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TP 13951E

Road Safety in Canada – 2001

Prepared for:

The Canadian Council of Motor Transport Administrators (CCMTA)
Standing Committee on Road Safety Research and Policies

Prepared by:

Road Safety and Motor Vehicle Regulation Directorate

May 2004

Canada

ISBN: 0-662-35183-5

Cat.: T46-31/2001E-PDF

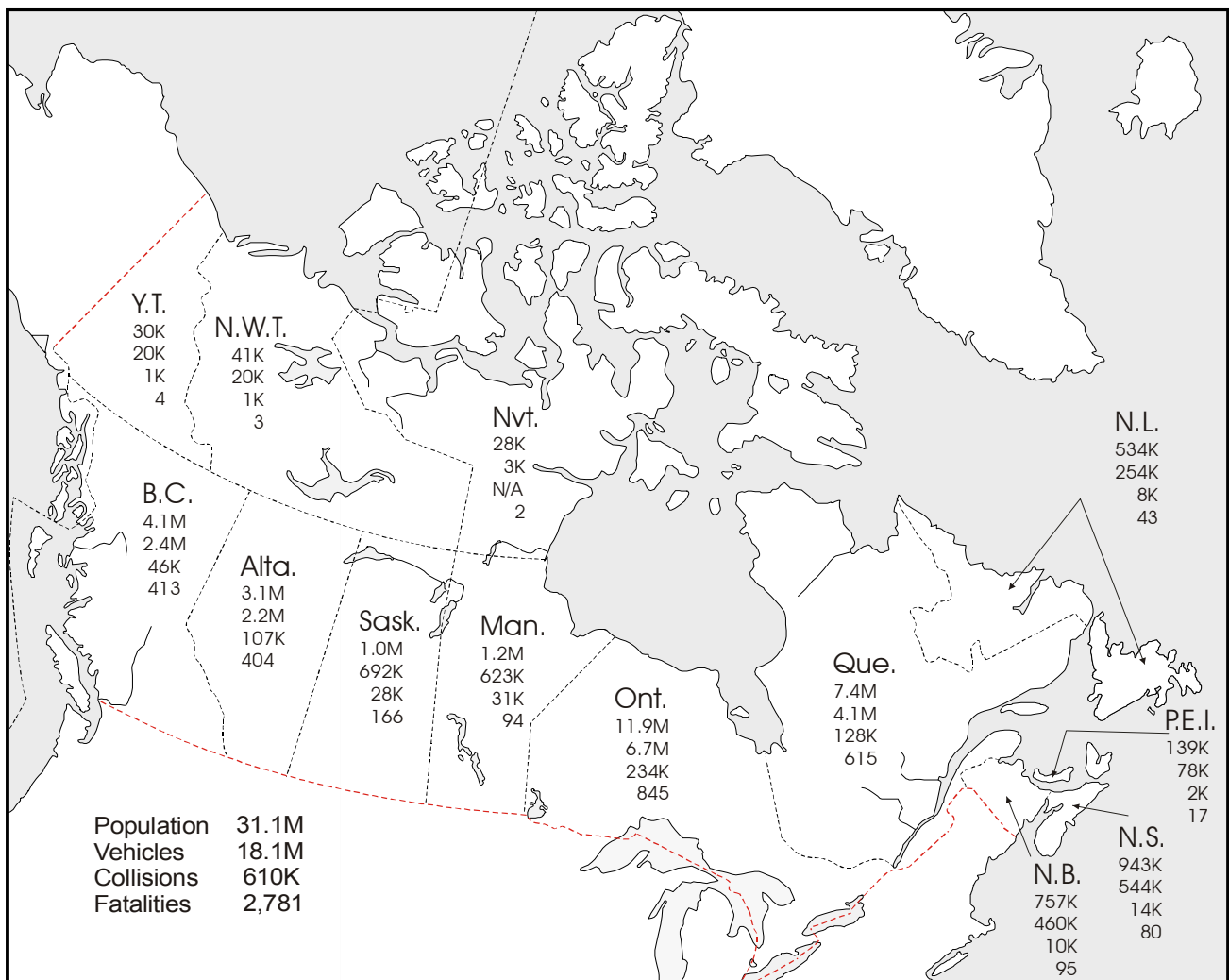
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Road Safety in Canada: A Shared Responsibility

In Canada, responsibility for road safety is shared among the federal, provincial/territorial and municipal levels of government. The federal government is responsible for the regulation of the manufacture and importation of prescribed motor vehicle and equipment, as well as the safety fitness of inter-provincial motor carriers (the Motor Vehicle Transport Act).

Provinces, territories and municipalities are responsible for highway development and maintenance, commercial vehicle operations, driver and vehicle licensing and the development and implementation of local safety initiatives. The Canadian Council of Motor Transport Administrators along with key non-governmental agencies, such as the Canadian Association of Chiefs of Police and the Canadian Automobile Association, also play an important role in the development and delivery of safety programs.

Canada 2001



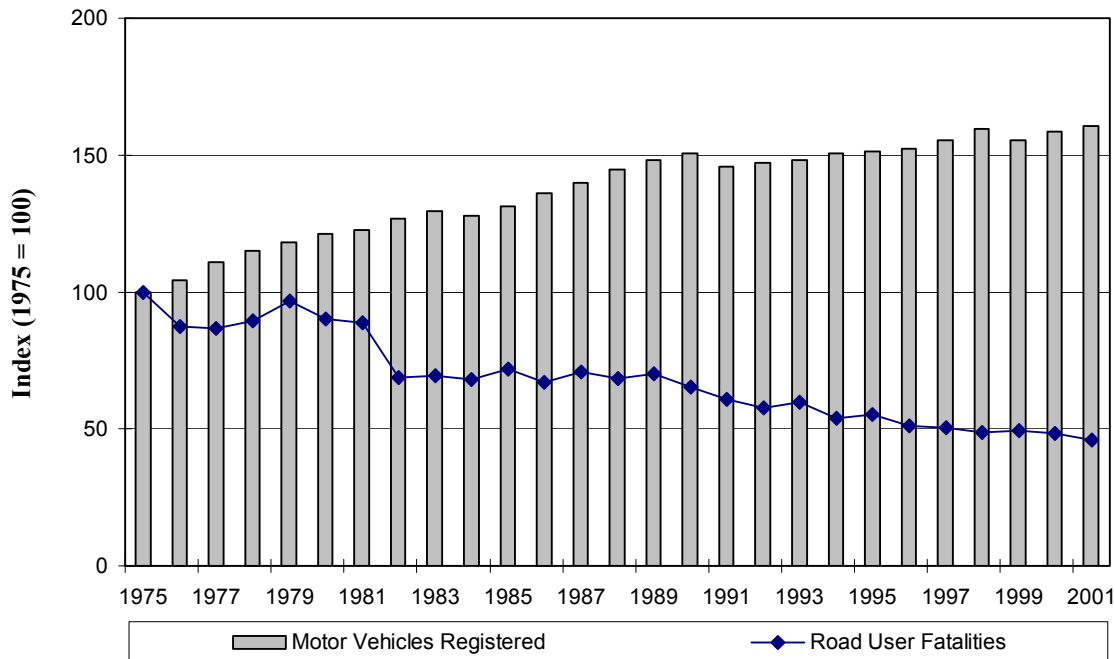
There is no official abbreviation for Nunavut at this time. The abbreviation used here is provisional.

Canadians are among the most mobile people on earth.

Motor vehicles help Canadians overcome two fundamental features of the country: vast geography and harsh climate. Our country has more than 1,420,000 kilometres (two-lane equivalent kilometres) of roadway, and the roads are busier than ever.

Canada had almost 21 million licensed drivers in 2001 – 10 million more than in 1975, a 76 percent increase compared to an increase in the population of 34 percent. In 2001, Canadians registered 18.1 million road motor vehicles – 7 million more vehicles than in 1975, a 61 percent increase.

Fatalities have decreased by 54% while the number of motor vehicles registered has increased more than 60%

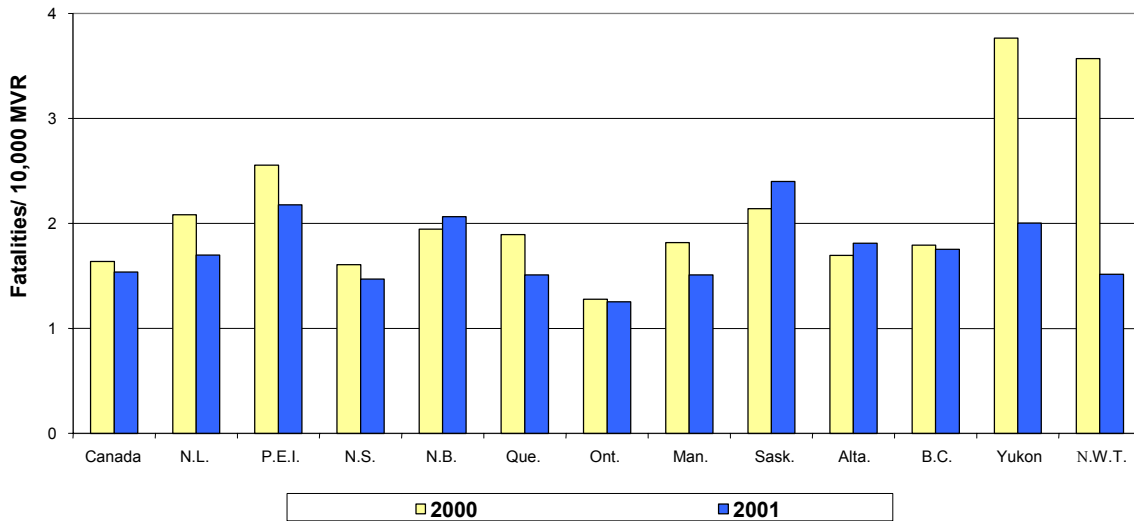


Travel is safer than it has been in 25 years.

