

1999 NWT Traffic Collision Facts

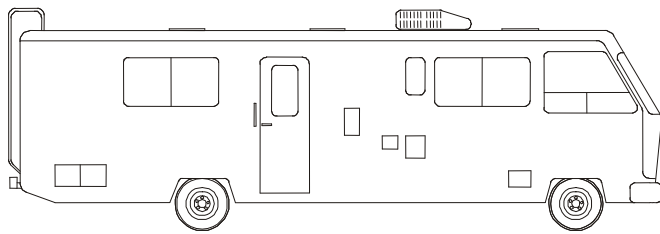
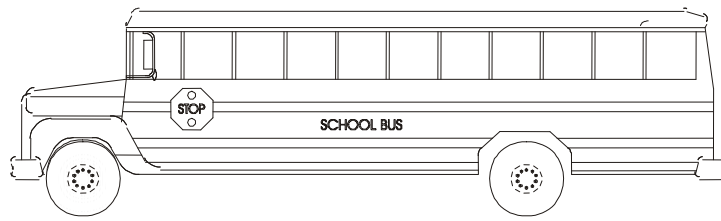
Department of Transportation
Motor Vehicles Division
September, 2000

Acknowledgements

This report was prepared by the Motor Vehicles Division of the Department of Transportation, Government of the Northwest Territories, in cooperation with the Transportation Planning Division.

If you have any comments or questions related to the content of this report, please contact the Motor Vehicles Division at telephone (867) 920-3395, or by facsimile at (867) 873-0120.

Northwest Territories
Traffic Collision Facts, 1999



Northwest
Territories

Transportation

1999 QUICK FACTS REPORT

1999 Compared to 1998

	<u>1998</u>	<u>1999</u>	<u>% Change</u>
PROPERTY DAMAGE ONLY COLLISIONS	452	531	17.5
PERSONAL INJURY COLLISIONS	135	153	13.3
FATAL COLLISIONS	2	5	150.0
TOTAL REPORTED COLLISIONS	589	689	17.0
NUMBER OF PERSONS KILLED	2	7	250.0
NUMBER OF PERSONS INJURED	196	276	40.8
NWT HIGHWAY SYSTEM COLLISIONS	127	161	26.8
RURAL COLLISIONS	8	11	37.5
COLLISIONS IN COMMUNITIES	454	517	13.9
REGISTERED VEHICLES	22,201	25,426	14.5
LICENSED DRIVERS	21,112	21,699	2.8
NWT POPULATION [1]	41,100	41,600	1.2
COLLISIONS PER 100 LICENSED DRIVERS	2.79	3.18	13.8
COLLISIONS PER 100 REGISTERED VEHICLES	2.65	2.71	2.1
COLLISIONS PER 100 POPULATION	1.43	1.66	15.6
COLLISIONS INVOLVING ALCOHOL	60	53	-11.7

[1] 1998 and 1999 population from NWT Bureau of Statistics July 1 estimate published in 'Quarterly Report', March 2000.

Introduction

The Traffic Collision Information System (TCIS) is a computer-based system that compiles information on traffic collisions occurring throughout the Northwest Territories. This information is obtained from the motor vehicle collision (MVA) report form that is completed by Royal Canadian Mounted Police detachments in accordance with Section 262 of the Motor Vehicles Act.

TCIS provides valuable information for many traffic collision countermeasure programs. TCIS, the MVA report form, and various collision publications are administered by the GNWT Department of Transportation, Motor Vehicles Division. The collection of this valuable data is made possible by the efforts and dedication of the many Royal Canadian Mounted Police officers across the Northwest Territories who complete MVA forms from their collision investigations.

TCIS Definitions

REPORTABLE MOTOR VEHICLE COLLISION - an incident involving one or more motor vehicles resulting in death, personal injury or a minimum of \$1,000 in property damage. TCIS only records reportable motor vehicle collisions which occur on or adjacent to roadways intended for use by the general public. The following is a list of words and terms used in reportable collisions:

INCIDENT - Any set of events not under human control which includes at least one occurrence of injury or damage. It originates when human control is lost and terminates when control is regained, or in the absence of persons who are able to regain control when all persons and property are at rest.

Excluded are events which are known to be the result of deliberate intent, legal intervention or natural disasters. As an example, if a vehicle catches fire due to mechanical failure and the driver is able to stop the car, this is not a traffic collision because control of the vehicle was never lost.

VEHICLE - is any vehicle designed to travel on land that is drawn, propelled or driven by any kind of power, including muscular power, but does not include a device designed to run exclusively on rails.

MOTOR VEHICLE - is a vehicle propelled or driven by power other than by wind, gravity or muscular power and includes a trailer, but does not include:

- (a) an aircraft or a marine vehicle,
- (b) a device that runs or is designed to run exclusively on rails,

- (c) a mechanically propelled wheelchair or mobility device.

PEDESTRIAN - is a person on foot, in a wheelchair or mobility device and includes a child in a carriage or carried by a person on foot, persons on ice skates, skis, roller blades, skate boards and persons pushing or pulling vehicles. A pedestrian does NOT include persons jumping or falling from a vehicle in motion.

DAMAGE - harm to property that reduces the monetary value of that property. It includes harm to animals that have monetary value. It excludes mechanical failure incurred by normal operation such as a tire blow out or broken fan belt.

ROADWAY - any highway, secondary road, rural road, street, avenue, parkway, lane, alley or bridge designed and intended for or used by the general public for the passage of vehicles and pedestrians. This includes sidewalks, boulevards and the immediate right-of-way adjacent to and parallel with the roadway. It also includes winter/ice roads, trails, privately maintained roads, driveways and parking lots on which the general public may travel.

PROPERTY DAMAGE ONLY COLLISION (Property Damage) - a motor vehicle collision resulting in total damages over the prescribed amount as defined in the Motor Vehicles Act (\$1,000) with no personal injuries or deaths.

TRAFFIC INJURY COLLISION (Personal Injury) - a motor vehicle collision resulting in a non-fatal injury to one or more persons. An injury is defined as any bodily harm resulting from the collision.

TRAFFIC FATALITY COLLISION (Fatal) - a motor vehicle collision resulting in death within 30 days to one or more involved persons. Death must be the result of injuries incurred from the collision. This excludes death from natural causes such as heart attacks.

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Historical Trends

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Historical Trends

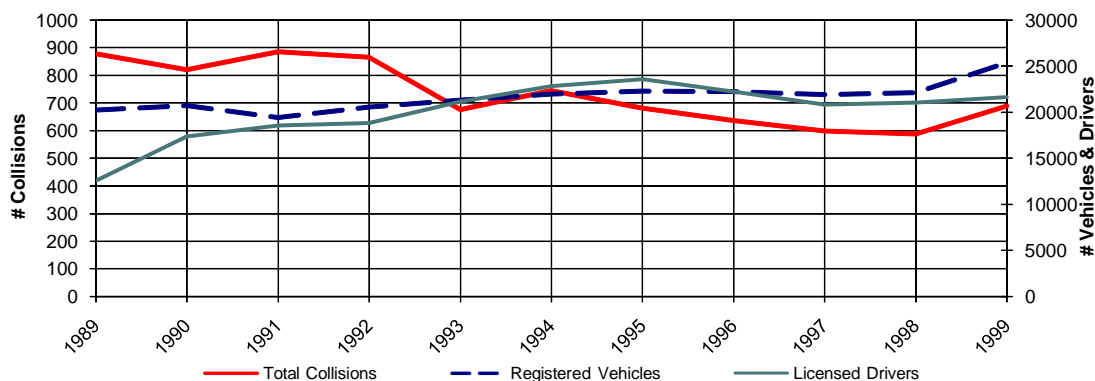
This section illustrates the 11-year history of collisions, victims and licensed drivers and vehicles. Starting in 1999, this report covers collisions occurring within the present boundaries of the Northwest Territories only. In other words, collisions occurring within the present boundaries of Nunavut (i.e. the Baffin, Keewatin and Kitikmeot regions) are excluded from the 1999 and historic data.

Aside from this difference in geographic coverage, reporting definitions have remained the same since the inception of TCIS in 1989. Trends in injuries, property damage collisions and total collisions have shown a steady decline since the early 1990's. This decline has taken place in spite of the increased population and number of licensed drivers and registered vehicles.

Because of the small number of fatal collisions in the Northwest Territories, trends are difficult to identify and subject to year-to-year fluctuations. The 7 traffic fatalities reported in 1999 is slightly above the 11-year average.

Trends in Licensed Drivers, Registered Vehicles and Collisions

Figure 1.1

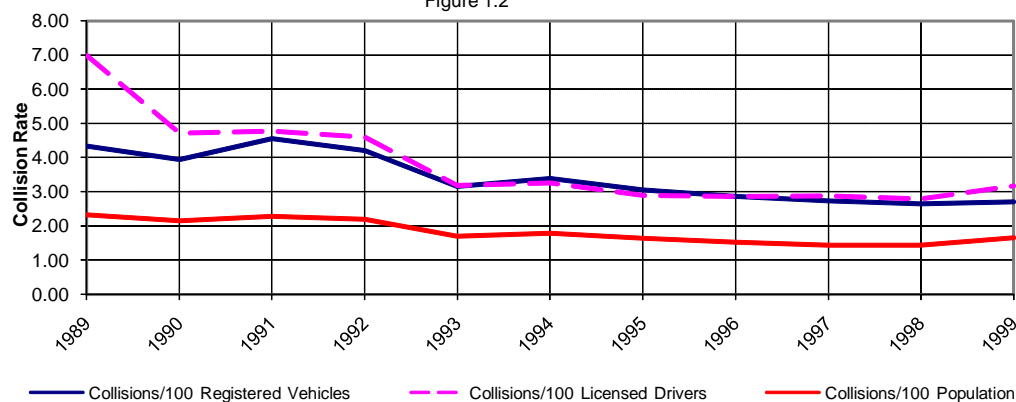


3 Year Summary

	1997	1998	1999	% Change
Registered Vehicles	21,956	22,201	25,426	14.5
Licensed Drivers	20,850	21,112	21,699	2.8
Total Collisions	600	589	689	17.0

Trends in Collision Rates by Vehicles, Drivers and Population

Figure 1.2

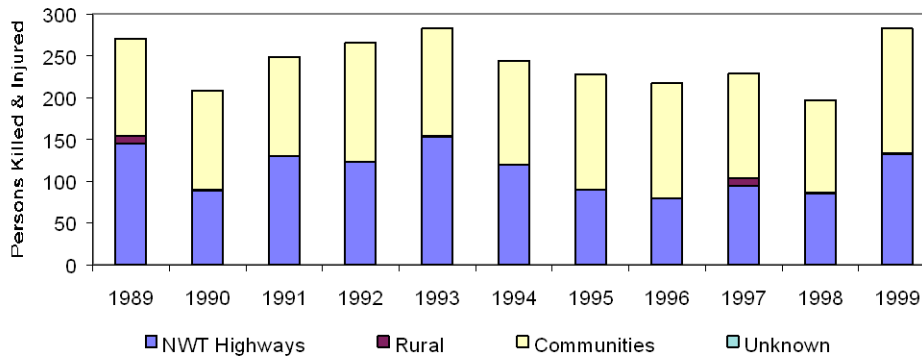


3 Year Summary

	1997	1998	1999	% Change
Collisions/100 Registered Vehicles	2.73	2.65	2.71	2.1
Collisions/100 Licensed Drivers	2.88	2.79	3.18	13.8
Collisions/100 Population	1.44	1.43	1.66	15.6

Trends in Injuries & Fatalities

Figure 1.3

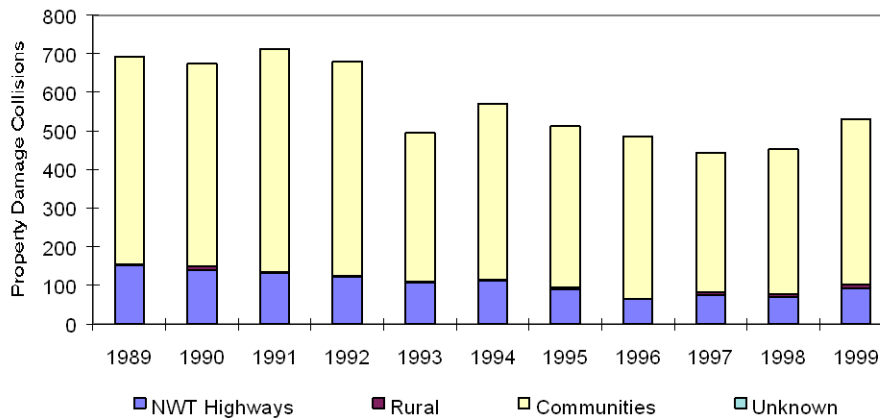


3 Year Summary

	Persons Injured				Persons Killed			
	1997	1998	1999	% Change	1997	1998	1999	% Change
NWT Highways	89	83	127	53.0	5	2	5	150.0
Rural	9	2	2	0.0	1	0	0	0.0
Communities	123	111	147	32.4	2	0	2	0.0
Total	221	196	276	40.8	8	2	7	250.0

Trends in Property Damage Collisions

Figure 1.4

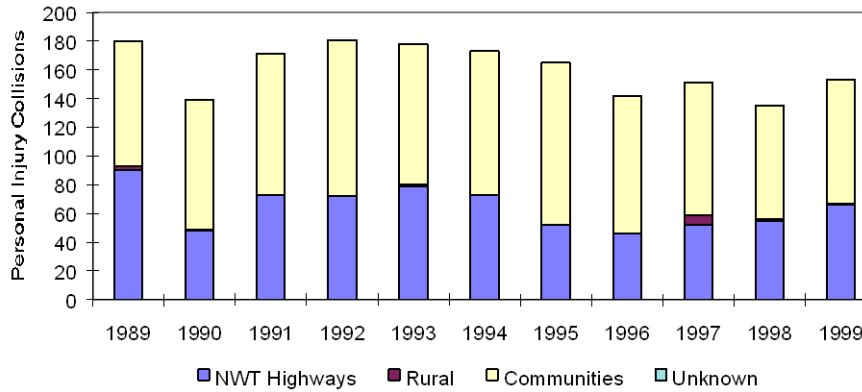


3 Year Summary

	Property Damage Collisions			
	1997	1998	1999	% Change
NWT Highways	75	70	92	31.4
Rural	7	7	10	42.9
Communities	361	375	429	14.4
Total	443	452	531	17.5

Trends in Personal Injury Collisions

Figure 1.5

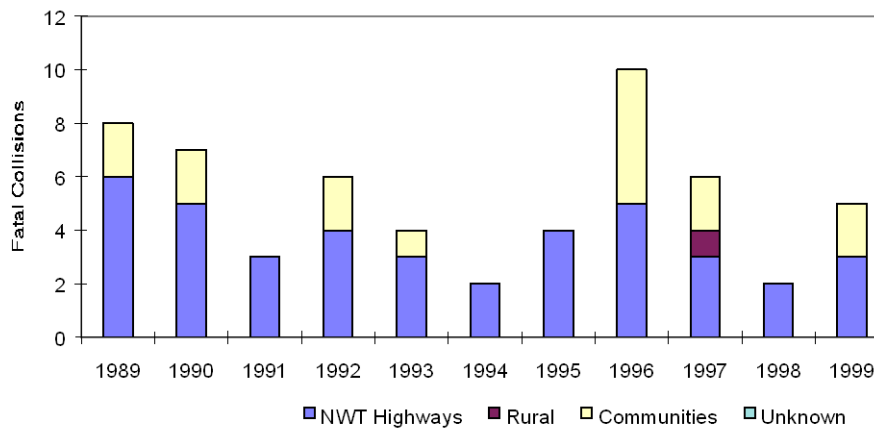


3 Year Summary

	Personal Injury Collisions			
	1997	1998	1999	% Change
NWT Highways	52	55	66	20.0
Rural	7	1	1	0.0
Communities	92	79	86	8.9
Total	151	135	153	13.3

Trends in Fatal Collisions

Figure 1.6

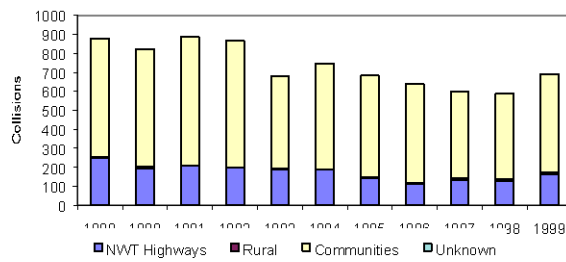


3 Year Summary

	Fatal Collisions			
	1997	1998	1999	% Change
NWT Highways	3	2	3	50.0
Rural	1	0	0	0.0
Communities	2	0	2	0.0
Total	6	2	5	150.0

Trends in All Reported Collisions

Figure 1.7



3 Year Summary

	1997	1998	1999	% Change
NWT Highways	130	127	161	26.8
Rural	15	8	11	37.5
Communities	455	454	517	13.9
Total	600	589	689	17.0

Property Damage Collisions by Month and Year

Figure 1.8

Month	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	Avg. 89 to 98	1999 % Change*
January	66	63	86	74	46	52	50	54	53	64	61	6.9
February	66	66	72	68	56	72	46	59	45	46	60	9.1
March	65	68	72	68	52	50	78	56	44	36	59	-20.2
April	51	30	48	59	30	32	32	31	26	22	36	-5.8
May	39	29	31	45	23	33	31	26	23	20	30	0.0
June	39	44	57	35	23	31	24	32	32	29	35	-13.3
July	47	51	57	48	33	39	38	36	37	34	42	-31.0
August	47	54	42	51	35	42	39	24	37	34	41	-6.2
September	41	46	49	48	39	34	29	29	25	34	37	-3.7
October	76	69	65	65	52	59	38	56	48	39	57	11.1
November	84	71	59	64	53	73	49	42	26	37	56	-19.4
December	70	84	74	54	53	53	59	41	47	57	59	-17.2
Total	691	675	712	679	496	570	513	486	443	452	572	-7.1

* % change is a comparison between 1999 and the 1989-98 average.

