<b>110</b>	<b>10,499</b>
ADELAIDE-METCALFE TP		2,995	40	0	11	29	0	16
LUCAN BIDDULPH TP		4,092	22	0	9	13	0	39
LONDON C	M	336,539	7493	11	2135	5347	12	3177
SOUTHWEST MIDDLESEX	M	5,951	12	0	4	8	0	7
STRATHROY-CARADOC TP	M	18,001	167	1	42	124	1	53
PROVINCIAL HIGHWAY			378	1	85	292	1	120
OTHER AREAS		35,607	914	11	205	698	13	339
<b>MIDDLESEX</b>	<b>403,185</b>	<b>9,026</b>	<b>24</b>	<b>2,491</b>	<b>6,511</b>	<b>27</b>	<b>3,751</b>	<b>257,413</b>
BRACEBRIDGE T		12,133	185	0	28	157	0	37
GRAVENHURST T		9,090	111	1	28	82	1	37
HUNTSVILLE T		15,086	192	1	33	158	1	46
LAKE OF BAYS TP		2,606	14	0	2	12	0	4
MUSKOKA LAKES TP		5,456	80	2	20	58	2	32
PROVINCIAL HIGHWAY			530	6	121	403	8	226
OTHER AREAS		2,038	301	6	70	225	6	90
<b>MUSKOKA</b>	<b>46,409</b>	<b>1,413</b>	<b>16</b>	<b>302</b>	<b>1,095</b>	<b>18</b>	<b>472</b>	<b>47,013</b>
FORT ERIE T		27,291	400	0	104	296	0	184
GRIMSBY T		19,567	260	0	52	208	0	80
LINCOLN T		18,830	181	2	41	138	2	57
NIAGARA-ON-THE-LAKE T		13,087	238	1	70	167	1	123
NIAGARA FALLS C		75,585	1686	3	340	1343	3	490

Table 4.1

Continued

Location	Estimated Population 2001*	Class of Collision				Persons		Motor Vehicle Registrations**
		Total Collisions	Fatal	Personal Injury	Property Damage	Killed	Injured	
PELHAM T	14,683	208	2	49	157	2	82	
PORT COLBORNE C	17,819	213	2	40	171	3	53	
ST. CATHARINES C	125,375	2093	6	400	1687	8	569	
THOROLD C	17,682	233	1	57	175	2	80	
WAINFLEET TP	6,101	74	1	17	56	1	26	
WELLAND C	46,965	795	1	179	615	3	260	
WEST LINCOLN TP	11,415	181	2	41	138	2	57	
PROVINCIAL HIGHWAY		1075	3	273	799	3	460	
OTHER AREAS	0	344	2	80	262	2	125	
<b>NIAGARA</b>	<b>394,400</b>	<b>7,981</b>	<b>26</b>	<b>1,743</b>	<b>6,212</b>	<b>32</b>	<b>2,646</b>	<b>288,534</b>
EAST FERRIS TP	4,315	17	0	5	12	0	6	
MATTAWA T	2,251	18	0	4	14	0	6	
NORTH BAY C	M 53,654	630	1	143	486	1	185	
PROVINCIAL HIGHWAY		534	8	129	397	12	215	
OTHER AREAS	20,549	216	0	52	164	0	81	
<b>NIPISSING</b>	<b>80,769</b>	<b>1,415</b>	<b>9</b>	<b>333</b>	<b>1,073</b>	<b>13</b>	<b>493</b>	<b>60,021</b>
BRIGHTON	M 8,184	69	0	13	56	0	15	
COBOURG T	M 15,697	244	0	48	196	0	66	
CRAMAHE TP	5,160	27	0	7	20	0	9	
ALNWICK-HALDIMAND TP	5,392	33	0	4	29	0	4	
PORT HOPE	M 14,561	134	0	29	105	0	39	
PROVINCIAL HIGHWAY		385	1	95	289	1	151	
OTHER AREAS	21,781	649	3	139	507	4	222	
<b>NORTHUMBERLAND</b>	<b>70,775</b>	<b>1,541</b>	<b>4</b>	<b>335</b>	<b>1,202</b>	<b>5</b>	<b>506</b>	<b>60,330</b>
OTTAWA	M 800,600	11168	24	2590	8554	25	3647	
PROVINCIAL HIGHWAY		1177	3	246	928	3	353	
OTHER AREAS	0	469	1	99	369	1	142	
<b>OTTAWA-CARLETON</b>	<b>800,600</b>	<b>12,814</b>	<b>28</b>	<b>2,935</b>	<b>9,851</b>	<b>29</b>	<b>4,142</b>	<b>447,195</b>
INGERSOLL T	M 10,634	109	0	21	88	0	33	
TILLSONBURG T	M 13,721	191	0	36	155	0	53	
WOODSTOCK C	M 32,474	510	0	121	389	0	166	
ZORRA TP	8,093	92	1	27	64	1	36	
PROVINCIAL HIGHWAY		306	2	77	227	2	151	
OTHER AREAS	32,588	616	6	139	471	7	223	
<b>OXFORD</b>	<b>97,510</b>	<b>1,824</b>	<b>9</b>	<b>421</b>	<b>1,394</b>	<b>10</b>	<b>662</b>	<b>74,405</b>
MCDougall TP	2,523	16	0	5	11	0	6	
PERRY TP	1,907	16	0	1	15	0	1	
PROVINCIAL HIGHWAY		717	5	143	569	9	244	
OTHER AREAS	29,482	323	2	70	251	2	114	
<b>PARRY SOUND</b>	<b>33,912</b>	<b>1,072</b>	<b>7</b>	<b>219</b>	<b>846</b>	<b>11</b>	<b>365</b>	<b>37,561</b>
BRAMPTON C	325,428	5109	12	961	4136	13	1462	
CALEDON T	50,595	906	8	213	685	9	332	
MISSISSAUGA C	612,925	8983	15	1267	7701	15	1775	
PROVINCIAL HIGHWAY		3135	11	511	2613	12	769	
OTHER AREAS	0	507	1	26	480	1	44	