Despite steady increases in the number of drivers and vehicles, travel on Canadian roads is safer today than ever before.

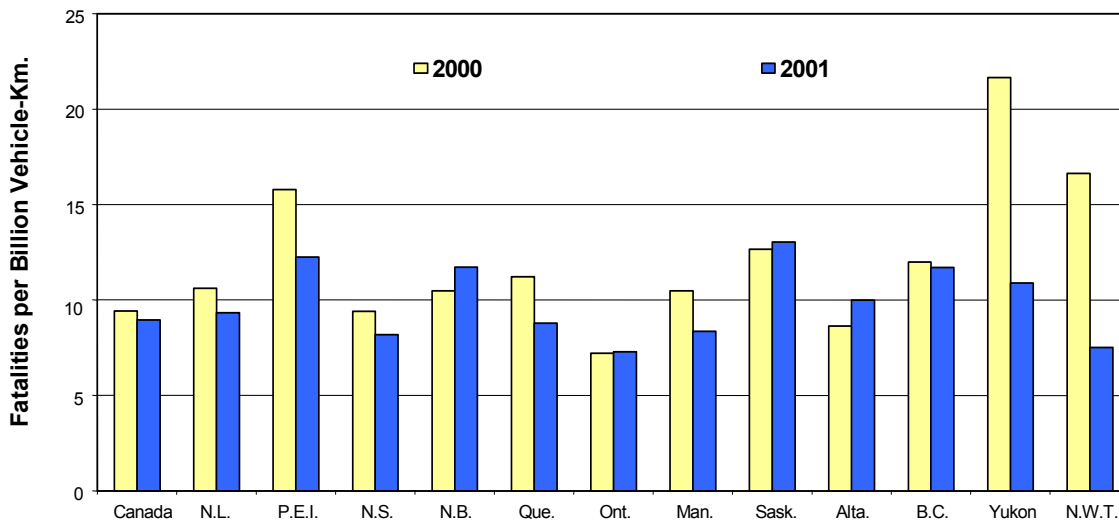
Traffic fatalities in 2001 were less than half of the 6,061 deaths in 1975 and were at the lowest level since 1954. For the last few years, the number of persons injured hovered above the 220,000 mark, and registered at 221,158 in 2001. Throughout the 1990s, Canada's safety record continued to improve.

Fatalities per 10,000 Motor Vehicles Registered (MVR) 2000, 2001



In the chart above, the territory of Nunavut (with a fatality rate in 2001 of 6.5) was omitted in order to avoid obscuring the fatality rates for the other jurisdictions. In terms of fatalities per 10,000 motor vehicles registered, the downward trend continued. The fatality rates remained unchanged or were lower in 2001 compared to 2000 in nine of the twelve jurisdictions shown. Vehicle kilometres travelled were available for the first time for 2000 from the Canadian Vehicle Survey (Statistics Canada) for each province and territory.

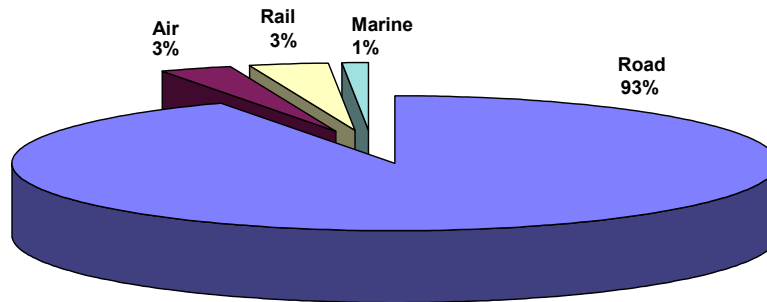
Fatalities per Billion Vehicle-Kilometres Travelled 2000 and 2001



Despite huge improvements in road safety, nearly 3,000 Canadians die on the roads every year.

Improvements notwithstanding, casualty figures are a grim reminder of the high price Canadians pay for their mobility. Traffic fatalities accounted for 93 percent of transportation fatalities nationwide in 2001. Traffic collisions in Canada claimed the lives of 2,781 road users and injured another 221,158 in 2001.

Comparison of Fatalities by Mode of Transportation, 2001



A profile of collisions in Canada

In Canada, there were approximately 1,670 motor vehicle collisions every day during 2001, of which about 75 percent resulted in property damage only, and 25 percent involved an injury or a death.

The human toll is great. In 2001, 7.6 people died on our roads every day, and 606 were injured, at a cost to society of approximately \$26 million in current dollars each day.

Single-vehicle collisions accounted for half of all fatal collisions.

On average for the past 10 years, single-vehicle collisions accounted for 50 percent of all fatal collisions, 30 percent of collisions involving personal injury and 25 percent of property damage collisions.

Two-thirds of fatal collisions occurred on rural roads.

Most deadly collisions took place on rural roads. Approximately 69 percent of the 2,434 fatal collisions occurred on rural roads in 2001. Of all injury collisions, 41,340 or 28 percent occurred on rural roads, while the majority occurred in urban areas where the posted speed limit was 60 km/h or less.

Motor Vehicle Traffic Collisions 1992-2001

Year	Fatal	Non-Fatal Injury	Property Damage	Total Collisions
1992	3,073	169,640	516,666	689,379
1993	3,121	168,106	504,323	675,550
1994	2,869	166,780	505,027	674,676
1995	2,854	164,190	495,379	662,423
1996	2,708	156,282	476,422	635,412
1997	2,647	150,118	465,953	618,718
1998	2,612	148,414	450,286	601,312
1999	2,636	151,110	442,816	596,562
2000	2,566	155,933	463,409	621,908
2001	2,434	151,834	455,749	610,017

Four out of five serious collisions occurred in clear weather.

Many people blame Canada's weather and its road conditions for traffic deaths and injuries. But, in fact, 80 percent of collisions causing death and injury occurred in clear weather, while 66 percent occurred on dry road surface.

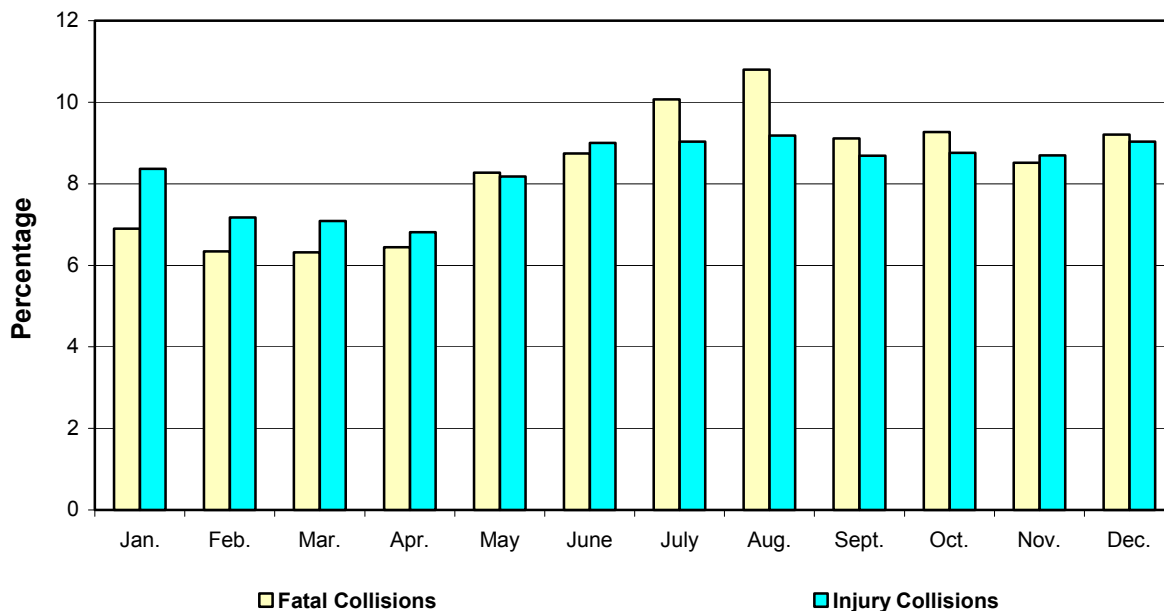
Friday was the peak day for injuries.