Historical Trends – Section 1

Personal Injury Collisions by Month and Year

Figure 1.9

												Avg. 89	
Month	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	to 98	1999 % Change*	
January	13	8	15	19	16	11	16	15	13	10	14	15	10.3
February	17	8	13	12	16	7	14	15	19	10	13	13	-0.8
March	14	15	17	12	16	9	20	10	16	11	14	11	-21.4
April	3	6	5	9	13	6	12	7	19	7	9	9	3.4
May	11	5	16	12	13	9	11	7	11	4	10	6	-39.4
June	12	20	24	18	17	18	15	10	6	20	16	12	-25.0
July	26	20	23	15	24	18	15	16	8	11	18	22	25.0
August	17	14	16	18	9	23	18	11	16	14	16	12	-23.1
September	16	8	13	19	12	14	11	14	10	11	13	11	-14.1
October	18	15	14	16	16	20	10	15	14	17	16	20	29.0
November	19	7	5	13	14	19	12	9	10	8	12	10	-13.8
December	14	13	10	18	12	19	11	13	9	12	13	12	-8.4
Total	180	139	171	181	178	173	165	142	151	135	162	153	-5.3

Fatal Collisions by Month and Year

Figure 1.10

	Avg. 89												
Month	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	to 98	1999 %	Change*
January	0	1	0	0	0	0	0	0	0	0	0.1	0	-100.0
February	0	0	0	0	0	0	0	0	0	0	0.0	0	0.0
March	0	0	0	0	1	0	0	2	2	0	0.5	0	-100.0
April	1	1	0	1	1	0	1	1	0	0	0.6	1	66.7
May	1	0	0	0	0	1	0	1	1	0	0.4	0	-100.0
June	3	0	2	3	0	0	0	1	1	0	1.0	0	-100.0
July	1	2	0	0	1	0	1	1	1	0	0.7	1	42.9
August	0	0	1	0	0	0	0	3	1	0	0.5	1	100.0
September	0	0	0	0	0	0	1	0	0	1	0.2	1	400.0
October	0	2	0	1	0	1	0	1	0	1	0.6	0	-100.0
November	1	0	0	1	1	0	1	0	0	0	0.4	0	-100.0
December	1	1	0	0	0	0	0	0	0	0	0.2	1	400.0
Total	8	7	3	6	4	2	4	10	6	2	5.2	5	-3.8

* % change is a comparison between 1999 and the 1989-98 average.

Total Collisions by Month and Year

Figure 1.11

											Avg. 89		
Month	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	to 98	1999	% Change*
January	79	72	101	93	62	63	66	69	66	74	75	80	7.4
February	83	74	85	80	72	79	60	74	64	56	73	78	7.3
March	79	83	89	80	69	59	98	68	62	47	73	58	-21.0
April	55	37	53	69	44	38	45	39	45	29	45	44	-3.1
May	51	34	47	57	36	43	42	34	35	24	40	36	-10.7
June	54	64	83	56	40	49	39	43	39	49	52	42	-18.6
July	74	73	80	63	58	57	54	53	46	45	60	52	-13.8
August	64	68	59	69	44	65	57	38	54	48	57	51	-9.9
September	57	54	62	67	51	48	41	43	35	46	50	48	-4.8
October	94	86	79	82	68	80	48	72	62	57	73	83	14.0
November	104	78	64	78	68	92	62	51	36	45	68	55	-18.9
December	85	98	84	72	65	72	70	54	56	69	73	62	-14.5
Total	879	821	886	866	677	745	682	638	600	589	738	689	-6.7

* % change is a comparison between 1999 and the 1989-98 average.

Time of Occurrence

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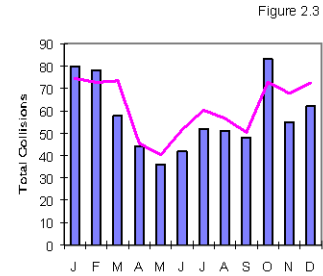
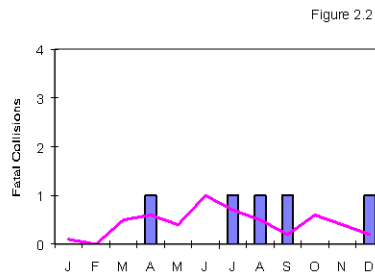
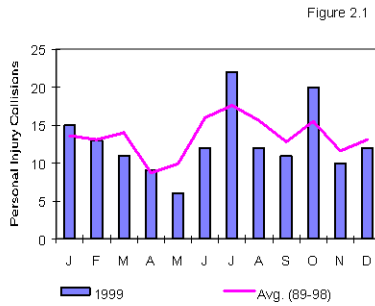
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Time of Occurrence

Figure 2.3 shows the highest number of collisions occurred during the winter months, November to March. Conversely Figure 2.1 shows more injury-producing collisions during the summer months.

Collisions are most likely to take place during the late afternoon and early evening. More collisions take place on Fridays and Saturdays than on Sunday and weekdays.

Collisions by Month of Occurrence

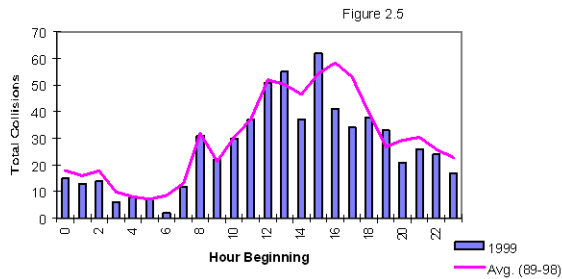


Collisions & Victims by Month of Occurrence

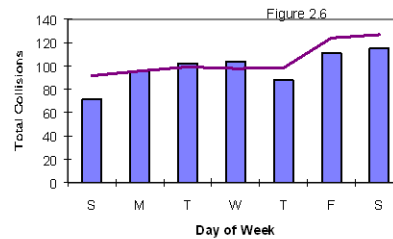
Figure 2.4

Month	Number of Collisions				Number of Victims	
	Property Damage	Personal Injury	Fatal	Total	Injured	Killed
January	65	15	0	80	24	0
February	65	13	0	78	19	0
March	47	11	0	58	20	0
April	34	9	1	44	27	1
May	30	6	0	36	15	0
June	30	12	0	42	16	0
July	29	22	1	52	44	3
August	38	12	1	51	18	1
September	36	11	1	48	17	1
October	63	20	0	83	42	0
November	45	10	0	55	16	0
December	49	12	1	62	18	1
Total	531	153	5	689	276	7

Total Collisions by Time of Day



Total Collisions by Day of Week



Collisions by Time of Day & Day of Week

Figure 2.7

Collision Hour	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Total	%
12 to 1 a.m.	3	1	3	1	4	2	1	15	2.2
1 to 2 a.m.	4	0	2	1	1	2	3	13	1.9
2 to 3 a.m.	1	2	3	0	4	0	4	14	2.0
3 to 4 a.m.	2	0	0	0	0	2	2	6	0.9
4 to 5 a.m.	3	0	2	1	1	0	1	8	1.2
5 to 6 a.m.	2	0	0	3	1	0	1	7	1.0
6 to 7 a.m.	0	0	1	0	0	1	0	2	0.3
7 to 8 a.m.	0	4	0	1	1	3	3	12	1.7
8 to 9 a.m.	0	11	6	3	5	5	1	31	4.5
9 to 10 a.m.	0	3	6	6	3	1	3	22	3.2
10 to 11 a.m.	3	4	4	4	3	5	7	30	4.4
11 to 12 a.m.	3	3	9	6	6	2	8	37	5.4
12 to 1 p.m.	2	9	8	11	6	9	5	50	7.3
1 to 2 p.m.	8	11	4	12	8	5	7	55	8.0
2 to 3 p.m.	3	8	4	5	4	6	7	37	5.4
3 to 4 p.m.	7	9	7	5	8	11	15	62	9.0
4 to 5 p.m.	8	6	4	8	5	8	2	41	6.0
5 to 6 p.m.	5	4	7	3	3	5	7	34	5.0
6 to 7 p.m.	5	1	5	7	7	9	4	38	5.5
7 to 8 p.m.	1	3	4	4	2	9	10	33	4.8
8 to 9 p.m.	2	2	4	5	2	3	3	21	3.1
9 to 10 p.m.	2	5	4	3	3	6	3	26	3.8
10 to 11 p.m.	4	2	4	4	0	5	5	24	3.5
11 to 12 p.m.	1	0	2	3	6	3	2	17	2.5
Not Stated	2	7	9	8	5	9	11	51	7.4
Total	71	95	102	104	88	111	115	686	
%	10.3	13.8	14.9	15.2	12.8	16.2	16.8	100.0	

MAJOR CONTRIBUTING FACTORS

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Major Contributing Factors

Contributing factors are those circumstances or factors that the reporting police officer perceives to have directly contributed to the collision or its severity. Factors can be selected from four categories: human condition, human action, vehicle condition or driving environment.

Police officers are encouraged to use their skilled judgement in reporting the likely factors, even if the collision scene was not attended.

Figure 3.6 shows that human condition is nearly twice as prevalent in injury and fatal collisions (14%) than in all collisions (8%). Human factors account for 69% of all factors in collisions, as compared to vehicular (3%) and environmental (6%).

Figure 3.12 points out the difference between collisions occurring in communities and on the NWT Highway system. Environmental factors are five times as prevalent on NWT Highways (15%) than in communities (3%).

Major Contributing Factors – Section 3

Collisions by Severity Where Human Condition Was a Major Contributing Factor

Figure 3.1

Human Condition	Property Damage	Personal Injury	Fatal	% of Total	
				Total	Factors
Fatigued, Fell Asleep	3	0	0	3	0.4
Inexperience	1	0	0	1	0.1
Under Influence - Alcohol	26	18	3	47	6.8
Under Influence - Drugs	0	0	0	0	0.0
Sudden Illness, Lost Consciousness	1	1	0	2	0.3
Other Driver Condition	0	0	0	0	0.0
Total	31	19	3	53	7.7

Collisions by Severity Where Human Action Was a Major Contributing Factor

Figure 3.2

Human Action	Property Damage	Personal Injury	Fatal	% of Total	
				Total	Factors
Following Too Closely	22	13	0	35	5.1
Distracted, Inattentive	26	14	0	40	5.8
Driving Too Fast for Conditions	49	32	0	81	11.8
Improper Turning or Passing	15	2	0	17	2.5
Failed to Yield Right-of-Way	39	6	0	45	6.5
Disobeyed Traffic Control/Officer	11	3	0	14	2.0
Driving on Wrong Side of Road	5	1	0	6	0.9
Driving in Wrong Direction	0	0	0	0	0.0
Backing Unsafely	99	6	0	105	15.2
Lost Control	78	35	2	115	16.7
Other Driver Action	16	3	0	19	2.8
Total	360	115	2	477	69.2

Collisions by Severity Where Vehicle Condition Was a Major Contributing Factor

Figure 3.3

Vehicle Condition	Property Damage	Personal Injury	Fatal	% of Total	
				Total	Factors
Defective Brakes	1	0	0	1	0.1
Defective Steering	0	0	0	0	0.0
Defective Lights	0	0	0	0	0.0
Tire Blown Out	2	5	0	7	1.0
Unsecured Load, Spilled Load	1	0	0	1	0.1
Oversized Load, Overload	0	0	0	0	0.0
Visibility Obstructed	1	1	0	2	0.3
Other Vehicle Contributing Factor	12	0	0	12	1.7
Total	17	6	0	23	3.3

Major Contributing Factors – Section 3

Collisions by Severity Where Environmental Condition Was a Major Contributing Factor

Figure 3.4

Environmental Condition	Property Damage	Personal Injury	Fatal	% of Total	
				Total	Factors
Animal on Roadway	12	2	0	14	2.0
Road Surface or Condition	19	3	0	22	3.2
Obstruction/Debris on Road	0	2	0	2	0.3
View Obstructed, Glare, Reflection	2	1	0	3	0.4
Weather or Other Acts of God	0	0	0	0	0.0
Other Environmental Factor	0	0	0	0	0.0
Total	33	8	0	41	6.0

Collisions by Severity Where Major Contributing Factor Was Unspecified or Unknown

Figure 3.5

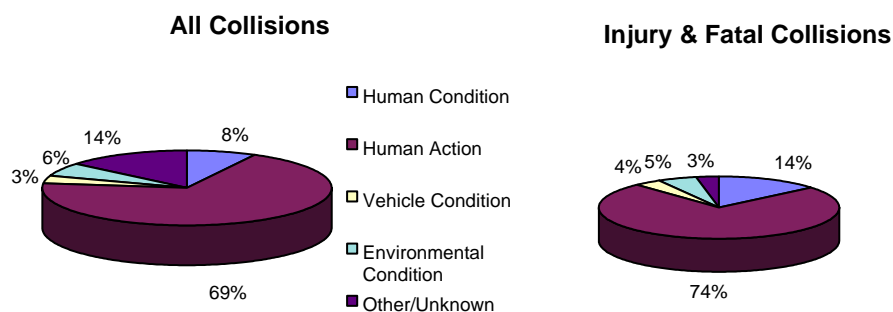
Factor	Property Damage	Personal Injury	Fatal	% of Total	
				Total	Factors
Unspecified	1	0	0	1	0.1
Unknown	89	5	0	94	13.6
Total	90	5	0	95	13.8

Total All Factors

531 153 5 689 100.0

Major Contributing Factors by Collision Severity

Figure 3.6



TAIS recognizes that a collision is usually the result of a chain of events. The collision data system accepts up to four contributing factors for each vehicle involved in a collision. During the analysis of collisions, knowledge of the factors is important. By removing any one of the factors, the collision may be avoided.

An example: Because of inattention, a driver may have failed to see a stop sign behind some trees and thereby reduced his/her stopping time. The car's brakes, being in poor condition, caused the car to spin out of control on ice and collide with another vehicle that was speeding through the intersection. The collision may not have occurred if any of these factors were not present.

Major Contributing Factors – Section 3

Collisions by Road System Where Human Condition Was a Major Contributing Factor

Figure 3.7

Human Condition	NWT			% of Total	
	Highways	Cummunities	In Rural	Total	Factors
Fatigued, Fell Asleep	1	2	0	3	0.4
Inexperience	0	1	0	1	0.1
Under Influence - Alcohol	10	37	0	47	6.8
Under Influence - Drugs	0	0	0	0	0.0
Sudden Illness, Lost Consciousness	1	1	0	2	0.3
Other Driver Condition	0	0	0	0	0.0
Total	12	41	0	53	7.7

Collisions by Road System Where Human Action Was a Major Contributing Factor

Figure 3.8

Human Action	NWT			% of Total	
	Highways	Cummunities	In Rural	Total	Factors
Following Too Closely	4	31	0	35	5.1
Distracted, Inattentive	5	34	1	40	5.8
Driving Too Fast for Conditions	27	51	3	81	11.8
Improper Turning or Passing	0	17	0	17	2.5
Failed to Yield Right-of-Way	0	45	0	45	6.5
Disobeyed Traffic Control/Officer	0	14	0	14	2.0
Driving on Wrong Side of Road	1	5	0	6	0.9
Driving in Wrong Direction	0	0	0	0	0.0
Backing Unsafely	3	101	1	105	15.2
Lost Control	69	43	3	115	16.7
Other Driver Action	1	18	0	19	2.8
Total	110	359	8	477	69.2

Collisions by Road System Where Vehicle Condition Was a Major Contributing Factor

Figure 3.9

Vehicle Condition	NWT			% of Total	
	Highways	Cummunities	In Rural	Total	Factors
Defective Brakes	0	1	0	1	0.1
Defective Steering	0	0	0	0	0.0
Defective Lights	0	0	0	0	0.0
Tire Blown Out	7	0	0	7	1.0
Unsecured Load, Spilled Load	0	1	0	1	0.1
Oversized Load, Overload	0	0	0	0	0.0
Visibility Obstructed	0	2	0	2	0.3
Other Vehicle Contributing Factor	2	9	1	12	1.7
Total	9	13	1	23	3.3

Major Contributing Factors – Section 3

Collisions by Road System Where Environmental Condition Was a Major Contributing Factor

Figure 3.10

<u>Environmental Condition</u>	<u>NWT</u>			<u>% of Total</u>	
	<u>Highways</u>	<u>In Communities</u>	<u>Rural</u>	<u>Total</u>	<u>Factors</u>
Animal on Roadway	13	1	0	14	2.0
Road Surface or Condition	9	13	0	22	3.2
Obstruction/Debris on Road	1	1	0	2	0.3
View Obstructed, Glare, Reflection	1	2	0	3	0.4
Weather or Other Acts of God	0	0	0	0	0.0
Other Environmental Factor	0	0	0	0	0.0
Total	24	17	0	41	6.0

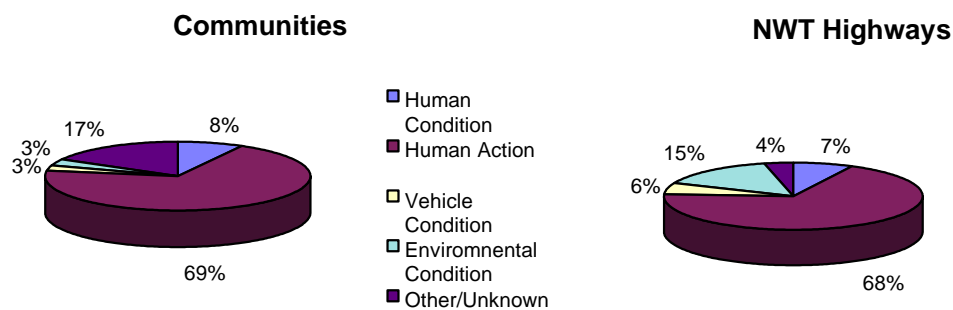
Collisions by Road System Where Major Contributing Factor Was Unspecified or Unknown

Figure 3.11

<u>Factor</u>	<u>NWT</u>			<u>% of Total</u>	
	<u>Highways</u>	<u>In Communities</u>	<u>Rural</u>	<u>Total</u>	<u>Factors</u>
Unspecified	0	0	1	1	0.1
Unknown	6	87	1	94	13.6
Total	6	87	2	95	13.8
Total All Factors	161	517	11	689	100.0

Major Contributing Factors in Collisions - Communities and NWT Highways

Figure 3.12



Environmental Factors

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Environmental Factors

The driving environment consists of road, light and weather conditions, as well as events leading up to and during a collision. It is important to understand all of these factors to properly design effective countermeasures for reducing collisions.

This section of the report provides a breakdown of collisions for each of the different driving environments by severity and road system.

