# MINNESOTA 1982

# MOTOR VEHICLE CRASH FACTS

A COMPILATION OF STATISTICAL TABLES LISTING FATALITIES, INJURIES, AND PROPERTY DAMAGE RESULTING FROM MOTOR VEHICLE CRASHES AND ROADWAY ACCIDENTS IN MINNESOTA



# MINNESOTA 1982

MOTOR VEHICLE CRASH FACTS

OFFICE OF TRAFFIC SAFETY DEPARTMENT OF PUBLIC SAFETY 207 TRANSPORTATION BLDG. ST. PAUL, MINNESOTA 55155

# TABLE OF CONTENTS

INTR	ODUCŤ I	ON		. 1
PART	I SUM	1MARY	INFORMATION	. 3
	Table	1.01:	Crash, Fatality and Injury Rates, 1973-1982	. 5
	Table	1.02:	1982 Traffic Toll Compared With 1977-1981 Average	. 6
	Table	1.03:	Crashes, Injuries, Fatal Crashes, Fatalities by Month	. 6
	Table	1.04:	Fatal Crashes, All Crashes by Day of Week	. 7
	Figure	1.01:	Total Crashes by Time of Day	. 8
	Figure	1.02:	Fatal Crashes by Time of Day	. 8
	Table	1.05:	Crashes, Fatal Crashes by Time of Day and Day of Week	. 9
	Table	1.06:	Fatalities and Injuries by Type of Crash	
	Table	1.07:	Crashes, Killed and Injured by County for 1982 Compared With 1977-1981 Average	.11
	Table	1.08:	County Crash Report	.13
	Figure	1.03:	County Crash Report Minnesotans Killed/Injured in 1982	.15
	Table	1.09:	Location of Crashes by Population	.16
	Table	1.10:	Location of Crashes by Urban or Rural Area	.16
	Table	1.11:	Crashes by City Groups	. 17
	Table	1.12:	Crashes by Weather Conditions	.20
	Table	1.13:	Crashes by Light Conditions	.20
	Table	1.14:	Crashes by Road Surface Conditions	.21

	Tab1e	1.15:	Crashes by Road Design	21
	Table	1.16:	Road Mileage Summary	22
	Table	1.17:	Crashes by Type of Roadway	22
	Table	1.18:	Mileage and Crash Distribution by Type of Roadway	23
	Table	1.19:	Age and Sex of Fatalities	24
	Table	1.20:	Age and Sex of Injuries	25
	Table	1.21:	Age Distribution of Licensed Drivers and Their Involvement in Crashes	26
	Table	1.22:	Percentage of Licensed Drivers Involved in Crashes by Age Group	27
	Tab1e	1.23:	Age and Sex of Drivers in All Crashes	28
	Table	1.24:	Age and Sex of Drivers in Fatal Crashes	29
	Tab1e	1.25:	Driver License Summary By Age, 1973-1982	30
	Table	1.26:	Apparent Contributing Factors in Crashes	31
	Table	1.27:	Vehicle Movement in Multi-Vehicle Intersection Crashes	32
	Table	1.28:	Vehicle Movement in Multi-Vehicle Non-Intersection Crashes	33
	Table	1.29:	Motor Vehicle Registrations, 1978-1982	34
	Table	1.30:	Types of Vehicles in Crashes	35
PART	II PE	EDESTR	IAN INFORMATION	36
	Table	2.01:	Pedestrian Crashes, Injuries, Fatalities 1973-1982	37
	Table	2.02:	Pedestrian Crashes, Injuries, Fatal Crashes by Month	37
	Figure	2.01:	Pedestrian Inquiries by Time of Day	38

	Figure	2.02:	Pedestrian Fatalities by Time of Day	38
	Table	2.03:	Vehicle Movement in Pedestrian Crashes	39
	Table	2.04:	Age and Sex of Pedestrian Crashes	39
	Table	2.05:	Age and Sex of Pedestrians Injured	40
	Table	2.06:	Prior Action of Pedestrian Fatalities and Injuries	41
	Table	2.07:	Population of Location Where Pedestrian Crashes Occurred	42
PART	- III E	BICYCL	IST INFORMATION	43
				**:
	Table	3.01:	Bicycle-Involved Crashes, Injuries, Fatalities, 1973-1982	44
-	Table	3.02:	Bicycle Crashes, Injuries, Fatal Crashes by Month	44
	Figure	3.01:	Bicyclist Injuries and Fatalities by Time of Day	45
	Table	3.03:	Age and Sex of Bicyclist Injuries	46
	Table	3.04:	Age and Sex of Bicyclist Fatalities	46
	Table	3.05:	Prior Action of Bicyclist Fatalities and Injuries	47
	Table	3.06:	Population of Location Where Bicycle Crashes Occurred	
PART	IV MC	)TORCY(	CLE INFORMATION	48
	Table	4.01:	Motorcycle-Involved Crashes by Accident Type	49
	Table	4.02:	Motorcyclist Crashes, Injuries, Fatal Crashes, Fatalities by Month	50
	Table	4.03.	Motorcycle Accident Summary 1973_1982	51

	Table	4.04:	Age and Sex of Motorcyclist Fatalities	52
	Table	4.05:	Age and Sex of Motorcyclist Injuries	52
	Table	4.06:	Helmet Usage of Motorcyclist Fatalities and Injuries	53
	Table	4.07:	Population of Location Where Motorcycle Accidents Occurred	53
PAR	T V RA	ILROAD	INFORMATION	54
	Table	5.01:	Railroad Crossing Fatal Crashes, Fatalities, 1973-1982	55
	Table	5.02:	Railroad Crashes, Injuries, Fatal Crashes, Fatalities by Month	55
	Table	5.03:	Age and Sex of Railroad Fatalities and Injuries	56
	Table	5.04:	Railroad Crashes and Fatal Crashes By Time of Day5	56
	Table	5.05:	Railroad Crashes by County	57
	Table	5.06:	Railroad Crossing Crashes, 1980-1982	38
	Table	5.07:	Contributing Factors in Railroad Crossing Crashes	58
PAR	T VI SO	CHOOL 1	BUS INFORMATION	;9
	Table	6.01:	School Buses Involved in Crashes, 1973-1982	; C
	Table	6.02:	School Bus-Involved Crashes by Accident Type	51
	Table	6.03:	Age and Sex of School Bus Fatalities and Injuries6	52
	Table	6.04:	School Bus Crashes, Injuries, Fatal Crashes, Fatalities by Month6	52
	Table	6.05:	Population of Location Where School Bus Crashes Occurred	33
	Table	6.06	School Bus Crashes by Time of Day	;3

PART	VII	HOL I DAY	Y INFORMATION64
	Table		Holiday Accident Summary, 1975-198265
		7.02:	1982 Holiday Crashes Compared With Non-Holiday Periods
PART	VIII	YOUNG	DRIVER INFORMATION
	Table	8.01:	Number and Percent of Licensed Teenage Drivers, 1974-1981
	Table	8.02:	Comparison of Accident Types of Young Drivers69
	Table	8.03:	Comparison of Contributing Factors Cited in Crashes Based on Age of Driver Involved70
PART	IX H	IT-AND	-RUN ACCIDENTS71
	Table	9.01:	Hit-and-Run Crashes by Accident Type72
	Table	9.02:	Hit-and-Run Crashes by Time of Day73
PART	X AL	COHOĽ	INFORMATION74
	Table	10.01:	Drunken Driving in Minnesota, 1976-198275
	Table	10.02:	Accident Types of Fatal Crashes Compared With Fatal Crashes Involving an Alcohol-Positive Driver Fatality
	Table	10.03:	Age of Persons Killed and Injured in Accidents Where a Driver Had Been Drinking77
	Table	10.04:	Drinking Driver Fatality Summary, 1973-198278
	Table	10.05:	Driver Fatalities' Level of Intoxication by Age79

	Table 10.06:	Driver Fatalities' Level of Intoxication by Month80
	Table 10.07:	Driver Fatalities' Level of Intoxication by Road Type81
	Table 10.08:	Driver Fatalities' Level of Intoxication by Time of Day82
	Table 10.09:	Drinking Pedestrian Fatality Summary, 1973-198283
	Table 10.10:	Pedestrian Fatalities' Level of Intoxication by Age84
	Table 10.11:	Pedestrian Fatalities' Level of Intoxication by Month85
	Table 10.12:	Pedestrian Fatalities' Level of Intoxication by Road Type86
	Table 10.13:	Pedestrian Fatalities' Level of Intoxication by Time of Day87
PAR <sup>-</sup>	T XI SEAT BEI	LT INFORMATION88
	Table 11.01:	Seat Belt Usage of Fatalities and Injuries Cars Only89
	Table 11.02:	Injury Severity of Children

#### INTRODUCTION

The 1982 edition of Minnesota Motor Vehicle Crash Facts has been produced by the Office of Traffic Safety, Minnesota Department of Public Safety, in accordance with Minnesota Statutes, Section 169.10. The information presented is derived from accident reports submitted by citizens and law enforcement agencies for motor vehicle crashes involving death, personal injury, or property damage of \$500 or more.

In 1982, 581 people were killed and 38,692 were injured in 89,443 crashes throughout the state. Over three million vehicles traveled 28.5 billion miles on our state's roadways. During 1982 2,813,391 people held Minnesota driving licenses.

The total economic loss resulting from motor vehicle accidents in Minnesota was well over three hundred million dollars. This figure is calculated from costs estimated for 1981 by the National Safety Council for fatalities, injuries, and damage resulting from fatal, personal injury and property damage crashes.

The total dollar value is determined as follows:

581	Deaths	0	\$190,000	=	\$110,390,000
5,776	Incapacitating Injuries	0	15,400	=	88,950,400
15,579	Non-incapacitating Injuries	0	4,700	=	73,221,300
17,337	Possible Injuries	0	1,100	=	19,070,700
62,337	Accidents	0	1,200	=	74,804,400
					<del>, , , , , , , , , , , , , , , , , , , </del>

Total = \$366,436,800

This estimate is based on the calculable costs of wage loss, medical expenses, insurance costs, and property damage.

This report is divided into eleven parts. The first examines the crashes, vehicles, and drivers; the other review pedestrians, motorcycles, holidays, and other selected features of motor vehicle crashes.

	6.0
	1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

#### PART I

#### SUMMARY INFORMATION

Traffic fatalities, the most commonly used measure of Minnesota's success or failure in the area of traffic safety, have been declining steadily for the past four years. In 1982, the number of fatalities dropped to 581, nearly 400 below the 1978 figure of 980. 1982 showed significant improvement over 1981, with 182 fewer people killed, 5,047 fewer people injured, and 8,436 fewer accidents. These improvements occurred despite relatively constant numbers of registered vehicles and miles traveled within the state, and despite an increase in the number of licensed drivers.

Nationwide, a common index of a state's progress in the area of traffic safety is the fatality rate per hundred million vehicle miles traveled. In 1982, Minnesota's fatality rate was 2.04 (meaning slightly more than 2 people were killed in traffic crashes for every 100,000,000 miles traveled in the state). This figure is almost half of what the rate was ten years ago, and is the lowest ever achieved in Minnesota. In comparison, the national fatality rate was 2.95.

It is impossible to isolate a single factor which was responsible for the dramatic improvement in Minnesota's traffic fatality figures, but it is possible to describe the areas in which improvements were made or changes were noted.

There was a substantial reduction in the percentage of accidents which occurred during time periods which are generally regarded as the most dangerous. For example, in 1981, 18% of the fatal accidents happened on a Friday; in 1981, only 13% of the fatal accidents occurred on Fridays. Night hours are also considered to be particularly risky in terms of traffic safety. In 1981, 42% of the fatal accidents happened between 9:00 pm and 3:00 am; in 1982, only 33% of the fatal accidents occurred in this time period. Friday and Saturday night time hours also showed a remarkable improvement. In 1981, 20% of the fatal crashes occurred on a Friday or Saturday between 9:00 pm and 3:00 am; in 1982, the percentage of accidents happening on these days during that time period was reduced to 13%.

In terms of the types of accidents that occurred, there was a reduction in the numbers of collisions with fixed objects and overturn accidents. These are single vehicle accidents, and are often associated with high speeds and/or drinking. In 1981, 37% of the fatal accidents were in this category; in 1982, 33% of the fatal accidents were in this category.

The City of Minneapolis, Minnesota's largest city, experienced a phenomenal reduction in traffic fatalities in 1982. In 1981, 50 fatalities were recorded in Minneapolis; in 1982, there were 23, a reduction of 54%.

There was a significant decrease in the number of young people who were killed and injured in traffic crashes. The number of people age 15-24 who were killed went from 294 in 1981 to 195 in 1982, a 34% reduction. The number of people in this age group who were injured went from 17,089 to 14,112, a 17% reduction.