Three 3-hour time periods posed the highest risk for fatal crashes: 9:00 p.m. to 12:00 p.m. on Friday evening, 12:00 p.m. to 3:00 a.m. early Saturday morning, and 12:00 p.m. to 3:00 a.m. early Sunday morning. Friday was the peak day for fatal collisions, and although the period from 9:00 p.m. to midnight was the most risky, the entire period between noon and 9:00 p.m. was not much safer. Friday was the peak day for injuries. Fewer serious crashes occurred on weekdays, with Monday the safest day by a slight edge.

July and August observed the highest frequencies of fatal collisions.

On average, the peak months for fatal collisions were August and July. Injury collisions were also consistent: injury collisions involving two vehicles peaked in June, July and August, while single-vehicle injury collisions often peaked in November and December.

**Percentage Distribution of Fatal and Injury Collisions by Month
1992 - 2001 (10-Year Average)**



Vehicles in Collisions

As shown in the table below, the number of motor vehicles involved in crashes was just under 1.1 million in 2001. Automobiles, light trucks and minivans accounted for 89 percent of all vehicles involved in collisions.

Number of Motor Vehicles Involved in Collisions by Vehicle Type - 2001

Type of Vehicle	Fatal	Non-Fatal Injury	Property Damage	Total Collisions
Automobiles	2,039	190,540	523,713	716,292
Light Trucks & Minivans	1,000	57,521	201,929	260,450
School Buses	12	444	1,871	2,327
Transit Buses	7	646	1,691	2,344
Intercity Buses	2	163	547	712
Buses - Unspecified	11	637	1,324	1,972
Motorcycles	167	5,119	1,766	7,052
Mopeds	3	544	111	658
Bicycles	63	7,945	923	8,931
Straight Trucks > 4 536 Kg	153	4,468	18,783	23,404
Tractor-Trailers	322	3,946	16,463	20,731
Motorhomes	7	149	686	842
Farm & Construction Equipment	42	643	2,974	3,659
Off-Road Vehicles	18	357	313	688
Snow Vehicles	31	258	227	516
Trains, Street-Cars	9	23	38	70
Others	59	3,670	43,037	46,766
All Vehicles	3,945	277,073	816,396	1,097,414

People at risk

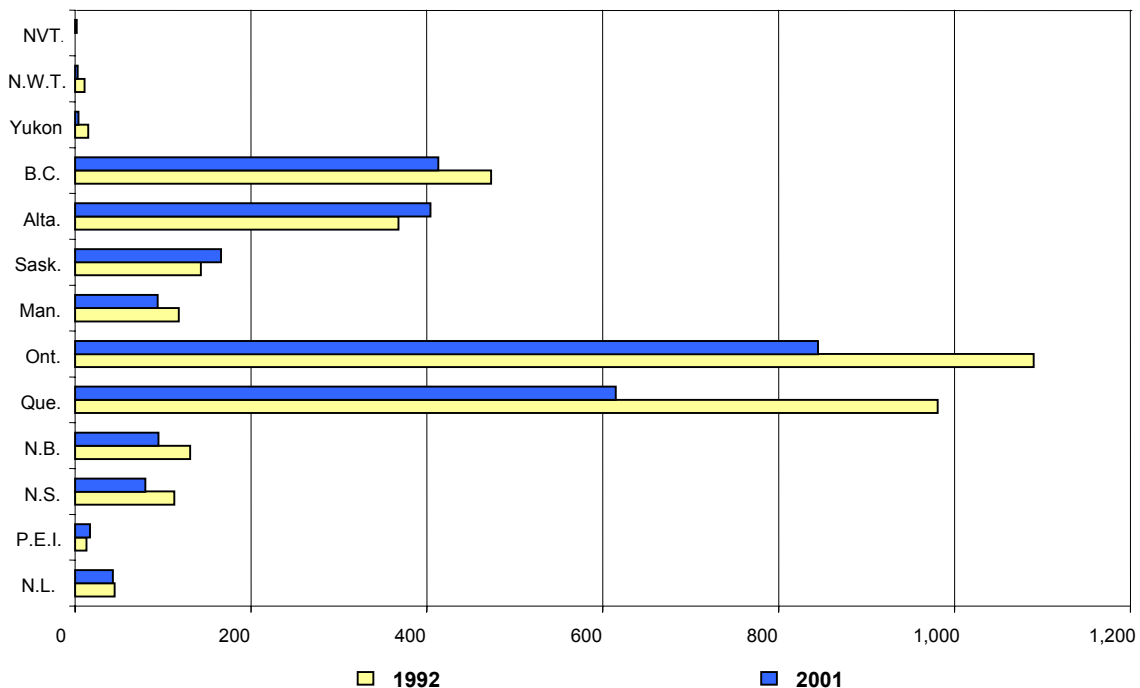
Although the number of fatalities showed major decreases from 1992 to 2001 in most provinces, people are still at risk. From 1992 to 2001, fatalities at the national level decreased 21 percent. Nova Scotia, New Brunswick, Quebec, Ontario, the Yukon and the Northwest Territories showed percentage decreases in fatalities greater than the national average, while other jurisdictions did not show as much improvement, and fatalities in Prince Edward Island, Saskatchewan and Alberta increased over the period.

Fatalities in Motor Vehicle Traffic Collisions 1992-2001

Province	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Newfoundland & Labrador	45	45	36	31	47	34	35	41	53	43
Prince Edward Island	13	21	19	19	20	20	21	19	20	17
Nova Scotia	113	100	91	107	113	89	84	97	87	80
New Brunswick	131	138	79	113	94	105	96	110	89	95
Quebec	981	982	827	883	887	796	723	763	765	615
Ontario	1,090	1,135	999	999	929	900	854	868	849	845
Manitoba	118	134	119	128	93	119	121	113	111	94
Saskatchewan	143	153	151	157	133	165	148	186	151	166
Alberta	368	383	395	403	349	429	429	347	364	404
British Columbia	473	512	534	493	405	389	421	414	421	413
Yukon	15	8	10	13	6	4	12	16	9	4
Northwest Territories	11	4	3	5	15	14	5	11	7	3
Nunavut										2
Canada	3,501	3,615	3,263	3,351	3,091	3,064	2,949	2,985	2,926	2,781

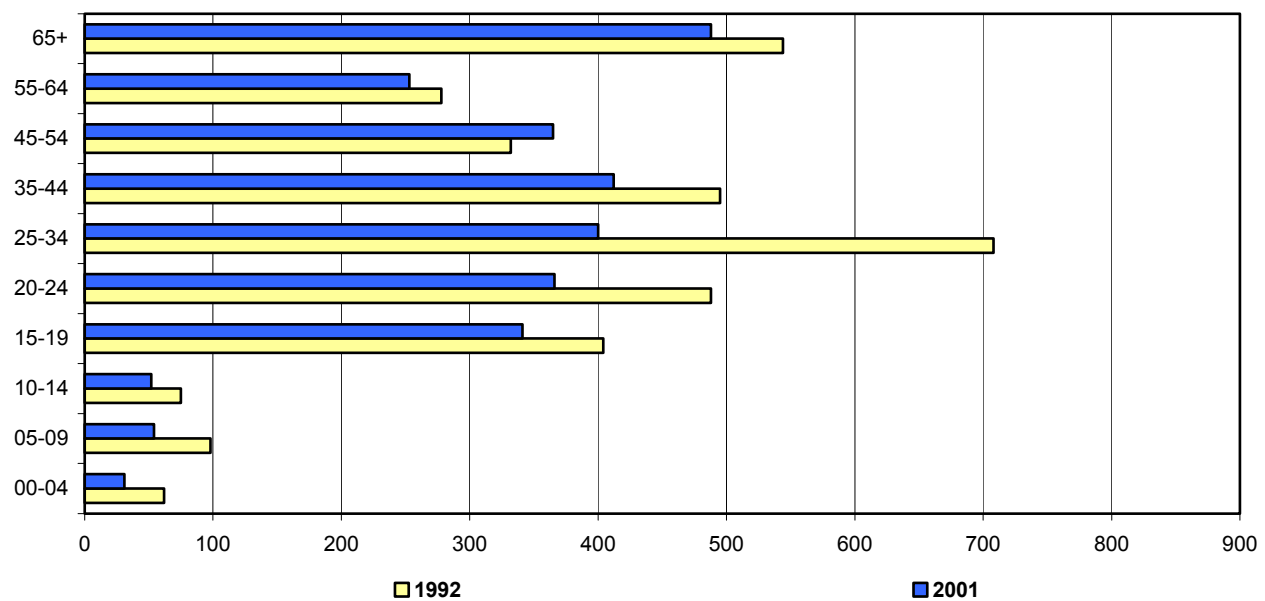
Note : Fatalities in motor vehicle collisions include all road users: drivers, passengers, motorcyclists, pedestrians, and cyclists, where death occurred within 30 days of the collision. The exception to this rule is Quebec (8 days).