Figures 4.1 to 4.5 show that most collisions occur under near ideal conditions, such as clear weather, daylight and on a road surface that is free of defects. Figure 4.9 shows that intersection related collisions are far more frequent in communities than in rural areas or on the NWT Highway system.

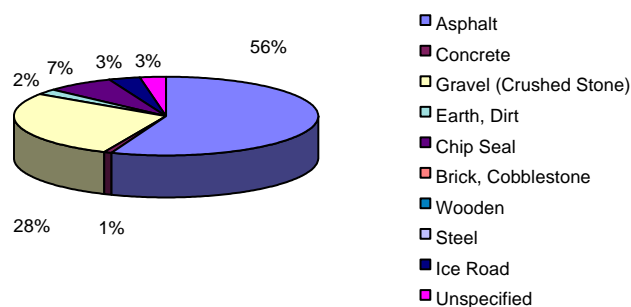
Figures 4.6 and 4.7 provide a breakdown on the types of collisions that occur for both single and multiple vehicle configurations.

Figures 4.12 and 4.13 describe some of the events that occur in collisions, such as hitting a fixed or moveable object, overturning and jack-knifing.

Collisions by Road Surface Type and Severity

Figure 4.1

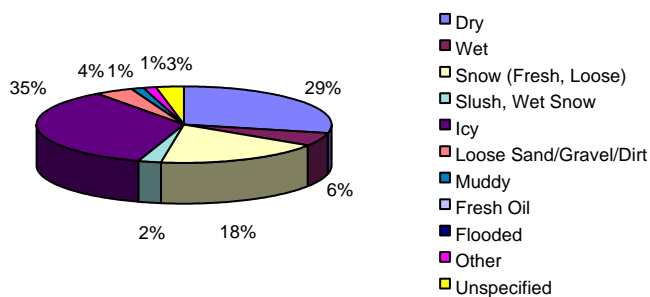
Road Surface Type	Property Damage	Personal Injury	Fatal	Total	%
Asphalt	313	72	0	385	55.9
Concrete	5	1	0	6	0.9
Gravel (Crushed Stone)	138	47	5	190	27.6
Earth, Dirt	10	7	0	17	2.5
Chip Seal	33	16	0	49	7.1
Brick, Cobblestone	0	0	0	0	0.0
Wooden	0	0	0	0	0.0
Steel	0	0	0	0	0.0
Ice Road	14	9	0	23	3.3
Unspecified	18	1	0	19	2.8
Total	531	153	5	689	100.0



Collisions by Road Surface Environmental Condition and Severity

Figure 4.2

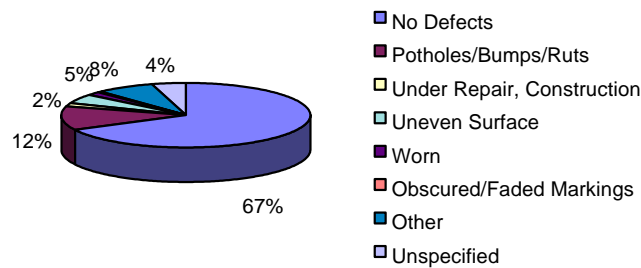
Surface Condition	Property Damage	Personal Injury	Fatal	Total	%
Dry	140	55	2	197	28.6
Wet	28	11	0	39	5.7
Snow (Fresh, Loose)	114	12	0	126	18.3
Slush, Wet Snow	14	3	0	17	2.5
Icy	184	56	1	241	35.0
Loose Sand/Gravel/Dirt	16	11	2	29	4.2
Muddy	7	3	0	10	1.5
Fresh Oil	0	0	0	0	0.0
Flooded	0	0	0	0	0.0
Other	7	1	0	8	1.2
Unspecified	21	1	0	22	3.2
Total	531	153	5	689	100



Collisions by Road Defect and Severity

Figure 4.3

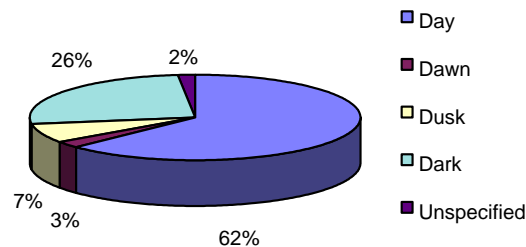
Road Defect	Property Damage	Personal Injury	Fatal	Total	%
No Defects	371	92	2	465	67.5
Potholes/Bumps/Ruts	54	27	1	82	11.9
Under Repair, Construction	7	4	0	11	1.6
Uneven Pavement Surface	24	8	2	34	4.9
Worn	8	2	0	10	1.5
Obscured or Faded Markings	2	2	0	4	0.6
Other	38	14	0	52	7.5
Unspecified	27	4	0	31	4.5
Total	531	153	5	689	100.0



Collisions by Light Condition and Severity

Figure 4.4

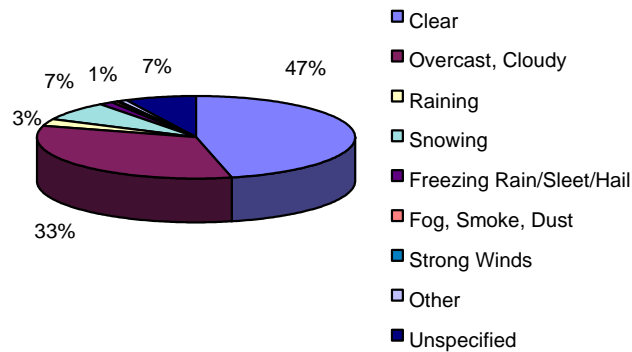
Light Condition	Property Damage	Personal Injury	Fatal	Total	%
Day	339	89	4	432	62.7
Dawn	11	7	0	18	2.6
Dusk	32	17	0	49	7.1
Dark	138	40	1	179	26.0
Unspecified	11	0	0	11	1.6
Total	531	153	5	689	100.0



Collisions by Weather Condition and Severity

Figure 4.5

Weather Condition	Property Damage	Personal Injury	Fatal	Total	%
Clear (Sunny)	239	77	3	319	46.3
Overcast, Cloudy (No Precipitation)	171	55	2	228	33.1
Raining	16	4	0	20	2.9
Snowing	48	3	0	51	7.4
Freezing Rain/Sleet/Hail	6	3	0	9	1.3
Visibility Limitations (fog, dust, etc.)	4	1	0	5	0.7
Strong Winds	0	1	0	1	0.1
Other	5	1	0	6	0.9
Unspecified	42	8	0	50	7.3
Total	531	153	5	689	100.0

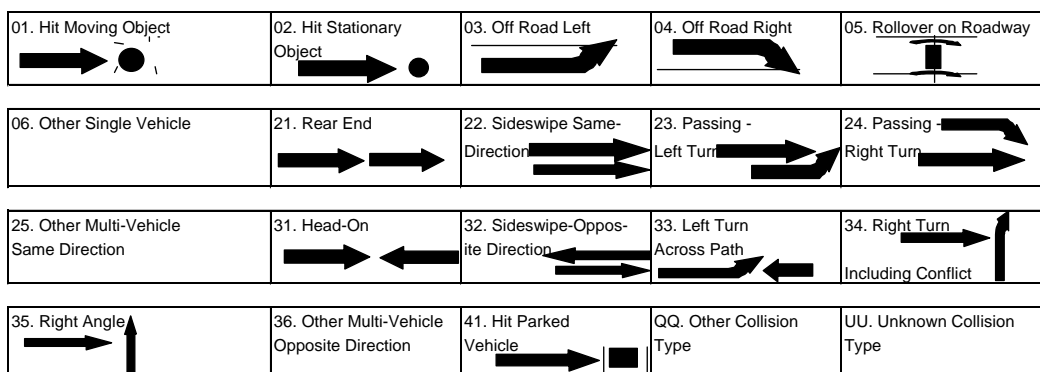


Collisions by Configuration and Severity

Figure 4.6

Configuration*	Property Damage	Personal Injury	Fatal	Total	% of Total
01. Hit Moving Object					
a) With Animal	13	4	0	17	2.5
b) With Pedestrian	2	11	1	14	2.0
c) Other	0	1	0	1	0.1
02. Hit Stationary Object	46	5	1	52	7.0
03. Off Road Left					
a) With Rollover	12	23	1	36	5.2
b) No Rollover	11	8	0	19	2.8
04. Off Road Right					
a) With Rollover	21	18	1	40	5.8
b) No Rollover	20	10	0	30	4.4
05. Rollover on Roadway	7	5	0	12	1.7
06. Other Single Vehicle	5	3	0	8	1.2
21. Rear End	70	36	0	106	15.4
22. Sideswipe - Same Direction	10	0	0	10	1.5
23. Passing - Left Turn	5	2	0	7	1.0
24. Passing - Right Turn	5	0	0	5	0.7
25. Other Multi-Vehicle Same Direction	1	0	0	1	0.1
31. Head-On	7	4	0	11	1.6
32. Sideswipe - Opposite Direction	11	3	0	14	2.0
33. Left Turn Across Path	11	0	0	11	1.6
34. Right Turn Including Conflict	5	2	0	7	1.0
35. Right Angle	67	13	0	80	11.6
36. Other Multi-Vehicle Opposite Direction	16	0	1	17	2.5
41. Hit Parked Vehicle	184	5	0	189	27.4
QQ. Other Collision Type	0	0	0	0	0.0
UU. Unknown Collision Type	2	0	0	2	0.3
Total	531	153	5	689	100.0

***Collision Configurations**



Collisions by Configuration and Road System

Figure 4.7

Configuration*	NWT Highways	In Communities	Rural	Total	% of Total
01. Hit Moving Object					
a) With Animal	17	0	0	17	2.5
b) With Pedestrian	1	12	1	14	2.0
c) Other	0	1	0	1	0.1
02. Hit Stationary Object	6	46	0	52	7.5
03. Off Road Left					
a) With Rollover	31	5	0	36	5.2
b) No Rollover	15	3	1	19	2.8
04. Off Road Right					
a) With Rollover	35	5	0	40	5.8
b) No Rollover	20	8	2	30	4.4
05. Rollover on Roadway	10	1	1	12	1.7
06. Other Single Vehicle	2	5	1	8	1.2
21. Rear End	9	97	0	106	15.4
22. Sideswipe - Same Direction	0	10	0	10	1.5
23. Passing - Left Turn	0	7	0	7	1.0
24. Passing - Right Turn	1	4	0	5	0.7
25. Other Multi-Vehicle Same Direction	0	1	0	1	0.1
31. Head-On	1	9	1	11	1.6
32. Sideswipe - Opposite Direction	4	9	1	14	2.0
33. Left Turn Across Path	0	11	0	11	1.6
34. Right Turn Including Conflict	0	7	0	7	1.0
35. Right Angle	0	78	2	80	11.6
36. Other Multi-Vehicle Opposite Direction	1	16	0	17	2.5
41. Hit Parked Vehicle	7	182	0	189	27.4
QQ. Other Collision Type	0	0	0	0	0.0
UU. Unknown Collision Type	1	0	1	2	0.3
Total	161	517	11	689	100.0

***Collision Configurations**

01. Hit Moving Object 	02. Hit Stationary Object 	03. Off Road Left 	04. Off Road Right 	05. Rollover on Roadway
06. Other Single Vehicle 	21. Rear End 	22. Sideswipe Same-Direction 	23. Passing - Left Turn 	24. Passing - Right Turn
25. Other Multi-Vehicle Same Direction 	31. Head-On 	32. Sideswipe-Opposite Direction 	33. Left Turn Across Path 	34. Right Turn Including Conflict
35. Right Angle 	36. Other Multi-Vehicle Opposite Direction 	41. Hit Parked Vehicle 	QQ. Other Collision Type 	UU. Unknown Collision Type

Collisions by Collision Site and Severity

Figure 4.8

Collision Site	Property Damage	Personal Injury	Fatal	Total	%
Non-Intersection	199	94	4	297	43.1
Intersection - Two Public Roadways	119	42	0	161	23.4
Intersection - Parking Lot, Driveway	89	11	1	101	14.7
Railroad Level Crossing	0	1	0	1	0.1
Bridge, Overpass, Viaduct	2	0	0	2	0.3
Tunnel, Underpass	0	0	0	0	0.0
Passing, Climbing Lane	0	0	0	0	0.0
Ramp	0	0	0	0	0.0
Other	119	5	0	124	18.0
Unknown	3	0	0	3	0.4
Total	531	153	5	689	100.0

Collisions by Collision Site and Road System

Figure 4.9

Collision Site	NWT Highways	In Communities	Rural	Total	%
Non-Intersection	147	141	9	297	43.1
Intersection - Two Public Roadways	9	152	0	161	23.4
Intersection - Parking Lot, Driveway	3	96	2	101	14.7
Railroad Level Crossing	0	1	0	1	0.1
Bridge, Overpass, Viaduct	2	0	0	2	0.3
Tunnel, Underpass	0	0	0	0	0.0
Passing, Climbing Lane	0	0	0	0	0.0
Ramp	0	0	0	0	0.0
Other	0	124	0	124	18.0
Unknown	0	3	0	3	0.4
Total	161	517	11	689	100.0

Collisions by Roadway Alignment and Severity

Figure 4.10

Road Alignment	Property Damage	Personal Injury	Fatal	Total	%
Straight & Level	390	95	2	487	70.7
Straight with Grade	60	13	0	73	10.6
Curved and Level	31	22	0	53	7.7
Curve with Grade	18	15	2	35	5.1
Top of Hill or Grade	7	3	0	10	1.5
Bottom of Hill or Grade	6	1	0	7	1.0
Other	7	2	1	10	1.5
Unknown	12	2	0	14	2.0
Total	531	153	5	689	100.0

Collisions by Roadway Type and Severity

Figure 4.11

Road Type	Property Damage	Personal Injury	Fatal	Total	%
One-Way, Two Lane	13	1	0	14	2.0
One-Way, Multi Lane	3	0	0	3	0.4
Undivided, Two-Way, Two Lane	265	123	5	393	57.0
Undivided, Two-Way, Multi Lane	59	7	0	66	9.6
Divided, Barrier Median	4	6	0	10	1.5
Divided with Median, No Barrier	20	9	0	29	4.2
Divided, Divider Unspecified	2	0	0	2	0.3
Other	161	7	0	168	24.4
Unknown	4	0	0	4	0.6
Total	531	153	5	689	100.0

Collision Sequence of Events by Severity

Figure 4.12

Non-Moving Objects	Property Damage	Personal Injury	Fatal	Total	%
Hit Parked Trailer	0	0	0	0	0.0
Hit Non-Fixed Object	1	0	0	1	0.1
Hit Building	5	1	0	6	0.9
Hit Ditch	0	0	0	0	0.0
Hit Embankment, Dirt Pile, Rock	0	0	0	0	0.0
Hit Culvert End, Drainage Structure	1	0	0	1	0.1
Hit Tree, Bush, Hedge	0	0	0	0	0.0
Hit Utility Pole, Lamp Pole	3	0	0	3	0.4
Hit Curb	1	0	0	1	0.1
Hit Post	7	0	0	7	1.0
Hit Traffic Barrier	1	0	0	1	0.1
Hit Fixed Object Part of Road Structure	1	0	0	1	0.1
Hit Fixed Object NOT Part of Road Structure	4	0	0	4	0.6
Hit Other Type Fixed Object	22	4	1	27	3.9
Sub Total Fixed Objects	46	5	1	52	7.5
Moveable Objects					
Another Road Vehicle	404	88	2	494	71.7
Animal	13	4	0	17	2.5
Pedestrian	2	11	1	14	2.0
Other Moveable Object	0	1	0	1	0.1
Sub Total Moveable Objects	419	104	3	526	76.3
Non-Collision Events					
Ran Off Road	31	18	0	49	7.1
Rollover	28	23	1	52	7.5
Jack Knife or Trailer Swing	0	0	0	0	0.0
Fire or Explosion	2	0	0	2	0.3
Load Spill	1	0	0	1	0.1
Load Shift	0	0	0	0	0.0
Submersion	0	0	0	0	0.0
Other Non-Collision Event	2	3	0	5	0.7
Sub Total Non-Collision Events	64	44	1	109	15.8
Other/Unknown Event	2	0	0	2	0.3
Grand Total	531	153	5	689	100.0

Collision Sequence of Events by Road System

Figure 4.13

	NWT Highways	In Communities	Rural	Total	%
Non-Moving Objects					
Hit Parked Trailer	0	0	0	0	0.0
Hit Non-Fixed Object	1	0	0	1	0.1
Hit Building	0	6	0	6	0.9
Hit Ditch	0	0	0	0	0.0
Hit Embankment, Dirt Pile, Rock	0	0	0	0	0.0
Hit Culvert End, Drainage Structure	0	1	0	1	0.1
Hit Tree, Bush, Hedge	0	0	0	0	0.0
Hit Utility Pole, Lamp Pole	0	3	0	3	0.4
Hit Curb	0	1	0	1	0.1
Hit Post	0	7	0	7	1.0
Hit Traffic Barrier	1	0	0	1	0.1
Hit Fixed Object Part of Road Structure	0	1	0	1	0.1
Hit Fixed Object NOT Part of Road Structure	0	4	0	4	0.6
Hit Other Type Fixed Object	4	23	0	27	3.9
Sub Total Fixed Objects	6	46	0	52	7.5
Moveable Objects					
Another Road Vehicle	54	436	4	494	71.7
Animal	17	0	0	17	2.5
Pedestrian	1	12	1	14	2.0
Other Moveable Object	0	1	0	1	0.1
Sub Total Moveable Objects	72	449	5	526	76.3
Non-Collision Events					
Ran Off Road	35	11	3	49	7.1
Rollover	45	6	1	52	7.5
Jack Knife or Trailer Swing	0	0	0	0	0.0
Fire or Explosion	1	0	1	2	0.3
Load Spill	0	1	0	1	0.1
Load Shift	0	0	0	0	0.0
Submersion	0	0	0	0	0.0
Other Non-Collision Event	1	4	0	5	0.7
Sub Total Non-Collision Events	82	22	5	109	15.8
Unknown Event	1	0	1	2	0.3
Grand Total	161	517	11	689	100.0

Driver Factors

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Driver Factors

This section describes the characteristics of drivers involved in collisions. In 1999, 981 drivers were involved in 689 collisions. This is an average of 1.42 drivers per collision. Details on driver age, gender, condition, action and class of licence is presented.