Overall, there were 24 fewer pedestrians killed and 21 fewer motorcyclists who died. 116 fewer drivers died (a 27% reduction). Significantly, of those driver fatalities who were tested to determine their blood alcohol content, 54% had been drinking (down from 62% in 1981), and 48% were legally drunk (down from 52% in 1981).

All these factors, plus others which are less readily identified from the accident data, combined to produce a remarkable year for traffic safety in Minnesota during 1982.

TABLE 1.01
CRASH, FATALITY AND INJURY RATES, 1973-1982

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
Traffic Crashes	107,956	102,964	123,206	116,390	119,754	118,833	120,633	103,612	97,879	89,443
Traffic Fatalities	1,024	852	777	809	856	980	881	863	763	581
Traffic Injuries	42,772	39,537	41,931	41,580	45,200	50,332	49,604	45,227	43,739	38,692
Registered Motor Vehicles	2.51	2.67	2.69	2.92	2.77	2.90	3.00	3.01	3.09	3.01
(Millions of Vehicles) Licensed Drivers	2.38	2.44	2.51	2.57	2.63	2.64	2.67	2.71	2.77	2.81
(Millions of Drivers) Vehicular Miles Traveled	25.2	24.6	25.6	27.0	28.1	28.8	29.0	28.5	28.6	28.5
(Billions of Miles) Fatality Rate Per Hundred	4.07	3.47	3.03	3.00	3.05	3.40	3.04	3.03	2.67	2.04
Million Vehicle Miles Traveled Fatality Rate Per 100,000	40.5	32.0	28.9	27.7	30.9	33.8	29.3	28.7	24.7	19.3
Registered Vehicles Fatality Rate Per 100,000	26.3	21.8	19.8	20.4	21.6	24.5	21.7	21.2	18.6	14.2
Population Injury Rate Per Hundred	170	161	164	154	161	175	171	159	153	136
Million Vehicle Miles Traveled Injury Rate Per 100,000	1,691	1,481	1,559	1,424	1,632	1,737	1,652	1,506	1,413	1,285
Registered Vehicles Injury Rate Per 100,000	1,098	1,009	1,068	1,049	1,144	1,256	1,222	1,111	1,067	944
Population Crash Rate Per Hundred	429	419	481	432	426	412	417	364	342	313
Million Vehicle Miles Traveled Crash Rate Per 100,000	4,265	3,862	4,580	3,980	4,323	4,100	4,018	3,446	3,163	2,972
Registered Vehicles Crash Rate Per 100,000 Population	2,770	2,628	3,143	2,936	3,032	2,965	2,971	2,546	2,387	2,181

TABLE 1.02

1982 TRAFFIC TOLL COMPARED WITH 1977-1981 AVERAGE

	1977-1981 Average	1982
Deaths	869	581
Injuries	46,820	38,692
Crashes	112,142	89,443
Registered Motor Vehicles (Millions)	2.95	3.01
Licensed Drivers (Millions)	2.68	2.81
Vehicle Miles Traveled (Billions)	28.6	28.5
Fatality Rate Per 100 Million Vehicle Miles Traveled	3.04	2.04

TABLE 1.03
CRASHES, INJURIES, FATAL CRASHES, FATALITIES BY MONTH

	All Crashes	Injuries	Fatal Crashes	Fatalities
January	12,055	3,473	20	22
February	8,508	2,742	23	24
March	6,721	2,562	24	30
April	5,712	2,558	36	42
May	6,133	3,080	36	37
June	6,368	3,432	49	55
July	6,372	3,721	71	80
August	6,388	3,426	59	66
September	6,380	3,215	32	35
October	7,610	3,599	58	65
November	8,321	3,296	54	62
December	8,875	3,588	52	63
Total	89,443	38,692	514	581

TABLE 1.04

FATAL CRASHES, ALL CRASHES BY DAY OF WEEK

Day	Fatal Crashes	All Crashes
Sunday	88	10,633
Monday	<b>61</b> ~÷	12,366
Tuesday	75	11,903
Wednesday	68	12,330
Thursday	51	12,497
Friday	65	15,571
Saturday	106	14,143
Total	514	89,443

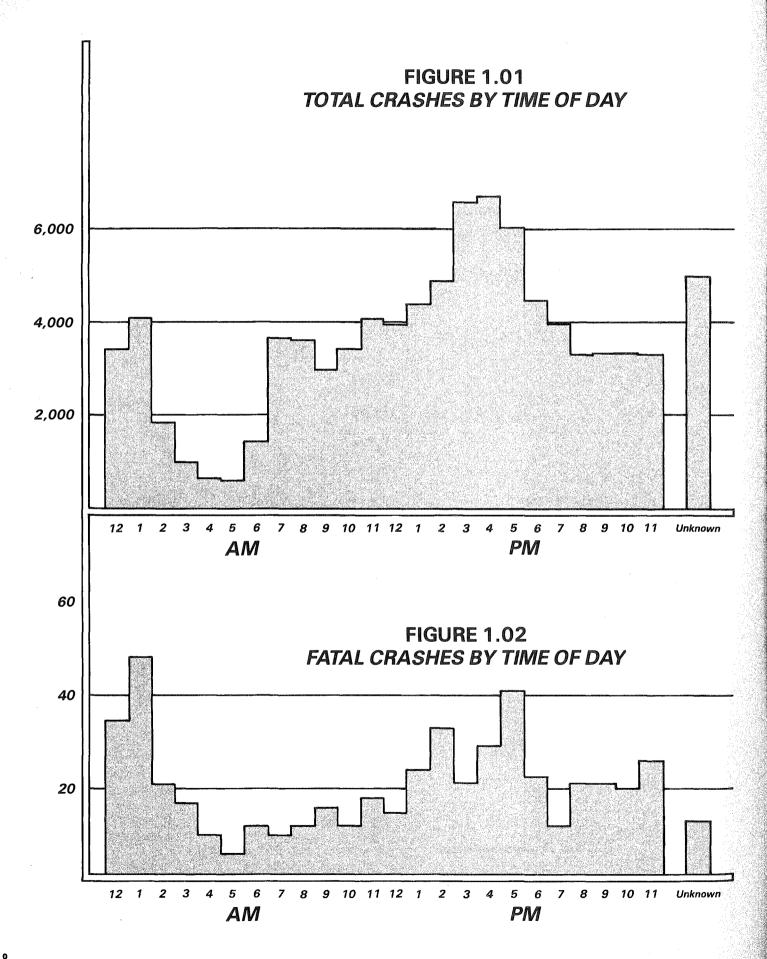


TABLE 1.05

CRASHES, FATAL CRASHES BY TIME OF DAY AND DAY OF WEEK

Hour	Total	Crashes	. Mon	day	Tue	sday	Wedn	esday	Thu	ırsday	Fr	iday	Sat	urday	Su	ındav
Beginning	All	Fatal	A11	Fatal	A11	Fatal	A11	Fatal	A11			Fatal		Fatal		Fatal
Midnight	3,476	35	408	4	305	3	343	4	379	6	500	3	835	9	706	6
1:00	4,042	47	190	2	270	3	338	4	403	2	582	6	1,211	18	1,048	12
2:00	1,877	21	99	1	129	1	125	0	170	6	238	1	588	7	528	5
3:00	942	17	53	0	52	0	60	1	61	Ō	146	3	264	8	306	5
4:00	680	10	51	1	43	0	48	0	54	Ö	93	ĭ	177	5	214	3
5:00	653	6	57	0	104	0	79	0	77	Ö	95	ō	109	ĭ	132	5
6:00	1,446	12	230	4	303	4	240	1	204	Ŏ	214	ĭ	151	ō	104	2
7:00	3,674	10	660	2	789	3	717	2	617	ŏ	596	2	201	Ŏ	94	ī
8:00	3,612	12	637	2	670	4	625	4	627	Ŏ	598	2	293	Ŏ	162	ō
9:00	2,919	16	478	1	413	3	460	5	436	4	454	ō	425	2	253	ĭ
10:00	3,372	12	538	2	439	Ö	459	0	456	i	543	Ŏ	541	3	396	6
11:00	4,121	18	659	4	540	4	576	Ŏ	535	2	632	2	769	4	410	2
Noon	3,923	15	586	i	471	Ó	553	3	560	2	616	4	652	i	485	4
1:00	4,382	24	671	4	576	5	600	4	570	1	731	2	725	5	509	3
2:00	4,894	33	806	4	626	4	681	6	672	4	896	5	654	9	559	1
3:00	6,583	21	1,066	2	981	1	993	2	1,001	3	1,186	5	737	4	619	4
4:00	6,669	29	1,100	4	1,082	3	1,001	6	1,043	4	1,182	3	679	5	582	Ā
5:00	6,066	41	912	3	895	10	965	4	927	8	1,167	7	697	4	503	5
6:00	4,403	22	579	4	612	6	645	4	609	3	797	2	649	1	512	2
7:00	3,944	12	512	2	510	Ō	564	4	587	ŏ	719	1	580	i	472	4
8:00	3,316	21	418	4	355	Ğ.	476	1	478	ő	644	3	542	5.	403	2
9:00	3,267	21	409	5	403	5	418	2	477	ĭ	636	4	542	3	382	. ī
10:00	3,365	20	371	ĭ	385	4	420	3	467	ī	720	4	622	4	380	3
11:00	3,330	26	294	3	365	5	385	Š	454	ī	822	3	729	5	281	4
Not Stated	4,487	13	582	1	585	1	559	3	633	2	764	1.	771	2	593	3
Total	89,443	514	12,366	61	11,903	75	12,330	68	12,497	51	15,571	65	14,143	106	10,633	88

TABLE 1.06

FATALITIES AND INJURIES BY TYPE OF CRASH

Type of Crash	All Crashes	Fatal Crashes		Property Damage Crashes	Killed	Injured	Fatality Rate Per 1,000 Crashes
Collision With Other Motor Vehicle	56,744	236	15,911	40,597	287	25,181	5.1
Collision With Motor Vehicle In Other Roadway	229	0	47	182	0	73	0.0
Collision With							
Parked Motor Vehicle	9,493	9.4	1,043	8,441	9	1,269	.9
Collision With Railroad Train	164	5	73	86	7	92	42.7
Collision With Bicyclist	1,130	12	1,103	15	12	1,155	10.6
Collision With Pedestrian	1,374	69	1,299	6	73	1,398	53.1
Collision With Animal	2,606	1	193	2,412	1	238	.4
Collision With Fixed Object	11,840	95	4,020	7,725	100	5,303	8.4
Collision with Other Object	524	1	140	383	1	183	1.9
Overturn	4,227	73	2,292	1,862	76	3,248	18.0
Fire/Explosion	79	1	8	70	1	18	12.7
Submersion	44	4	11	29	5	16	113.6
Other	989	8	452	529	9	518	9.1
Total	89,443	514	26,592	62,337	581	38,692	6.5

TABLE 1.07

CRASHES, KILLED AND INJURED BY COUNTY

FOR 1982 COMPARED WITH 1977-1981 AVERAGE

	All Cra	shes	Kille	ed	Inju	red
County	Average 1977-1981	1982	Average 1977-1981	1982	Average 1977-1981	1982
Aitkin	270	215	6	3	133	95
Anoka	4,630	3,698	28	12	2,290	1,946
Becker	609	425	11	. 7	317	233
Beltrami	695	584	<i>∍</i> 8	7	284	264
Benton	662	551	. \11	4	322	283
Big Stone	158	111	2	2	52	59
Blue Earth	1,761	1,434	10	10	602	534
Brown	757	562	6	5	310	206
Carlton	566	425	8	3	251	169
Carver	892	823	13	8	482	412
Cass	389	333	10	3	204	190
Chippewa	303	207	6	4	118	97
Chisago	563	484	8	10	271	227
Clay	1,476	1,071	12	7	481	381
Clearwater	112	94	2	0	58	50
Cook	120	114	1	2	61	58
Cottonwood	249	208	4	3	99	81
Crow Wing	1,174	977	18	11	489	402
Dakota	4,931	4,110	38	25	2,305	1,968
Dodge	291	217	3	2	142	111
Douglas	737	571	8	7	333	253
Faribault	350	230	6	7	146	103
Fillmore	389	316	7	5	180	133
Freeborn	908	686	10	6	364	322
Goodhue	1,019	851	13	4	433	370
Grant	101	101	2	2	44	56
Hennepin	32,923	26,343	115	71	13,828	11,111
Houston	363	290	6	3	174	146
Hubbard	305	241	5	7	144	134
Isanti	406	374	6	6	225	188
Itasca	909	628	18	8	441	337
Jackson	284	206	3	1	118	88
Kanabec	206	171	5	4	110	58
Kandiyohi	1,013	862	12	8	387	396
Kittson	84	59	2	1	38	31
Koochiching	381	226	3	2	182	138
Lac Qui Parle	193	125	3	4	72	. 54
Lake	327	208	5	2	154	84
Lake Of The Woods	70	60	2	0	34	29
Le Sueur	558	455	4	2	232	177
Lincoln	128	98	2	2	54	52
Lyon	534	341	6	4	218	158
Mcleod	66	663	4	4	282	301
Mahnomen	94	77	2	2	46	42