Table 4.1

Continued

Location	Estimated Population 2001*	Class of Collision				Persons		Motor Vehicle Registrations**
		Total Collisions	Fatal	Personal Injury	Property Damage	Killed	Injured	
<b>PEEL</b>	<b>988,948</b>	<b>18,640</b>	<b>47</b>	<b>2,978</b>	<b>15,615</b>	<b>50</b>	<b>4,382</b>	<b>629,114</b>
ST. MARYS T	M	6,055	60	0	11	49	0	18
STRATFORD C	M	28,257	547	0	133	414	0	196
PROVINCIAL HIGHWAY			164	2	49	113	2	91
OTHER AREAS		36,450	745	7	178	560	7	273
<b>PERTH</b>	<b>70,762</b>	<b>1,516</b>	<b>9</b>	<b>371</b>	<b>1,136</b>	<b>9</b>	<b>578</b>	<b>51,752</b>
SMITH-ENNISMORE-LAKEFIELD TP	M	15,394	81	0	17	64	0	17
PETERBOROUGH C	M	67,666	1048	2	349	697	2	525
PROVINCIAL HIGHWAY			314	0	90	224	0	150
OTHER AREAS		34,425	665	8	187	470	8	294
<b>PETERBOROUGH</b>	<b>117,485</b>	<b>2,108</b>	<b>10</b>	<b>643</b>	<b>1,455</b>	<b>10</b>	<b>986</b>	<b>90,283</b>
CASSELMAN V		2,835	18	0	2	16	0	3
EAST HAWKESBURY TP		3,329	14	0	3	11	0	5
HAWKESBURY T	M	10,154	183	0	40	143	0	55
RUSSELL TP		11,894	52	0	13	39	0	20
PROVINCIAL HIGHWAY			177	3	47	127	3	69
OTHER AREAS		45,833	712	7	180	525	7	269
<b>PRESCOTT &amp; RUSSELL</b>	<b>74,045</b>	<b>1,156</b>	<b>10</b>	<b>285</b>	<b>861</b>	<b>10</b>	<b>421</b>	<b>67,445</b>
PROVINCIAL HIGHWAY			64	1	10	53	1	14
OTHER AREAS		22,752	437	2	81	354	3	120
<b>PRINCE EDWARD</b>	<b>22,752</b>	<b>501</b>	<b>3</b>	<b>91</b>	<b>407</b>	<b>4</b>	<b>134</b>	<b>19,676</b>
ATIKOKAN TP	M	3,400	20	0	3	17	0	4
FORT FRANCES T	M	7,986	122	0	11	111	0	15
PROVINCIAL HIGHWAY			279	1	39	239	1	66
OTHER AREAS		6,354	77	0	5	72	0	7
<b>RAINY RIVER</b>	<b>17,740</b>	<b>498</b>	<b>1</b>	<b>58</b>	<b>439</b>	<b>1</b>	<b>92</b>	<b>17,814</b>
ARNPRIOR T		6,596	82	0	19	63	0	31
DEEP RIVER T	M	4,015	11	0	3	8	0	3
HORTON TP		2,492	16	0	5	11	0	6
LAURENTIAN VALLEY TP		8,715	29	0	3	26	0	3
PEMBROKE C	M	12,990	174	0	41	133	0	60
PETAWAWA T		15,148	34	0	8	26	0	12
RENFREW T	M	7,565	102	0	15	87	0	16
WHITewater REGION TP		6,185	14	0	3	11	0	8
PROVINCIAL HIGHWAY			424	10	107	307	11	187
OTHER AREAS		28,255	583	1	138	444	1	197
<b>RENFREW</b>	<b>91,961</b>	<b>1,469</b>	<b>11</b>	<b>342</b>	<b>1,116</b>	<b>12</b>	<b>523</b>	<b>74,705</b>
BARRIE C	M	103,710	2037	3	336	1698	3	498
COLLINGWOOD T	M	16,039	268	0	58	210	0	84
ESSA TP		16,808	75	0	17	58	0	28
INNISFIL T	M	28,666	244	3	70	171	3	104
MIDLAND T	M	16,214	248	1	41	206	1	59
ORILLIA C	M	29,121	611	0	109	502	0	170
TINY TP		9,035	109	0	30	79	0	45

Table 4.1

Continued

Location	Estimated Population 2001*	Class of Collision				Persons		Motor Vehicle Registrations**
		Total Collisions	Fatal	Personal Injury	Property Damage	Killed	Injured	
WASAGA BEACH T	12,419	166	0	33	133	0	50	
PROVINCIAL HIGHWAY		1641	9	380	1252	9	611	
OTHER AREAS	145,038	2564	20	639	1905	27	1041	
<b>SIMCOE</b>	<b>377,050</b>	<b>7,963</b>	<b>36</b>	<b>1,713</b>	<b>6,214</b>	<b>43</b>	<b>2,690</b>	<b>276,078</b>
CORNWALL C M	44,999	976	1	194	781	1	289	
PROVINCIAL HIGHWAY		410	4	101	305	4	178	
OTHER AREAS	61,682	728	10	141	577	11	236	
<b>STORMONT DUNDAS &amp; GLENGARRY</b>	<b>106,681</b>	<b>2,114</b>	<b>15</b>	<b>436</b>	<b>1,663</b>	<b>16</b>	<b>703</b>	<b>80,050</b>
ESPANOLA T M	5,449	44	1	13	30	1	16	
GREATER SUDBURY C M	155,268	1738	8	465	1265	9	698	
PROVINCIAL HIGHWAY		712	15	198	499	18	326	
OTHER AREAS	17,805	671	2	164	505	2	240	
<b>SUDBURY</b>	<b>178,522</b>	<b>3,165</b>	<b>26</b>	<b>840</b>	<b>2,299</b>	<b>30</b>	<b>1,280</b>	<b>132,822</b>
GREENSTONE M	5,216	30	0	3	27	0	3	
MANITOUWADGE TP	2,856	23	0	0	23	0	0	
MARATHON T M	4,314	15	0	7	8	0	15	
NIPIGON TP	1,944	12	0	4	8	0	9	
SCHREIBER TP	1,445	3	0	0	3	0	0	
TERRACE BAY TP M	1,972	9	0	0	9	0	0	
THUNDER BAY C M	112,488	2116	4	478	1634	4	665	
PROVINCIAL HIGHWAY		1013	15	203	795	15	347	
OTHER AREAS	13,771	399	1	36	362	1	60	
<b>THUNDER BAY</b>	<b>144,006</b>	<b>3,620</b>	<b>20</b>	<b>731</b>	<b>2,869</b>	<b>20</b>	<b>1,099</b>	<b>116,395</b>
ENGLEHART T	1,570	12	0	3	9	0	4	
HAILEYBURY T	4,468	30	1	5	24	1	9	
KIRKLAND LAKE T M	9,568	92	1	19	72	1	21	
NEW LISKEARD T M	4,793	73	0	19	54	0	28	
PROVINCIAL HIGHWAY		309	8	83	218	10	139	
OTHER AREAS	11,683	114	0	30	84	0	38	
<b>TIMISKAMING</b>	<b>32,082</b>	<b>630</b>	<b>10</b>	<b>159</b>	<b>461</b>	<b>12</b>	<b>239</b>	<b>27,064</b>
TORONTO C M	2,481,494	57513	46	15391	42076	50	22,644	
PROVINCIAL HIGHWAY		9097	6	2001	7090	6	3043	
OTHER AREAS	0	310	0	24	286	0	33	
<b>TORONTO</b>	<b>2,481,494</b>	<b>66,920</b>	<b>52</b>	<b>17,416</b>	<b>49,452</b>	<b>56</b>	<b>25,720</b>	<b>1,158,646</b>
KAWARTHA LAKES C	65,084	689	2	150	537	3	220	
PROVINCIAL HIGHWAY		291	4	89	198	4	157	
OTHER AREAS	0	407	7	108	292	9	210	
<b>VICTORIA</b>	<b>65,084</b>	<b>1,387</b>	<b>13</b>	<b>347</b>	<b>1,027</b>	<b>16</b>	<b>587</b>	<b>57,522</b>
CAMBRIDGE C	103,425	2277	0	536	1741	0	807	
KITCHENER C	177,858	3815	3	850	2962	3	1198	
NORTH DUMFRIES TP	8,122	207	3	57	147	3	94	
WATERLOO C	87,874	1794	2	394	1398	2	538	
WELLESLEY TP	8,688	105	0	27	78	0	42	