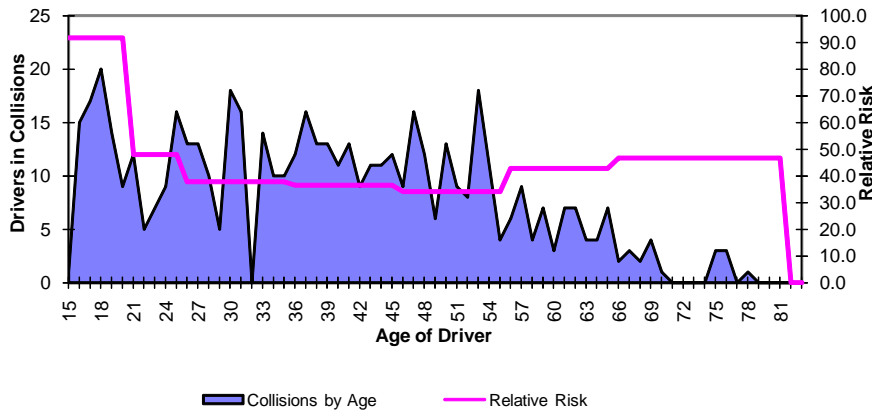
Of particular interest and concern is the over-representation of young drivers in collisions. Drivers aged 15 to 20 years are 2.1 times as likely to be involved in a collision than drivers aged 35 to 44 years. Crash statistics involving young or inexperienced drivers is useful for developing graduated licensing programs.

Licensed Drivers and Drivers in Collisions by Driver Age

Figure 5.1

	Under 16	16 to 19	20 to 24	25 to 34	35 to 44	45 to 54	55 to 64	65 and Over	Not Stated	Total
Licensed Drivers	71	1,097	1,961	5,660	6,433	4,350	1,547	580	0	21,699
Drivers in Collisions	16	91	94	214	235	148	66	27	90	981

Drivers in Collisions and Relative Risk by Driver Age



Collision Rates (Collisions Per 1,000 Licensed Drivers) by Severity and Driver Age

Figure 5.2

	15 to 19	20 to 24	25 to 34	35 to 44	45 to 54	55 to 64	65 and Over	Average Rate
Property Damage	59.9	32.1	28.8	29.5	26.4	32.3	31.0	34.8
Personal Injury & Fatal	31.7	15.8	9.0	7.0	7.6	10.3	15.5	10.4
Total	91.6	47.9	37.8	36.5	34.0	42.7	46.6	45.2
Relative Risk*	2.0	1.1	0.8	0.8	0.8	0.9	1.0	1.0

* Relative Risk = (% of drivers in collisions in age group)/(% of total licence holders in age group)

The age of drivers involved in traffic collisions can form the basis of various analysis and countermeasure programs. The reason for this interest is the over-involvement of young drivers in collisions and the disproportionately large number of charges laid as a result of collisions.

Figure 5.1 shows that the relative risk of drivers between the ages of 15 and 19 are 2 times more likely to be involved in a collision than the average driving population. On average, 9% of 15 to 19 year olds were involved in collisions, compared to 4% of 35 to 44 year olds.

Other factors such as exposure, risk, experience, alcohol, and vehicle type must be known to fully understand the relationship of driver age and collision involvement. Studies indicate that the risk of having a collision is a factor of driving experience, not just driver age.

Number of Drivers Involved in Collisions by Licence Class and Age

Figure 5.3

Age Group	Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Class 7	Class 7 Req'd.	Class Not	Class Not	Total
Under 16	0	0	0	0	0	0	0	13	3	0	16
16	0	0	0	0	11	0	3	2	2	0	18
17	0	0	0	0	16	0	2	1	2	0	21
18	0	0	0	0	29	0	0	0	2	1	32
19	2	1	0	0	13	0	0	1	1	2	20
20	0	0	0	1	15	0	1	0	3	1	21
21-24	4	0	2	3	49	0	3	3	4	5	73
25-34	14	1	4	16	162	1	1	1	8	6	214
35-44	24	5	13	24	154	1	1	1	5	7	235
45-54	19	4	7	16	90	1	2	2	0	7	148
55-64	3	0	2	3	49	0	1	0	0	8	66
65 and over	1	0	0	1	23	0	0	0	0	2	27
Not Stated	0	0	0	0	0	0	0	0	0	90	90
Drivers in Collisions	67	11	28	64	611	3	14	24	30	129	981
Total Licensed Drivers	1,195	223	669	1,010	17,391	5	1,206	N/A	N/A	N/A	21,699
Relative Risk*	1.24	1.09	0.93	1.40	0.78	13.27	0.26	N/A	N/A	N/A	1.00

*Relative Risk = (% of Total Collisions in Class)/(% of Total Licence Holders in Class)

Number of Drivers Involved in Collisions by Condition and Age

Figure 5.4

Driver Condition	< 16	16	17	18	19	20	21	21-24	25-34	35-44	45-54	55-64	65+	Not Stated	Total	%
Apparently Normal	4	9	11	18	15	11	53	156	177	127	127	53	17	3	654	66.7
Fatigued, Fell Asleep	0	0	0	1	0	0	0	2	0	0	1	0	0	0	4	0.4
Inexperience	8	6	7	6	0	3	6	4	2	1	1	0	0	0	43	4.4
Under Influence - Alcohol	1	2	2	3	3	4	5	14	13	3	3	1	2	2	55	5.6
Under Influence - Drugs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Sudden Illness, Lost Consciousness	0	0	0	0	0	0	0	0	0	1	0	0	1	0	2	0.2
Other Condition	1	0	0	1	1	2	2	13	10	3	3	5	1	0	39	4.0
Unknown	2	1	1	3	1	1	7	25	32	13	13	7	6	85	184	18.8
Total	16	18	21	32	20	21	73	214	235	148	148	66	27	90	981	
%	1.6	1.8	2.1	3.3	2.0	2.1	7.4	21.8	24.0	15.1	15.1	6.7	2.8	9.2		100.0

Number of Drivers Involved in Collisions by Driver Action and Age

Figure 5.5

Driver Action	<16	16	17	18	19	20	21-24	25-34	35-44	45-54	55-64	65+	Not Stated	Total	%
Driving Properly	1	1	3	12	6	4	17	63	95	66	26	8	2	304	31.0
Following Too Closely	0	1	0	2	1	2	3	8	14	3	2	1	1	38	3.9
Distracted, Inattentive	0	3	3	3	2	3	3	14	12	4	6	2	0	55	5.6
Driving Too Fast	2	6	6	5	5	0	16	27	17	12	5	3	1	105	10.7
Improper Turning or Passing	0	0	0	1	1	1	2	4	3	4	1	0	0	17	1.7
Failing to Yield Right of Way	4	2	1	2	1	1	5	8	13	6	3	4	0	50	5.1
Disobeying Traffic Control/Officer	0	0	1	0	0	2	2	3	2	2	2	3	0	17	1.7
Driving on Wrong Side of Road	2	0	1	0	0	0	0	2	1	2	0	0	0	8	0.8
Driving in Wrong Direction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Backing Unsafely	0	1	2	2	1	2	12	30	22	17	10	2	6	107	10.9
Lost Control	5	2	3	3	1	4	10	36	35	24	6	4	1	134	13.7
Other Driver Action	2	2	1	1	2	1	2	8	10	4	2	0	0	35	3.6
Unknown	0	0	0	1	0	1	1	11	11	4	3	0	79	111	11.3
Total	16	18	21	32	20	21	73	214	235	148	66	27	90	981	
%	1.6	1.8	2.1	3.3	2.0	2.1	7.4	21.8	24.0	15.1	6.7	2.8	9.2		100.0

Vehicle Factors

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Vehicle Factors

There were a total of 1,162 vehicles involved in 689 collisions in 1999. This is an average of 1.69 vehicles per collision. This section provides details on the different vehicle types involved in collisions.

While TCIS gives a fairly accurate account of the different types of vehicles involved in collisions, it is difficult to compare the relative involvement rate. For example, a highway transport truck, on average, travels 10 times more distance in a year than a passenger car. It is, therefore, necessary to determine the exposure of different types of vehicles. Obtaining accurate and useful information about the travel patterns and distances of different vehicles is a major challenge.

Number of Vehicles in Collisions by Vehicle Type and Severity

Figure 6.1

Vehicle Type	Property Damage	Personal Injury	Fatal	Total	%
Passenger Car	276	62	1	339	29.2
Passenger Van	83	20	0	103	8.9
Light Utility Vehicle	110	29	0	139	12.0
Pickup Truck	316	76	2	394	33.9
Panel/Cargo Van	16	2	0	18	1.5
Other Truck/Van <= 4536 kg	5	2	0	7	0.6
Unit Truck > 4536 kg	21	1	1	23	2.0
Road Tractor	17	6	0	23	2.0
School Bus	3	1	0	4	0.3
Small School Bus	0	0	0	0	0.0
Urban Transit Bus	0	0	0	0	0.0
Intercity Bus	0	0	0	0	0.0
Bus - Unspecified	0	0	0	0	0.0
Motorcycle	0	2	0	2	0.2
Limited Speed Motorcycle	0	0	0	0	0.0
Off Road Vehicles (ATV)	1	2	1	4	0.3
Bicycle	2	5	1	8	0.7
Motor Home	1	1	0	2	0.2
Farm Equipment	0	0	0	0	0.0
Construction Equipment	2	0	0	2	0.2
Fire Engine	0	0	0	0	0.0
Snowmobile	4	12	0	16	1.4
Streetcar	0	0	0	0	0.0
Other	0	0	0	0	0.0
Unknown	77	1	0	78	6.7
Total	934	222	6	1162	100.0

Number of Vehicles in Collisions by Vehicle Condition and Severity

Figure 6.2

Vehicle Condition	Property Damage	Personal Injury	Fatal	Total	%
No Apparent Defect	729	173	4	906	78.0
Defective Brakes	2	3	1	6	0.5
Defective Steering	0	1	0	1	0.1
Defective Lighting	0	0	0	0	0.0
Tire Blown Out	2	5	0	7	0.6
Unsecured Load, Spilled Load	1	0	0	1	0.1
Oversized Load, Overload	0	0	1	1	0.1
Visibility Obstructed	9	3	0	12	1.0
Other Defective Vehicular Parts	13	3	0	16	1.4
Other Vehicular Factor	15	4	0	19	1.6
Unknown	163	30	0	193	16.6
Total	934	222	6	1162	100.0

Number of Vehicles in Collisions by Vehicle Manoeuvre and Severity

Figure 6.3

Vehicle Manoeuvre	Property Damage	Personal Injury	Fatal	Total	%
Going Straight Ahead	301	124	1	426	36.7
Turning Left	60	13	0	73	6.3
Turning Right	46	9	1	56	4.8
Making U-Turn	2	1	0	3	0.3
Changing Lanes	4	1	0	5	0.4
Merging	3	0	0	3	0.3
Reversing	117	7	0	124	10.7
Overtaking	4	2	1	7	0.6
Negotiating Curve	16	19	2	37	3.2
Slowing or Stopped in Traffic	83	30	0	113	9.7
Starting in Traffic	2	1	0	3	0.3
Leaving Roadside	3	1	0	4	0.3
Stopped/Parked Legally	186	4	0	190	16.4
Stopped/Parked Illegally	5	1	0	6	0.5
Swerving to Avoid Collision	10	6	0	16	1.4
Run-away or Roll-away Vehicle	7	0	0	7	0.6
Unspecified Manoeuvre	7	2	1	10	0.9
Other	1	0	0	1	0.1
Unknown	77	1	0	78	6.7
Total	934	222	6	1162	100.0

Number of Vehicles in Collisions by Vehicle Year and Severity

Figure 6.4

Model Year	Property Damage	Personal Injury	Fatal	Total	%
2000	3	0	0	3	0.3
1999	57	15	0	72	6.2
1998	89	22	0	111	9.6
1997	99	22	0	121	10.4
1996	59	16	1	76	6.5
1995	64	20	0	84	7.2
1994	75	10	0	85	7.3
1993	55	7	0	62	5.3
1992	47	7	1	55	4.7
1991	46	12	2	60	5.2
1990	39	13	0	52	4.5
1989	35	9	0	44	3.8
1988 & Older	174	56	0	230	19.8
Unspecified	92	13	2	107	9.2
Total	934	222	6	1162	100.0

Victims and Occupant Restraints

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Victims and Occupant Restraints

The Traffic Collision Information System (TCIS) attempts to capture information on all road users involved in collisions, whether they are injured or not. This data can be used to calculate exposure rates for road users by injury severity, age, road user class, gender and many other variables.

Figures 7.6, 7.7 and 7.8 show the relationships between the severity of injury to motor vehicle occupants and seat belt use. The number of persons injured while using seat belts is much higher than those not using them. This is because 79% of all motor vehicle occupants are belted in during a crash. The severity of injury is also lower for victims using seat belts. In the Northwest Territories, 86% of victims wearing seat belts were not injured. On the other hand, 28% of the victims who were not wearing seat belts were injured or killed.

The proper use of seat belts is an important factor when evaluating their effectiveness in reducing or preventing injuries. This is especially true of young children and the use of child restraints. In the Northwest Territories, less than 35% of children are restrained at all. It is estimated that only half of these are in a correctly installed device and in a device that is appropriate for the size and age of the child.

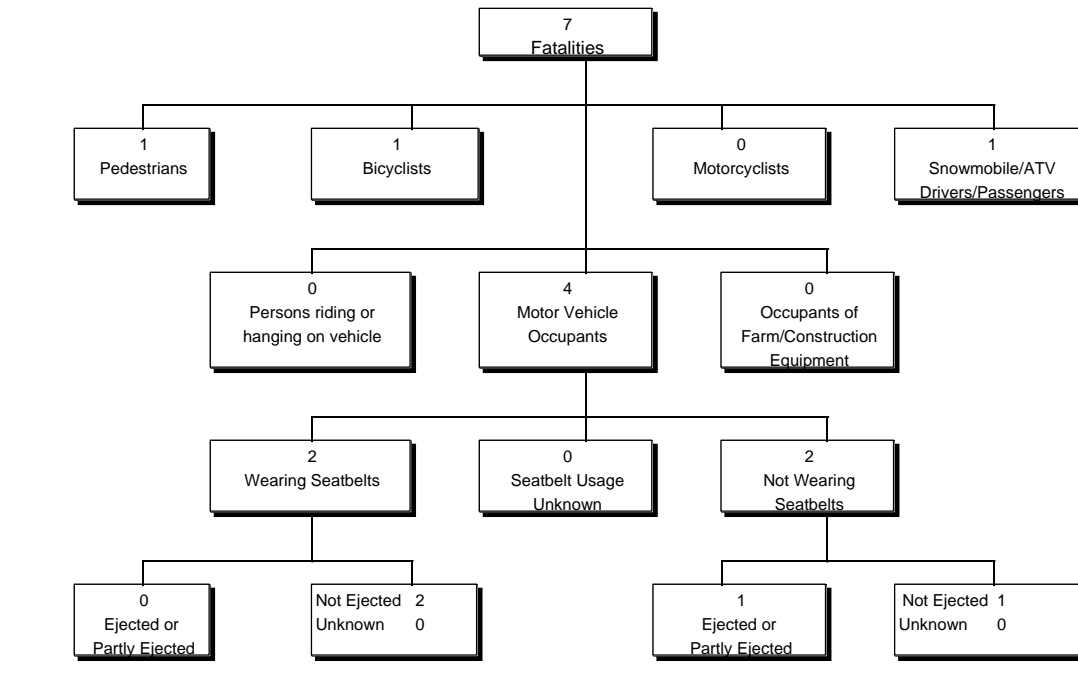
To combat the problem of child restraint misuse-use, child car seat inspection clinics are carried out by the Hay River, Inuvik and Yellowknife Fire Departments. The Car Seat Instructors Program is available to increase the number of qualified persons to conduct inspections at clinics and at occupant restraint checkstops.

For more information on the Car Seat Instructors Program, please call the Department of Transportation, Motor Vehicles Division at (867) 920-8918.