# TABLE 1.07 (CONTINUED)

# CRASHES, KILLED AND INJURED BY COUNTY

# FOR 1982 COMPARED WITH 1977-1981 AVERAGE

	All Cra	shes	Kil.	led	Injur	ed
County	Average 1977-1981	1982	Average 1977-1981	1982	Average 1977-1981	1982
Marshall	 189	119	6	2	95	52
Martin	425	416	5	3 3	226	179
Meeker	444	381	6	3	182	148
Mille Lacs	421	299	7	9 8 3	209	124
Morrison	587	491	11	8	341	287
Mower	928	737	9	3	355	320
Murray	157	126	3	7	68	57
Nicollet	590	467	5	7	227	194
Nobles	503	430	4	2	190	157
Norman	136	90	4	1	50	29
Olmsted	2,669	2,218	17	11	1,059	1,022
Otter Tail	939	748	13	13	412	383
Pennington	385	249	3	9	155 175	138
Pine Pinestone	384 <b>22</b> 8	306 159	10 4	11	175 77	146 65
Pipestone Polk	833	613	12	1 6	336	268
	183	134	4	2	74	55
Pope Ramsey	17,557	13,778	54	41	6,022	5,033
Red Lake	85	63	2	2	34	33
Redwood	336	229	4	1	170	103
Renville	357	273	8	5	169	154
Rice	1,102	957	14	5	469	435
Rock	224	193	2	1	66	50
Roseau	180	139	4	ī	62	51
St Louis	5,041	3,644	52	38	1,920	1,484
Scott	1,096	1,015	11	10	533	<sup>520</sup>
Sherburne	610	602	10	11	319	325
Sibley	259	244	4	0	121	118
Stearns	3,087	2,514	29	14	1,288	1,090
Steele	794	560	4	3	292	221
Stevens	215	163	2	2	78	66
Swift	237	136	2	0	90	65
Todd	455	355	10	2	219	164
Traverse	83	63	1	3	33	36
Wabasha	461	392	6	5 1	204	195
Wadena	275	218	3		105	91
Waseca	395	319	5	5	154	158
Washington	2,386	2,129	28	10	1,110	1,022
Watonwan	272	213	3	1	100	104
Wilkin	216	188	3 11	5	85 406	96 272
Winona	1,274	1,053	11 16	6 17	496 606	373 473
Wright Yellow Medicine	1,173 217	1,028 167	4	17 3	606 100	473 81
TOTTOW PICUTOTIE	21/	107	4	J	100	01

TABLE 1.08

COUNTY CRASH REPORT

County	All Crashes	Fatal Crashes	Number Killed	Personal Injury Crashes	Injured	Property Damage Crashes
Aitkin	215	3	3	63	95	149
Anoka	3,698	12	12	1,324	1,946	2,362
Becker	425	5	7	158	233	262
Beltrami	584	6	7	178	264	400
Benton	551	4	4	178	283	375
Big Stone	111	2	2	38	59	71
Blue Earth	1,434		10	367	534	1,058
Brown	562	9 5 3	<sup>,</sup> 5	158	206	399
Carlton	425	3	3	113	169	309
Carver	823	7	8	285	412	531
Cass	333	3	3	122	190	208
Chippewa	207	4	4	65	97	138
Chisago	484	9	10	154	227	321
Clay	1,071	6	7	265	381	800
Clearwater	94	Ö	Ó	31	50	63
Cook	114	2	2	29	58	83
Cottonwood	208	2 3	3	48	81	157
Crow Wing	977	9	11	275	402	693
Dakota	4,110	25	25	1,323	1,968	2,762
Dodge	217	2	2	62	111	153
Douglas	571	6	7	161	253	404
Faribault	230	5	7	77	103	148
Fillmore	316	4		85	133	227
Freeborn	686	6	5 6	216	322	464
Goodhue	851	3	4	255	370	593
Grant	101	2	2	30	56	69
Hennepin	26,343	64	71	7,817	11,111	18,462
Houston	290	3	3	100	146	187
Hubbard	241	6	7	90	134	145
Isanti	374	6	6	126	188	242
Itasca	628	7	8	220	337	401
Jackson	206	1	1	65	88	140
Kanabec	171	3	4	38	58	130
Kandiyohi	862		8	251	396	603
Kittson	59	8 1	1	19	31	39
Koochiching	226	2	2	78	138	146
Lac Qui Parle	125	2	4	33	54	90
Lake	208	2 2	2	56	84	150
Lake Of The Woods	60	Ō	ō	21	29	39
Le Sueur	455	2	2	121	177	332
Lincoln	98	2 2	2	37	52	59
Lyon	341	4	4	101	158	236
Mcleod	663	4	4	199	301	460
Mahnomen	77	2	2	25	42	50

TABLE 1.08 (CONTINUED)

# COUNTY CRASH REPORT

County	All Crashes	Fatal Crashes	Number Killed	Personal Injury Crashes	Injured	Property Damage Crashes
Marshall Martin Meeker Mille Lacs Morrison Mower Murray Nicollet Nobles Norman Olmsted Otter Tail Pennington Pine Pipestone Polk Pope Ramsey Red Lake Redwood Renville Rice Rock Roseau St Louis Scott Sherburne Sibley Stearns Steele Stevens Swift Todd Traverse Wabasha Wadena Waseca Washington Watonwan Wilkin	119 416 381 299 491 737 126 467 430 90 2,218 748 249 306 159 613 134 13,778 63 229 273 957 193 139 3,644 1,015 602 244 2,514 560 163 136 355 63 392 218 319 2,129 213 188	2 2 3 6 8 3 4 5 2 1 9 1 1 8 9 1 6 1 3 7 2 1 5 5 1 1 3 0 2 2 4 1 3 1 3 1 3 1 3 1 3 1 3 1 3 1 3 1 3 1	2 3 3 9 8 3 7 7 2 1 11 13 9 11 1 6 2 41 2 1 5 5 1 1 1 3 8 10 10 11 10 10 10 10 10 10 10 10 10 10	40 120 106 87 167 225 33 145 114 20 696 251 94 86 42 176 44 3,671 2 70 95 286 34 32 1,000 338 211 84 736 147 48 48 116 22 125 62 100 684 696	52 179 148 124 287 320 57 194 157 29 1,022 383 138 146 65 268 55 5,033 33 103 154 435 50 51 1,484 520 325 118 1,090 221 66 65 164 36 195 91 158 1,022 102 102 102 103 103 103 103 103 103 103 103 103 103	77 294 272 206 316 509 89 317 314 69 1,513 486 147 211 116 431 89 10,070 40 158 173 666 158 106 2,614 669 382 160 1,765 410 113 88 237 39 263 155 216 1,435 143 123
Winona Wright Yellow Medicine	1,053 1,028 167	5 6 15 3	6 17 3	266 318 52	373 473 81	781 695 112

# FIGURE 1.03

# COUNTY CRASH REPORT MINNESOTANS KILLED/INJURED IN 1982

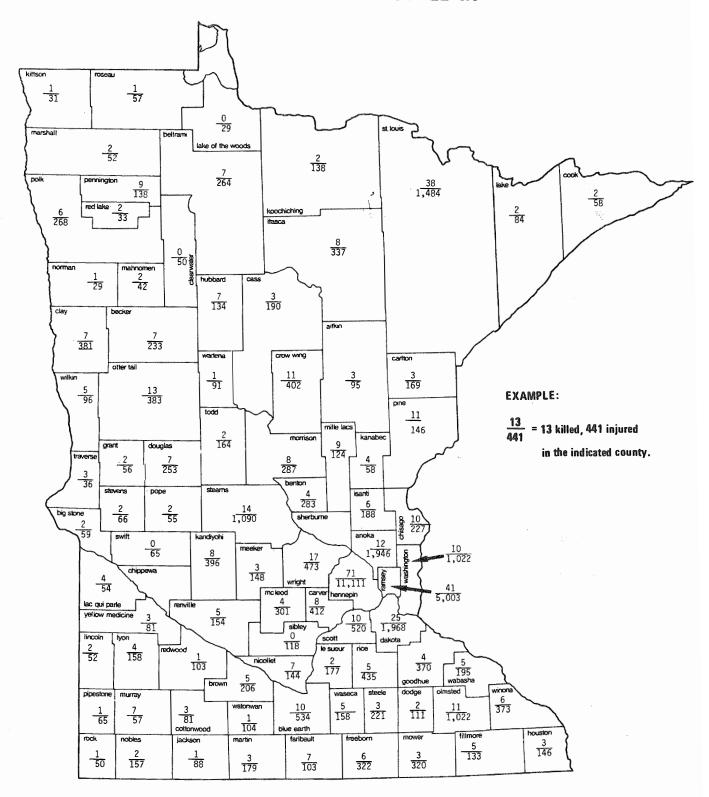


TABLE 1.09

LOCATION OF CRASHES BY POPULATION

Population	All Crashes	Fatal Crashes	Personal Injury Crashes	Property Damage Crashes
100,000 & Over	22,613	42	6,210	16,361
50,000- 99,999	5,507	12	1,603	3,892
25,000- 49,999	14,711	37	4,400	10,274
10,000- 24,999	13,963	41	3,994	9,928
5,000- 9,999	6,427	23	1,881	4,523
2,500- 4,999	4,759	15	1,266	3,478
1,000- 2,499	2,996	17	711	2,268
Under 1,000	18,467	327	6,527	11,613
Total	89,443	514	26,592	62,337

TABLE 1.10

LOCATION OF CRASHES BY URBAN OR RURAL AREA\*

		rashes Percent	Fatal C Number		Injury	onal Crashes Percent	Damage	Crashes
Urban	63,221	70.7	155	30.2	18,088	68.0	44,978	72.2
Rural	26,222	29.3	359	69.8	8,504	32.0	17,359	27.8

<sup>\*</sup>AN URBAN AREA IS ANY PLACE WITH A POPULATION OF 5,000 OR MORE

TABLE 1.11

## CRASHES BY CITY GROUPS

Gro	oup	City	All Crashes	Fatal Crashes	Number Killed	Personal Injury Crashes	Number Injured	Property Damage Crashes
Α.	Population 100,000 Or More	Minneapolis St. Paul	13,153 9,460	21 21	23 23	3,783 2,427	5,388 3,234	9,349 7,012
В.	Population	Apple Valley	333	0	0	87	115	246
	20,000-99,999	Austin	490	2	2	150	209	338
		Blaine	683	0	0	265	402	418
		Bloomington	2,419	5	5	720	1,031	1,694
		Brooklyn Center	778	5 2 5	2	262	375	514
•		Brooklyn Park	729	5	7	258	371	466
		Burnsville	833	4	4	298	462	531
		Coon Rapids	670 434	0	0	251	371	419
		Crystal Duluth	1,595	1 7	1 8	148 459	196 672	285 1,129
		Eagan	407	1	1	128	177	278
		Edina	76	1	1	233	325	526
		Fridley	727	3	3	259	376	465
		Golden Valley	865	3	3	258	361	604
		Hibbing	445	3	5	101	154	341
		Mankato	996	1	1	242	345	753
		Maple Grove	234	0	0	70	84	164
		Map1 ewood	846	6	6	235	349	605
		Minnetonka	867	1	1	270	360	596
		Moorhead	793	0	0	161	202	632
		New Brighton	288	1	1	76	98	211
		New Hope	354 627	0 5	0 5	94 176	133 258	260 446
		Plymouth Richfield	746	1	1	192	277	553
		Rochester	1,493	ō	Ō	424	579	1.069
		Roseville	908	2	3	244	355	662
		St. Cloud	1,493	3	3	406	596	1,084
		St. Louis Park	1,142	2	3	342	485	798
		So. St. Paul	388	1	1	114	156	273
		White Bear Lake	458	3	3	133	195	322
		Winona	679	0	0	158	215	521
С.	Population	Albert Lea	429	0	0	130	173	299
	10,000-19,999	Anoka	385	1	1	144	214	240
		Bemidji	357	0	0	86	126	271
		Brainerd	475	0	0	105	145	370

TABLE 1.11 (CONTINUED)