Table 4.1

Continued

Location	Estimated Population 2001*	Class of Collision				Persons		Motor Vehicle Registrations**
		Total Collisions	Fatal	Personal Injury	Property Damage	Killed	Injured	
WILMOT TP	14,428	221	1	55	165	1	81	
WOOLWICH TP	17,537	347	5	102	240	6	162	
PROVINCIAL HIGHWAY		1027	6	214	807	6	314	
OTHER AREAS	0	187	0	47	140	0	76	
<b>WATERLOO</b>	<b>417,932</b>	<b>9,980</b>	<b>20</b>	<b>2,282</b>	<b>7,678</b>	<b>21</b>	<b>3,312</b>	<b>287,688</b>
ERIN T	10,195	78	1	7	70	1	12	
GUELPH C M	94,201	1411	2	512	897	2	771	
MINTO T	7,320	58	0	8	50	0	9	
PROVINCIAL HIGHWAY		592	6	121	465	8	227	
OTHER AREAS	55,680	1335	12	294	1029	13	446	
<b>WELLINGTON</b>	<b>167,396</b>	<b>3,474</b>	<b>21</b>	<b>942</b>	<b>2,511</b>	<b>24</b>	<b>1,465</b>	<b>129,105</b>
AURORA T	42,308	447	2	85	360	2	127	
GEORGINA T	41,643	419	0	106	313	0	166	
EAST GWILLIMBURY T	21,650	298	4	63	231	4	119	
KING TP	19,521	421	2	91	328	2	150	
MARKHAM T	219,733	3092	2	555	2535	2	843	
NEWMARKET T	69,294	860	3	161	696	4	232	
RICHMOND HILL T	139,066	1752	2	279	1471	2	398	
VAUGHAN C	191,722	3635	6	674	2955	6	1038	
WHITCHURCH STOUFFVILLE TP	23,181	269	4	62	203	5	105	
PROVINCIAL HIGHWAY		1755	13	364	1378	13	580	
OTHER AREAS	0	314	0	59	255	0	83	
<b>YORK</b>	<b>768,118</b>	<b>234,004</b>	<b>733</b>	<b>54,479</b>	<b>178,792</b>	<b>845</b>	<b>81,782</b>	<b>501,759</b>

**Legend**

T	Town
M	Municipal Police Force
C	City
VL	Village
TP	Township

**Other Areas -** Jurisdictions with less than 1,500 population and/or experienced amalgamations/name change after 1992

\* Sources: Ministry of Municipal Affairs and Housing, Ontario Municipal Directory 2001, and Municipalities.

Population data in this table refers to persons residing in a municipality on a permanent basis.

\*\* The number is adjusted to include vehicles that are not associated with a county or region in Ontario and by commercial vehicles that are simultaneously registered in Ontario and other jurisdictions.

**Municipalities that experienced amalgamation, annexation, or name change after 1992 are included in "other areas".**

**Table 4.1 is not comparable to previous years.**



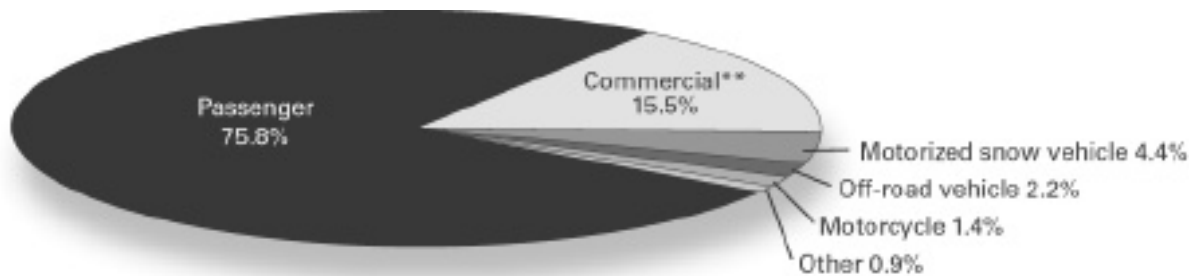
# The vehicle

## 5 The vehicle

This section examines vehicles involved in reportable motor vehicle collisions in Ontario. Vehicle type and condition are considered in the

context of the collision. Statistics provided here indicate that fewer defective vehicles were involved in collisions on Ontario roads in 2001.

**FIGURE 5 Vehicle population by vehicle class in Ontario, 2001**



\*Other includes bus, school bus, road building machinery, permanent apparatus and farm trucks.

\*\*Commercial excludes Single Application Vehicle Registration (SAVR – 50,671 vehicles).



## 5a. Vehicles in collisions

**Table 5.1****Vehicles Involved in Collisions 2001**

Type of Vehicle*	Number of Vehicles Involved in Collisions			Total
	Fatal	Personal Injury	Property Damage	
Passenger Car	714	73,564	228,410	<b>302,688</b>
Passenger Van	122	10,935	34,531	<b>45,588</b>
Motorcycle & Moped	62	1,469	751	<b>2,282</b>
Pick-up Truck	146	7,911	29,723	<b>37,780</b>
Delivery Van	17	1,590	6,263	<b>7,870</b>
Tow Truck	3	168	635	<b>806</b>
Truck	133	2,651	12,926	<b>15,710</b>
Bus	13	624	2,007	<b>2,644</b>
School Vehicle	6	192	961	<b>1,159</b>
Off-Road Vehicle	0	56	136	<b>192</b>
Snowmobile	4	51	56	<b>111</b>
Snow Plow	0	23	154	<b>177</b>
Emergency Vehicle	8	467	1,411	<b>1,886</b>
Farm Vehicle	3	63	157	<b>223</b>
Construction Equipment	3	36	227	<b>266</b>
Motor Home	1	21	118	<b>140</b>
Railway Train	9	23	38	<b>70</b>
Street Car	1	90	354	<b>445</b>
Bicycle	17	2,676	514	<b>3,207</b>
Other	0	0	1	<b>1</b>
Other Non-Motor Vehicle	0	159	486	<b>645</b>
Unknown	4	801	12,715	<b>13,520</b>
<b>Total</b>	<b>1,266</b>	<b>103,570</b>	<b>332,574</b>	<b>437,410</b>

\*Categories in this table are not comparable to years prior to 1998.