Victims and Occupant Restraints – Section 7

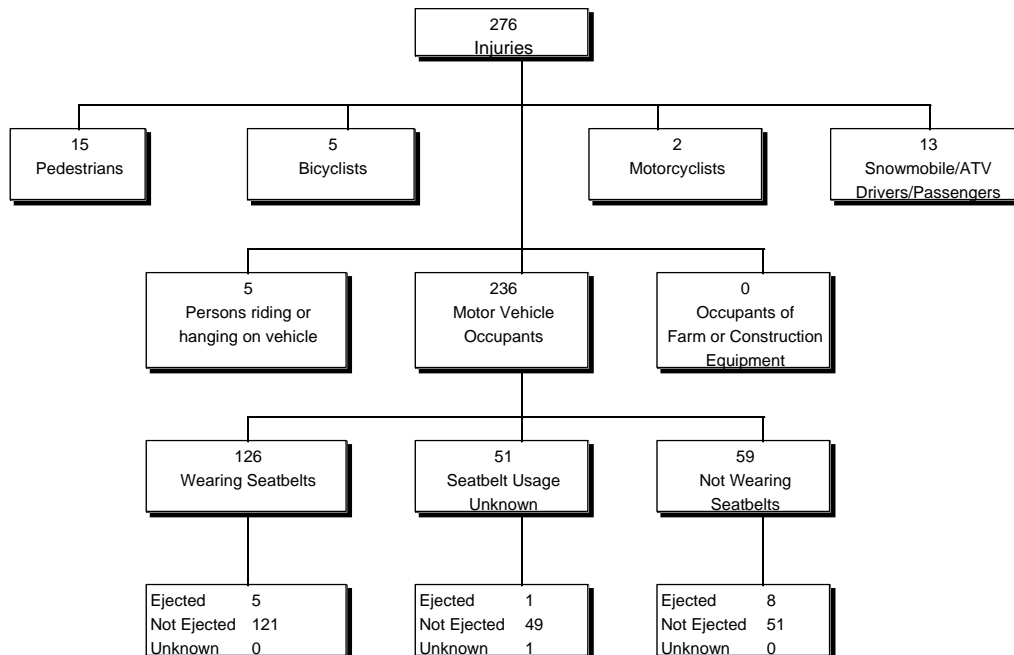
Fatalities Classification
(January 1 to December 31, 1999)

Figure 7.1



Injuries Classification
(January 1 to December 31, 1999)

Figure 7.2



Victims and Occupant Restraints – Section 7

Persons Injured by Road User Class and Age Group

Figure 7.3

Road User Class	0 to 4	5 to 14	15 to 19	20 to 24	25 to 34	35 to 44	45 to 54	55 to 64	65 & older	Not Stated	Total	%
Motor Vehicle Driver	0	0	13	15	27	29	20	9	2	0	115	41.7
Motor Vehicle Passenger	2	10	30	23	21	10	2	1	3	22	124	44.9
Pedestrian	2	6	1	1	1	2	1	0	1	0	15	5.4
Bicyclist	1	2	2	0	0	0	0	0	0	0	5	1.8
Motorcyclist (includes passengers)	0	0	1	0	0	0	1	0	0	0	2	0.7
ATV Operators & Passengers	0	0	1	1	1	0	0	0	0	0	3	1.1
Snowmobile Operators & Passengers	0	6	2	1	1	0	1	1	0	0	12	4.3
Farm/Construction Equipment	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
Unspecified	0	0	0	0	0	0	0	0	0	0	0	0.0
Total	5	24	50	41	51	41	25	11	6	22	276	100.0

Persons Killed by Road User Class and Age Group

Figure 7.4

Road User Class	0 to 4	5 to 14	15 to 19	20 to 24	25 to 34	35 to 44	45 to 54	55 to 64	65 & older	Not Stated	Total	%
Motor Vehicle Driver	0	0	1	0	1	0	0	0	0	0	2	28.6
Motor Vehicle Passenger	0	0	2	0	0	0	0	0	0	0	2	28.6
Pedestrian	0	0	0	0	0	0	1	0	0	0	1	14.3
Bicyclist	0	1	0	0	0	0	0	0	0	0	1	14.3
Motorcyclist (includes passengers)	0	0	0	0	0	0	0	0	0	0	0	0.0
ATV Operators & Passengers	0	0	1	0	0	0	0	0	0	0	1	14.3
Snowmobile Operators & Passengers	0	0	0	0	0	0	0	0	0	0	0	0.0
Farm/Construction Equipment	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
Unspecified	0	0	0	0	0	0	0	0	0	0	0	0.0
Total	0	1	4	0	1	0	1	0	0	0	7	100.0

Persons Injured or Killed by Road User Class and Gender

Figure 7.5

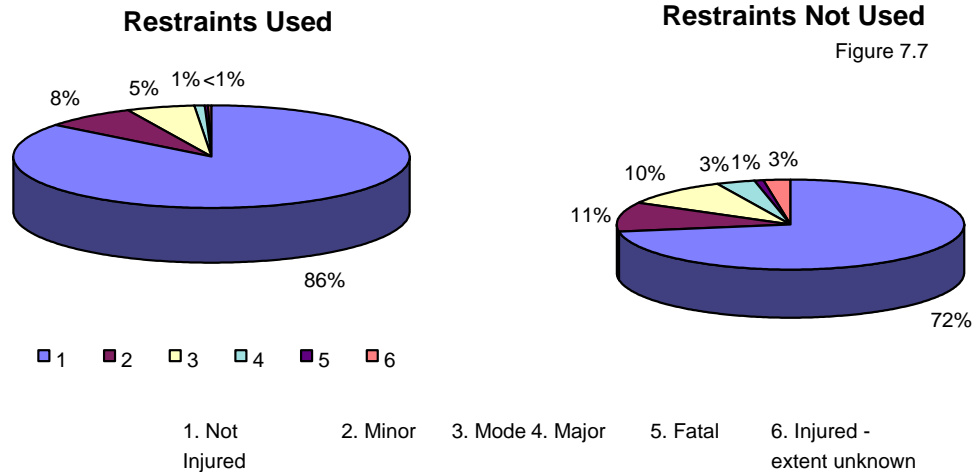
Road User Class	Persons Injured				Person Killed			
	Male	Female	Unknown	Total	Male	Female	Unknown	Total
Motor Vehicle Driver	78	37	0	115	2	0	0	2
Motor Vehicle Passenger	64	60	0	124	1	1	0	2
Pedestrian	11	4	0	15	0	1	0	1
Bicyclist	3	2	0	5	1	0	0	1
Motorcyclist (includes passengers)	1	1	0	2	0	0	0	0
ATV Operators & Passengers	2	1	0	3	1	0	0	1
Snowmobile Operators & Passengers	9	3	0	12	0	0	0	0
Farm/Construction Equipment	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0
Unspecified	0	0	0	0	0	0	0	0
Total	168	108	0	276	5	2	0	7

Motor Vehicle* Occupants by Injury Severity and Restraint Use

Figure 7.6

Injury Severity	Not Restrained	Lap Belt Only	Lap & Torso Belt	Child Restraint Device	Restraint Use Unknown	Total	%
Not Injured	168	41	707	14	376	1306	84.3
Minimal Injuries	25	11	56	0	17	109	7.0
Minor Injuries	23	3	45	0	19	90	5.8
Major (Hospital Admission)	8	0	8	0	6	22	1.4
Fatal	2	0	2	0	0	4	0.3
Injured - Extent Unknown	6	1	2	0	9	18	1.2
Total	232	56	820	14	427	1549	100.0

* Excludes occupants of motorcycles, mopeds, snowmobiles, all-terrain vehicles, and farm/construction equipment



Note: The totals used to calculate the percentages in Figures 7.2 and 7.3 do not include occupants where seat belt use was coded as "unknown".

Injury Classification

- 1 Not Injured - no visible signs or any complaint of injury
- 2 Minor - minor complaint of injury by victim, but no medical treatment required
- 3 Moderate - an injury requiring medical attention but not serious enough to require hospital admission
- 4 Major - an injury serious enough to require hospital admission
- 5 Fatal - death within 30 days as a result of injuries incurred in the traffic collision
- 6 Injured- Extent Unknown - victim sustained injuries, precise extent unknown

Victims and Occupant Restraints – Section 7

Motor Vehicle* Occupants by Injury Severity & Age Group

Figure 7.8

Restraints Used

	0	5	15	20	25	35	45	55	65	Not	
Injury Severity	to 4	to 14	to 19	to 24	to 34	to 44	to 54	to 64	5 & older	Stated	Total
Not Injured	21	46	92	70	163	169	98	45	22	36	762
Minimal Injuries	0	5	10	10	9	12	5	4	3	9	67
Minor Injuries	2	1	10	5	7	10	7	4	0	2	48
Major (Hospital Admission)	0	0	0	2	2	1	2	0	0	1	8
Fatal	0	0	2	0	0	0	0	0	0	0	2
Injured - Extent Unknown	0	0	0	0	1	0	1	1	0	0	3
Total	23	52	114	87	182	192	113	54	25	48	890

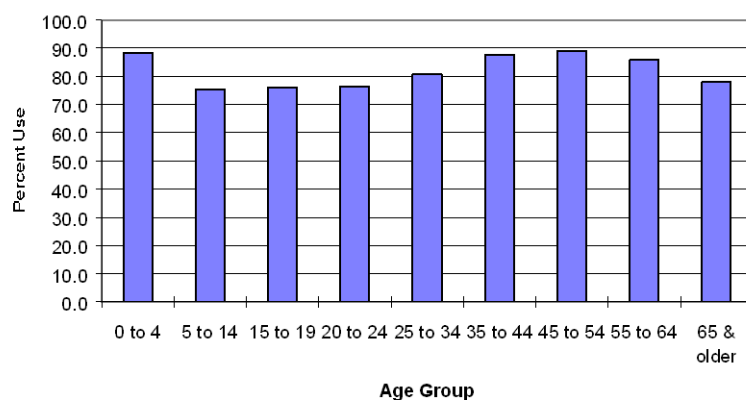
Restraints Not Used

	0	5	15	20	25	35	45	55	65	Not	
Injury Severity	to 4	to 14	to 19	to 24	to 34	to 44	to 54	to 64	5 & older	Stated	Total
Not Injured	3	13	21	14	28	21	10	8	6	44	168
Minimal Injuries	0	2	8	4	3	3	0	0	0	5	25
Minor Injuries	0	1	5	4	8	2	3	0	0	0	23
Major (Hospital Admission)	0	1	1	2	2	1	0	0	1	0	8
Fatal	0	0	1	0	1	0	0	0	0	0	2
Injured - Extent Unknown	0	0	0	3	1	0	1	1	0	0	6
Total	3	17	36	27	43	27	14	9	7	49	232

* Excludes occupants of motorcycles, mopeds, snowmobiles, all-terrain vehicles, and farm/construction equipment

Victim Restraint Use Rate by Victim Age

Figure 7.9



Pedestrians

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Pedestrians

1999 Quick Facts on Pedestrian Collisions

- 15 injured
- 1 killed
- 50% of the pedestrians injured were under the age of 15
- 81% of the pedestrians were injured within a community
- 18.8% of pedestrians had been drinking or were impaired by alcohol

Pedestrians – Section 8

Pedestrians Injured or Killed by Age Group

Figure 8.1

	Age Group										Not Stated	Total	%
	0 to 4	5 to 14	15 to 19	20 to 24	25 to 34	35 to 44	45 to 54	55 to 64	65 & older				
Injured	2	6	1	1	1	2	1	0	1	0	15	93.8	
Killed	0	0	0	0	0	0	1	0	0	0	1	6.3	
Total	2	6	1	1	1	2	2	0	1	0	16		
%	12.5	37.5	6.3	6.3	6.3	12.5	12.5	0.0	6.3	0.0	100.0	100.0	

Pedestrians Injured or Killed by Pedestrian Action and Age Group

Figure 8.2

Pedestrian Action	Age Group										Not Stated	Total	%
	0 to 4	5 to 14	15 to 19	20 to 24	25 to 34	35 to 44	45 to 54	55 to 64	65 & older				
Crossing Intersection With Traffic Control, With Right-of-Way	0	0	1	0	0	0	0	0	0	0	0	1	6.3
Crossing Intersection With Traffic Control, Without Right-of-Way	0	1	0	0	0	0	0	0	0	0	0	1	6.3
Crossing Intersection - No Traffic Control	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Crossing Roadway at Crosswalk	0	0	0	0	0	0	1	0		1	0	2	12.5
Crossing Roadway Not at Intersection	0	0	0	0	0	1	0	0		0	0	1	6.3
Walking Along Roadway Against Traffic	0	0	0	0	0	0	0	0		0	0	0	0.0
Walking Along Roadway With Traffic	0	1	0	0	0	1	1	0		0	0	3	18.8
On Sidewalk, Median, Safety Zone	0	0	0	0	0	0	0	0		0	0	0	0.0
Walking on Travelled Part of Roadway Against Traffic	0	0	0	0	0	0	0	0		0	0	0	0.0
Walking on Travelled Part of Roadway With Traffic	0	0	0	0	0	0	0	0		0	0	0	0.0
Coming from Behind Parked Vehicle/Object on Roadside	1	0	0	0	1	0	0	0		0	0	2	12.5
Coming from Behind Moving Vehicle	0	0	0	0	0	0	0	0		0	0	0	0.0
Running into Roadway	1	4	0	0	0	0	0	0		0	0	5	31.3
Getting On/Off School Bus	0	0	0	0	0	0	0	0		0	0	0	0.0
Getting On/Off Other Vehicles	0	0	0	1	0	0	0	0		0	0	1	6.3
Pushing Vehicle on Road	0	0	0	0	0	0	0	0		0	0	0	0.0
Working on Vehicle on Side of Road	0	0	0	0	0	0	0	0		0	0	0	0.0
Playing on Roadway	0	0	0	0	0	0	0	0		0	0	0	0.0
Working on Roadway	0	0	0	0	0	0	0	0		0	0	0	0.0
Lying on Road	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
Unknown	0	0	0	0	0	0	0	0		0	0	0	0.0
Total	2	6	1	1	1	2	2	0		1	0	16	100.0

Pedestrians Injured or Killed By Place of Occurrence and Injury Severity

Figure 8.3

Place of Occurrence	Killed	Injured	Total	%
Urban	0	13	13	81.3
Rural	1	2	3	18.8
Unspecified	0	0	0	0.0
Total	1	15	16	100.0

Pedestrians Injured or Killed by Accident Site

Figure 8.4

Accident Site	Killed	Injured	Total	%
Non-Intersection	1	8	9	56.3
At Intersection of At Least Two Roadways	0	4	4	25.0
Intersection With Parking Lot/Driveway/Alley	0	1	1	6.3
Railroad Level Crossing	0	0	0	0.0
Bridge/Overpass/Viaduct	0	0	0	0.0
Tunnel or Underpass	0	0	0	0.0
Passing Lane/Climbing Lane	0	0	0	0.0
Other	0	2	2	12.5
Unspecified	0	0	0	0.0
Total	1	15	16	100.0

Pedestrians Injured or Killed by Pedestrian Condition

Figure 8.5

Pedestrian Condition	Killed	Injured	Total	%
Apparently Normal	1	10	11	68.8
Had Been Drinking	0	3	3	18.8
Impaired by Alcohol	0	0	0	0.0
Unknown	0	2	2	12.5
Total	1	15	16	100.0

Alcohol

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Alcohol

REDUCING ALCOHOL AS A FACTOR IN MOTOR VEHICLE COLLISIONS

The Department of Transportation believes too many people are being killed and injured as a result of drinking and driving in the Northwest Territories. In the fall of 1995, an inter agency committee was struck to develop recommendations to reduce drinking and driving. A draft report containing the recommendations was completed in the summer of 1996.

Amongst the recommendations are:

- 0 BAC (blood alcohol concentration) for new drivers
- immediate roadside suspension for a BAC greater than .04%
- 30 to 90 day administrative licence suspension
- increase statutory licence suspensions
- mandatory education program for first and second offenders
- develop assessment and treatment programs for repeat offenders

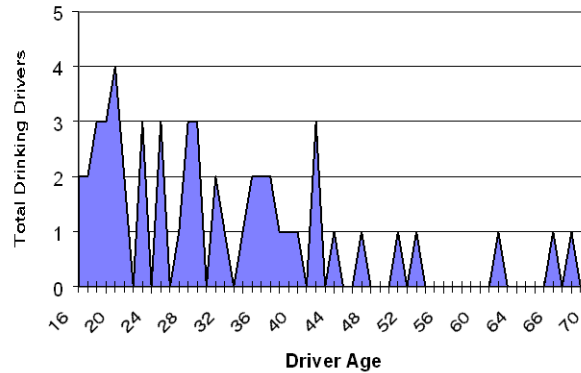
The purpose of the recommendations are to reduce the extent of deaths and injuries on NWT roadways. The Department of Transportation, Motor Vehicles Division is working with other agencies to realize a 20% reduction in alcohol-related crashes by the year 2001.

Drinking Drivers in Collisions by Driver Age and Gender

Figure 9.1

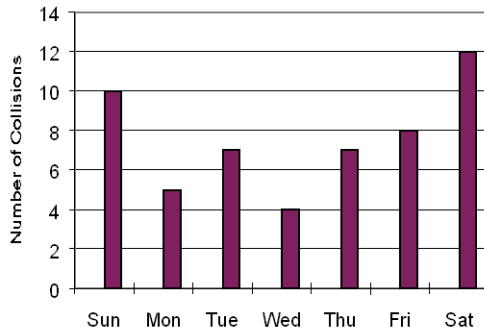
Driver Age	Male	Female	Not Stated	Total Drinking Drivers
Under 16	1	0	0	1
16	2	0	0	2
17	1	1	0	2
18	2	1	0	3
19	3	0	0	3
20	4	0	0	4
21 to 24	4	1	0	5
25 to 34	12	2	0	14
35 to 44	11	2	0	13
45 to 54	3	0	0	3
55 to 64	1	0	0	1
65 & Older	2	0	0	2
Not Stated	0	0	2	2
Total	46	7	2	55

Drinking Drivers by Driver Age



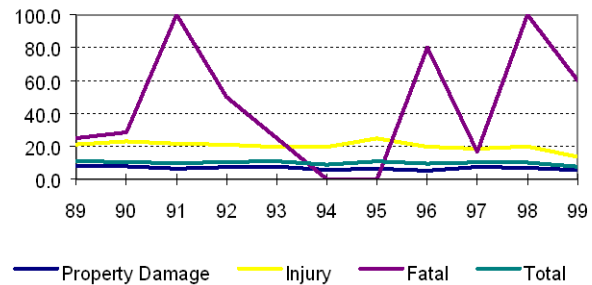
Collisions Involving Alcohol by Day of Week

Figure 9.2



Percentage of Collisions Involving Alcohol by Year and Severity

Figure 9.3



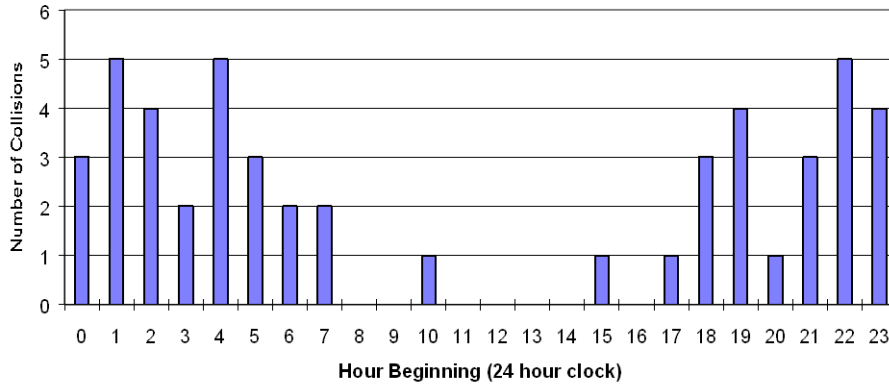
Number of Collisions and Victims Involving Alcohol