**Fatalities in Motor Vehicle Traffic Collisions by Province
1992 Versus 2001**



Of the ten age groups other than 'Unknown age', fatalities over the 10-year period decreased more than the national average of 21 percent in five of the age groups, while four age groups showed smaller decreases. Fatalities in the 00–04, 05–09 and 10–14 age groups resulting from motor vehicle traffic collisions decreased 50 percent, 45 percent and 31 percent, respectively, from 1992 to 2001. This could reflect efforts by road safety professionals to reduce these fatalities through education and publication of information about child restraint systems and the use of clinics to promote the proper use of child restraints. Other age groups showing large decreases in the number of fatalities over the period were the 20–24 and 25–34 age groups at 25 percent and 44 percent, respectively. All other age groups, except the 45–54 age group, showed decreases, but not as impressive. The 10 percent increase in fatalities in the 45–54 age group reflects an increase in the population as the baby-boomers entered and continue to enter this age group.

**Fatalities in Motor Vehicle Traffic Collisions by Age Group
1992 Versus 2001**



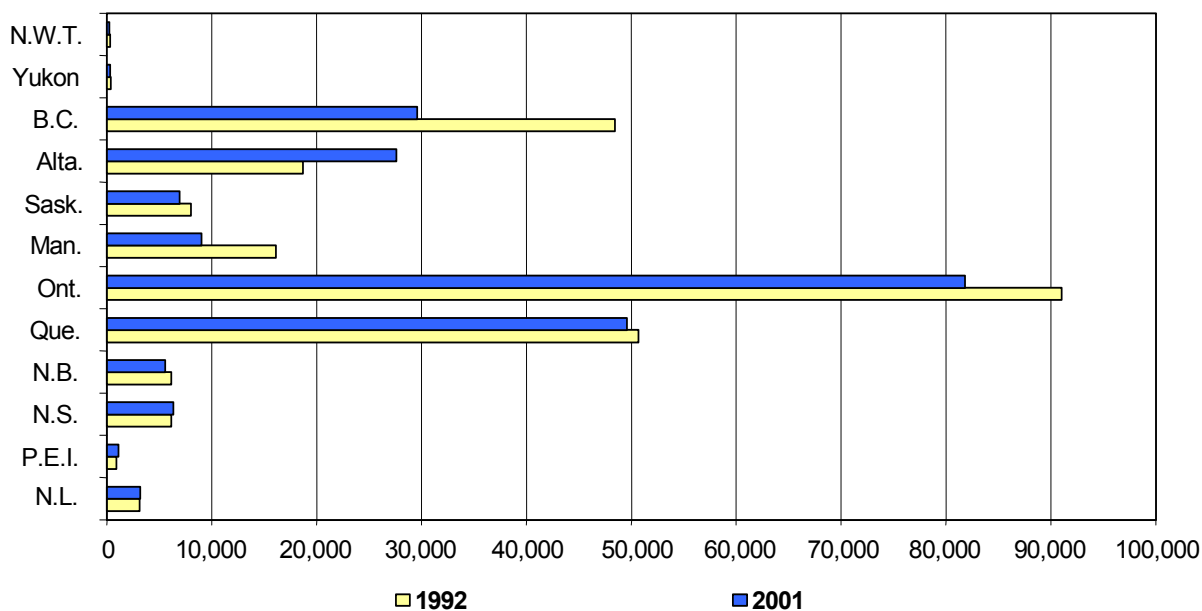
Fatalities in Motor Vehicle Traffic Collisions by Age Group 1992-2001

Age Group	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
00-04	62	60	68	70	39	61	40	48	26	31
05-09	98	68	66	64	74	65	54	56	54	54
10-14	75	90	76	86	56	79	65	72	65	52
15-19	404	472	416	420	380	408	326	410	390	341
20-24	488	470	418	431	395	379	384	359	384	366
25-34	708	750	598	636	539	511	506	475	440	400
35-44	495	512	466	502	431	430	439	416	420	412
45-54	332	379	328	332	346	319	327	344	374	365
55-64	278	272	266	241	264	268	236	252	248	253
65+	544	527	530	544	549	519	556	536	502	488
Unknown	17	15	31	25	18	25	16	17	23	19
Total	3,501	3,615	3,263	3,351	3,091	3,064	2,949	2,985	2,926	2,781

Note: Fatalities in motor vehicle collisions includes all road users: drivers, passengers, motorcyclists, pedestrians, and cyclists, where death occurred within 30 days of the collision. The exception to this rule is Quebec (8 days).

Overall, injuries declined 11.5 percent with Manitoba, British Columbia, the Northwest Territories, the Yukon and Saskatchewan showing improvements greater than the national percentage change. Ontario, New Brunswick and Quebec showed smaller improvements, while Alberta, Prince Edward Island, Nova Scotia, and Newfoundland and Labrador showed increases in the number of persons injured.

**Injuries in Motor Vehicle Traffic Collisions
1992 Versus 2001**



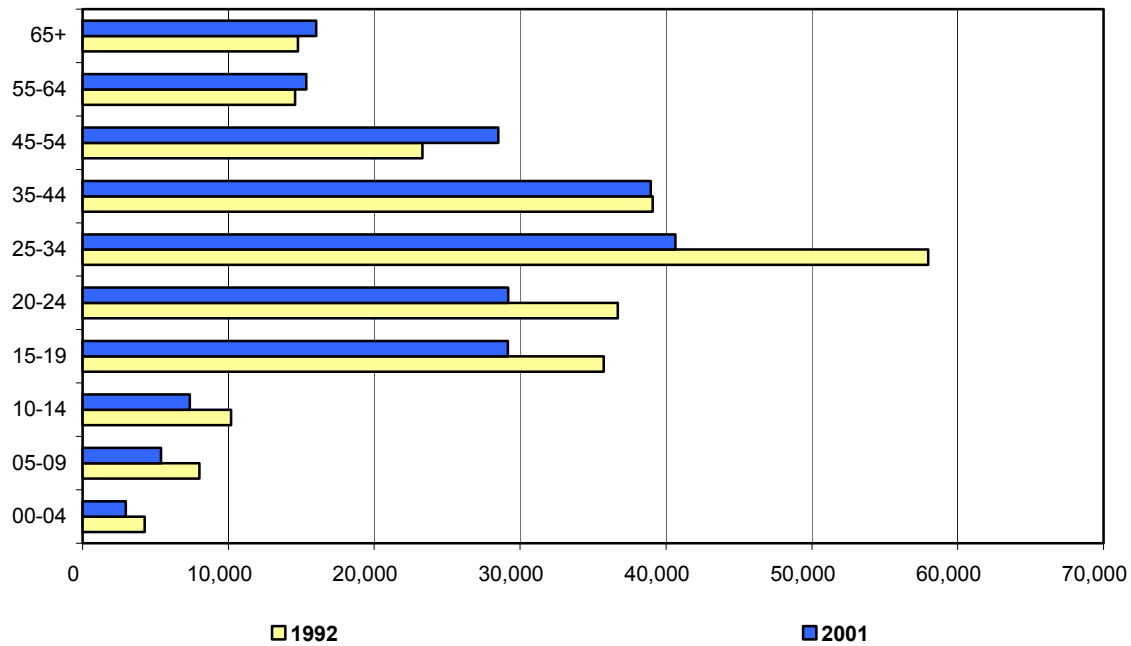
Injuries in Motor Vehicle Traffic Collisions 1992-2001

Province	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
N.L.	3,093	2,991	2,767	2,453	2,605	2,701	2,577	2,980	3,068	3,180
P.E.I.	890	895	862	833	819	894	931	1,080	1,189	1,094
N.S.	6,145	6,516	6,246	6,286	6,288	6,452	6,529	6,867	6,999	6,327
N.B.	6,112	5,643	5,307	5,504	4,781	5,115	5,259	5,414	5,498	5,567
Que.	50,666	49,884	48,756	48,623	47,634	47,861	47,009	48,299	51,489	49,566
Ont.	91,025	91,176	90,063	89,612	88,445	85,565	83,320	84,107	85,009	81,783
Man.	16,104	15,617	13,832	12,138	10,467	9,148	9,531	9,697	9,485	9,002
Sask.	8,000	8,032	8,197	7,466	6,793	7,594	7,211	7,995	7,832	6,932
Alta.	18,683	19,252	20,169	20,866	22,268	23,916	24,935	25,451	26,464	20,583
B.C.	48,438	46,952	48,299	47,473	40,190	31,501	29,911	29,963	29,838	29,577
Yukon	357	306	294	384	334	320	304	353	310	305
N.W.T.	308	324	318	297	266	282	286	345	222	205
Canada	249,821	247,588	245,110	241,935	230,890	221,349	217,803	222,551	227,403	221,121

Note: Injuries in motor vehicle collisions include all road users: drivers, passengers, motorcyclists, pedestrians and cyclists, all those who suffer any visible injury or complain of pain.

As mentioned above, overall, injuries decreased 11.5 percent since 1992. All age groups up to and including the 25-34 years showed decreases of 18 percent or more, while older age groups showed either small declines or increases in the number of persons injured. The number of injuries in the 45-54 age group increased 22 percent.