**Table 5.2****Condition of Vehicle by Class of Collision 2001**

Condition of Vehicle	Class of Collision			Total
	Fatal	Personal Injury	Property Damage	
No Apparent Defect	1,184	98,629	296,954	<b>396,767</b>
Service Brakes Defective	6	83	156	<b>245</b>
Steering Defective	0	5	25	<b>30</b>
Tire Puncture or Blow Out	2	36	84	<b>122</b>
Tire Tread Insufficient	11	12	27	<b>50</b>
Headlamps Defective	0	2	23	<b>25</b>
Other Lamps or Reflectors Defective	0	6	29	<b>35</b>
Engine Controls Defective	0	7	31	<b>38</b>
Wheels or Suspension Defective	0	11	63	<b>74</b>
Vision Obscured	0	11	36	<b>47</b>
Trailer Hitch Defective	0	1	20	<b>21</b>
Other Defects	16	752	5,152	<b>5,920</b>
Unknown	47	4,015	29,974	<b>34,036</b>
<b>Total</b>	<b>1,266</b>	<b>103,570</b>	<b>332,574</b>	<b>437,410</b>

**Table 5.3****Model Year of Vehicle by Class of Collision 2001**

Model Year of Vehicle	Class of Collision			Total
	Fatal	Personal Injury	Property Damage	
2002	8	722	2,633	<b>3,363</b>
2001	88	6,752	23,187	<b>30,027</b>
2000	135	9,133	31,233	<b>40,501</b>
1999	86	7,623	25,720	<b>33,429</b>
1998	90	7,253	24,592	<b>31,935</b>
1997	92	6,835	22,668	<b>29,595</b>
1996	64	5,374	17,347	<b>22,785</b>
1995	80	6,411	20,605	<b>27,096</b>
1994	75	5,684	18,248	<b>24,007</b>
1993	48	5,962	18,490	<b>24,500</b>
1992 and earlier	467	36,873	107,828	<b>145,168</b>
Unknown	33	4,948	20,023	<b>25,004</b>
<b>Total</b>	<b>1,266</b>	<b>103,570</b>	<b>332,574</b>	<b>437,410</b>

**Table 5.4****Insurance Status of Vehicle by Class of Collision 2001**

<b>Insurance</b>	<b>Class of Collision</b>			<b>Total</b>
	<b>Personal Fatal</b>	<b>Property Injury</b>	<b>Damage</b>	
Insured	1,199	95,706	306,598	<b>403,503</b>
Not Insured	38	1,442	1,801	<b>3,281</b>
Unknown	29	6,422	24,175	<b>30,626</b>
<b>Total</b>	<b>1,266</b>	<b>103,570</b>	<b>332,574</b>	<b>437,410</b>

5b. Putting the vehicle in context

Table 5.5

Vehicle Population by Type of Vehicle 2001

Vehicle Class	Vehicle Population
Passenger	5,775,640
Motorcycle	112,912
Moped	1,788
Commercial*	1,154,527
Bus	20,260
School Bus	8,590
Motorized Snow Vehicle	334,129
Off-Road Vehicle	169,987
Road Building Machinery	612
Permanent Apparatus	3,308
Farm Trucks	38,279
<b>Total</b>	<b>7,620,032</b>

\* Excludes Single Application Vehicle Registrations (SAVR - 50,671 vehicles).

Table 5.6

Selected Types of Vehicles by Model Year 2001

Vehicle Class	Model Years											Total
	2002	2001	2000	1999	1998	1997	1996	1995	1994	1993	1992+	
Passenger	162,866	473,489	529,898	416,597	412,786	384,711	303,102	362,033	332,082	341,187	2,056,869	<b>5,775,640</b>
Motorcycle	852	10,377	10,916	7,268	4,790	3,854	3,241	2,500	2,385	2,544	64,185	<b>112,912</b>
Moped	17	336	160	88	7	9	7	5	7	9	1,143	<b>1,788</b>
Commercial*	24,188	82,016	97,776	86,200	82,661	70,345	52,954	68,094	63,386	50,494	518,612	<b>1,196,726</b>
Bus	375	2,144	2,665	2,396	1,990	1,593	1,946	1,865	1,312	1,486	11,078	<b>28,850</b>
Motorized Snow Vehicle	9,166	8,492	11,827	12,894	16,202	15,209	13,387	12,565	12,313	9,923	212,151	<b>334,129</b>
Off-Road Vehicle	3,574	16,097	14,654	10,135	6,811	4,874	5,655	5,447	4,473	5,337	92,930	<b>169,987</b>
<b>Total</b>	<b>201,058</b>	<b>592,951</b>	<b>667,896</b>	<b>535,578</b>	<b>525,247</b>	<b>480,595</b>	<b>380,292</b>	<b>452,509</b>	<b>415,958</b>	<b>410,980</b>	<b>2,956,968</b>	<b>7,620,032</b>

\* Excludes Single Application Vehicle Registrations (SAVR - 50,671 vehicles).

**Table 5.7****Vehicle Damage Level 2001**

<b>Damage</b>	<b>Class of Collision</b>			<b>Total</b>
	<b>Fatal</b>	<b>Personal Injury</b>	<b>Property Damage</b>	
None	67	9,838	21,077	<b>30,982</b>
Light	121	29,077	135,047	<b>164,245</b>
Moderate	126	26,882	107,285	<b>134,293</b>
Severe	217	21,980	31,715	<b>53,912</b>
Demolished	692	10,503	5,787	<b>16,982</b>
Other	43	5,290	31,663	<b>36,996</b>
<b>Total</b>	<b>1,266</b>	<b>103,570</b>	<b>332,574</b>	<b>437,410</b>

**Vehicle Damage**

<b>None</b>	No visible damage.
<b>Light</b>	Slight or superficial damage. Includes scratches, small dents, minor cracks in glass that do not affect safety or performance of vehicle.
<b>Moderate</b>	Unsafe conditions result from damage. Vehicle must be repaired to make its condition meet requirements of law. Vehicle can be driven off road or limited distance but doing so would be unsafe.
<b>Severe</b>	Vehicle cannot be driven. Requires towing. Would normally be repaired.
<b>Demolished</b>	Vehicle damaged to the extent that repairs would not be feasible.