## CRASHES BY CITY GROUP

Gro	oup	City	All Crashes	Fatal Crashes	Number Killed	Personal Injury Crashes	Number Injured	Property Damage Crashes
С.	Population	Cloquet	209	0	0	50	69	159
	10,000-19,999	Columbia Heights	368	1	1	112	152	255
	•	Cottage Grove	264	3	3	76	112	185
		Eden Prairie	431	3	3	167	239	261
		Fairmont	239	0	0	58	86	181
		Faribault_	443	1	1	117	174	325
		Fergus Falls	252	1	2	73	92	178
		Hastings	278	0	0	78	99	200
		Hopkins	423	1	1	113	136	309
		Inver Grove Hgts.	370	1	1	137	209	232
		Lakeville	288	4	4	101	148	183
		Marshall	136	1	1	45	58	90
		Mounds'View New Ulm	200	0	0	67	98	133
		New UTM Northfield	305 181	0 0	0 0	82 45	103 62	223 136
		No. St. Paul	228	1	2	74	108	153
		No. St. Paul Oakdale	120	0	0	36	42	84
		Owatonna	309	0	0	63	80	246
		Ramsey	110	3	3	38	61	69
		Red Wing	341	ĭ	2	92	137	248
		Robbinsdale	323	Ō	Õ	94	125	229
		Shoreview	240	ĭ	ĭ	77	109	162
		Stillwater	265	ō	Ō	83	120	182
		Virginia	300	Ŏ	Ö	58	83	242
		W. St. Paul	392	2	2	117	183	273
		Willmar	535	1	1	136	194	398
		Woodbury	243	1	1	67	110	175
D.	Population	Alexandria	303	0	0	65	86	238
	5,000-9,999	Andover	113	0	0	34	53	79
	•	Arden Hills	288	1	1	93	152	194
		Champlin	153	1	2	60	96	92
		Chanhassen	177	1	2	61	82	115
		Chaska	176	0	0	55	70	121
		Chisholm	85	0	0	10	13	75
		Crookston	177	0	0	41	57	136
		Detroit Lakes	160	0	0	53	70	107
		East Bethel	67	0	0	23	40	44
		E. Grand Forks	214	0	0	59	90	155

TABLE 1.11 (CONTINUED)

## CRASHES BY CITY GROUP

Gro	up	City	All Crashes	Fatal Crashes	Number Killed	Personal Injury Crashes	Number Injured	Property Damage Crashes
D.	Population 5,000-9,999	Elk River Eveleth	192 105	2	3	78 27	125 40	112 78
	3,000-3,333	Falcon Heights	122	0	Ö	38	50	84
		Grand Rapids	215	1	1	46	65	168
		Ham Lake	115	0	0	42	65	73
		Hutchinson	245	1	1	57	76	187
		Int'l Falls	109	0	0	30	45	79
		Lake Elmo	86	0	0	29	43	57
		Litchfield	130	0	0	30	41	100
		Little Canada	363	1	1	98	135	264
		Little Falls	165	0	0	35	55	130
		Mendota Heights	246	3	3	76	121	167
		Montevideo	108	0	0	29	44	79
		Morris	105	0	0	23	29	82
		Mound	80	0	0	31	42	49
		No. Mankato	150	0	0	45	55	105
		Orono	176	2	2 3	57	75	117
		Prior Lake	111	0 2 2 0		42	69	67
		Redwood Falls	90		0	20	23	70
		Rosemount	151	0	0	59	90	92
		St. Anthony	94	1	1	25	37	68
		St. Peter	119	0	0	36	44	83
		Sauk Rapids	108	0	0	32	53	76
		Shakopee	344	1	2	102	141	241
		Spring Lake Park	112	1	1	33	49	78
		Thief River Falls	193	2	2	69	95	122
		Vadnais Heights Waseca	169 144	0 0	0 0	52 25	70 38	117 119

TABLE 1.12
CRASHES BY WEATHER CONDITION

Weather Condition	All Crashes	Fatal Crashes	Personal Injury Crashes	Property Damage Crashes
Clear	43,448	2.50% 272	13,631	29,545
Cloudy	24,815	156	7,819	16,840
Rain	7,139	29	2,264	4,846
Snow/Sleet	8,790	32	1,948	6,810
Fog	764	11	265	488
Other	1,066	10	286	770
Not Stated/ Unknown	3,421	4	379	3,038
Total	89,443	514	26,592	62,337

TABLE 1.13
CRASHES BY LIGHT CONDITION

Light Condition	All Crashes	Fatal Crashes	Personal Injury Crashes	Property Damage Crashes
Daylight	49,930 55.87	232	15,168	34,530
Dawn/Dusk	5,779	26	1,612	4,141
Darkness	29,753	253	9,381	20,119
Other/ Unknown	3,981	3	431	3,547
Total	89,443	514	26,592	62,337

TABLE 1.14
CRASHES BY ROAD SURFACE CONDITION

Road Surface Condition	All Crashes	Fatal Crashes	Personal Injury Crashes	Property Damage Crashes
Dry	46,068	379	15,967	29,722
Wet	14,550	71	4,648	9,831
Snow/Slush	4,883	19	1,117	3,747
Ice/Packed Snow	19,880	39	4,078	15,763
0ther	1,063	4	409	650
Not Stated/ Unknown	2,999	2	373	2,624
Total	89,443	514	26,592	62,337

TABLE 1.15
CRASHES BY ROAD DESIGN

Road Design	All Crashes	Fatal Crashes	Personal Injury Crashes	Property Damage Crashes
Freeway	5,958	37	1,797	4,124
Other Divided Highway	7,898	58	3,035	4,805
One-Way Street	1,942	7	769	1,166
4-6 Lanes Undivided Two-Way	l - 12,190	40	4,616	7,534
3 Lanes Undivided	336	4	119	213
2 Lanes Undivided - Two-Way	38,054	363	13,019	24,672
Alley/Driveway	800	1	180	619
Other	927	2	279	646
Not Stated/Unknown	21,338	2	2,778	18,558
Total	89,443	514	26,592	62,337

TABLE 1.16
ROAD MILEAGE SUMMARY

Type Of Roadway	Miles Of Roadway	Percent
Interstates	873	.7
Trunk Highways	11,248	8.6
County State Aid Highways	29,996	22.9
County Roads	15,254	11.6
Township Roads	55,327	42.2
Local Streets	15,371	11.7
Other Roads	2,952	2.3
Total	131,021	100.0

TABLE 1.17
CRASHES BY TYPE OF ROADWAY

Type Of Roadway	All Crashes	Fatal Crashes	Personal Injury Crashes	Property Damage Crashes
Interstate	5,978	29	1,555	4,394
Trunk Highway	29,516	255	9,532	19,729
County State Aid Highway	18,849	141	6,578	12,130
County Road	1,985	28	776	1,181
Township Road	1,753	20	667	1,066
Local Street	29,937	40	7,243	22,654
Other Road	1,425	1	241	1,183
Total	89,443	514	26,592	62,337

TABLE 1.18

MILEAGE AND CRASH DISTRIBUTION BY TYPE OF ROADWAY

Type of Roadway	Percent of Road Mileage	Percent of Vehicle Mileage	Percent of All Crashes	Percent of Fatal Crashes
Interstates	.7	16.5	6.7	5.6
Trunk Highways	8.6	40.9	33.0	49.6
County State A Highways	Aid 22.9	21.7	, 21.1	27.4
County Roads	11.6	2.6	2.2	5.4
Township Roads	42.2	2.5	2.0	3.9
Local Streets	11.7	15.7	33.5	7.8
Other Roads	2.3	.1	1.6	.2

TABLE 1.19

AGE AND SEX OF FATALITIES

Age Group	Male	Female	Total
0- 4	10	7	17
5- 9	15	2	17
10-14	9	5	14
15-19	57	22	79
20-24	84	32	116
25-29	52	13	65
30-34	38	5	43
35-39	26	8	34
40-44	17	5	22
45-49	10	9	19
50-54	9	5	14
55-59	18	6	24
60-64	8	8	16
65-69	17	8	25
70-74	10	- 5	15
75 & Over	30	22	52
Not Stated	2	7	9
Total	412	169	581

TABLE 1.20

AGE AND SEX OF INJURIES

Age Group	Male	Female	Not Stated	Total
0- 4	502	433	1	936
5- 9	664	522	0	1,186
10-14	771	736	2	1,509
15-19	3,962	3,152	3	7,117
20-24	4,046	2,949	, 0	6,995
25-29	2,574	2,003	0	4,577
30-34	1,766	1,523	0	3,289
35-39	1,117	1,105	0	2,222
40-44	773	755	0	1,528
45-49	590	621	3	1,214
50-54	617	614	1	1,232
55-59	545	594	2	1,141
60-64	402	502	0	904
65-69	334	394	0	728
70-74	251	340	0.	591
75 & Over	355	470	0	825
Not Stated	848	1,078	772	2,698
Total	20,117	17,791	784	38,692

TABLE 1.21

AGE DISTRIBUTION OF LICENSED DRIVERS

AND THEIR INVOLVEMENT IN CRASHES

Age Group	Percent of Licensed Drivers	Percent of Drivers in Fatal Crashes	Percent of Drivers in All Crashes
15-19	9.0	11.8	14.2
20-24	13.7	18.0	17.1
25-29	13.1	14.6	12.3
30-34	11.7	10.8	9.4
35-39	9.4	6.6	6.6
40-44	7.5	5.0	4.9
45-49	6.2	4.3	3.7
50-54	6.0	4.4	3.4
55-59	5.9	3.9	3.2
60-64	5.4	2.1	2.6
65-69	4.6	2.5	1.9
70-74	3.5	2.9	1.5
75 & Over	4.0	4.8	1.9
Not Stated	0.0	8.4	17.4
Total	100.0	100.1	100.1

TABLE 1.22

PERCENTAGE OF LICENSED DRIVERS INVOLVED IN CRASHES BY AGE GROUP

Age Group	Percentage of the Licensed Drivers Who Were Involved In Crashes	Percentage of the Licensed Drivers Who Were Involved In Fatal Crashes
15 - 19	9.16	.04
20 - 24	7.22	.04
25 - 29	5.41	.03
30 - 34	4.62	.03
35 - 39	4.07	.02
40 - 44	3.74	.02
45 - 49	3.72	.02
50 - 54	3.31	.02
55 - 59	3.15	.02
60 - 64	2.82	.01
65 - 69	2.43	.02
70 - 74	2.44	.03
75 & 01der	2.70	.04
Total*	5.79	.03

These rates are calculated by comparing the number of drivers who were involved in crashes in each age category to the total number of licensed drivers in that same age group.

<sup>\*</sup> The total indicates the percentage of licensed drivers who were involved in crashes, regardless of age group.

TABLE 1.23

AGE AND SEX OF DRIVERS IN ALL CRASHES\*

Age Group	Male	Female	Not Stated	Total
15-19	15,979	7,521	62	23,562
20-24	19,008	9,230	88	28,326
25-29	13,585	6,682	69	20,336
30-34	10,095	5,374	77	15,546
35-39	7,113	3,837	40	10,990
40-44	5,242	2,790	26	8,058
45-49	4,055	2,000	15	6,070
50-54	3,851	1,798	17	5,666
55-59	3,685	1,653	17	5,355
60-64	2,986	1,357	18	4,361
65-69	2,207	959	12	3,178
70-74	1,609	807	10	2,426
75 & Over	2,213	900	14	3,127
Not Stated	8,493	3,762	16,663	28,918
Total	100,121	48,670	17,128	165,919

<sup>\*</sup>Most crashes involve more than one driver. For that reason, the total number of drivers involved in crashes and listed here will be greater than the total number of all crashes (which was 89,443 in 1982).

TABLE 1.24

AGE AND SEX OF DRIVERS IN FATAL CRASHES\*

Age Group	Male	Female	Not Stated	Total
15-19	78	26	1	105
20-24	126	34	1	161
25-29	110	19	1	130
30-34	78	18	0	96
35-39	51	8	0	59
40-44	41	4	0	45
45-49	28	10	0	38
50-54	25	14	0	39
55-59	31	4	0	35
60-64	13	6	0	19
65-59	17	5	0	22
70-74	20	6	0	26
75 & Over	31	12	0	43
Not Stated	32	12	31	75
Total	681	178	34	893

<sup>\*</sup>Most crashes involve more than one driver. For that reason, the total number of drivers involved in fatal crashes and listed here will be greater than the total number of fatal crashes (which was 514 in 1982).