Injuries in Motor Vehicle Traffic Collisions by Age Group 1992-2001



Injuries in Motor Vehicle Traffic Collisions by Age Group 1992-2001

Age Group	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
00-04	4,257	4,132	4,015	4,003	3,645	3,421	3,202	3,339	3,146	2,967
05-09	8,020	7,460	7,301	7,013	6,774	6,461	6,285	6,053	5,880	5,376
10-14	10,172	10,035	10,239	9,801	8,840	8,529	8,297	8,053	7,582	7,350
15-19	35,715	35,273	34,370	32,755	29,863	28,883	28,852	29,385	29,674	29,173
20-24	36,699	35,334	33,594	32,735	30,172	28,387	27,950	28,886	30,166	29,190
25-34	57,983	56,114	53,937	53,014	49,538	45,684	42,960	42,833	42,746	40,644
35-44	39,078	39,295	39,971	40,337	39,629	38,451	38,160	39,202	39,935	38,943
45-54	23,304	24,455	25,494	25,955	25,952	25,901	26,057	27,164	28,353	28,507
55-64	14,580	14,672	14,530	14,634	14,432	13,786	14,165	14,665	15,361	15,344
65+	14,766	15,146	15,576	15,553	15,606	15,394	15,248	16,202	16,095	16,021
Unknown	5,247	5,672	6,083	6,135	6,439	6,452	6,627	6,769	8,465	7,606
Total	249,821	247,588	245,110	241,935	230,890	221,349	217,803	222,551	227,403	221,121

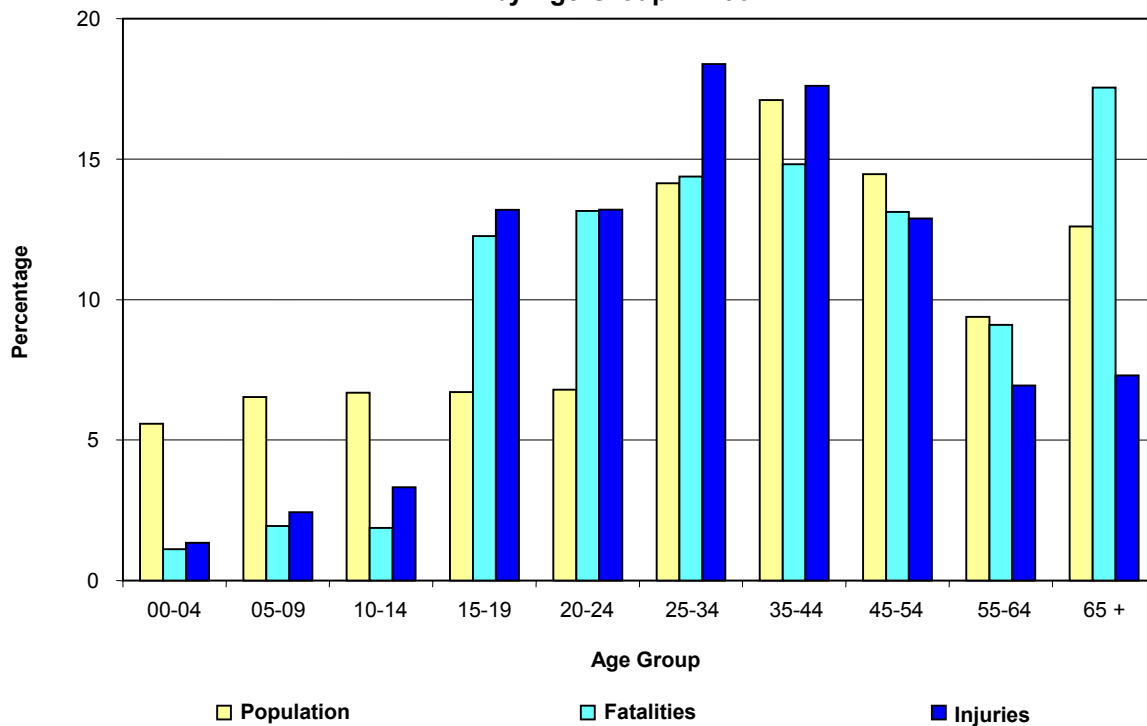
Note: Injuries in motor vehicle collisions include all road users: drivers, passengers, motorcyclists, pedestrians and cyclists, all those who suffer any visible injury or complain of pain.

**Road User Fatalities and Injuries by Age Group
Compared to Canada's Population in 2001**

Age Group	Fatalities	% Distribution of Fatalities	Injuries	% Distribution of Injuries	Population	% Distribution of Population
00-04	31	1.1	2,967	1.3	1,734,005	5.6
05-09	54	1.9	5,376	2.4	2,030,513	6.5
10-14	52	1.9	7,350	3.3	2,077,877	6.7
15-19	341	12.3	29,173	13.2	2,085,004	6.7
20-24	366	13.2	29,190	13.2	2,111,244	6.8
25-34	400	14.4	40,644	18.4	4,394,425	14.1
35-44	412	14.8	38,943	17.6	5,317,452	17.1
45-54	365	13.1	28,507	12.9	4,497,247	14.5
55-64	253	9.1	15,344	6.9	2,916,245	9.4
65 +	488	17.5	16,021	7.3	3,917,875	12.6
Unknown	19	0.7	7,606	3.4		
Total	2,781	100.0	221,121	100.0	31,081,887	100.0

Despite the proven success of graduated licensing programs in many jurisdictions, young Canadians in the 15-19 and 20-24 age groups were consistently over-represented in both fatalities and injuries. These teens and young adults accounted for about 14 percent of Canada's population, yet they accounted for about 26 percent of traffic deaths and injuries. Fatalities in two other age groups, the 65+ age group and the 25-34 age group, were also over-represented compared to their respective population. The 65+ age group accounted for 17.5 percent of fatalities but represented only 12.6 percent of the population, while fatalities in the 25-34 age group were only slightly over-represented. Injuries in the 25-34 age group and the 35-44 age group were also over-represented when compared to their respective population.

**Comparison of Percentage Distributions of Population, Fatalities and Injuries
by Age Group in 2001**

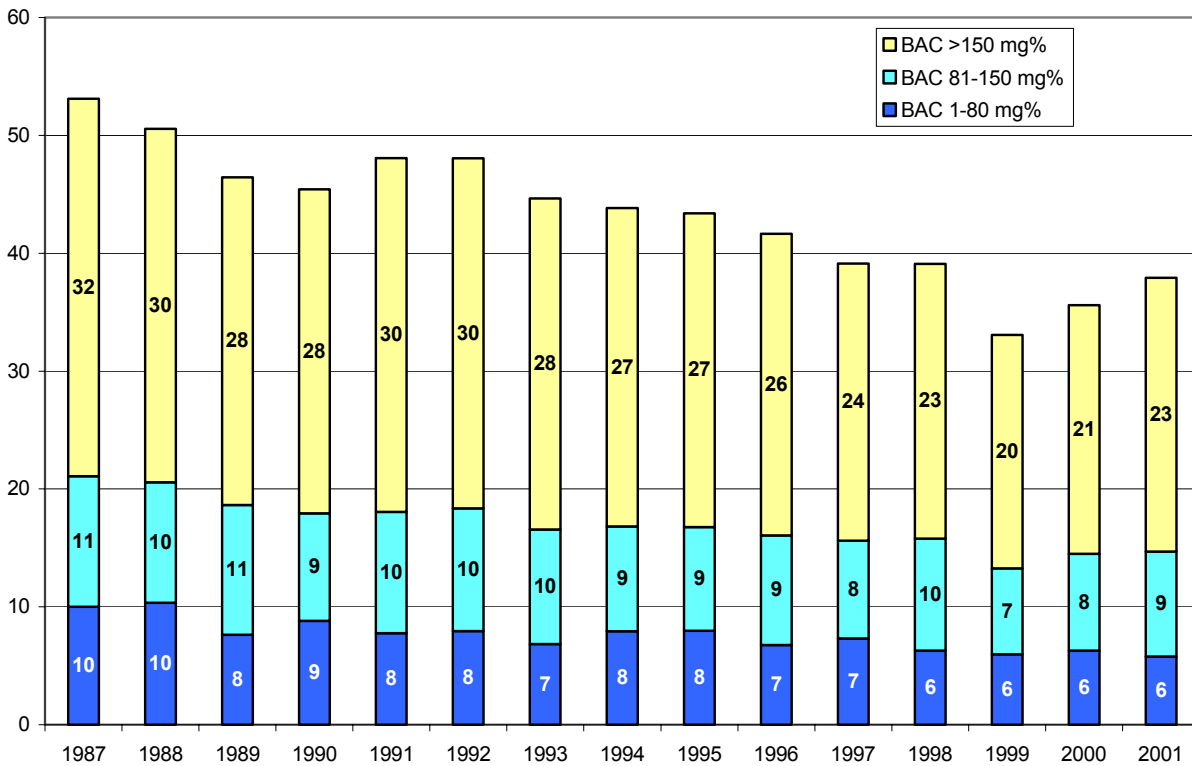


High-risk behaviour on our roads

Much of this carnage is preventable. The same high-risk behaviours continued to plague Canadian roads in 2001 – impaired driving, non-use of seat belts and excessive speed.