# Special vehicles

## 6 Special vehicles

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This section takes a look at vehicles of special interest such as motorcycles, school buses, large trucks, snowmobiles, off road vehicles and bicycles.

Even though there were more large trucks on Ontario roads in 2001, fewer of them were involved in collisions. Among large truck collisions, fewer trucks with defects were involved.



## 6a. Motorcycles

**Table 6.1****Motorcyclists\* Killed and Injured 1997-2001**

Year	Drivers		Passengers	
	Killed	Injured	Killed	Injured
1997	36	993	2	255
1998	32	1,068	3	263
1999	38	1,115	3	226
2000	37	1,161	1	257
2001	49	1,166	3	318

\* Excludes moped drivers and passengers.

**Table 6.2****Selected Factors Relevant to Fatal Motorcycle Collisions 2001**

<b>Factors (not mutually exclusive)</b>	<b>%</b>
Unlicensed Motorcycle Drivers	3
Under 25 Years Old	19
Alcohol Used	
Ability Impaired Alcohol > .08	23
Had Been Drinking	6
Unknown	2
Helmet Not Worn (Fatalities)	10
Motorcycle Driver Error	
Speed Too Fast/Lost Control	58
Other Error	13
Single Vehicle Collisions	50
Day/Night	76/24
Weekend	47

6b. School vehicles

**Table 6.3**

**Pupils Transported Daily, Total Collisions and Injury Rate per 100,000 Pupils - School Years 1996/97-2000/01**

School Year	Pupils Transported Daily	Total Number of Collisions
1996/97	Not Available	1,046
1997/98	877,000*	835
1998/99	Not Available	903
1999/2000	Not Available	1,218
2000/2001	778,108*	1,084

\* Estimated number

**Table 6.4**

**School Vehicle Type by Nature of Collision 2000/01**

School Vehicle Type	Nature of Collision				Total Number of Collisions	Five Year Total (1996/97-2000/01)
	Fatal	Pupil Injury	Non-Pupil Injury	Property Damage		
School Bus	6	60	72	801	939	4,132
School Van	0	8	8	57	73	<b>347</b>
Other School Vehicles	0	4	2	66	72	<b>336</b>
<b>Total</b>	<b>6</b>	<b>72</b>	<b>82</b>	<b>924</b>	<b>1,084</b>	<b>4,815</b>

**Table 6.5**

**Pupil Injury by Collision Event and Vehicle Type 2000/01 (Number of Persons)**

School Vehicle Type	Collision Event						Total		Five Year Total (1996/97-2000/01)	
	Crossing Road		Within School Vehicle		Other					
	Killed	Injured	Killed	Injured	Killed	Injured	Killed	Injured	Killed	Injured
School Bus	0	2	1	124	0	5	<b>1</b>	<b>131</b>	<b>6</b>	<b>540</b>
School Van	0	0	0	16	0	0	<b>0</b>	<b>16</b>	<b>0</b>	<b>57</b>
Other School Vehicles	0	0	0	3	0	0	<b>0</b>	<b>3</b>	<b>0</b>	<b>7</b>
<b>Total</b>	<b>0</b>	<b>2</b>	<b>1</b>	<b>143</b>	<b>0</b>	<b>5</b>	<b>1</b>	<b>150</b>	<b>6</b>	<b>604</b>



## 6c. Trucks

**Table 6.6****Number of Persons Killed in Collisions Involving Trucks 1997-2001**

Year	Persons Killed in Truck Collisions			% of Total Deaths
	Where Truck Driver Not Driving Properly	% Where Truck Driver Not Driving Properly	All Truck Collisions	
1997	47	29.7	158	<b>17.6</b>
1998	37	28.2	131	<b>15.3</b>
1999	53	31.0	171	<b>19.7</b>
2000	43	28.7	150	<b>17.7</b>
2001	39	27.3	143	<b>16.9</b>
<b>Total</b>	<b>219</b>	<b>29.0</b>	<b>753</b>	<b>17.4</b>

**Table 6.7****Number of Trucks in All Classes of Collisions 2001**

Truck Types	Class of Collision			Total
	Fatal	Personal Injury	Property Damage	
Straight Truck	34	1,145	5,441	<b>6,620</b>
Straight Truck & Trailer	6	151	550	<b>707</b>
Tractor Only	12	268	1,983	<b>2,263</b>
Tractor & Semi-Trailer	67	990	4,310	<b>5,367</b>
"A-C" Train Double	0	25	85	<b>110</b>
"B" Train Double	4	51	167	<b>222</b>
Other/Unknown	13	189	1,025	<b>1,227</b>
<b>Total</b>	<b>136</b>	<b>2,819</b>	<b>13,561</b>	<b>16,516</b>

**Table 6.8****Registered Trucks 2001**

Driver Licence Required	Registered Trucks
G	1,035,521
D	50,139
A*	161,737
<b>Total</b>	<b>1,247,397</b>

\* Tractor/trailer combination only.

\*\* Includes vehicles registered under the SAVR system (50,671 vehicles).

**Table 6.9\*****Selected Factors Relevant to Truck Drivers Involved in Fatal Collisions 2001**

Factors in Fatal Collisions:	%
<b>Drivers</b>	
Alcohol Involved	2.3
Driving Properly	72.2
<b>Collisions</b>	
Single Vehicle	9.8
Weather Condition - Clear	64.7
Daylight	60.1
<b>Vehicles</b>	
Vehicle Defect Present**	6.0

\* The data provided in this table are comparable to previous years. However, descriptive titles have been added.

\*\* Excludes unknown category

6d. Off-road vehicles

For the purposes of this publication, off-road vehicles include dune buggies, off-road motorcycles (dirt bikes), and three-and-four-wheeled all-terrain vehicles. Off-road vehicles were first required to be registered on June 1, 1984; (one-time registration requirement).