TABLE 1.25

DRIVER LICENSE\* SUMMARY BY AGE, 1973-1982

	1973	1974	1975	1976	1977	1978	1979	1980	1981		1982	-
Age										Male	Female	Total
15-19	288,506 😘	290,620	l√6 300,906	307,481	315,138.	304,021	290,570	281,750	269,577 9	×5 134,574	122,577	257,151
20-24	347,893	356,806	366,037	373,524	381,161	381,377	385,831	391,310	395,496	202,506	190,042	392,548
25-29	295,193	309,647	326,743	341,678	347,358	343,112	350,879	360,167	369,236	193,649	182,385	376,034
30-34	236,114	243,925	249,022	263,080	278,622	285,395	299,790	317,137	329,488	172,439	163,746	336,185
35-39	191,902	196,270	202,558	209,903	221,252	229,247	235,994	240,789	257,450	139,000	131,169	270,169
10-44	179,544	179,361	178,964	181,150	183,921	186,793	190,213	196,020	204,317	111,488	104,041	215,529
45-49	183,932	181,799	181,586	180,661	178,614	173,818	173,194	172,813	175,196	92,410	84,933	177,343
50-54	173,896	177,473	178,987	178,916	179,266	176,922	174,754	173,760	173,361	89,998	81,350	171,348
55-59	160,738	160,332	161,616	155,747	166,771	165,288	167,712	168,986	169,120	90,075	79,686	169,761
50-64	135,037	138,223	141,978	145,464	146,736	147,428	147,381	148,512	152,104	81,978	72,290	154,268
55-69	106,488	109,932	113,363	115,327	117,955	118,899	121,295	124,469	128,310	69,915	60,696	130,611
70-74	75,788	79,335	82,527	85,428	86,494	87,833	90,064	92,061	95,385	53,954	45,481	99,435
75 & Older	80,248	86,548	95,318	94,665	93,383	96,487	97,741	98,499	106,857	69,909	45,755	115,664
Total	2,455,279	2,510,271	2,579,605	2,633,024	2,696,671	2,696,620	2,725,418	2,766,273	2,825,897	1,501,895	1,364,151	2,866,046

<sup>\*</sup>Includes Learner's Permits

TABLE 1.26
APPARENT CONTRIBUTING FACTORS IN CRASHES

Apparent Contributing Factors	All Crashes	Fatal Crashes	Personal Injury Crashes	Property Damage Crashes
Failure to Yield Right of Way	13,874	67	5,287	8,520
Illegal/Unsafe Speed	13,795	4 4 129	5,351	8,315
Following Too Closely	4,249	6	1,624	2,619
Disregard For Traffic Control Device	3,606	32	1,808	1,766
Driving Left of Roadway CenterNot Passing	2,266	68	892	1,306
Improper Passing/ Overtaking	1,831	18	490	1,323
Improper/Unsafe Lane Use	4,750	39	1,243	3,468
<pre>Improper Parking/ Starting/Stopping</pre>	1,328	3	366	959
Improper Turn	2,746	12	693	2,041
Unsafe Backing	1,453	1	134	1,318
No/Improper Signal	361	1	91	269
Impeding Traffic	395	0	151	244
Driver Inattention/ Distraction	22,363	134	8,541	13,688
Driver Inexperience	4,715	14	1,721	2,980
Physical Impairment	6,839	135	3,497	3,207
Vision Obscured	4,389	27	1,575	2,787
Defective Equipment	2,209	19	830	1,360
Pedestrian Violation/ Error	679	42	606	31
Other	1,887	19	761	1,107

TABLE 1.27

VEHICLE MOVEMENT IN MULTI-VEHICLE INTERSECTION CRASHES

Vehicle Movement	All Crashes	Fatal Crashes	Personal Injury Crashes	Property Damage Crashes
Entering at Angle	13,607	76	5,017	8,514
Same DirectionBoth Going Straight	2,013	2	711	1,300
SideswipePassing	787	0	147	640
Same DirectionOne Turning, One Straight	1,771	5	464	1,302
Same DirectionOne Stopped	3,686	2	1,594	2,090
Same DirectionAll Others	967	3	177	787
Head On	370	8	197	165
SideswipeMeeting	276	2	57	217
Opposite Direction One Left Turn, One Straight	3,888	13	1,477	2,398
Opposite Direction All Others	245	2	48	195
Backed Into	175	1	16	158
Not Stated	28	0	3	25
Total	27,813	114	9,908	17,791

TABLE 1.28

VEHICLE MOVEMENT IN MULTI-VEHICLE NON-INTERSECTION CRASHES

Vehicle Movement	All Crashes	Fatal Crashes	Personal Injury Crashes	Property Damage Crashes
Head On	907	76	534	297
Same DirectionBoth Going Straight	2,749	16	985	1,748
SideswipePassing	2,431	8	573	1,850
One Car Parked	7,809	9	981	6,819
One Car Stopped In Traffic	1,686	3	670	1,013
One Car Entering Parked Position	101	0	24	77
One Car Leaving Parked Position	613	0	68	545
One Car Entering Driveway Access	1,616	3	494	1,119
One Car Leaving Driveway Access	1,605	3	336	1,266
Backed Into	252	0	26	226
All Others	840	13	297	530
Not Stated	28	0	7	21
Total	20,637	131	4,995	15,511

TABLE 1.29
MOTOR VEHICLE REGISTRATIONS, 1978-1982

Type of Vehicle	1978	1979	1980	1981	1982
Passenger Cars	1,976,349	2,028,324	2,017,865	2,092,170	2,157,922
Pickup Trucks				410,349	464,801
Commercial Station Wagons	6,225	5,930	5,481	4,408	0
Farm Trucks	121,311	123,421	123,261	72,234	50,303
Gross Weight Trucks	534,996	565,855	573,472	216,965	51,926
Urban Zone Trucks	6,615	7,119	7,280	7,111	5,720
Commercial Zone Trucks				2	348
Minnesota Based Prorate Trucks	20,029	22,486	21,330	21,426	20,951
Recreational Vehicles	30,861	33,640	34,827	35,187	31,926
Motorcycles	151,016	156,552	157,815	166,151	159,345
Mopeds	2,385	7,877	12,056	13,955	14,725
School Buses	4,192	4,259	4,123	4,031	4,002
Buses	2,642	2,785	3,026	3,256	3,459
Tax Exempt Vehicles	41,408	43,919	46,169	47,694	48,732
Motor Vehicle Subtotal	2,898,029	3,002,167	3,006,705	3,094,939	3,014,160
Trailers	526,424	540,432	552,558	565,914	614,631
Collector's Items	17,978	20,165	23,092	26,579	30,569
Grand Total	3,442,431	3,562,764	3,582,355	3,687,432	3,659,360

TABLE 1.30

TYPES OF VEHICLES IN CRASHES\*

Motor Vehicle Type	All Crashes	Fatal Crashes	Personal Injury Crashes	Property Damage Crashes			
Passenger Car	124,838	498	35,909	88,431	Plant.		
Passenger Car & Trailer	110	1	17	92			
Truck Or Truck Tractor	20,658	145	5,577	14,936			
Truck Tractor and Semi-Trailer	2,826	46	734	2,046			
Truck Tractor and Twin Trailer	15	0	2	13			
Truck With Other Trailer	120	4	23	93			
Motorcycle	2,581	73	2,167	341			
Motorscooter/Motorbike	35	0	32	3			
Motorized Bike/Moped	96	0	90	6			
School Bus	737	2	163	572			
Bus	548	4	171	373			
Motorhome/Camper	307	7	80	220			
Snowmobile	86	1	53	32			
Farm Tractor or Equipment	210	6	81	123			
Taxicab	229	0	55	174			
Police Vehicle	360	2	122	236			
Fire Department Vehicle	31	0	12	19			
Ambulance	42	1	11	30			
Military Vehicle	14	0	5	9			
Road Maintenance Vehicle	179	1	41	137			
Hit-And-Run Vehicle	8,277	10	996	7,271			
Other	914	2	219	693			
Total	163,213	803	46,560	115,850			

<sup>\*</sup>Most crashes involve more than one vehicle. For that reason, the total number of vehicles involved in crashes and listed here is greater than the actual 1982 total number of crashes (which was 89,443) or fatal crashes (which was 514).

### PART II

#### PEDESTRIAN INFORMATION

Because they lack the armour-like protection of the vehicles which hit them, pedestrians are especially vulnerable to severe injury and death when they are involved in traffic crashes. This is demonstrated by the fatality rate per 1,000 crashes of 53.1 for pedestrian crashes; this compares with the very low rate of 6.5 fatalities per 1,000 crashes for accidents in general.

Despite the high degree of vulnerability, pedestrian fatalities have steadily declined over the past years. In 1982 there were 24 fewer pedestrians killed and 220 fewer pedestrians injured than in 1981. Despite this decrease, however, pedestrian fatalities continue to represent over 13% of the total fatality toll.

The age group with the most fatalities was the one which includes 15-19 year olds; nearly 20% of the pedestrians killed were in this age group. The next most affected age group was the elderly - people age 75 and older; over 15% of the fatalities were in this age group. The injury picture for pedestrians is slightly different. Over 21% of the injuries occur to children under age 10.

TABLE 2.01
PEDESTRIAN CRASHES, INJURIES, FATALITIES, 1973-1982

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
Pedestrian Crashes*	1,940	1,750	1,925	1,723	**	1,731	1,700	1,629	1,648	1,374
Pedestrians Injured	1,940	1,753	1,918	1,726	**	1,723	1,678	1,636	1,658	1,438
Pedestrians Killed	149	106	121	120	140	115	117	114	100	76

<sup>\*</sup>A "PEDESTRIAN CRASH" IS A CRASH IN WHICH THE FIRST OBJECT THAT WAS STRUCK BY A MOTOR VEHICLE WAS A PEDESTRIAN.

TABLE 2.02

PEDESTRIAN CRASHES, INJURIES, FATAL CRASHES, FATALITIES BY MONTH

Month	All Crashes	Injuries	Fatal Crashes	Fatalities
January	123	141	2	2
February	108	124	3	3
March	102	107	5	5
April	110	106	3	3
May	104	104	2	2
June	112	106	11	12
July	118	121	7	8
August	90	92	6	6
September	108	111	3	3
October	137	159	8	9
November	132	131	8	10
December	130	136	. 11	13
Total	1,374	1,438	69	76

<sup>\*\*</sup>PEDESTRIAN INJURY INFORMATION IS NOT AVAILABLE FOR 1977.

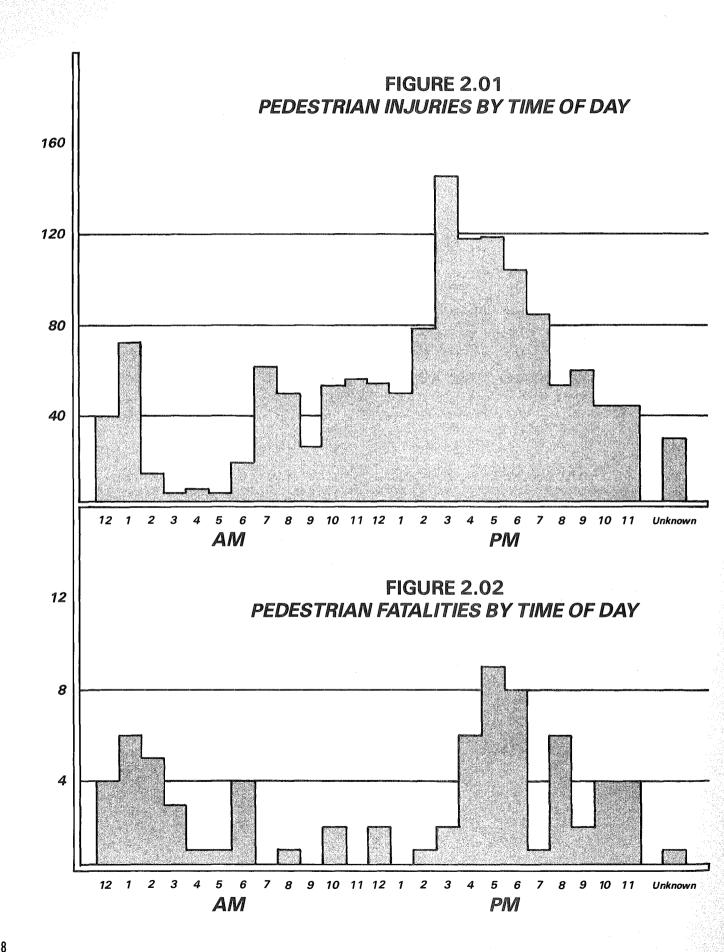


TABLE 2.03

VEHICLE MOVEMENT IN PEDESTRIAN CRASHES

Vehicle Movement	All Crashes	Fatal Crashes	Personal Injury Crashes	Property Damage Crashes
Car Going Straight	921	55	863	3
Car Turning Left	130	3	127	0
Car Turning Right	71	2	69	0
Car Backing	33	, 0	33	0
All Others	143	6	137	0
Not Stated	76	3	70	3
Total	1,374	69	1,299	6

TABLE 2.04

AGE AND SEX OF PEDESTRIAN FATALITIES

Age Group	Male	Female	Total
0- 4	2	0	2
5- 9	5	0	5
10-14	3	2	5
15-19	10	5	15
20-24	3	3	6
25-34	7	4	11
35-44	5	2	7
45-54	0	1	1
55-64	4	4	8
65-74	0	1	1.
75 & Over	6	6	12
Not Stated	0	3	3
Total	45	31	76