Alcohol: unsafe at any speed

In 1987, 43 percent of Canadian drivers fatally injured and tested for alcohol were found to have a blood alcohol concentration (BAC) over the legal limit of .08 (80 mg %). During the 1990s, the percentage of fatally injured drivers in this category slowly decreased and accounted for 27 percent of those fatally injured drivers tested by 1999, but increased to 32 percent in 2001. Those who had been drinking (> 0 mg %) declined from 53 percent to 38 percent between 1987 and 2001.



BAC: Blood Alcohol Concentration
 mg %: Weight of alcohol in the bloodstream stated as milligrams in 100 millilitres of blood.

While the percentage of fatally injured drivers tested and found to be over the legal blood alcohol limit has generally declined over the years, there are significant variations among age groups, which are presented in the following table.

Percentage of Fatally Injured Drivers Tested and Found to be Over the Legal Limit (BAC >80 mg%)

Age Group	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
<19	29.7	38.6	31.2	30.6	31.2	35.0	29.6	32.5	29.6	31.9	29.2	26.3	20.5	27.5	25.3
20-25	51.1	46.4	47.5	39.4	50.0	44.1	44.3	46.0	47.0	46.9	46.3	43.5	32.7	36.2	42.6
26-35	55.0	56.3	49.8	48.6	48.4	52.8	48.4	48.8	47.5	42.7	41.6	45.7	41.6	40.0	47.8
36-45	46.4	39.5	41.6	41.9	45.1	45.4	44.3	41.9	43.6	44.1	37.8	40.1	33.5	36.9	38.4
46-55	37.6	33.7	28.6	36.3	34.3	37.9	27.5	28.8	25.1	29.6	22.8	30.2	22.5	27.2	26.8
>55	24.4	13.7	18.7	15.8	22.2	14.7	21.0	12.5	11.8	14.5	12.3	10.3	11.9	11.9	14.9
Total	43.2	40.4	38.9	36.6	40.3	40.1	37.9	36.0	35.5	34.9	31.7	32.8	27.1	27.1	32.2

The alcohol-related casualty figures remain grim. Of almost 3,000 road users killed in 2000, alcohol was a factor in approximately 1,200 deaths. Many of the fatally injured drivers who had been drinking were severely impaired.

Nine out of ten Canadians buckle up!

Seat belt use by Canadians is ranked among the highest in the world. Fifteen years ago, fewer than three out of four people buckled up. Since then, seat belt use has climbed steadily. More than 90 percent of all Canadians travelling in cars, minivans and light trucks regularly use their seat belts. Among drivers, rates are even better, with some 92 percent buckling up in 2001. These new highs are encouraging, since in the late 1990s, rates seemed to plateau and even decrease slightly. However, seat belt wearing rates are not consistent across the Canadian provinces and territories.

Few other countries can measure up to Canada's record. In the United States, for example, rates of seat belt use have improved, and reached 75 percent in 2002, up from 71 percent nationwide in 2000. Canada did not conduct a national seat belt use survey in 2002.

Estimates of Seat Belt Use Percentage of All Occupants Wearing Seat Belts in Light-Duty Vehicles**

Province	1992	1993	1994	1996	1997	1998	1999	2000	2001
Newfoundland & Labrador	90.4	94.5	93.6	91.9	92.4	86.4	82.9	92.7	92.1
Prince Edward Island	76.9	77.8	84.5	87.5	82.6	82.7	88.5	85.7	86.7
Nova Scotia	82.1	83.5	83.2	88.2	87.1	88.5	86.6	86.5	88.0
New Brunswick	77.9	82.1	84.9	86.6	86.5	87.9	85.9	91.5	91.4
Quebec	86.0	88.8	89.8	90.3	91.7	92.3	93.0	91.4	89.0
Ontario	76.6	79.4	86.3	89.9	89.2	89.1	91.0	91.7	92.5
Manitoba	76.5	80.2	82.6	82.4	84.8	84.4	85.3	84.2	82.3
Saskatchewan	88.7	89.4	87.7	89.6	91.7	89.7	88.2	90.0	91.7
Alberta	80.3	81.0	83.1	85.1	83.7	82.4	89.3	87.2	84.9
British Columbia	87.1	86.4	88.3	88.7	89.4	89.7	89.2	88.7	90.8
Yukon	60.1	72.8	68.2	81.2	83.4	82.1	82.1	79.3	78.1
Northwest Territories	68.7	51.5	67.4	54.9	64.3	52.6	61.1	60.7	62.7
Nunavut									13.4
Canada	81.4	83.4	86.8	88.7	88.9	88.7	90.1	90.1	89.9

1992 is the first available year for this data. In 1992, the seat belt survey was expanded from driver only to occupants of the vehicle. This survey was not conducted in 1995.

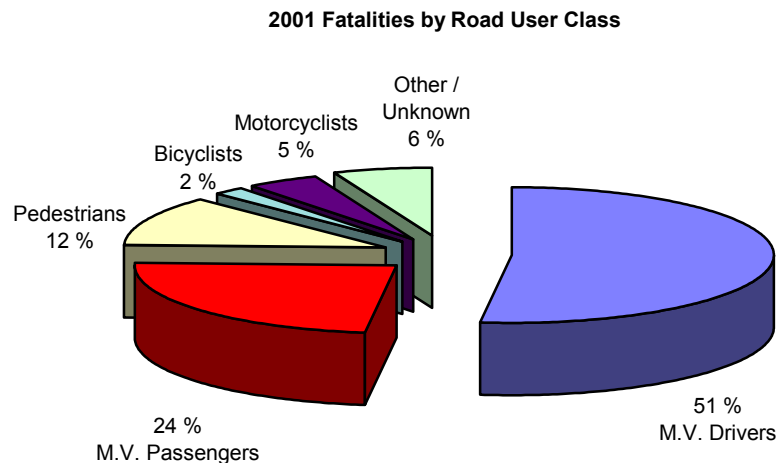
** Light-duty vehicles include passenger cars, minivans and light trucks.

40 Percent of Canadians Killed had not Buckled Up

Most Canadians believe that seat belts will reduce the risk of death and injury. In 2001, almost 40 percent of motor vehicle occupants who died and nearly 19 percent of those who were seriously injured were not using a seat belt at the time of the collision.

Drivers and Passengers at Risk

Seventy-five percent of road user fatalities are occupants of motor vehicles. Drivers accounted for 52 percent and passengers 23 percent. The next largest road user class, in terms of fatalities, was pedestrians at 12 percent. Even though motor vehicle occupants make up the largest percentage of road fatalities, they are not the most vulnerable road users. Those road users not protected by a passenger compartment are most vulnerable – pedestrians, bicyclists and motorcyclists.



Two-thirds of Canada's road victims are male.

Although 53 percent of Canada's licensed drivers were male in 2001, 69 percent of fatalities were male. The proportion of males and females injured was split evenly at 50/50 corresponding very closely with the percentage of male and female drivers.

Patterns are shifting, but young drivers are still vulnerable.

Compared to the overall population of licensed drivers in each age group, drivers 34 and under (15-19, 20-24 and 25-34) were over-represented in collisions resulting in injury and death. Although licensed drivers in the 15-19 and 20-24 age groups accounted for 5.2 percent and 8.2 percent, respectively, of all licensed drivers, their involvement in fatal collisions represented 9.4 percent and 13.4 percent, respectively, of all drivers involved in fatal collisions, and 10.3 percent and 13.3 percent, respectively, of all drivers involved in injury collisions. Drivers in the 25-34 age group were also over-represented, but to a much lesser degree.

As a measure of exposure to risk, drivers involved in fatal and injury collisions are shown in the table as an involvement rate per 100,000 licensed drivers. The table below demonstrates that younger drivers 24 and under, in particular, were involved in a disproportionately higher number of casualty collisions per 100,000 licensed drivers, than the rate for all age groups in total. Conversely, drivers 35 years of age and over were involved in a disproportionately lower number of casualty collisions than the rate for all age groups in total. The total licensed drivers excludes some 6,000 drivers for whom the age was not stated.