Table 6.10

Collision Location by Off-Road Vehicle Drivers Killed and Injured 1997-2001

Location	Killed					Injured				
	1997	1998	1999	2000	2001	1997	1998	1999	2000	2001
On-Highway	1	1	2	1	0	19	24	14	28	32
Off-Highway	3	2	3	6	8	41	49	44	71	87
<b>Total</b>	<b>4</b>	<b>3</b>	<b>5</b>	<b>7</b>	<b>8</b>	<b>60</b>	<b>73</b>	<b>58</b>	<b>99</b>	<b>119</b>

Table 6.11

Collision Location by Off-Road Vehicle Passengers Killed and Injured 1997-2001

Location	Killed					Injured				
	1997	1998	1999	2000	2001	1997	1998	1999	2000	2001
On-Highway	0	0	0	1	0	15	10	9	18	17
Off-Highway	1	0	0	2	0	19	23	17	24	45
<b>Total</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>34</b>	<b>33</b>	<b>26</b>	<b>42</b>	<b>62</b>

Table 6.12

Registered Off-Road Vehicles 1997-2001

Year	Vehicles Registered
1997	117,438
1998	125,498
1999	136,832
2000	152,570
2001	169,987

Table 6.13

Selected Factors Relevant to All Off-Road Vehicle Collisions 2001

Factors	%
Drivers Under 25 Years of Age	47
Alcohol Used	12
Speeding	18
Helmet Not Worn	45
Daytime	74
Two-Wheeled	14
Three-Wheeled	9
Four-Wheeled	77

## 6e. Motorized snow vehicles

**Table 6.14****Collision Location by Motorized Snow Vehicle\* Drivers Killed and Injured — Riding Seasons 1996/97-2000/01**

Location	Killed					Injured				
	96/97	97/98	98/99	99/2000	2000/01	96/97	97/98	98/99	99/2000	2000/01
On-Highway	2	2	2	3	3	72	22	41	22	47
Off-Highway	19	31	20	8	26	259	199	247	208	272
<b>Total</b>	<b>21</b>	<b>33</b>	<b>22</b>	<b>11</b>	<b>29</b>	<b>331</b>	<b>221</b>	<b>288</b>	<b>230</b>	<b>319</b>

**Table 6.15****Collision Location by Motorized Snow Vehicle\* Passengers Killed and Injured — Riding Seasons 1996/97-2000/01**

Location	Killed					Injured				
	96/97	97/98	98/99	99/2000	2000/01	96/97	97/98	98/99	99/2000	2000/01
On-Highway	3	0	0	0	1	20	14	14	9	19
Off-Highway	2	2	3	2	1	61	69	81	63	83
<b>Total</b>	<b>5</b>	<b>2</b>	<b>3</b>	<b>2</b>	<b>2</b>	<b>81</b>	<b>83</b>	<b>95</b>	<b>72</b>	<b>102</b>

**Table 6.16****Registered Motorized Snow Vehicles 1997-2001**

Year	Registered Motorized Snow Vehicles
1997	362,561
1998	363,737
1999	364,200
2000	332,446
2001	334,129

**Table 6.17****All Motorized Snow Vehicle Collisions 2000/01**

Factors	%
Unlicensed Operators	6
Rider Error; Speed too Fast	33
Alcohol Used	16
Surface Condition; Icy or Packed Snow	33

\* The numbers in these tables are captured under the Motorized Snow Vehicles Act (MSVA) and the Highway Traffic Act (HTA), therefore, they are not comparable with the numbers in Tables 2.2 and 2.3, which are HTA reportable collisions only.

## 6f. Bicycles

Only collisions involving a bicycle and a moving motor vehicle or a streetcar are required to be reported. These tables do not include bicycle only, bicycle/bicycle, or bicycle/pedestrian collisions.

**Table 6.18**

### Bicyclists Killed and Injured 1997-2001

Year	Drivers		Passengers	
	Killed	Injured	Killed	Injured
1997	22	2,997	1	101
1998	36	2,994	0	136
1999	17	2,702	0	136
2000	9	2,694	0	105
2001	16	2,349	0	224

**Table 6.19**

### Age of Bicyclists Involved in Collisions by Light Condition 2001

Light Condition	Age Groups						Total
	0 - 5	6 - 15	16 - 30	31 - 60	61+	UK	
Daylight	7	122	323	311	36	1,799	<b>2,598</b>
Dawn	0	0	1	5	2	29	<b>37</b>
Dusk	0	6	9	10	1	91	<b>117</b>
Dark	0	13	54	63	4	319	<b>453</b>
<b>Total</b>	<b>7</b>	<b>141</b>	<b>387</b>	<b>389</b>	<b>43</b>	<b>2,238</b>	<b>3,205</b>

**Table 6.20**

### Selected Factors Relevant to All Bicycle Collisions 2001

Factors	%
Driving Properly (Bicyclist)	38
Driving Properly (Motor Vehicle Driver)	50
Intersection Related	65
Going Ahead (Bicyclist)	83
Alcohol Related (Bicyclist)	3
No Apparent Vehicle Defect (Bicycle)	87
Clear Visibility	92
Weekend	20



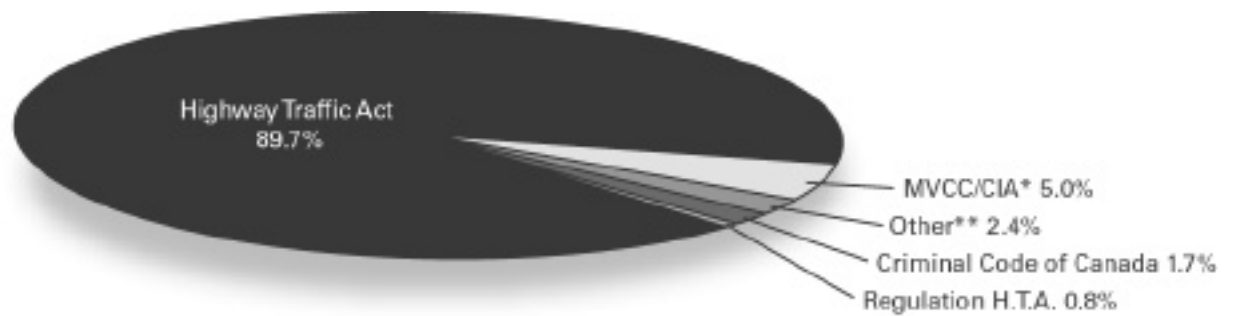
# Conviction, offence and suspension data

## 7 Conviction, offence and suspension data

This section takes a look at conviction, offence and suspension data related to motor vehicle use. Convictions are summarized by legislation and

offence data by conviction type. A record of the total number of Administrative Driver Licence Suspensions issued is also included.