TABLE 2.05

AGE AND SEX OF PEDESTRIANS INJURED

Age Group	Male	Female	Total
0- 4	51	38	89
5- 9	147	74	221
10-14	73	75	148
15-19	100	85	185
20-24	99	63	162
25-34	127	85	212
35-44	52	31	83
45-54	37	27	64
55-64	27	36	63
65-74	18	31	49
75 & Over	23	50	73
Not Stated	47	42	89
Total	801	637	1,438

TABLE 2.06

PRIOR ACTION OF PEDESTRIAN FATALITIES AND INJURIES

Action	Number Killed	Number Injured
Crossing With Signal	3	193
Crossing Against Signal	3	88
Crossing In Crosswalk No Signal	2	76
Crossing No Crosswalk No Signal	25	335
Walking In Road With Traffic	10	65
Walking In Road Against Traffic	3	38
Standing In Road	<b>. 7</b>	82
Emerging From Front/Behind Parked Car	1	110
Child Getting On/Off School Bus	2	10
Getting On/Off Vehicle	0	17
Pushing/Working On Vehicle	2	11
Working In Road	1	5
Playing In Road	1	20
Not In Road	2	57
Other Pedestrian Action	8	195
Unknown	6	136
Total	76	1,438

TABLE 2.07

POPULATION OF LOCATION WHERE PEDESTRIAN CRASHES OCCURRED

Population	All Crashes	Fatal Crashes	Personal Injury Crashes	Property Damage Crashes
100,000 and Over	604	10	590	4
50,000 - 99,999	82	2	80	0
25,000 - 49,999	173	8	164	1
10,000 - 24,999	171	13	158	0
5,000 - 9,999	: 87	6	81	0
2,500 - 4,999	76	2	74	0
1,000 - 2,499	48	4	44	0
Under 1,000	133	24	108	1
Total	1,374	69	1,299	6

· 2017年 第二部 "自己是不是不是不是不是

#### PART III

# BICYCLE INFORMATION

Despite the fact that bicycling is becoming an increasingly popular means of transportation and recreation, Minnesota experienced a reduction in bicycle-motor vehicle accidents during 1982. Although the number of bicyclists killed in these accidents increased from 10 to 12, this number remains well below the average number of bicyclists killed over the last 10 years.

The section of the population which is most affected by these bicycle crashes is the young male group. In 1982, 68% of the bicyclists injured were male, and 71% of these were age 19 or younger. For fatal accidents, 92% of the bicyclists killed were male and of these, 64% were age 19 or younger.

An interesting pattern has been observed in bicycle accidents. Most of the accidents (79%) occur in urban areas having a population of 10,000 or higher. This seems reasonable because the increased numbers of bicyclists and motor vehicles should increase the likelihood of a collision. In contrast, most of the fatal accidents (67%) occur in rural areas having a population of 1,000 or less. This is possibly due to the higher speeds of the motor vehicles involved in the accident.

TABLE 3.01
BICYCLE-INVOLVED CRASHES, INJURIES, FATALITIES, 1973-1982

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
Bicycle Crashes*	1,301	1,350	1,302	1,217	**	1,154	1,060	1,276	1,255	1,130
Bicyclists Injured	1,197	1,246	1,202	1,114	**	1,105	993	1,295	1,213	1,105
Bicyclists Killed	17	16	23	21	24	23	14	19	10	12

<sup>\*</sup>A "BICYCLE CRASH" IS A CRASH IN WHICH THE FIRST OBJECT THAT WAS STRUCK BY A MOTOR VEHICLE WAS A BICYCLIST.

TABLE 3.02
BICYCLE CRASHES, INJURIES, FATAL CRASHES, FATALITIES BY MONTH

Month	All Crashes	Injuries	Fatal Crashes	Fatalities
January	2	1	, , , , , , , , , , , , , , , , , , ,	
February	8	7	1	1
March	20	20		or en
April	60	59		•
May	138	134	2	2
June	227	218	$\bar{3}$	<u>.</u>
July	212	208	1	ĺ
August	207	209	$ar{f 1}$	ī
September	129	119	$\bar{2}$	2
October .	97	98	$\bar{\mathbf{z}}$	2
November	24	24		
December	6	8		
Total	1,130	1,105	12	12

<sup>\*\*</sup>BICYCLIST INJURY INFORMATION IS NOT AVAILABLE FOR 1977.

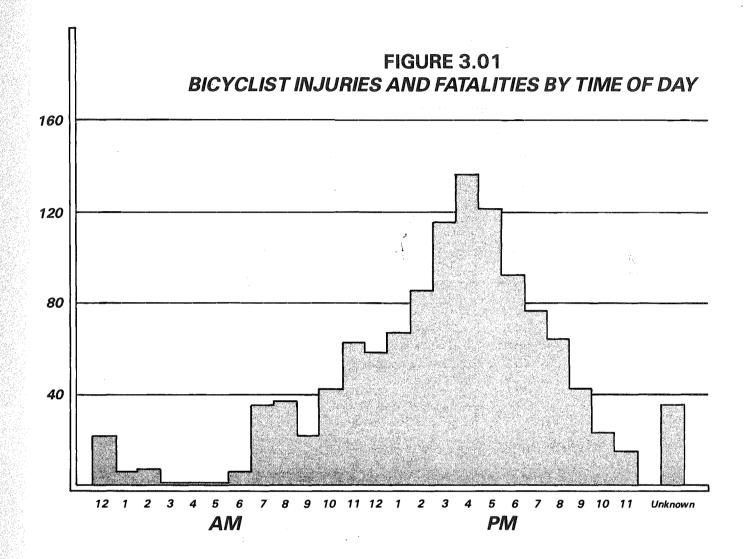


TABLE 3.03

AGE AND SEX OF BICYCLIST INJURIES

Age Group	Mal e	Female	Total
0- 4	10	3	13
5- 9	138	37	175
10-14	222	109	331
15-19	166	93	259
20-24	89	44	133
25-34	67	42	109
35 & Over	37	12	49
Unknown	24	12	36
Total	753	352	1,105

TABLE 3.04

AGE AND SEX OF BICYCLIST FATALITIES

Age Group	Male	Female	Total
0- 4	0	0	0
5- 9	4	1	5
10-14	1	0	1
15-19	2	0	2
20-24	0	0	0
25-34	0	0	0
35 & Over	4	0	4
Unknown	0	0	0
Total	11	1	12

TABLE 3.05

PRIOR ACTION OF BICYCLIST FATALITIES AND INJURIES

Action	Number Killed	Number Injured
Riding With Traffic	2	446
Riding Against Traffic	0	101
Making Left Turn	. 1	68
Making Right Turn	· 1 0	15
Making U Turn	0	4
Riding Across Road	6	258
Other	3	213
Total	12	1,105

TABLE 3.06

POPULATION OF LOCATION WHERE BICYCLE CRASHES OCCURRED

Population	All Crashes	Fatal Crashes	Personal Injury Crashes	Property Damage Crashes
100,000 and Over	385	1	378	6
50,000 - 99,999	73	0	73	0
25,000 - 49,999	222	1	217	4
10,000 - 24,999	209	0	205	4
5,000 - 9,999	61	1	60	0
2,500 - 4,999	<b>5</b> 9	0	5 <b>9</b>	0
1,000 - 2,499	32	1	31	0
Under 1,000	89	8	80	1
Total	1,130	12	1,103	15

#### PART IV

#### MOTORCYCLE INFORMATION

On April 7, 1977, Minnesota revised its motorcycle helmet law so that only persons who are under age 18 or who are operating a motorcycle with a learner's permit are required to wear a helmet. At that time, and as a result of significantly reduced helmet usage, motorcyclist fatalities increased significantly.

In the five years prior to the change in the helmet law, Minnesota had an average of 58 motorcyclist fatalities each year. Since repeal, however, Minnesota has had an average of 98 fatalities a year.

Fortunately, there has been a decline in the number of motorcyclists killed in the last two years. From an appallingly high figure of 121 in 1980, the number killed dropped to 96 in 1981 (a reduction of over 20%), and then to 72 in 1982 (a reduction of 25%).

The age group most at risk for motorcycle accidents appear to be the 20 to 24 year olds. This group made up 35% of the persons killed and 33% of the persons injured in motorcycle accidents.

TABLE 4.01

MOTORCYCLE-INVOLVED CRASHES BY ACCIDENT TYPE

	All Crashes	Fatal Crashes	Personal Injury Crashes	Property Damage Crashes
Collision With Other Motor Vehicle	1,366	34	1,113	219
Collision With Motor Vehicle In Other Road- Way	4	0	<b>3</b> \	, · · <b>1</b>
Collision With Parked Motor Vehicle	81	1	35	45
Collision With Railroad Trair	n 0	0	0	0
Collision With Bicyclist	25	0	25	0
Collision With Pedestrian	23	3	19	1
Collision With Animal	67	1	60	6
Collision With Fixed Object	270	18	234	18
Collision With Other Object	29	1	24	4
0verturn	541	12	504	25
Fire/Explosion	0	0	0	0
Submersion	1	0	1	0
Other/Unknown	111	2	97	12
Total	2,518	72	2,115	331

TABLE 4.02

MOTORCYCLIST CRASHES, INJURIES, FATAL CRASHES, FATALITIES BY MONTH\*

Month	All Crashes	Injuries	Fatal Crashes	Fatalities
January	3	0	0	0
February	10	6	0	0
March	25	19	0	0
April	200	174	6	6
May	351	342	10	10
June	452	433	5	6
July	586	571	. 17	16
August	409	384	24	23
September	306	305	5	6
0ctober	155	130	5	5
November	15	14	Ō	0
December	6	3	0	0
Total	2,518	2,381	72	72

<sup>\*</sup>This table does not include injuries or fatalities occurring in the accident other than those to the motorcyclists.

TABLE 4.03

MOTORCYCLE ACCIDENT SUMMARY, 1973-1982

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
Total Motorcycle-Involved Accidents	2,411	2,400	2,400	2,460	2,718	2,827	2,872	3,308	3,063	2,518
Fatal Motorcycle-Involved	_,	2, 100	2, 100	2, 100	2,710	L,0L/	2,072	0,000	0,000	2,010
Accidents	63	51	62	61	88	103	95	112	92	72
Personal Injury Motorcycle										
Involved Accidents	1,890	1,865	1,818	1,862	2,120	2,345	2,391	2,728	2,516	2,115
Persons Killed In Motorcycle										
Accidents:	65	54	72	62	94	107	98	122	96	76
Motorcyclists	63	51	63	57	94	106	97	121	96	72
Others	2	3	9	5	0	1	1	1	0	4
Persons Injured In	2,334	2,245	2,247	2,266	2,564	2,907	2,904	3,393	3,070	2,570
Motorcycle Accidents: Motorcyclists	2,334	2,245	2,247	2,200	2,504	2,907	2,904	3,359	2,874	2,370
Others	67	61	42	43	42	47	71	3,339	196	189
Number of Licensed	07	01	76	40	72	٦,	, -		150	103
Operators	55,377	91,024	127,081	152,138	172,223	184,545	201,075	222,330	238,926	246,134
Number of Registered		31,02	127,001	101,100	,	101,010		,	200,320	,
Motorcycles	119,227	138,193	136,256	143,237	151,763	151,016	156,552	157,815	166,151	159,345
Rates:										
Motorcyclist Injuries Per										
Motorcyclist Fatality	36.	0 42.	8 35.0	39.	0 26.	8 27.	0 29.	2 27.	8 29.	9 33.1
Total Injuries Per										
Fatality (All Vehicles)	41.	8 46.	4 54.0	51.	3 52.	51.	4 56.	3 52.	4 57.	3 66.6
Total Motorcycle Crashes Per					0 00				- ^^	A A A
Fatal Motorcycle Crash	38.	3 47.	1 38.7	7 40.	3 30.	9 27.	4 30.	2 29.	5 <b>33.</b>	3 35.0
Total Crashes Per Fatal	100	0 140	r 101 (	1.61	7 161	1 1 1 0	4 150 (	127	0 145	7 174 0
Crash (All Vehicles)	123.	0 140.	5 181.8	3 161.	7 161.	4 140.4	4 153.3	3 137.	8 145.	7 174.0
Fatalities Per 10,000 Motorcycle Registrations	5.	3 3.	7 4.6	5 4.	0 6.	2 7.0	0 6.2	2 7.	7 5.	8 4.5
Injuries Per 10,000	э.	J J.	, 4.0	, 4.	0.	_ /.\	0.4		, 3.	ਕ ਜ.ਬ
Motorcycle Registrations	190.	1 158.	0 161.8	3 155.	2 166.	2 189.	4 181.0	212.	8 173.	0 149.4

Helmet Law May 1, 1968 Eye Protection and Lights On Law August 1, 1975 Helmet Law Repeal April 7, 1977