Figure 9.4

Number of Collisions						Number of Victims			
	Property Damage	Personal Injury	Fatal	Total	% of Total Collisions	Injured	Killed	Total	% of Total Victims
Year									
1989	56	38	2	96	10.9	63	2	65	24.0
1990	53	32	2	87	10.6	45	2	47	22.6
1991	46	37	3	86	9.7	75	3	78	31.3
1992	50	38	3	91	10.5	59	3	62	23.3
1993	38	35	1	74	10.9	67	1	68	23.7
1994	32	34	0	66	8.9	51	0	51	20.9
1995	33	41	0	74	10.9	62	0	62	27.2
1996	25	28	8	61	9.6	50	8	58	26.7
1997	33	28	1	62	10.3	43	1	44	19.2
1998	31	27	2	60	10.2	45	2	47	23.7
1999	29	21	3	53	7.7	54	5	59	20.8
Average	39	33	2	74	10.0	56	2	58	23.9

Number of Alcohol Related Collisions by Time of Day

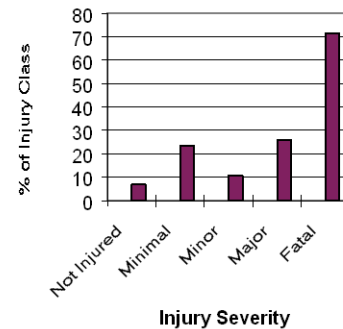
Figure 9.5



Injury Severity by Alcohol Involvement

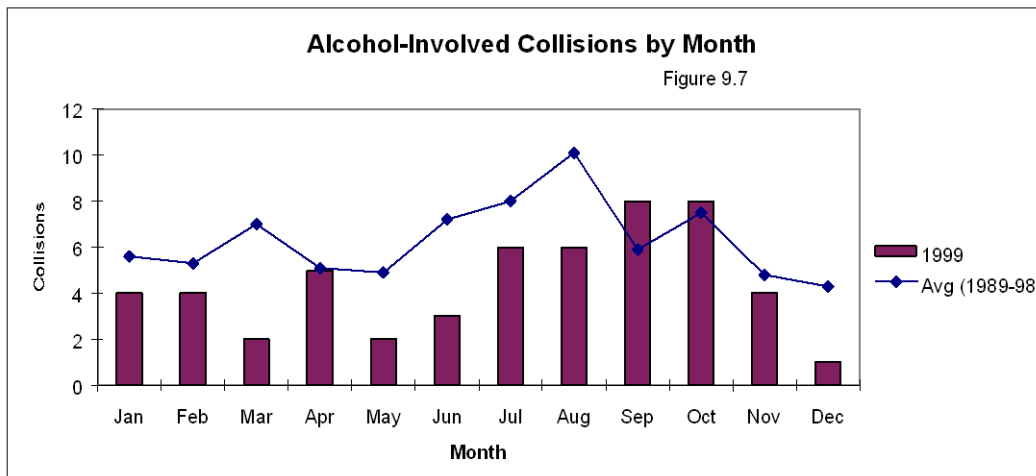
Figure 9.6

Injury Severity	Alcohol Involvement		Totals	% with Alcohol
	Yes	No		
Not Injured	92	1,240	1332	6.9
Minimal Injuries	29	94	123	23.6
Minor	11	91	102	10.8
Major	8	23	31	25.8
Fatal	5	2	7	71.4
Injured - Extent Unknown	6	14	20	30.0
Total	151	1464	1615	9.3



Alcohol-Involved Collisions by Month

Figure 9.7



Off-Road Vehicles

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Off-Road Vehicles

Off-road vehicles, including snowmobiles and ATVs (All-Terrain Vehicles) are a common form of transportation throughout the Northwest Territories. The NWT is unique in that these types of vehicles are permitted to operate on roadways in communities. Despite their widespread use, relatively little is known about collisions involving snowmobiles and ATVs. Part of the problem lies with under-reporting to the police. Only those collisions that occur on or adjacent to a roadway are captured by TCIS. This section attempts to describe the details of collisions with off-road vehicles.

From the Figures, the following facts can be noted:

- 78% of off-road vehicle collisions result in injuries or death
- 70% of off-road vehicle drivers involved in collisions are 24 years of age or younger
- 10.0% of off-road vehicle drivers in collisions had been drinking or were impaired by alcohol
- only 25.8% of off-road vehicle drivers or passengers in collisions were wearing helmets

Off-Road Vehicle Collisions by Month and Severity

Figure 10.1

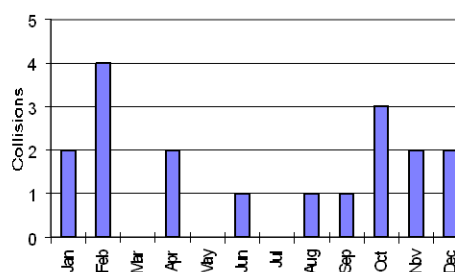
Month	Number of Collisions				Number of Victims	
	Property Damage	Personal Injury	Fatal	Total	Injured	Killed
January	1	1	0	2	2	0
February	1	3	0	4	4	0
March	0	0	0	0	0	0
April	1	1	0	2	1	0
May	0	0	0	0	0	0
June	0	1	0	1	1	0
July	0	0	0	0	0	0
August	0	1	0	1	1	0
September	0	0	1	1	2	1
October	1	2	0	3	4	0
November	0	2	0	2	5	0
December	0	2	0	2	2	0
Total	4	13	1	18	22	1

Off-Road Vehicle Collisions by Vehicle Type

Figure 10.2

	Snowmobile	ATV	Total
Total Victims	12	4	16
Killed	0	1	1
Injured	12	3	15
Total Vehicles Involved	16	4	20
Fatal	0	1	1
Injury	12	2	14
Property Damage	4	1	5

Off-Road Vehicle Collisions by Month



Off-Road Vehicle Drivers in Collisions by Driver Age and Gender

Figure 10.3

Age Group	Snowmobile			ATV			Total %	
	Male	Female	Unknown	Male	Female	Unknown		
0 to 4	0	0	0	0	0	0	0	0.0
5 to 14	4	0	0	0	0	0	4	20.0
15 to 19	6	0	0	1	0	0	7	35.0
20 to 24	2	1	0	0	0	0	3	15.0
25 to 34	0	1	0	3	0	0	4	20.0
35 to 44	0	0	0	0	0	0	0	0.0
45 to 54	2	0	0	0	0	0	2	10.0
55 to 64	0	0	0	0	0	0	0	0.0
65 & Over	0	0	0	0	0	0	0	0.0
Unknown	0	0	0	0	0	0	0	0.0
Total	14	2	0	4	0	0	20	100.0

Off-Road Vehicle Drivers in Collisions by Driver Condition and Severity

Figure 10.4

Driver Condition	Property	Personal	Fatal	Total %	
	Damage	Injury			
Apparently Normal	3	5	0	8	40.0
Fatigue/Fell Asleep	0	0	0	0	0.0
Inexperience	1	5	0	6	30.0
Under Influence - Alcohol	1	0	1	2	10.0
Under Influence - Drugs	0	0	0	0	0.0
Sudden Illness, Lost Consciousness	0	0	0	0	0.0
Other Condition	0	2	0	2	10.0
Unknown	0	2	0	2	10.0
Total	5	14	1	20	100.0

Off-Road Vehicle Drivers in Collisions by Driver Action and Severity

Figure 10.5

Driver Action	Property Damage	Personal Injury	Fatal	Total	%
Driving Properly	0	2	0	2	10.0
Following Too Closely	0	0	0	0	0.0
Distracted, Inattentive	0	2	1	3	15.0
Driving Too Fast for Conditions	1	3	0	4	20.0
Improper Turning or Passing	0	0	0	0	0.0
Failed to Yield Right-of-Way	0	0	0	0	0.0
Disobeyed Traffic Control or Officer	0	1	0	1	5.0
Driving on Wrong Side of Road	0	1	0	1	5.0
Driving in Wrong Direction	0	0	0	0	0.0
Backing Unsafely	0	0	0	0	0.0
Lost Control	1	3	0	4	20.0
Other	3	1	0	4	20.0
Unknown	0	1	0	1	5.0
Total	5	14	1	20	100.0

Off-Road Vehicle Occupants by Injury Severity and Helmet Use

Figure 10.6

Injury Severity	Helmet Worn	Helmet Not Worn	Unknown	Total	%
Not Injured	6	9	2	17	51.5
Minimal Injuries	1	5	0	6	18.2
Minor Injuries	1	4	0	5	15.2
Major (Hospital Admission)	0	4	0	4	12.1
Fatal	0	1	0	1	3.0
Injured - Extent Unknown	0	0	0	0	0.0
Total	8	23	2	33	100.0

Geographic Distribution

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Geographic Distribution

Figure 11.1 is a detailed summary of collisions by Region, RCMP detachment and severity. More than 80 percent of the collisions took place in the North Slave Region. The North Slave Region also accounted for 5 out of 7 of the fatalities. Figure 11.2 shows collision rates per 100 licensed drivers, registered vehicles and population by Region and RCMP detachment.

Figure 11.3 describes collisions that occurred on the NWT Highway system. Collisions are summarized by location (along numbered highways), date, severity, configuration, and the number of persons injured and killed. Highway 3 (Yellowknife Highway) accounted for 31% of the collisions occurring on the numbered highway system.

Figure 11.4 is a map showing the number of collisions on various segments of the NWT Highway system, including Access and Winter roads. Figure 11.5 is a map showing the corresponding collision rates expressed in the number of collisions per million vehicle-kilometres of travel.

Collisions by Region, RCMP Detachment and Severity

Figure 11.1

A - Inuvik Region

RCMP Detachment	Number of Collisions				Number of Victims	
	Property Damage	Personal Injury	Fatal	Total	Injured	Killed
Aklavik	3	3	0	6	5	0
Deline	3	0	0	3	0	0
Fort Good Hope	2	1	0	3	2	0
Fort McPherson	12	4	1	17	11	1
Holman	0	1	0	1	1	0
Inuvik	50	18	0	68	30	0
Norman Wells	5	3	0	8	3	0
Sachs Harbour	1	0	0	1	0	0
Tuktoyaktuk	3	2	1	6	4	1
Tulita	3	0	0	3	0	0
Sub Total						
Inuvik Region	82	32	2	116	56	2

B - North/South Slave Region

RCMP Detachment	Number of Collisions				Number of Victims	
	Property Damage	Personal Injury	Fatal	Total	Injured	Killed
Fort Liard	14	7	0	21	15	0
Fort Providence	17	14	0	31	28	0
Fort Resolution	4	4	1	9	4	1
Fort Simpson	15	5	1	21	8	1
Fort Smith	22	8	0	30	13	0
Hay River	46	14	0	60	21	0
Lutsel K'e	0	0	0	0	0	0
Rae/Wha Ti	24	8	0	32	24	0
Yellowknife	307	61	1	369	107	3
Sub Total						
North/South Slave Region	449	121	3	573	220	5
Total - All Regions	531	153	5	689	276	7

Collision Rates by Region and RCMP Detachment

Figure 11.2

A - Inuvik Region

RCMP Detachment	Number of Collisions	Licensed Drivers [1]	Registered Vehicles [1]	Population (1999 estimate [2])	Collision Rates		
					Collisions/ 100 Licensed Drivers	Collisions/ 100 Registered Vehicles	Collisions/ 100 Population
Aklavik	6	163	89	738	3.68	6.74	0.81
Deline	3	145	65	600	2.07	4.62	0.50
Fort Good Hope	3	162	95	692	1.85	3.16	0.43
Fort McPherson	17	240	243	1,123	7.08	7.00	1.51
Ulukhaktok	1	57	120	458	1.75	0.83	0.22
Inuvik	68	1,623	1,750	3,445	4.19	3.89	1.97
Norman Wells	8	491	716	744	1.63	1.12	1.08
Sachs Harbour	1	37	41	153	2.70	2.44	0.65
Tuktoyaktuk	6	312	263	1,284	1.92	2.28	0.47
Tulita	3	127	82	489	2.36	3.66	0.61
Sub Total							
Inuvik Region	116	3,357	3,464	9,726	3.46	3.35	1.19

B - Fort Simpson Region

RCMP Detachment	Number of Collisions	Licensed Drivers [1]	Registered Vehicles [1]	Population (1999 estimate [2])	Collision Rates		
					Collisions/ 100 Licensed Drivers	Collisions/ 100 Registered Vehicles	Collisions/ 100 Population
Fort Liard	21	197	205	581	10.66	10.24	3.61
Fort Simpson	21	747	1,018	1,572	2.81	2.06	1.34
Sub Total							
Fort Simpson Region	42	944	1,223	2,153	4.45	3.43	1.95

C - South Slave Region

RCMP Detachment	Number of Collisions	Licensed Drivers [1]	Registered Vehicles [1]	Population (1999 estimate [2])	Collision Rates		
					Collisions/ 100 Licensed Drivers	Collisions/ 100 Registered Vehicles	Collisions/ 100 Population
Hay River	60	2,601	3,950	3,976	2.31	1.52	1.51
Fort Providence	31	255	349	862	12.16	8.88	3.60
Fort Resolution	9	219	268	572	4.11	3.36	1.57
Fort Smith	30	1,418	1,643	2,728	2.12	1.83	1.10
Lutsel K'e	0	72	56	384	0.00	0.00	0.00
Sub Total							
South Slave Region	130	4,565	6,266	8,522	2.85	2.07	1.53

D - North Slave Region

RCMP Detachment	Number of Collisions	Licensed Drivers [1]	Registered Vehicles [1]	Population (1999 estimate [2])	Collision Rates		
					Collisions/ 100 Licensed Drivers	Collisions/ 100 Registered Vehicles	Collisions/ 100 Population
Behchoko/Whati	32	685	704	2,709	4.67	4.55	1.18
Yellowknife	369	12,148	13,769	17,897	3.04	2.68	2.06
Sub Total							
North Slave Region	401	12,833	14,473	20,606	3.12	2.77	1.95

Total - All Regions	689	21,699	25,426	41,600	3.18	2.71	1.66
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[1] Number of registered vehicles and licensed drivers are as of December 31, 1999.

[2] 1999 population from NWT Bureau of Statistics July 1 estimate published in 'Quarterly Report', March 2000.

Geographic Distribution – Section 11

Collisions on the NWT Highway System

Figure 11.3

Highway #1 (Mackenzie)	On Km	Collision Date	Collision Severity	Collision Configuration	# Persons Injured	# Persons Killed
	9.5	Jul 18	Injury	Single Vehicle Rollover	2	0
	23.8	Aug 22	Property Damage	Collision with Fixed Object	0	0
	30.0	Dec 18	Property Damage	Single Vehicle Rollover	0	0
	47.8	Feb 10	Property Damage	Single Vehicle Rollover	0	0
	63.8	Dec 30	Injury	Ran Off Road - Left	3	0
	79.8	Feb 19	Property Damage	Ran Off Road - Left	0	0
	83.8	Feb 27	Property Damage	Collision with Parked Vehicle	0	0
	113.8	Mar 5	Property Damage	Single Vehicle Rollover	0	0
	148.8	Oct 16	Property Damage	Ran Off Road - Left	0	0
	160.0	Nov 17	Property Damage	Rear End	0	0
	161.0	Jan 30	Property Damage	Rear End	0	0
	170.8	Oct 19	Injury	Single Vehicle Rollover	1	0
	192.0	Sep 28	Injury	Single Vehicle Rollover	1	0
	195.0	Dec 29	Injury	Single Vehicle Rollover	3	0
	231.5	Sep 6	Injury	Single Vehicle Rollover	1	0
	262.0	Oct 18	Injury	Ran Off Road - Right	1	0
	295.0	Mar 9	Property Damage	Ran Off Road - Right	0	0
	375.0	Aug 7	Injury	Single Vehicle Rollover	1	0
	383.8	Feb 4	Property Damage	Rear End	0	0
	457.2	Jun 9	Injury	Single Vehicle Rollover	1	0
	473.6	Dec 16	Fatal	Collision with Pedestrian	0	1
	515.3	Oct 3	Injury	Single Vehicle Rollover	3	0
	545.5	Dec 18	Property Damage	Animal Strike	0	0
	576.8	Jun 16	Property Damage	Ran Off Road - Right	0	0

Summary Highway #1	Property Damage Collisions	Personal Injury Collisions	Fatal Collisions	Total Collisions	Persons Injured	Persons Killed
	13	10	1	24	17	1

Highway #2 (Hay River)	On Km	Collision Date	Collision Severity	Collision Configuration	# Persons Injured	# Persons Killed
	25.0	Jan 14	Property Damage	Single Vehicle Rollover	0	0
	37.0	Jan 21	Property Damage	Single Vehicle Rollover	0	0
	37.0	Nov 4	Injury	Rear End	2	0
	38.1	May 5	Property Damage	Rear End	0	0
	38.6	Jan 9	Property Damage	Other Single Vehicle Collision	0	0
	39.1	Sep 8	Injury	Rear End	1	0
	44.0	Mar 31	Property Damage	Collision with Fixed Object	0	0
	44.3	May 29	Property Damage	Collision with Parked Vehicle	0	0
	44.3	Oct 31	Injury	Single Vehicle Rollover	1	0

Summary Highway #2	Property Damage Collisions	Personal Injury Collisions	Fatal Collisions	Total Collisions	Persons Injured	Persons Killed
	6	3	0	9	4	0