**Comparison of Drivers Involved in Fatal and Injury Collisions to
Licensed Drivers in 2001**

Age Group	Drivers Involved						Licensed Drivers	
	In Fatal Collisions	% Distribution	Involvement Rate*	In Injury Collisions	% Distribution	Involvement Rate*	Number	% Distribution
15-19	348	9.4	31.9	25,917	10.3	2,375.0	1,091,223	5.2
20-24	492	13.3	28.7	33,513	13.3	1,954.9	1,714,338	8.2
25-34	697	18.9	18.1	54,133	21.5	1,404.8	3,853,409	18.5
35-44	742	20.1	15.2	56,491	22.5	1,159.8	4,870,887	23.3
45-54	658	17.8	15.8	41,000	16.3	984.1	4,166,407	20.0
55-64	357	9.7	13.7	21,492	8.6	823.0	2,611,381	12.5
65 & over	400	10.8	15.6	18,739	7.5	730.7	2,564,399	12.3
Total	3,694	100.0	17.7	251,285	100.0	1,203.9	20,872,044	100.0

*Involvement Rate: Expressed per 100,000 Licensed Drivers

The following table takes the involvement rates in fatal collisions and injury collisions per 100,000 licensed drivers (from the previous table) one step further and compares the 2001 involvement rates by age group to 1999 and 2000. The most noteworthy reduction in driver involvement rates per 100,000 licensed drivers was in the 15-19 age group in fatal collisions. The involvement rate decreased from 41.7 per 100,000 licensed drivers in 1999 to 36.8 in 2000 to 31.9 in 2001. This remarkable improvement in the 15-19 age group could be the result of the implementation of graduated licensing programs in at least seven of the twelve jurisdictions included in these tables. (Nunavut was excluded from the analysis, since their data has not been received.)

It would be natural to assume that this improvement occurred as a result of major improvements in both male and female drivers. On the contrary, the major reductions from 1999 to 2001 were mainly in female drivers involved in fatal collisions. Male drivers in the 15-19 year age group involved in fatal collisions decreased from 56.1 in 1999 to 47.3 per 100,000 licensed drivers in 2001. Female drivers in the same age group involved in fatal collisions decreased from 24.6 per 100,000 licensed drivers to 14.1 in 2001. A complete table of all age groups is available on request.

**Comparison of Drivers Involved in Fatal and Injury Collisions
Per 100,000 Licensed Drivers**

Age Group	Drivers Involved in Fatal Collisions			Drivers Involved in Injury Collisions		
	1999	2000	2001	1999	2000	2001
15 - 19	41.7	36.8	31.9	2,416.9	2,431.7	2,375.0
20 - 24	30.9	30.0	28.7	1,988.0	2,065.8	1,954.9
25 - 34	21.3	20.4	18.1	1,411.8	1,471.5	1,404.8
35 - 44	17.5	16.6	15.2	1,131.1	1,206.2	1,159.8
45 - 54	15.1	16.5	15.8	966.6	1,011.6	984.1
55 - 64	15.9	14.6	13.7	838.8	868.0	823.0
65 & over	17.8	16.4	15.6	740.2	760.5	730.7
Total	19.9	19.2	17.7	1,206.4	1,258.6	1,203.9

Almost all Canadians, regardless of age group, were safer on the roads.

Almost all Canadians, regardless of age group, were safer on the roads, but the 45-54 age group showed an increase in the number of fatalities of 10 percent over the 10-year period. The 45-54 age group also posted a strong increase in population as mentioned previously.

All age groups under 35 years of age showed strong double-digit decreases in injuries. Injuries in all age groups over 34 years of age increased from 1992 to 2001 and increases were most notable in the 45-54, 65 and over, and unknown age groups showed increases of 22 percent, 9 percent and 45 percent, respectively.

Commercial vehicle collisions accounted for one in five deaths.

In the *National Safety Code for Motor Carriers*, commercial vehicle is defined as a truck, tractor, tractor-trailer, or combination thereof exceeding a registered gross weight of 4 500 kilograms; or a bus designed, constructed and used for the transportation of passengers with a designated seating capacity of more than 10, including the driver, but excluding operation for personal use.

The *National Safety Code* currently contains 15 standards addressing factors necessary for the safe operation of all commercial vehicles. The federal government has jurisdiction under the *Motor Vehicle Transport Act, 1987* to regulate truck and bus carriers that operate beyond the limits of a province. The Act creates a framework for shared responsibility between federal and provincial governments for the safe operation of motor carriers. The provinces and territories regulate the operations of carriers within their respective jurisdictions.

Over the period 1992 to 2001, fatalities resulting from commercial vehicle collisions decreased from 587 to 548.

Commercial vehicle crashes are often deadly, and are particularly dangerous to other users of the road. Although commercial vehicles, on average, accounted for approximately 8 percent of all vehicles involved in crashes, they accounted for an average of 19 percent of all road user fatalities or one in five road fatalities in Canada.

By far the majority of victims in commercial vehicle crashes were the occupants of the other vehicles involved. In 2001, for example, crashes involving commercial vehicles killed 548 people; 426 of whom were occupants of the other vehicles involved. A report on *Heavy Truck Collisions 1994-1998* (TP 2436, Fact Sheet # RS 2001-05), determined that:

‘Drivers of automobiles, light trucks and minivans were recorded as having a driver condition “other than apparently normal” 4.25 times more frequently than the drivers of heavy trucks in these (fatal) collisions.’

The report also noted that:

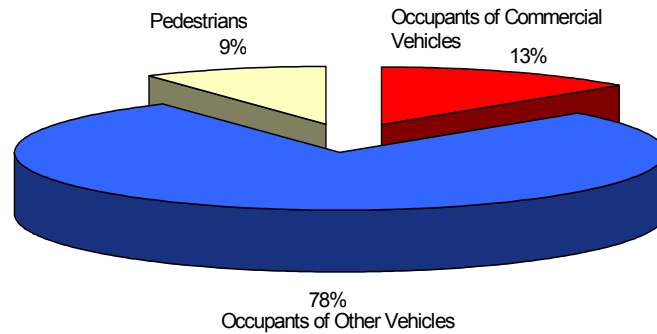
‘In fatal crashes, drivers of automobiles, light trucks and minivans were recorded as having a driver action “other than driving properly” 2.74 times more frequently than the drivers of heavy trucks.’

Fatally-Injured Victims of Collisions Involving Commercial Vehicles

Year	Commercial Vehicle Occupants				Occupants of Other Vehicles	Pedestrians	All Victims
	Buses	Straight Trucks	Tractor Trailers	Total Occupants			
1992	5	28	42	75	458	54	587
1993	20	33	44	97	509	64	670
1994	10	40	34	84	496	59	639
1995	6	25	38	69	485	51	605
1996	0	25	33	58	434	64	556
1997	46	18	47	111	492	61	664
1998	4	28	40	72	430	59	561
1999	3	25	44	72	452	65	589
2000	10	30	52	92	442	48	582
2001	5	17	50	72	426	50	548

The following chart shows the percentage distribution of fatalities in collisions involving commercial vehicles in 2001.

Fatally-Injured Victims of Collisions Involving Commercial Vehicles in 2001



School bus travel is very safe.

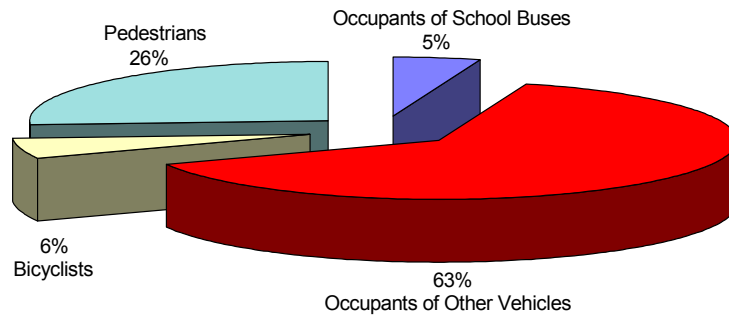
From 1992 to 2001, seven school bus occupants died in collisions – one driver and six passengers.

Fatally-Injured Victims of Collisions Involving School Buses

Year	School Bus Occupants			Occupants of Other Vehicles	Bicyclists	Pedestrians	All Victims
	Drivers	Passengers	All Occupants				
1992	0	0	0	12	2	8	22
1993	0	0	0	9	1	2	12
1994	0	3	3	16	1	1	21
1995	0	0	0	10	1	2	13
1996	0	0	0	6	0	7	13
1997	0	0	0	8	1	2	11
1998	1	0	1	6	1	3	11
1999	0	1	1	7	0	5	13
2000	0	2	2	8	1	5	16
2001	0	0	0	10	0	3	13

Of the 38 pedestrians who died in collisions involving school buses, 26 were school-age children (less than 19 years of age). Three of the eight bicyclists who died in these collisions were also school-age children. The following chart shows the percentage distribution of fatally injured victims of collisions involving school buses.

Fatally-Injured Victims of Collisions Involving School Buses 1992 - 2001



School buses are designed and manufactured to meet many safety standards to protect the occupants from serious injuries. Safety features include: high-backed, energy-absorbing seats; anchorage of the seats; brake systems; lighting; fuel system protection; emergency exits; tires; strength of body structure; stop arms; and special mirrors.