TABLE 4.04

AGE AND SEX OF MOTORCYCLIST FATALITIES

Age Group	Male	Female	Total	
0- 4	0	0	0	
5- 9	1	0	1	
10-14	2	0	2	39 (31 99)
15-19	8	1	9	
20-24	20	5	25	
25-29	12	1	13	
30-34	12	0	12	
35-39	2	2	4	
40-44	2	0	2	
45 & Over	2	1	3	
Not Stated	1	0	1	
Total	62	10	72	

TABLE 4.05

AGE AND SEX OF MOTORCYCLIST INJURIES

Age Group	Male	Female	Not Stated	Total
0- 4	7	1	0	8
5- 9	8	7	0	15
10-14	52	14	0	66
15-19	429	76	0	505
20-24	683	112	0	795
25-29	355	45	0	400
30-34	198	26	0	224
35-39	94	15	0	109
40-44	60	3	0	63
45 & Over	92	7	0	99
Not Stated	51	23	23	97
Total	2,029	329	23	2,381

TABLE 4.06

HELMET USAGE OF MOTORCYCLIST FATALITIES AND INJURIES

Helmet Usage	Number Killed	Number Injured
Used	15	576
Not Used	48	800
Unknown	9	1,005
Total	72	2,381

TABLE 4.07

POPULATION OF LOCATION WHERE MOTORCYCLE ACCIDENTS OCCURRED

Population	All Crashes	Fatal Crashes	Personal Injury Crashes	Property Damage Crashes
100,000 and Over	446	9	355	82
50,000 - 99,999	120	2	106	12
25,000 - 49,999	371	10	302	59
10,000 - 24,999	431	6	379	46
5,000 - 9,999	193	1	169	23
2,500 - 4,999	138	3	107	28
1,000 - 2,499	79	3	64	12
Under 1,000	740	38	633	69
Total	2,518	72	2,115	331

#### PART V

#### RAILROAD INFORMATION

1982 was an especially good year in terms of the reduction in railroad grade crossing accidents. Fatalities resulting from these accidents dropped to 7, less than half of 1981's figure of 15 and the lowest number ever recorded. Railroad accidents in general dropped from 192 to 164, which represents a 15% reduction. Perhaps the biggest difference in the accident pattern was the reduction in nighttime accidents. In 1981, 55 of the railroad accidents happened between 9:00 pm and 3:00 am. In 1982, the number of accidents in this time period dropped to 38, a reduction of 30%.

The following are some highlights from 1982:

- \* 55% of the accidents occurred during the winter months of January, February, November, and December.
- \* 47% of the persons injured or killed were 24 years old or younger.
- \* 8 counties accounted for 42% of the accidents.
- \* Failure to yield the right-of-way and driver inattention were the most commonly cited contributing factors.

It is important to remember that the accident numbers reported in this book reflect those accidents which meet the Department of Public Safety's reporting requirements: that is, accidents which involve a fatality, injury, or property damage of \$500 or more. According to records kept by the Railroad Administration in the Department of Transportation, 31 additional property damage accidents occurred which were not reportable under these guidelines.

TABLE 5.01

RAILROAD CROSSING FATAL CRASHES, FATALITIES, 1973-1982

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
Fatal Crashes	22	26	19	12	22	25	23	12	13	5
Fatalities	29	29	21	14	26	34	32	15	15	7

TABLE 5.02

RAILROAD CRASHES, INJURIES, FATAL CRASHES, FATALITIES BY MONTH

Month	All Crashes	Injuries	Fatal Crashes	Fatalities
_		4.5	•	
January	35	15	Ü	0
February	17	8	0	0
March	15	7	1	1
April	10	7	0	0
May	5	7	.0	0
June	5	6	0	0
July	12	7	1	1
August	11	5	1	3
September	6	1	0	0
October	10	8	0	0
November	18	10	1	1
December	20	11	1	11
Total	164	92	5	7 .

TABLE 5.03

AGE AND SEX OF RAILROAD FATALITIES AND INJURIES

Age Group	F Male	atalitie Female	s Total	Injuries Male Female Total			
Age droup	Marc	1 Cilia i C	10 041	Mare	1 Cilia i C	10 641	
0- 4	1	0	1	1	0	1	
5 <b>-</b> 9	1	0	1	2	3	5	
10-14	0	0	0	0	0	0	
15-19	. 0	0	0	13	5	18	
20-24	0	1	1	15	5	20	
25-34	3	0	3	9	3	12	
35-44	0	0	0	4	6	10	
45-54	0	0	0	6	4	10	
55-64	1	0	1	3	3	6	
65-74	0	0	0	2	1	3	
75 & Over	0	0	0	2	0	2	
Not Stated	0	0	0	2	3	5	
Total	6	1	7	59	33	92	

TABLE 5.04

RAILROAD CRASHES AND FATAL CRASHES
BY TIME OF DAY

Time	All Crashes	Fatal Crashes
Midnight- 2:59 AM	17	1
3:00 AM- 5:59 AM	3	0
6:00 AM- 8:59 AM	21	1
9:00 AM- 11:59 AM	24	2
Noon- 2:59 PM	30	0
3:00 PM- 5:59 PM	25	0
6:00 PM- 8:59 PM	18	0
9:00 PM- 11:59 PM	21	1
Unknown	5	0
Total	164	5

TABLE 5.05

RAILROAD CRASHES BY COUNTY\*

County	Number of	Crashes
Hennepin	16	
Ramsey	11	
St. Louis	9	
Scott	9	
Freeborn	, 8	
Dakota	6	
Morrison	5	
Itasca	5	
All Others	95	- <del></del>
Total	164	

<sup>\*</sup> Counties listed individually are those with 5 or more crashes in 1982.

TABLE 5.06

RAILROAD CROSSING CRASHES, 1980 - 1982

	1980	1981	1982
Total Crashes	271	192	164
Fatal Crashes	12	13	5
Property Damage Crashes	204	124	86
Fatalities	15	15	7
Injuries	152	102	92

TABLE 5.07

CONTRIBUTING FACTORS IN RAILROAD CROSSING CRASHES

CONTRIBUTING FACTOR	NUMBER	PERCENT
No Improper Driving	32	9.4
Failure to Yield	59	17.4
Illegal/Unsafe Speed	11	3.2
Disregard for Traffic Control Device	37	10.9
Improper Lane Use	1	.3
Impeding Traffic	1	.3
Inattention	58	17.1
Inexperience	5	1.5
Physical Impairment	10	2.9
Vision Obscured	14	4.1
Defective Equipment	3	.9
Other Human Factor	1	.3
Unknown	108	31.8
Total	340	100.1

## PART VI

## SCHOOL BUS INFORMATION

For the second year in a row, the number of people killed in school bus accidents has been held at 2, roughly half the average for the previous ten years. In 1982, both the individuals killed were pedestrians.

January and February are the worst months for school bus crashes, with over 40% of the accidents happening in these months. February, September, and December have the highest number of injuries, with nearly 39% of the total injuries.

Not surprisingly, the worst time periods are from 6:00 am to 9:00 am - the early morning drive to school with 33% of the accidents - and from 3:00 pm to 6:00 pm - the after school drive home with 30% of the accidents.

TABLE 6.01

SCHOOL BUSES INVOLVED IN CRASHES, 1973-1982

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
School Buses Involved In Crashes	421	539	708	599	724	698	866	678	692	737
School Buses Involved In Personal Injury Crashes	116	148	154	119	162	166	187	171	161	163
School Buses Involved In Fatal Crashes	4	6	2	9	1	2	6	1	2	2

TABLE 6.02
SCHOOL BUS INVOLVED CRASHES BY ACCIDENT TYPE

Accident Type	All Crashes	Fatal Crashes	Personal Injury Crashes	Property Damage Crashes
Collision With Other Motor Vehicle	600	0	132	468
Collision With Motor Vehicle In Other Road Way	- 1	0	0 .1	1
Collision With Parked Motor Vehicle	83	0	5	78
Collision With Railroad Trai	n 0	0	0	0
Collision With Bicyclist	6	0	6	0
Collision With Pedestrian	12	2	10	0
Collision With Animal	0	0	0	0
Collision With Fixed Object	15	0	2	13
Collision With Other Object	4	0	1	3
0verturn	4	0	2	2
0ther	4	0	2	2
Total	729	2	160	567

TABLE 6.03

AGE AND SEX OF SCHOOL BUS FATALITIES AND INJURIES

	F	Fatalities		Injuries		
Age	Male	Female	Total	Male	Female	Total
0- 4			0	4	3	7
5- 9	1		1	15	20	35
10-14			0	15	18	33
15-19			0	21	28	49
20-24			0	13	7	20
25-34			0	19	13	32
35-44			0	9	8	17
45-54			0	10	4	14
55-64			0	10	5	15
65 & Over		1	1	3	8	11
Unknown			0	14	35	49
Total	1	1	2	133	149	282

TABLE 6.04

SCHOOL BUS CRASHES, INJURIES, FATAL CRASHES, FATALITIES BY MONTH

Month	All Crashes	Injuries	Fatal Crashes	Fatalities
January	184	29	0	0
February	111	33	1	1
March	81	22	1	1
April	40	19	0	0
May	64	24	0	0
June	14	18	0	0
July	11	14	0	0
August	10	4	0	0
September	50	31	0	0
0ctober	44	25	0	0
November	73	18	0	0
December	47	45	0	00
Total	729	282	2	2

TABLE 6.05

POPULATION OF LOCATION WHERE SCHOOL BUS CRASHES OCCURRED

Population	All Crashes	Fatal Crashes	Personal Injury Crashes	Property Damage Crashes
100,000 and Over	212	1	44	167
50,000 - 99,999	28	0	3	25
25,000 - 49,999	119	0	33	86
10,000 - 24,999	129	0	26	103
5,000 - 9,999	53	0	10	43
2,500 - 4,999	45	0	7	38
1,000 - 2,499	25	0	4	21
Under 1,000	118	1	33	84
Total	729	2	160	567

TABLE 6.06

SCHOOL BUS CRASHES BY TIME OF DAY

Time of Day	All Crashes	Fatal Crashes	Personal Injury Crashes	Property Damage Crashes
Midnight - 2:59 AM	11	0	1	10
3:00 AM - 5:59 AM	0	0	0	0
6:00 AM - 8:59 AM	237	0	51	186
9:00 AM - 11:59 AM	82	0	10	72
Noon - 2:59 PM	123	0	32	91
3:00 PM - 5:59 PM	219	2	49	168
6:00 PM '- 8:59 PM	22	0	. 7	15
9:00 PM - 11:59 PM	4	0	2	2
Unknown	31	0	8	23
Total	729	2	160	567

## PART VII

#### HOLIDAY INFORMATION

Because many people take advantage of the long weekends and use them to travel greater distances than they might during non-holiday periods, the number of accidents which occur during holiday periods continues to be of particular interest. Last year, the only holiday period that had more than the expected number of accidents was the New Year's holiday. In terms of fatal crashes and fatalities, however, both the Fourth of July and Thanksgiving were more dangerous than similar non-holiday periods. Over the Fourth of July holiday, 14 people died in traffic crashes, compared to the 5 that might be expected to die in a similar 78 hour period. Over the long Thanksgiving weekend, 11 people were killed, as compared to the 7 who might have died in a similar 102 hour period.