Geographic Distribution – Section 11

Highway #3 (Yellowknife)	On Km	Collision Date	Collision Severity	Collision Configuration	# Persons Injured	# Persons Killed
	8.2	Feb 10	Injury	Single Vehicle Rollover	1	0
	23.4	Jun 28	Property Damage	Collision with Fixed Object	0	0
	27.0	Feb 12	Property Damage	Single Vehicle Rollover	0	0
	29.0	Sep 16	Property Damage	Animal Strike	0	0
	30.0	Aug 19	Property Damage	Animal Strike	0	0
	35.0	Sep 9	Injury	Animal Strike	3	0
	38.0	Jun 25	Property Damage	Single Vehicle Rollover	0	0
	44.0	Oct 7	Property Damage	Animal Strike	0	0
	59.0	Feb 12	Property Damage	Animal Strike	0	0
	72.0	Aug 18	Injury	Animal Strike	2	0
	78.0	Sep 1	Property Damage	Animal Strike	0	0
	80.0	Aug 7	Property Damage	Ran Off Road - Right	0	0
	107.0	Aug 27	Injury	Animal Strike	2	0
	122.0	Sep 27	Property Damage	Animal Strike	0	0
	123.0	Mar 2	Injury	Single Vehicle Rollover	2	0
	124.0	Aug 1	Injury	Animal Strike	2	0
	158.0	Oct 19	Property Damage	Animal Strike	0	0
	168.0	Jun 23	Injury	Single Vehicle Rollover	1	0
	172.0	Aug 19	Property Damage	Animal Strike	0	0
	242.0	Dec 22	Injury	Ran Off Road - Left	1	0
	243.0	Nov 14	Property Damage	Single Vehicle Rollover	0	0
	243.6	Oct 20	Property Damage	Ran Off Road - Right	0	0
	251.0	Nov 14	Injury	Single Vehicle Rollover	2	0
	253.1	Jul 14	Property Damage	Ran Off Road - Left	0	0
	255.0	Dec 18	Property Damage	Animal Strike	0	0
	256.7	Jan 26	Property Damage	Single Vehicle Rollover	0	0
	263.1	Oct 17	Property Damage	Ran Off Road - Right	0	0
	270.0	Mar 17	Property Damage	Single Vehicle Rollover	0	0
	284.0	Aug 26	Property Damage	Single Vehicle Rollover	0	0
	286.0	Feb 24	Property Damage	Collision with Parked Vehicle	0	0
	288.8	Jul 13	Property Damage	Single Vehicle Rollover	0	0
	291.0	Mar 26	Injury	Single Vehicle Rollover	2	0
	293.8	Jan 24	Property Damage	Ran Off Road - Right	0	0
	303.8	Feb 25	Property Damage	Single Vehicle Rollover	0	0
	308.3	Jan 31	Property Damage	Ran Off Road - Right	0	0
	310.8	Jun 5	Injury	Single Vehicle Rollover	3	0
	329.8	Oct 22	Injury	Single Vehicle Rollover	4	0
	333.0	Jul 17	Property Damage	Collision with Fixed Object	0	0
	333.5	Jul 3	Injury	Single Vehicle Rollover	3	0
	336.8	Sep 26	Property Damage	Single Vehicle Rollover	0	0
	338.2	Jul 27	Injury	Ran Off Road - Left	1	0
	338.8	Jan 8	Property Damage	Collision with Fixed Object	0	0
	338.8	Feb 23	Injury	Ran Off Road - Left	1	0
Summary Highway #3	Property Damage Collisions	Personal Injury Collisions	Fatal Collisions	Total Collisions	Persons Injured	Persons Killed
	28	15	0	43	30	0

Geographic Distribution – Section 11

Highway #4 (Ingraham Trail)	On Km	Collision Date	Collision Severity	Collision Configuration	# Persons Injured	# Persons Killed
	1.5	Oct 19	Injury	Single Vehicle Rollover	3	0
	3.0	Oct 31	Property Damage	Single Vehicle Rollover	0	0
	4.8	Feb 13	Property Damage	Sideswipe - Opposite Direction	0	0
	8.5	Jul 10	Injury	Single Vehicle Rollover	1	0
	10.0	Sep 18	Property Damage	Ran Off Road - Left	0	0
	31.8	Jun 27	Injury	Sideswipe - Opposite Direction	1	0
	34.3	Sep 11	Injury	Ran Off Road - Right	2	0
	35.6	Jul 31	Fatal	Single Vehicle Rollover	2	3
	38.0	May 29	Property Damage	Single Vehicle Rollover	0	0
	40.0	Oct 31	Property Damage	Single Vehicle Rollover	0	0
	43.0	May 14	Injury	Single Vehicle Rollover	2	0
	64.1	Jul 31	Injury	Ran Off Road - Right	1	0

Summary Highway #4	Property Damage Collisions	Personal Injury Collisions	Fatal Collisions	Total Collisions	Persons Injured	Persons Killed
	5	6	1	12	12	3

Highway #5 (Fort Smith Highway)	On Km	Collision Date	Collision Severity	Collision Configuration	# Persons Injured	# Persons Killed
	28.0	Nov 10	Injury	Single Vehicle Rollover	1	0
	47.0	May 5	Property Damage	Single Vehicle Rollover	0	0
	59.4	Feb 10	Property Damage	Ran Off Road - Right	0	0
	70.8	Jul 9	Injury	Single Vehicle Rollover	2	0
	78.0	Jan 18	Property Damage	Single Vehicle Rollover	0	0
	90.0	Aug 6	Property Damage	Ran Off Road - Right	0	0
	96.0	Jun 29	Injury	Single Vehicle Rollover	1	0
	98.0	Feb 15	Property Damage	Single Vehicle Rollover	0	0
	118.0	Sep 24	Property Damage	Animal Strike	0	0
	211.0	Jun 11	Property Damage	Passing - Right Turn	0	0
	216.0	Oct 2	Injury	Single Vehicle Rollover	2	0
	239.0	Jun 27	Injury	Ran Off Road - Right	3	0
	258.2	Oct 20	Injury	Single Vehicle Rollover	3	0

Summary Highway #5	Property Damage Collisions	Personal Injury Collisions	Fatal Collisions	Total Collisions	Persons Injured	Persons Killed
	7	6	0	13	12	0

Highway #6 (Fort Resolution Highway)	On Km	Collision Date	Collision Severity	Collision Configuration	# Persons Injured	# Persons Killed
	14.0	Nov 18	Property Damage	Ran Off Road - Left	0	0
	27.0	Oct 3	Injury	Ran Off Road - Right	3	0
	40.0	Oct 17	Property Damage	Ran Off Road - Right	0	0
	50.0	Oct 22	Property Damage	Ran Off Road - Right	0	0
	62.0	Oct 31	Injury	Ran Off Road - Left	1	0
	73.0	Nov 18	Injury	Single Vehicle Rollover	1	0
	85.0	Nov 6	Property Damage	Collision with Parked Vehicle	0	0

Summary Highway #6	Property Damage Collisions	Personal Injury Collisions	Fatal Collisions	Total Collisions	Persons Injured	Persons Killed
	4	3	0	7	5	0

Geographic Distribution – Section 11

Highway #7 (Liard Highway)	On Km	Collision Date	Collision Severity	Collision Configuration	# Persons Injured	# Persons Killed
	9.6	May 31	Injury	Single Vehicle Rollover	1	0
	19.6	Aug 18	Property Damage	Collision with Fixed Object	0	0
	25.0	Mar 22	Injury	Single Vehicle Rollover	2	0
	47.0	Jun 3	Property Damage	Animal Strike	0	0
	57.6	Oct 6	Property Damage	Single Vehicle Rollover	0	0
	61.0	Oct 4	Property Damage	Animal Strike	0	0
	72.0	Feb 6	Property Damage	Head-on	0	0
	80.0	Oct 27	Injury	Single Vehicle Rollover	2	0
	85.0	Jan 13	Property Damage	Collision with Parked Vehicle	0	0
	92.0	Feb 16	Property Damage	Single Vehicle Rollover	0	0
	100.0	Jul 12	Injury	Single Vehicle Rollover	1	0
	108.5	Jul 29	Injury	Single Vehicle Rollover	3	0
	162.6	Oct 30	Property Damage	Ran Off Road - Right	0	0
	170.0	Oct 20	Property Damage	Single Vehicle Rollover	0	0
	188.0	Oct 15	Injury	Ran Off Road - Right	2	0

Summary Highway #7	Property Damage Collisions	Personal Injury Collisions	Fatal Collisions	Total Collisions	Persons Injured	Persons Killed
	9	6	0	15	11	0

Highway #8 (Dempster Highway)	On Km	Collision Date	Collision Severity	Collision Configuration	# Persons Injured	# Persons Killed
	8.0	Oct 7	Property Damage	Single Vehicle Rollover	0	0
	25.4	Jul 31	Injury	Ran Off Road - Right	2	0
	50.4	Jul 23	Injury	Single Vehicle Rollover	1	0
	70.9	Jun 9	Property Damage	Single Vehicle Rollover	0	0
	74.2	Oct 8	Property Damage	Rear End	0	0
	83.4	Aug 31	Property Damage	Other Single Vehicle Collision	0	0
	85.4	Jan 29	Property Damage	Other Multi-Vehicle Different Direction	0	0
	122.2	Apr 10	Fatal	Single Vehicle Rollover	3	1
	123.1	Feb 8	Property Damage	Ran Off Road - Left	0	0
	130.6	Aug 2	Injury	Ran Off Road - Right	3	0
	143.7	Jun 25	Property Damage	Collision with Parked Vehicle	0	0
	145.6	Aug 10	Injury	Single Vehicle Rollover	2	0
	145.6	Aug 15	Property Damage	Single Vehicle Rollover	0	0
	238.2	Jul 23	Injury	Single Vehicle Rollover	1	0
	248.0	Jul 10	Injury	Single Vehicle Rollover	2	0
	251.3	Jul 4	Property Damage	Single Vehicle Rollover	0	0
	264.3	Sep 24	Property Damage	Single Vehicle Rollover	0	0

Summary Highway #8	Property Damage Collisions	Personal Injury Collisions	Fatal Collisions	Total Collisions	Persons Injured	Persons Killed
	10	6	1	17	14	1

Geographic Distribution – Section 11

Access and Winter Roads	Collision Date	Collision Severity	Collision Configuration	# Persons Injured	# Persons Killed
Mackenzie Highway Winter Road	Jan 9	Property Damage	Single Vehicle Rollover	0	0
Inuvik-Tuktoyaktuk Winter Road	Jan 19	Injury	Single Vehicle Rollover	1	0
Inuvik-Tuktoyaktuk Winter Road	Jan 30	Injury	Ran Off Road	1	0
Inuvik-Tuktoyaktuk Winter Road	Feb 1	Property Damage	Sideswipe - Opposite Direction	0	0
Aklavik Winter Access Road	Mar 3	Property Damage	Single Vehicle Rollover	0	0
Inuvik-Tuktoyaktuk Winter Road	Apr 4	Property Damage	Single Vehicle Rollover	0	0
Mackenzie Highway Winter Road	May 9	Property Damage	Other/Unknown	0	0
Inuvik-Tuktoyaktuk Winter Road	Jun 18	Injury	Sideswipe - Opposite Direction	1	0
Rae Lakes Winter Access Road	Jul 21	Injury	Single Vehicle Rollover	1	0
Aklavik Winter Access Road	Aug 27	Property Damage	Ran Off Road	0	0
Aklavik Winter Access Road	Mar 7	Injury	Ran Off Road	1	0
Inuvik-Tuktoyaktuk Winter Road	Apr 12	Injury	Single Vehicle Rollover	1	0
Inuvik-Tuktoyaktuk Winter Road	May 15	Injury	Single Vehicle Rollover	1	0
Fort Providence Access Road	Apr 12	Injury	Rear End	6	0
Rae Access Road	Jul 6	Injury	Single Vehicle Rollover	5	0
Rae Access Road	Jul 10	Property Damage	Collision with Parked Vehicle	0	0
Rae Access Road	Aug 22	Property Damage	Rear End	0	0
Fort Liard Access Road	Oct 16	Injury	Single Vehicle Rollover	2	0
Fort Providence Access Road	Nov 28	Injury	Ran Off Road	2	0
Aklavik Winter Access Road	Dec 7	Property Damage	Single Vehicle Rollover	0	0
Vee Lake Access Road	Dec 15	Property Damage	Single Vehicle Rollover	0	0

Summary Access and Winter Roads	Property Damage Collisions	Personal Injury Collisions	Fatal Collisions	Total Collisions	Persons Injured	Persons Killed
	10	11	0	21	22	0

Summary All NWT Highways	Property Damage Collisions	Personal Injury Collisions	Fatal Collisions	Total Collisions	Persons Injured	Persons Killed
	92	66	3	161	127	5





Appendix

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Appendix A2 – MVA Report Form Side II