Vulnerable Road Users

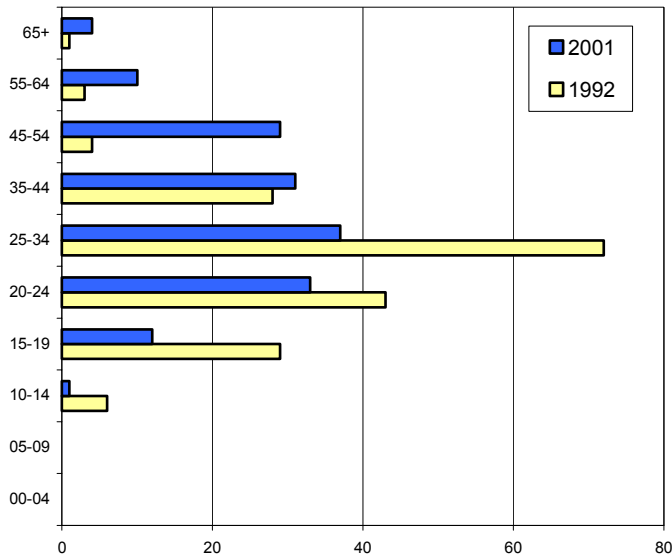
While vehicle occupants account for over 75 percent of the deaths and injuries on Canada's roads, motorcyclists, bicyclists and pedestrians face considerable risks, since they have minimal or no protection compared to those by a motor vehicle passenger compartment. Crashes involving these vulnerable road users claimed 522 lives in 2001.

Motorcyclists accounted for one in 18 fatalities.

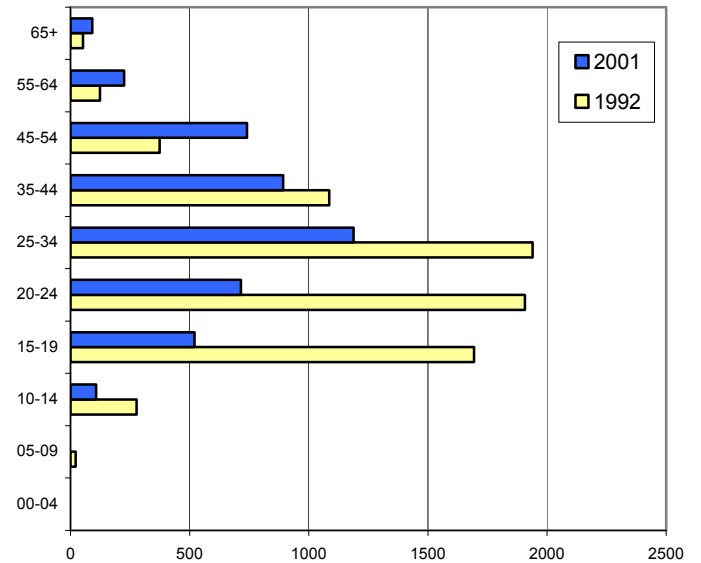
Motorcycle registrations in Canada have decreased from a high of 510,000 in 1983 to 318,000 in 2001. In 2001, there was one motorcycle for every 57 motor vehicles registered. Nonetheless, motorcyclists still accounted for almost five percent (157) of Canada's road user fatalities in 2001.

Fatal motorcycle crashes claimed 65 percent fewer lives in 2001 than in 1983 when fatalities were at their highest (450). Motorcyclist fatalities were down significantly in 2001 compared to 1992 for age groups less than 35 and injuries were down for age groups less than 45. The age groups of 35-44 and above for fatalities and 45-54 and above for injuries showed increases.

Motorcyclist Fatalities by Age Group, 1992, 2001



Motorcyclist Injuries by Age Group, 1992, 2001



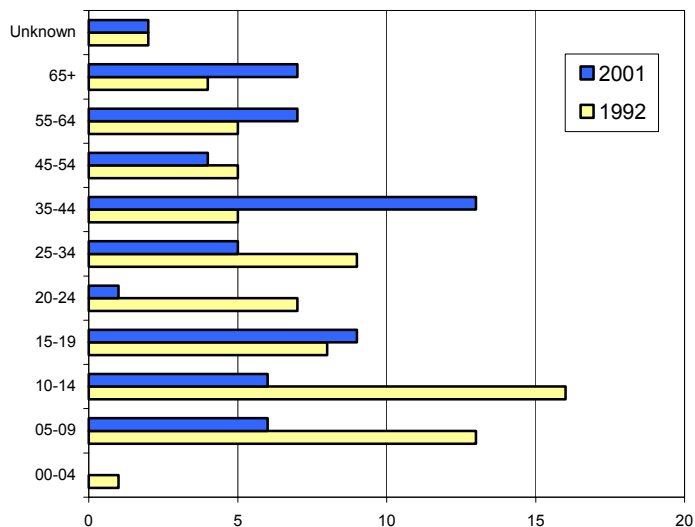
Bicycle deaths cut by more than half in the 05-14 age group.

The number of Canadians killed on bicycles showed an overall downward trend throughout the 1990s, however that trend has been broken during the past five years. These fatalities had reached a low of 40 in 2000 but have increased to 60 in 2001. Overall, fatalities had decreased 20 percent from the 1992 level and injuries were down 28 percent over the 10-year period.

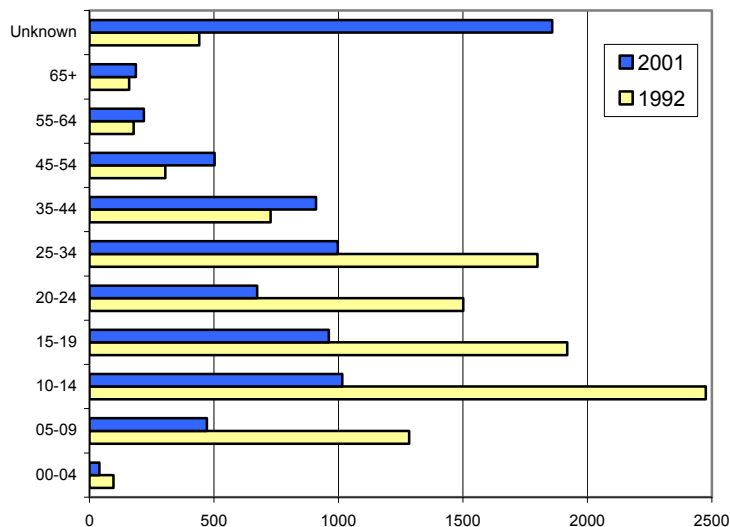
Of the 60 bicyclists killed in 2001, 23 percent were over 55 years old, 22 percent were between 35-44 years of age, 10 percent were in each of the 05-09 and the 10-14 age groups, and 15 percent were in the 15-19 age group.

Despite helmet laws and education programs, cyclists between 5 and 14 years of age were still the most likely to be injured, accounting for 19 percent of injuries. The majority of these young people – 5 of 6 fatalities and 73 percent of injuries – were boys.

Bicyclist Fatalities by Age Group, 1992, 2001



Bicyclist Injuries by Age Group, 1992, 2001



Older pedestrians accounted for one third of all pedestrian fatalities.

Across Canada, during the period 1992-2001, pedestrian deaths declined by 24 percent, injuries by 10 percent. In 2001, 334 pedestrians were killed and 13,475 were injured. That's one pedestrian killed and 37 injured each day, on average. Almost 70 percent were killed in urban areas, almost two-thirds at intersections.

Canada's seniors were particularly vulnerable. People 65 and over accounted for a third of pedestrian fatalities in 2001, even though they represented only 12.6 percent of the population. Pedestrian fatalities among males in the 65+ age group decreased by 13 percent over the 10-year period, while pedestrian fatalities among women of the same age group decreased 30 percent.

Pedestrian Fatalities per 100,000 Population By Age Group and Gender

Age Group	Men		Women		Total	
	1992	2001	1992	2001	1992	2001
00-04	0.8	0.5	0.8	0.5	0.8	0.5
05-09	1.9	0.5	0.9	0.6	1.4	0.5
10-14	0.4	0.8	0.7	0.5	0.6	0.7
15-19	2.1	1.9	0.6	0.7	1.4	1.3
20-24	1.6	1.8	0.6	0.6	1.1	1.2
25-34	1.2	0.8	0.5	0.4	0.9	0.6
35-44	1.3	1.1	0.9	0.5	1.1	0.8
45-54	2.1	1.4	0.8	0.6	1.4	1.0
55-64	2.5	0.9	1.9	0.8	2.2	0.9
65+	5.1	3.7	3.6	2.1	4.2	2.8
Total	1.9	1.4	1.2	0.8	1.6	1.1

Extracts from the Traffic Accident Information Database reflect a compilation of the collision statistics most frequently requested through our information desk, web site and communications group.

Sources of information:

Transport Canada, Road Safety, *Traffic Accident Information Database (TRAID)*.
Traffic Injury Research Foundation, *The Alcohol-Crash Problem in Canada: 2000*.
Statistics Canada, *Canadian Vehicle Survey: 2000*.

Data for 1998 and 1999 in the above tables were restated where necessary due to the receipt of updated information.

To find out more about national road safety programs and initiatives, call Transport Canada toll free at 1-800-333-0371 or (613) 998-8616 in the Ottawa area. For comments or questions please write:

Road Safety and Motor Vehicle Regulation Directorate
Transport Canada
330 Sparks Street
Place de Ville, Tower C, 8th Floor
Ottawa, ON K1A 0N5

or e-mail us at: roadsafetywebmail@tc.gc.ca. You can also visit the Transport Canada web site at www.tc.gc.ca/roadsafety/.