FIGURE 7 Per cent of motor vehicle convictions in Ontario, 2001



\*Motor Vehicle Collision Claim / Compulsory Insurance Act

\*\*Other includes Motorized Snow Vehicles Act, Off-Road Vehicles Act and Out of Province Exchange (HTA)

## 7a. Conviction data

**Table 7.1****Summary of Motor Vehicle Related Convictions 2001**

<b>Convictions*</b>	<b>Number</b>
Highway Traffic Act	1,031,757
Regulations under the H.T.A	9,372
Criminal Code of Canada**	20,267
Municipal By-Law***	4
Motor Vehicle Collision Claim/Compulsory Insurance Act	57,510
Motorized Snow Vehicles Act	2,012
Off-Road Vehicles Act	1,005
Out of Province Exchange (HTA)	28,573
<b>Total</b>	<b>1,150,500</b>

\* Includes manually recorded convictions.

\*\* This figure does not include 436 convictions for young offenders under the Criminal Code.

\*\*\* In previous years a large portion of convictions under H.T.A. Regulations were allocated to convictions under Municipal By-Law.

**Table 7.2****Motor Vehicle Convictions Related to the Highway Traffic Act 2001**

<b>Convictions</b>	<b>Number</b>
Equipment	21,669
Administrative*	129,019
Seat Belt (Driver & Passenger)**	62,996
Other Non-Pointable Convictions ***	34,428
Speeding	636,594
Other Pointable Convictions (2 - 4 pts)	125,836
Other Pointable Convictions (5 - 7 pts)	11,591
Driving While Suspended	9,624
<b>Total</b>	<b>1,031,757</b>

\* Non-moving, weight, vehicle registration, licence renewal, etc..

\*\* Failure to wear seat belt convictions registered against passengers over 16 are no longer included.

\*\*\* Now includes some out-of-province convictions.

**Table 7.3****Motor Vehicle Convictions Related to the Criminal Code 2001\***

<b>Convictions</b>	<b>Number</b>
Alcohol Related**	16,663
Criminal Negligence	24
Fail to Remain at Collision	622
Driving While Disqualified	1,852
Dangerous Driving	1,106
Motor Manslaughter	0
<b>Total</b>	<b>20,267</b>

\* Does not include 436 convictions for young offenders.

\*\* Includes some out-of-province convictions.

## 7b. Offence data

**Table 7.4****Number of Convicted Drivers\* with Criminal Code of Canada Offences, 1996-2000**

<b>Conviction Type</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>
Criminal Negligence	39	29	32	29	16
Fail to Remain	661	546	436	238	217
Dangerous Driving	1,108	1,020	1,146	973	841
Impaired Driving	12,264	10,192	9,474	8,998	8,740
Blood/Alcohol over .08	9,049	7,896	7,243	6,952	6,714
Fail to Provide Breath Sample	1,544	1,323	1,261	1,335	1,179
Driving While Disqualified	2,674	2,330	2,316	1,981	1,879
<b>Total</b>	<b>27,339</b>	<b>23,336</b>	<b>21,908</b>	<b>20,506</b>	<b>19,586</b>

\* The same driver may be represented in this table more than once.

As of May 13, 2002, there were 13,956 Criminal Code offences recorded for 2001. The 2001 breakdown will be updated in the 2002 annual report to accommodate the lag time in the recording of offences (offences are only recorded upon conviction).

**Table 7.5****Administrative Driver Licence Suspension Monthly Suspensions Issued 1996-2001**

<b>Suspensions</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>
January	-	1,310	1,337	1,352	1,550	1,500
February	-	1,595	1,471	1,567	1,487	1,450
March	-	1,898	1,608	1,664	1,662	1,874
April	-	1,810	1,681	1,592	1,799	1,816
May	-	2,068	1,801	1,763	1,634	1,752
June	-	1,978	1,665	1,531	1,646	1,768
July	-	1,887	1,665	1,720	1,854	1,795
August	-	1,450	1,750	1,660	1,808	1,699
September	-	1,679	1,609	1,570	1,699	1,837
October	-	1,747	1,663	1,839	1,724	1,691
November	-	1,769	1,617	1,686	1,624	1,790
December	2,013	1,820	1,810	1,760	1,879	1,986
<b>Total</b>	<b>2,013</b>	<b>21,011</b>	<b>19,677</b>	<b>19,704</b>	<b>20,366</b>	<b>20,958</b>

\* The Administrative Driver's Licence Suspension (ADLS) started in Ontario on November 29, 1996. The first complete month of suspensions shown in this table is, therefore, December 1996.

From August 5 to 15, 1997, ADLS suspensions were not issued due to cessation in ADLS.

Issuing of suspensions resumed on August 15, 1997.

See Appendix for details on the ADLS.



## 7c. Suspension data

**Table 7.6****Demerit Point Suspensions by Driver Age 2001**

Probationary	Demerit Point Suspensions				Driver Age
	Novice First Accumulation	Novice Second Accumulation	Regular First Accumulation	Regular Second Accumulation	
16	0	2	0	0	0
17	0	47	0	0	0
18	0	321	7	2	0
19	0	586	21	22	0
20-24	1	1,842	183	384	21
25-34	7	542	59	653	48
35-44	7	187	10	322	28
45-54	2	49	7	105	7
55-64	0	10	1	43	1
65-74	0	2	0	8	0
75 +	0	1	0	3	0
<b>Total</b>	<b>17</b>	<b>3,589</b>	<b>288</b>	<b>1,542</b>	<b>105</b>

Since 1994, novice drivers have been under the Graduated Licensing System. These drivers are subject to escalating actions, from a warning letter at 2 to 5 demerit points, an interview at 6 to 8 points and a 60-day suspension for a first accumulation of 9 points. After a first suspension, the demerit points are reduced to 4. If a driver attains 9 points again, the subsequent suspension is 6 months. Drivers who have obtained a full Class G licence are suspended for 30 days on the first accumulation of 15 demerit points and are suspended for 6 months on the second accumulation of 15 points within 2 years.

Until 1994, newly licensed drivers were covered by the probationary licence system until they had successfully completed two one-year periods of suspension-free driving. Probationary drivers were suspended for 30 days after accumulating 6 or more demerit points. The probationary licensing system ended on March 31, 1994. Drivers were grandfathered into the new Graduated Licensing System.

# Appendix

## 8 Appendix

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### 8a Glossary

#### **Ability Impaired — Alcohol:**

Driving while one's ability is impaired by alcohol or driving with a blood alcohol concentration exceeding 80 milligrams in 100 millilitres of blood.

#### **Administrative Driver's Licence**

##### **Suspension (ADLS):**

This program, designed to reduce drinking and driving, started November 29, 1996. Under this program, provincial law permits the immediate suspension of a driver's licence for 90 days upon evidence gathered by a police officer that the driver (a) was shown to have a concentration of alcohol in excess of 80 milligrams per 100 millilitre of blood or (b) the driver failed or refused to provide a breath or blood sample.