16. ROADWAY CONFIGURATION 1. Non-Intersection 2. Intersection 2 Roads 3. Intersection With Parking Lot/Driveway/Alley 4. Railroad Level Crossing 5. Bridge, Overpass, Viaduct 6. Tunnel Or Underpass 7. Other 8. Unknown	24. ROAD SURFACE 1. Dry, Normal 2. Wet 3. Snow (Fresh/Loose) 4. Slush, Wet Snow 5. Ice 6. Sandy/Gravel/Dirt 7. Muddy 8. Oil 9. Flooded 10. Other 11. Unknown	31. VEHICLE TYPE 11. Urban Transit Bus 12. Inter-city Bus 13. Motorcycle 14. Motorcycle - Speed Limited 15. Off-Road Vehicle 16. Bicycle 17. Purpose-Built Motor Home 18. Farm Equipment 19. Construction Equipment 20. Snowmobile 21. Other UU, Unknown	41. VEHICLE MANOEUVRE 01. Going Straight 02. Turning Left 03. Turning Right 04. Making U-Turn 05. Changing Lanes 06. Merging 07. Reversing 08. Overtaking 09. Negotiating Curve 10. Slowing, Stopping 11. Starting In Traffic 12. Leaving Roadside 13. Stopped/Parked Legally 14. Stopped/Parked Illegally 15. Swerving To Avoid Collision 16. Run-Away Or Roll Away Vehicle 21. Unspecified Manoeuvre 22. Other UU, Unknown	48. DRIVER ACTION 21. Following Too Closely 22. Distracted, Inattentive 23. Driving Too Fast For Conditions 24. Improper Turning Or Passing 25. Fail To Yield Right-Of-Way 26. Disobeyed Traffic Control Device/ Police Officer 27. Driving On Wrong Side Of Road 28. Backing Unsafely 29. Lost Control 30. Driving Properly 31. Other UU, Unknown	68. PEDESTRIAN ACTION 01. Crossing Intersection With ROW 02. Crossing Intersection Without ROW 03. In Crosswalk 04. Crossing Roadway At Midblock 05. Walking On Roadway Against Traffic 06. Walking On Roadway With Traffic 07. On Sidewalk, Median, Safety Zone 08. Coming From Behind Parked Vehicle/Object 09. Coming From Behind Moving Vehicle 10. Running Into Roadway 11. Getting On/Off School Bus 12. Pushing Vehicle 13. Working On Vehicle 14. Playing On Road 15. Working On Road 16. Lying On Road 17. Not a Pedestrian 18. Other UU, Unknown	INDEPENDENT WITNESSES Last Name First Name Address Home Phone Work Phone Last Name First Name Address Home Phone Work Phone ADDITIONAL WITNESSES ON FILE? Yes No DESCRIPTION: Show Direction of Travel, Obstructions, Vehicle Movement, Travel Lane, Fixed Objects, Traffic Controls.
17. WEATHER CONDITION 1. Clear and/or Sunny 2. Overcast, Cloudy - No Precipitation 3. Raining 4. Snowing, Not Including Drifting Snow 5. Freeze, Rain, Sleet, Hail 6. Visibility Limitation (Eg. Fog, Smoke, Dust, Mist) 7. Strong Wind 8. Other 9. Unknown	25. ROAD CONDITION 1. Good 2. Potholes, Bumps, Ruts 3. Under Construction, Repair 4. Uneven 5. Worn 6. Obscured/Faded Markings 7. Other 8. Unknown	36. VEHICLE USE 01. Taxi 02. School Bus 03. Other Bus 04. Military 05. Police Cruiser 06. Other Police 07. Ambulance 08. Hearse 09. Tow Truck 10. Delivery Vehicle 11. Road Maintenance 12. Utilities Maintenance 13. Fire Response 14. No Special Use 15. Other UU, Unknown	44 - 46. VEHICLE EVENTS NON-COLLISION EVENTS: 01. Skidded Or Spun On Roadway 02. Ran Off Road 03. Overturned, Rollover 04. Jackknife Or Trailer Swing 05. Fire Or Explosion 06. Load Spill 07. Load Shift 08. Submersion 09. Other Non-Collision Event HIT MOVING OBJECTS: 11. Hit Moving Motor Vehicle 12. Hit Pedestrian 13. Hit Bicyclist 14. Hit Animal 15. Hit Train 16. Hit Another Moving Object HIT NON-MOVING OBJECTS: 21. Hit Parked Vehicle 22. Hit Non-Fixed Object 23. Hit Building 24. Hit Ditch 25. Hit Embankment, Dirt Pile, Rock 26. Hit Culvert, Drainage Structure 27. Hit Tree/Bush/Hedge 28. Hit Light/Utility Pole 29. Hit Curb 30. Hit Post 31. Hit Traffic Barrier 32. Hit Other Fixed Object, Part Of Road Structure 33. Hit Other Fixed Object NOT Part Of Road Structure 34. Hit Other Type Fixed Object 35. NN, No 2nd or 3rd Event 36. Other UU, Unknown	49. VEHICLE FACTORS 41. Defective Brakes 42. Defective Steering 43. Defective Lights 44. Tire Blown Out 45. Unsecured Or Spilled Load 46. Oversized Load, Overload 47. Visibility Obstructed 48. Other Defective Parts 49. NN, No Defects 50. Other UU, Unknown	50. ENVIRONMENTAL FACTORS 51. Animal On Roadway 52. Road Surface Or Other Condition 53. Obstruction On Road 54. View Obstructed, Glare, Reflection 55. Weather Or Acts Of God 56. NN, No Environmental Factors 57. Other UU, Unknown	52. DANGEROUS GOODS CLASS 1. Explosives 2. Gases 3. Flammable Liquids 4. Flammable Solids, Spontaneous Combustibles 5. Oxidizers & Organic Peroxides 6. Poisonous & Infectious Substances 7. Radioactives 8. Corrosives 9. Misc. Dangerous Goods 10. Not a Commercial Vehicle 11. Other UU, Unknown
18. LIGHT CONDITION 1. Daylight 2. Dawn 3. Dusk 4. Darkness 5. Other 6. Unknown	26. ROAD ALIGNMENT 1. Straight And Level 2. Curved With Grade 3. Curved And Level 4. Curved With Grade 5. Top Of Hill/Gradient 6. Bottom Of Hill/Gradient 7. Other 8. Unknown	37. EMERGENCY USE 1. Yes 2. No 3. NN, Not an Emergency Vehicle 4. Other UU, Unknown	38. TRAILER TYPE 1. Recreational Trailer 2. Light Utility Trailer (Boat) 3. Commercial Full Trailer 4. One Semi-Trailer 5. Two Semi-Trailers, A-Train 6. Two Semi-Trailers, B-Train 7. Two Semi-Trailers, C-Train 8. Two Semi-Trailers, Connector Unknown 9. Three Semi-Trailers 10. NN, No Trailers 11. Other UU, Unknown	53. LOAD STATUS COMMERCIAL VEHICLES 1. Fully/Partially Loaded 2. Not Loaded 3. NN, Not a Commercial Vehicle 4. Other UU, Unknown	54. BLOOD ALCOHOL CONCENTRATION 000-500 BAC (mg%) of Driver 000. Not Tested, Driver/Pedestrian Dead, Alcohol Use Suspected 010. Not Tested Due To Injury, Alcohol Use Suspected 020. Not Tested - Other Reasons, Alcohol Use Suspected 998. No Alcohol Suspected NNN. Passenger UU, Unknown Dri 1 Dri 2 Ped 1 Ped 2 Ped 3 Ped 4	55. ROAD CLASSIFICATION I 1. Urban 2. Rural 3. Other UU, Unknown
19. ARTIFICIAL LIGHT CONDITION 1. No Artificial Light 2. Artificial Light - On 3. Artificial Light - Off 4. Other UU, Unknown	27. TRAFFIC CONTROL 01. Traffic Signals - Oper. 02. Traffic Signals - Flashing 03. Stop Sign 04. Yield Sign 05. Warning Sign 06. Pedestrian Crosswalk 07. Police Officer 08. School Guard, Flagman 09. School Crossing 10. Reduced Speed Zone 11. No Passing Zone Sign 12. Road Markings 13. School Bus Stopped/Lights Flashing 14. School Bus Stopped/Lights Not Flashing 15. Signals and/or Gates 16. Rail X-ing, Signs Only 17. Unspec. Control Device 18. No Control Present 19. Other UU, Unknown	39. USE OF HEADLIGHTS 1. No Headlights On/Not Equipped 2. Daytime Running Lights On 3. Headlights On 4. Parking Lights Only On 5. Fog Or Auxiliary Lights On 6. Other UU, Unknown	40. VEHICLE SPEED 000. Stopped In Traffic NNN. Parked NN. Road Tractor QQ. Other UU, Unknown	47. DRIVER/PEDESTRIAN CONDITION 01. Fatigued/Fell Asleep 02. Inexperience 03. Under Influence - Alcohol 04. Under Influence - Drugs 05. Sudden Illness, Lost Consciousness NN. Apparently Normal QQ. Other UU, Unknown	56. ROAD CLASSIFICATION II 1. Arterial 2. Collector 3. Local 4. Other (Parking Lot) 5. Unknown	56. ROAD CLASSIFICATION III 1. One-Way, 2-Lane 2. One-Way, Multi-Lane 3. Undivided, 2-Way, 2-Lane 4. Undivided, 2-Way, Multi-Lane 5. Divided, With Barrier 6. Divided, With Median 7. Divided, Type Unspecified 8. Other (Parking Lot) 9. Unknown
20. ROAD CLASSIFICATION I 1. Urban 2. Rural 3. Other UU, Unknown	28. POSTED SPEED LIMIT 000. Unknown 01. Passenger Car 02. Passenger Van 03. Light Utility Vehicle 04. Pickup Truck, To 4500 kg 05. Panel Cargo Van, To 4500 kg 06. Other Truck, Van, To 4500 kg 07. Unit Truck, > 4500 kg 08. Road Tractor 09. School Bus	41. VEHICLE SPEED 000. Stopped In Traffic NNN. Parked NN. Road Tractor QQ. Other UU, Unknown	42. DRIVER/PEDESTRIAN CONDITION 01. Fatigued/Fell Asleep 02. Inexperience 03. Under Influence - Alcohol 04. Under Influence - Drugs 05. Sudden Illness, Lost Consciousness NN. Apparently Normal QQ. Other UU, Unknown	57. ROAD CLASSIFICATION II 1. Arterial 2. Collector 3. Local 4. Other (Parking Lot) 5. Unknown	58. ROAD CLASSIFICATION III 1. One-Way, 2-Lane 2. One-Way, Multi-Lane 3. Undivided, 2-Way, 2-Lane 4. Undivided, 2-Way, Multi-Lane 5. Divided, With Barrier 6. Divided, With Median 7. Divided, Type Unspecified 8. Other (Parking Lot) 9. Unknown	59. ROAD MATERIAL 1. Asphalt 2. Concrete 3. Gravel 4. Earth, Dirt 5. Chip-Seal 6. Brick/Cobblestone 7. Wood 8. Steel Deck 9. Ice Road 10. Other 11. Unknown
21. ROAD CLASSIFICATION II 1. Arterial 2. Collector 3. Local 4. Other (Parking Lot) 5. Unknown	29. ROAD MATERIAL 1. Asphalt 2. Concrete 3. Gravel 4. Earth, Dirt 5. Chip-Seal 6. Brick/Cobblestone 7. Wood 8. Steel Deck 9. Ice Road 10. Other 11. Unknown	30. ROAD MATERIAL 1. Asphalt 2. Concrete 3. Gravel 4. Earth, Dirt 5. Chip-Seal 6. Brick/Cobblestone 7. Wood 8. Steel Deck 9. Ice Road 10. Other 11. Unknown	31. ROAD MATERIAL 1. Asphalt 2. Concrete 3. Gravel 4. Earth, Dirt 5. Chip-Seal 6. Brick/Cobblestone 7. Wood 8. Steel Deck 9. Ice Road 10. Other 11. Unknown	32. ROAD MATERIAL 1. Asphalt 2. Concrete 3. Gravel 4. Earth, Dirt 5. Chip-Seal 6. Brick/Cobblestone 7. Wood 8. Steel Deck 9. Ice Road 10. Other 11. Unknown	33. ROAD MATERIAL 1. Asphalt 2. Concrete 3. Gravel 4. Earth, Dirt 5. Chip-Seal 6. Brick/Cobblestone 7. Wood 8. Steel Deck 9. Ice Road 10. Other 11. Unknown	34. ROAD MATERIAL 1. Asphalt 2. Concrete 3. Gravel 4. Earth, Dirt 5. Chip-Seal 6. Brick/Cobblestone 7. Wood 8. Steel Deck 9. Ice Road 10. Other 11. Unknown
22. ROAD CLASSIFICATION III 1. One-Way, 2-Lane 2. One-Way, Multi-Lane 3. Undivided, 2-Way, 2-Lane 4. Undivided, 2-Way, Multi-Lane 5. Divided, With Barrier 6. Divided, With Median 7. Divided, Type Unspecified 8. Other (Parking Lot) 9. Unknown	23. ROAD MATERIAL 1. Asphalt 2. Concrete 3. Gravel 4. Earth, Dirt 5. Chip-Seal 6. Brick/Cobblestone 7. Wood 8. Steel Deck 9. Ice Road 10. Other 11. Unknown	24. ROAD MATERIAL 1. Asphalt 2. Concrete 3. Gravel 4. Earth, Dirt 5. Chip-Seal 6. Brick/Cobblestone 7. Wood 8. Steel Deck 9. Ice Road 10. Other 11. Unknown	25. ROAD MATERIAL 1. Asphalt 2. Concrete 3. Gravel 4. Earth, Dirt 5. Chip-Seal 6. Brick/Cobblestone 7. Wood 8. Steel Deck 9. Ice Road 10. Other 11. Unknown	26. ROAD MATERIAL 1. Asphalt 2. Concrete 3. Gravel 4. Earth, Dirt 5. Chip-Seal 6. Brick/Cobblestone 7. Wood 8. Steel Deck 9. Ice Road 10. Other 11. Unknown	27. ROAD MATERIAL 1. Asphalt 2. Concrete 3. Gravel 4. Earth, Dirt 5. Chip-Seal 6. Brick/Cobblestone 7. Wood 8. Steel Deck 9. Ice Road 10. Other 11. Unknown	28. ROAD MATERIAL 1. Asphalt 2. Concrete 3. Gravel 4. Earth, Dirt 5. Chip-Seal 6. Brick/Cobblestone 7. Wood 8. Steel Deck 9. Ice Road 10. Other 11. Unknown
23. ROAD MATERIAL 1. Asphalt 2. Concrete 3. Gravel 4. Earth, Dirt 5. Chip-Seal 6. Brick/Cobblestone 7. Wood 8. Steel Deck 9. Ice Road 10. Other 11. Unknown	24. ROAD MATERIAL 1. Asphalt 2. Concrete 3. Gravel 4. Earth, Dirt 5. Chip-Seal 6. Brick/Cobblestone 7. Wood 8. Steel Deck 9. Ice Road 10. Other 11. Unknown	25. ROAD MATERIAL 1. Asphalt 2. Concrete 3. Gravel 4. Earth, Dirt 5. Chip-Seal 6. Brick/Cobblestone 7. Wood 8. Steel Deck 9. Ice Road 10. Other 11. Unknown	26. ROAD MATERIAL 1. Asphalt 2. Concrete 3. Gravel 4. Earth, Dirt 5. Chip-Seal 6. Brick/Cobblestone 7. Wood 8. Steel Deck 9. Ice Road 10. Other 11. Unknown	27. ROAD MATERIAL 1. Asphalt 2. Concrete 3. Gravel 4. Earth, Dirt 5. Chip-Seal 6. Brick/Cobblestone 7. Wood 8. Steel Deck 9. Ice Road 10. Other 11. Unknown	28. ROAD MATERIAL 1. Asphalt 2. Concrete 3. Gravel 4. Earth, Dirt 5. Chip-Seal 6. Brick/Cobblestone 7. Wood 8. Steel Deck 9. Ice Road 10. Other 11. Unknown	29. ROAD MATERIAL 1. Asphalt 2. Concrete 3. Gravel 4. Earth, Dirt 5. Chip-Seal 6. Brick/Cobblestone 7. Wood 8. Steel Deck 9. Ice Road 10. Other 11. Unknown
24. ROAD MATERIAL 1. Asphalt 2. Concrete 3. Gravel 4. Earth, Dirt 5. Chip-Seal 6. Brick/Cobblestone 7. Wood 8. Steel Deck 9. Ice Road 10. Other 11. Unknown	25. ROAD MATERIAL 1. Asphalt 2. Concrete 3. Gravel 4. Earth, Dirt 5. Chip-Seal 6. Brick/Cobblestone 7. Wood 8. Steel Deck 9. Ice Road 10. Other 11. Unknown	26. ROAD MATERIAL 1. Asphalt 2. Concrete 3. Gravel 4. Earth, Dirt 5. Chip-Seal 6. Brick/Cobblestone 7. Wood 8. Steel Deck 9. Ice Road 10. Other 11. Unknown	27. ROAD MATERIAL 1. Asphalt 2. Concrete 3. Gravel 4. Earth, Dirt 5. Chip-Seal 6. Brick/Cobblestone 7. Wood 8. Steel Deck 9. Ice Road 10. Other 11. Unknown	28. ROAD MATERIAL 1. Asphalt 2. Concrete 3. Gravel 4. Earth, Dirt 5. Chip-Seal 6. Brick/Cobblestone 7. Wood 8. Steel Deck 9. Ice Road 10. Other 11. Unknown	29. ROAD MATERIAL 1. Asphalt 2. Concrete 3. Gravel 4. Earth, Dirt 5. Chip-Seal 6. Brick/Cobblestone 7. Wood 8. Steel Deck 9. Ice Road 10. Other 11. Unknown	30. ROAD MATERIAL 1. Asphalt 2. Concrete 3. Gravel 4. Earth, Dirt 5. Chip-Seal 6. Brick/Cobblestone 7. Wood 8. Steel Deck 9. Ice Road 10. Other 11. Unknown
25. ROAD MATERIAL 1. Asphalt 2. Concrete 3. Gravel 4. Earth, Dirt 5. Chip-Seal 6. Brick/Cobblestone 7. Wood 8. Steel Deck 9. Ice Road 10. Other 11. Unknown	26. ROAD MATERIAL 1. Asphalt 2. Concrete 3. Gravel 4. Earth, Dirt 5. Chip-Seal 6. Brick/Cobblestone 7. Wood 8. Steel Deck 9. Ice Road 10. Other 11. Unknown	27. ROAD MATERIAL 1. Asphalt 2. Concrete 3. Gravel 4. Earth, Dirt 5. Chip-Seal 6. Brick/Cobblestone 7. Wood 8. Steel Deck 9. Ice Road 10. Other 11. Unknown	28. ROAD MATERIAL 1. Asphalt 2. Concrete 3. Gravel 4. Earth, Dirt 5. Chip-Seal 6. Brick/Cobblestone 7. Wood 8. Steel Deck 9. Ice Road 10. Other 11. Unknown	29. ROAD MATERIAL 1. Asphalt 2. Concrete 3. Gravel 4. Earth, Dirt 5. Chip-Seal 6. Brick/Cobblestone 7. Wood 8. Steel Deck 9. Ice Road 10. Other 11. Unknown	30. ROAD MATERIAL 1. Asphalt 2. Concrete 3. Gravel 4. Earth, Dirt 5. Chip-Seal 6. Brick/Cobblestone 7. Wood 8. Steel Deck 9. Ice Road 10. Other 11. Unknown	31. ROAD MATERIAL 1. Asphalt 2. Concrete 3. Gravel 4. Earth, Dirt 5. Chip-Seal 6. Brick/Cobblestone 7. Wood 8. Steel Deck 9. Ice Road 10. Other 11. Unknown
26. ROAD MATERIAL 1. Asphalt 2. Concrete 3. Gravel 4. Earth, Dirt 5. Chip-Seal 6. Brick/Cobblestone 7. Wood 8. Steel Deck 9. Ice Road 10. Other 11. Unknown	27. ROAD MATERIAL 1. Asphalt 2. Concrete 3. Gravel 4. Earth, Dirt 5. Chip-Seal 6. Brick/Cobblestone 7. Wood 8. Steel Deck 9. Ice Road 10. Other 11. Unknown	28. ROAD MATERIAL 1. Asphalt 2. Concrete 3. Gravel 4. Earth, Dirt 5. Chip-Seal 6. Brick/Cobblestone 7. Wood 8. Steel Deck 9. Ice Road 10. Other 11. Unknown	29. ROAD MATERIAL 1. Asphalt 2. Concrete 3. Gravel 4. Earth, Dirt 5. Chip-Seal 6. Brick/Cobblestone 7. Wood 8. Steel Deck 9. Ice Road 10. Other 11. Unknown	30. ROAD MATERIAL 1. Asphalt 2. Concrete 3. Gravel 4. Earth, Dirt 5. Chip-Seal 6. Brick/Cobblestone 7. Wood 8. Steel Deck 9. Ice Road 10. Other 11. Unknown	31. ROAD MATERIAL 1. Asphalt 2. Concrete 3. Gravel 4. Earth, Dirt 5. Chip-Seal 6. Brick/Cobblestone 7. Wood 8. Steel Deck 9. Ice Road 10. Other 11. Unknown	32. ROAD MATERIAL 1. Asphalt 2. Concrete 3. Gravel 4. Earth, Dirt 5. Chip-Seal 6. Brick/Cobblestone 7. Wood 8. Steel Deck 9. Ice Road 10. Other 11. Unknown
27. ROAD MATERIAL 1. Asphalt 2. Concrete 3. Gravel 4. Earth, Dirt 5. Chip-Seal 6. Brick/Cobblestone 7. Wood 8. Steel Deck 9. Ice Road 10. Other 11. Unknown	28. ROAD MATERIAL 1. Asphalt 2. Concrete 3. Gravel 4. Earth, Dirt 5. Chip-Seal 6. Brick/Cobblestone 7. Wood 8. Steel Deck 9. Ice Road 10. Other 11. Unknown	29. ROAD MATERIAL 1. Asphalt 2. Concrete 3. Gravel 4. Earth, Dirt 5. Chip-Seal 6. Brick/Cobblestone 7. Wood 8. Steel Deck 9. Ice Road 10. Other 11. Unknown	30. ROAD MATERIAL 1. Asphalt 2. Concrete 3. Gravel 4. Earth, Dirt 5. Chip-Seal 6. Brick/Cobblestone 7. Wood 8. Steel Deck 9. Ice Road 10. Other 11. Unknown	31. ROAD MATERIAL 1. Asphalt 2. Concrete 3. Gravel 4. Earth, Dirt 5. Chip-Seal 6. Brick/Cobblestone 7. Wood 8. Steel Deck 9. Ice Road 10. Other 11. Unknown	32. ROAD MATERIAL 1. Asphalt 2. Concrete 3. Gravel 4. Earth, Dirt 5. Chip-Seal 6. Brick/Cobblestone 7. Wood 8. Steel Deck 9. Ice Road 10. Other 11. Unknown	33. ROAD MATERIAL 1. Asphalt 2. Concrete 3. Gravel 4. Earth, Dirt 5. Chip-Seal 6. Brick/Cobblestone 7. Wood 8. Steel Deck 9. Ice Road 10. Other 11. Unknown

Appendix A3 – Brief Description of Fatal Collisions

The following is a brief description of the five fatal traffic collisions that took place in the Northwest Territories in 1999, resulting in seven fatalities.

RCMP Detachment	Date	Description
Fort McPherson	10-Apr	Pickup truck involved in single vehicle rollover on Km 122 of Highway #8. The vehicle was being driven at a high rate of speed by an alcohol-involved, unrestrained driver as it entered a curve. The driver was totally ejected and died at the scene. The three unrestrained passengers remained in the vehicle and sustained moderate injuries.
Yellowknife	31-Jul	Passenger car involved in single vehicle rollover at Km 35.6 on Highway#4. The young male driver, who had been drinking and was fully restrained, entered an "S" curve at a high rate of speed. The vehicle came to rest in a small lake. The driver and two passengers died as a result of drowning. Two other passengers sustained minor injuries.
Fort Resolution	10-Aug	Young, unhelmeted male cyclist was stunting when he lost control and was struck by delivery truck in alley. The cyclist sustained fatal injuries while the driver and passenger of the truck were not injured. The truck was found to have faulty brakes. Alcohol was not involved.
Paulatuk	18-Sept	All-terrain vehicle was being driven in community by an unhelmeted, alcohol-impaired male. Four passengers were riding on the vehicle, none of which were wearing helmets. The driver lost control and struck a utility pole. One of the passengers died at the scene while two other passengers were injured. The driver was not injured.
Fort Simpson	16-Dec	Female pedestrian was struck by pickup truck on Km 474 of Highway #1. The pickup truck was passing another vehicle under daylight conditions. The pedestrian died instantly while the driver of the pickup was not injured. Alcohol not involved.