##### **Alcohol Involved:**

This category includes both drivers reported as ability impaired by alcohol and drivers reported as "had been drinking".

##### **Class G1 Driver's Licence:**

A holder of a Class G1 driver's licence:

- must have a zero blood alcohol content while driving.
- must have only one passenger in the front seat. That person, the accompanying driver, must be a fully licensed driver (Class A, B, C, D, E, F and G) with at least four years driving experience, That person's blood alcohol content must be less than 0.05.
- unless accompanied by a licensed driving instructor, must not drive on Ontario's "400-series" highways or on high speed expressways such as the Queen Elizabeth Way, the Don Valley Parkway, E.C. Row Expressway and the Conestoga Parkway.

- must limit the number of back seat passengers they carry to the number of seat belts in the back seat of the vehicle.
- must not drive between the hours of midnight and 5 a.m.
- may drive Class G vehicle only.

Level One lasts 12 months, but that time can be reduced to eight months by completing an approved driver education course. For information about approved courses, contact any Ministry of Transportation licensing office. At the end of the level, drivers must pass a road test before proceeding to Level Two.

##### **Class G2 Driver's Licence:**

A holder of a Class G2 driver's licence:

- must have a zero blood alcohol content while driving.
- is allowed to drive any motor vehicle that requires a Class G driver's licence (e.g., an automobile) on the road.
- must limit the number of back seat passengers they carry to the number of seat belts in the back seat of the vehicle.

Level Two lasts 12 months. After completing this level, drivers are eligible to take a comprehensive test to qualify for full licence privileges.

##### **Class M1 Motorcycle Driver's Licence:**

A holder of a Class M1 motorcycle driver's licence:

- allows the holder to operate a motorcycle for the purposes of training.
- must have a zero blood alcohol content while driving.

- is only allowed to drive during daylight hours (one-half hour before sunrise to one-half hour after sunset).
- is only allowed to drive on roads with speed limits of 80 km/h or less, except where there is no other route to take. Class M1 Motorcycle Driver's Licence holders may drive on highways 11, 17, 61, 69, 71, 101, 102, 144, and 655.
- may not carry passengers.

Level One lasts at least 60 days, and the licence is valid for 90 days. Level One drivers must pass a motorcycle road test before proceeding to Level Two. Alternatively, during Level One they may take an approved motorcycle safety course that includes a road test, instead of the ministry road test.

#### **Class M2 Motorcycle Driver's Licence:**

A holder of a class M2 motorcycle driver's licence:

- must have a zero blood alcohol content while driving.

After completing Level Two, drivers will be eligible to take a comprehensive test to qualify for full licence privileges.

#### **Conviction:**

Registered when a person pleads guilty to, or is found guilty of, an offence related to a motor vehicle under any act of the Ontario legislature or its accompanying regulations, under the Parliament of Canada or any accompanying order, or under any municipal bylaw.

#### **Driver:**

Unless specified otherwise, any person, whether licensed or not, considered to be in care and control of a vehicle at the time of a collision.

#### **Had Been Drinking:**

Driving after having consumed an amount of alcohol not considered sufficient to be legally impaired or with a measured blood alcohol count of greater than zero but less than 80 milligrams per 100 millilitres of blood. Blood alcohol

concentration between .05 and .08 results in a 12-hour suspension.

#### **Hanger-on:**

Hangers-on are persons hanging onto a moving motor vehicle's fenders, bumpers, doors or other parts of the vehicle and not located inside, e.g., riding in back of pick-up.

#### **Highway:**

A common and public highway, street, avenue, etc., any part of which is intended for public use or used by the general public for the passage of vehicles and including the area between the property lines.

#### **Kilometres Travelled:**

Prior to 2000, vehicle fleet mileage was estimated on the basis of taxed gasoline and motor fuel sales. Total litres sold were converted to kilometres travelled based on a conversion factor of 22.0 kilometres per gallon. Starting in 2000, vehicle kilometres travelled are based on estimates provided by Statistics Canada and Transport Canada.

#### **Major Injury:**

A non-fatal injury severe enough to require that the injured person be admitted to hospital, even if for observation only.

#### **Minimal Injury:**

A non-fatal injury, including minor abrasions and bruises, which does not necessitate the injured person going to a hospital.

#### **Minor Injury:**

A non-fatal injury requiring medical treatment at a hospital emergency room, but not requiring hospitalization of the involved person.

#### **Motor Vehicle Collision:**

Any incident in which bodily injury or damage to property is sustained as a result of the movement of a motor vehicle or of its load while a motor vehicle is in motion.

**Off-Highway Collisions:**

An off-highway collision involving any of the motorized vehicles which are covered by legislation under the *Highway Traffic Act*, the *Motorized Snow Vehicles Act*, and the *Off-Road Vehicles Act*.

**On-Highway Collisions:**

A motor vehicle collision which occurs on the highway between the property lines.

**Pedestrian:**

Any person not riding in or on a vehicle involved in a motor vehicle collision.

**Fatal Collision:**

A motor vehicle collision in which at least one person sustains bodily injuries resulting in death. Prior to January 1, 1982, fatal collision statistics included deaths attributed to injuries sustained in the collision, for up to one year after the collision. Since that date, only deaths occurring within 30 days of the collision have been included.

**Personal Injury Collision:**

A motor vehicle collision in which at least one person involved sustains bodily injuries not resulting in death.

**Property Damage Collision:**

A motor vehicle collision in which no person sustains bodily injury, but in which there is

damage to any public property or damage to private property\*, including damage to the motor vehicle or its load.

**Reportable Collision:**

Any collision involving injury or damage to private property in excess of a monetary value prescribed by regulation.\*

**Self-Reporting of a Collision:**

Under the *Highway Traffic Act* [s. 199(1.1)], when one is in a collision in which there is only property damage (no injury or death, and, among other conditions, no criminal activities such as impaired driving) the involved person(s) may report the collision immediately by proceeding with one's vehicle to a Collision Reporting Centre. Self-reporting of a collision was introduced on January 1, 1997.

**Suspension:**

Withdrawal of a drivers' privilege to operate a motor vehicle for a prescribed period of time.

\* The minimum reportable level for property damage only collisions rose from \$200 to \$400 on January 1, 1978, and rose again to \$700 on January 1, 1985. As of January 1, 1998, the minimum reportable level for property damage only collision is \$1,000.

## 8b Acknowledgements

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Ministry of Finance

**Knowledge Management Unit**

Information Planning and Evaluation Branch  
Ministry of Health and Long Term Care

**Information Planning & Court Statistics**

Program Development Branch  
Ministry of the Attorney General

**Ministry of Education****Ministry of Municipal Affairs and Housing****Police Officers of Ontario**

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