TABLE 7.01
HOLIDAY ACCIDENT SUMMARY, 1975-1982

		1101	TDAT AGGIL	2011111	111, 13/0 1	302		
	Year	Hours	Total Crashes	Fatal Crashes	Personal Injury Crashes	Property Damage Crashes	Killed	Injured
Memorial Day	1975 1976 1977 1978 1979 1980 1981 1982	78 78 78 78 78 78 78 78	871 875 854 1,030 775 693 876 548	11 7 8 13 8 8 9 6	286 281 258 343 307 316 298 215	574 587 588 674 440 369 569 327	13 7 8 14 9 9	503 471 406 616 469 465 470 333
July 4th	1975 1976 1977 1978 1979 1980 1981 1982	78 78 78 30 30 78 78	791 942 941 348 346 827 788 606	14 11 18 7 2 16 13	246 293 274 154 148 339 328 242	531 638 649 187 196 472 447 355	19 11 19 7 2 18 13 14	441 505 453 258 233 548 502 389
Labor Day	1975 1976 1977 1978 1979 1980 1981 1982	78 78 78 78 78 78 78 78	807 899 765 906 857 899 736 667	9 7 9 10 11 7 7	227 285 293 335 296 310 273 237	571 605 465 562 551 578 456 423	9 10 10 11 11 12 10 8	363 480 496 511 473 499 403 381
Thanksgiving	1975 1976 1977 1978 1979 1980 1981 1982	102 102 102 102 102 102 102 102	1,931 1,508 2,017 1,746 1,423 2,121 961 1,035	3 9 7 7 9 8 7 10	326 342 370 407 397 486 260 289	1,602 1,157 1,640 1,332 1,017 1,627 694 736	3 11 7 8 9 10 7 11	513 545 598 653 622 751 384 456
Christmas	1975 1976 1977 1978 1979 1980 1981 1982	30 78 78 78 78 30 30 78 54	481 619 882 982 204 206 893 471	1 5 3 6 2 5 7 1	86 136 212 225 46 46 211	394 478 667 751 161 155 675 358	1 6 3 7 2 5 8 1	130 232 373 371 70 82 323 177
New Year's	1975 1976 1977 1978 1979 1980 1981 1982	30 78 78 78 30 30 78 54	506 932 1,568 1,196 609 698 1,360 640	5 4 6 5 4 6 4 0	120 206 312 292 175 218 298 159	381 722 1,250 899 417 474 1,058	6 4 6 5 4 6 5 0	201 318 500 453 274 355 454 243

TABLE 7.02

1982 HOLIDAY CRASHES COMPARED WITH NON-HOLIDAY PERIODS

		Total C	nachoc	Fatal C	nachoc	Personal Injury		Injuries		itios
Holiday	Hours			Holiday /		Crashes	Holiday Average		Fatali Holiday	Average
Memorial Day 6:00 PM Friday, May 28 to Midnight Monday, May 31	78	548	809	6	5	215	333	367	6	5
July 4 6:00 PM Friday, July 2 to Midnight Monday, July 5	78	606	. 809	12	5	242	389	367	14	5
Labor Day 6:00 PM Friday, September 3 to Midnight Monday, September 6	78	667	809	7	5	237	381	367	8	5
Thanksgiving 6:00 PM Wednesday, November 24 to Midnight Sunday, November 28	102	1,035	1,078	10	6	289	456	483	11	7
Christmas 6:00 PM Friday, December 24 to Midnight Sunday, December 26	54	471	565	1	4	112	177	270	1	4
New Year's 6:00 PM Friday, December 31, 1982 to Midnight Sunday, January 2, 198	3 54	640	565	0	4	159	243	270	0	4

The average consists of the average number of accidents occurring in 1982 during periods of equal length on the same days of the week.

## PART VIII

## YOUNG DRIVER INFORMATION

Because of their relative inexperience in handling a motor vehicle, the accident experience of young drivers is an area of continuing interest. The percentage of the licensed driving population in Minnesota which is made up of young drivers (age 15-19) has been declining since 1977, and is now 9.0%. Young drivers are somewhat more likely than older drivers to have "illegal or unsafe speed" cited as a contributing circumstance when they are involved in accidents; in fatal crashes, they are more likely than older drivers to be cited for "failure to yield the right-of-way".

For more information on young drivers' accident experience, see Table 1.21 to Table 1.25 in PART I, and Tables 10.04 and 10.05 in PART X.

TABLE 8.01

NUMBER AND PERCENT OF LICENSED TEENAGE DRIVERS,

1974-1982

Year	Drivers 15-19	Drivers Over 19	Percent Of Drivers Who Are 15-19
1074	200 620	2 210 757	11.6
1974	290,620	2,219,757	11.6
1975	300,906	2,251,699	11.9
1976	307,481	2,334,543	11.6
1977	315,138	2,381,533	11.9
1978	304,021	2,392,599	11.3
1979	290,570	2,434,848	10.7
1980	281,750	2,484,282	10.2
1981	269,577	2,556,320	9.5
1982	257,151	2,608,895	9.0

TABLE 8.02

COMPARISON OF ACCIDENT TYPES OF YOUNG DRIVERS\*

Type of Accident		s Regardless river Age	Accidents In Was <u>At Least</u>	Which There <u>One</u> Young Driver	Accidents In Which <u>Every</u> Driver Was a Young Driver		
	Percent of All Crashes	Percent of Fatal Crashes	Percent of All Crashes	Percent of Fatal Crashes		Percent of Fatal Crashes	
Collision With Other Motor Vehicle	63.4	45.9	70.0	44.2	27.4	12.8	
Collision With Motor Vehicle In Other Roadway	.3	.0	.2	.0	.0	.0	
Collision With Parked Motor Vehicle	10.6	1.8	6.8	1.1	.3	.0	
Collision With Railroad Train	.2	1.0	.1	.0	.4	.0	
Collision With Bicyclist	1.3	2.3	1.2	3.2	.3	.0	
Collision With Pedestrian	1.5	13.4	1.2	18.9	.5	7.7	
Collision With Animal	2.9	.2	1.3	.0	4.6	.0	
Collision With Fixed Object	13.2	18.5	12.9	10.5	45.0	25.6	
Collision With Other Object	.6	.2	.4	1.1	1.1	2.6	
Overturn	4.7	14.2	4.8	20.0	17.0	48.7	
Fire/Explosion	.1	.2	.1	1.1	.2	2.6	
Submersion	.0	.8	.1	.0	.2	.0	
Other	1.1	1.6	.9	.0	2.9	.0	
Total	99.9	100.1	100.0	100.1	99.9	100.0	

<sup>\*</sup>Young drivers are defined as persons who are 19 or younger.

TABLE 8.03

COMPARISON OF CONTRIBUTING FACTORS CITED IN CRASHES

## BASED ON AGE OF DRIVER INVOLVED

	ALL	DRIVERS		RS 19 AND INGER	DRIVERS 20 AND OLDER			
CONTRIBUTING FACTOR	ALL CRASHES (%)	FATAL CRASHES (%)		FATAL CRASHES (%)	-	FATAL CRASHES		
Failure to Yield								
Right of Way	14.8	8.7	13.1	11.5	16.1	8.3		
Illegal/Unsafe Speed	14.7	16.8	17.5	21.2	13.8	16.2		
Following Too Closely	4.5	.8	3.9	1.0	4.9	.8		
Disregard for Traffic	1.5		0.5	1.0	1.5	.0		
Control Device	3.8	4.2	3.2	1.9	4.0	4.7		
Driving Left of Center	3.0	7.2	3.2	1.5	4.0	7.7		
Not Passing	2.4	8.8	2.6	8.7	2.1	9.3		
Improper Passing/		0.0	2.0	-77		3.0		
Overtaking	2.0	2.3	1.8	1.9	1.8	2.5		
Improper/Unsafe	2.0	2.0	1.0		1.0	2.0		
Lane Use	5.1	5.1	3.8	4.8	4.6	4.9		
Improper Parking/	***	• • • • • • • • • • • • • • • • • • • •						
Starting/Stopping	1.4	.4	1.0	.0	1.4	.5		
Improper Turn	2.9	1.6	2.5	2.9	3.0	.5 1.5		
Unsafe Backing	1.6	.1	1.0	.0	1.5	.2		
No/Improper Signal	.4	.1	.3 .2	1.0	.4	.0		
Impeding Traffic	. 4	.0	.2	.0	.5	.0		
Driver Inattention/								
Distraction	23.9	17.4	22.2	10.6	24.8	19.1		
Driver Inexperience	5.0	1.8	11.8	3.8	3.0	.7		
Physical Impairment	7.3	17.6	6.7	17.3	8.1	18.7		
Vision Obscured	4.7	3.9	4.2	1.0	5.2	4.4		
Defective Equipment	2.4	2.5	2.4	3.8	2.4	2.0		
Pedestrian Violation/								
Error	.7	5.5	.3	5.8	.4	3.6		
Other	2.0	2.5	1.5	2.9	2.0	2.6		
Total	100.0	100.1	100.0	100.1	100.0	100.0		

Percentages are based on all contributing factors cited.

## PART IX

## HIT-AND-RUN ACCIDENT INFORMATION

Hit-and-run accidents continue to be a problem in Minnesota. In 1982, nearly 10% of the accidents which occurred involved a vehicle which left the scene of the accident. Unfortunately, this is especially evident when a pedestrian is also involved; of the 10 fatal hit-and-run accidents, 9 resulted in death for a pedestrian. Not surprisingly, many of the hit-and-run accidents occur at night. Over 36% of the hit-and-run accidents happened between 9:00 pm and 3:00 am.

TABLE 9.01
HIT-AND-RUN CRASHES BY ACCIDENT TYPE

Accident Type	All Crashes	Fatal Crashes	Personal Injury Crashes	Property Damage Crashes
Collision With Other Motor Vehicle	3,069	1	639	2,429
Collision With Motor Vehicle In Other Road Way	<b>-</b> 5	0	0	5
Collision With Parked Motor Vehicle	4,335	0	85	4,250
Collision With Railroad Trai	n 2	0	1	1
Collision With Bicyclist	102	0	98	4
Collision With Pedestrian	187	9	176	2
Collision With Animal	6	0	1	5
Collision with Fixed Object	960	0	63	897
Collision With Other Object	26	0	1	25
0verturn	29	0	6	23
Other/Unknown	27	0	9	18
Total	8,748	10	1,079	7,659

TABLE 9.02
HIT-AND-RUN CRASHES BY TIME OF DAY

Time of Day	All Crashes	Fatal Crashes	Personal Injury Crashes	Property Damage Crashes
Midnight - 2:59 AM	1,680	3	241	1,436
3:00 AM - 5:59 AM	354	2	40	312
6:00 AM - 8:59 AM	486	1	64	421
9:00 AM - 11:59 AM	531	2	63	466
Noon - 2:59 PM	763	0	101	662
3:00 PM - 5:59 PM	1,141	0	171	970
6:00 PM - 8:59 PM	1,094	1	155	948
9:00 PM - 11:59 PM	1,486	1	205	1,270
Unknown	1,213	0	39	1,174
Total	8,748	10	1,079	7,659

#### PART X

#### ALCOHOL INFORMATION

1982 was a year of activity in terms of the drunken driver problem in Minnesota. The 1982 Minnesota Legislature tightened the state's drunken driving laws, increasing penalties and speeding up administrative revocation of driver licenses. Popular demand for effective action to get the drinking driver off the road, from citizen groups of victims and from Minnesota officials and legislators, supported by unprecedented attention from the news media, has resulted in Minnesota's already strong drunken driver control programs being even further stepped up.

In 1982, a record number of drunken driving arrests were made (28,048, a 4% increase from 1981), and a record number of driver license revocations were made for alcohol-related reasons (36,024, a 12% increase from 1981). A record number of drivers killed in traffic accidents were tested to determine their blood alcohol content (72%, as compared to 66% in 1981), thus providing Minnesota with the most complete data ever available on alcohol involvement in fatal crashes. It was found that 54% of the drivers who were killed had been drinking prior to the crash and 48% were legally drunk. Although these percentages are high, they represent substantial decreases from last year's figures and are well below the averages for the previous 10 years.

TABLE 10.01

DRUNKEN DRIVING IN MINNESOTA - 1976-1982

	1976	1977	<u>1978</u>	1979	1980	1981	1982
Drunken Driving Arrests	19,419	16,976	18,078	18,092	22,788	27,034	28,048
State Patrol Only	4,689	3,593	3,716	3,879	5,282	7,116	7,174
Alcohol-Related Driver License Revocations	14,251	17,741	24,357	24,966	30,481	32,043	36,024
For Conviction of DWI Charge	NA	NA	15,512	14,797	17,406	19,009	9,400
For Refusing Test	NA	NA	3,344	3,427	3,863	4,427	8,456
For Failing Test (.10 or higher)	NA	NA	5,501	6,742	9,212	8,607	18,168
Drivers Killed	478	476	576	523	519	437	321
Tested (died within 4 hours)	61%	58%	66%	63%	65%	66%	72%
Positive (had been drinking)	64%	60%	63%	58%	69%	62%	54%
Drunk (.10 or higher)	53%	54%	51%	45%	58%	52%	48%

TABLE 10.02

ACCIDENT TYPES OF FATAL CRASHES COMPARED WITH FATAL CRASHES INVOLVING AN ALCOHOL-POSITIVE DRIVER FATALITY

	Percent of	Percent of Fatal Crashes With An Alcohol- Positive Driver
Type of Accident	Fatal Crashes	Fatality*
Collision With Other Motor Vehicle	45.9	35.7
Collision With Parked Motor Vehicle	1.8	1.6
Collision With Railroad Train	1.0	0.8
Collision With Bicyclist	2.3	0.0
Collision With Pedestrian	13.4	0.0
Collision With Animal	0.2	0.0
Collision With Fixed Object	18.5	32.5
Collision With Other Object	0.2	0.8
0verturn	14.2	25.4
Fire/Explosion	0.2	0.0
Submersion	0.8	2.4
Other	1.6	0.8_
Total	100.1	100.0

<sup>\*</sup>These figures are based on the 126 cases in which a fatally injured driver was tested for blood alcohol concentration and was found to have been drinking.

AGE OF PERSONS KILLED AND INJURED IN ACCIDENTS

WHERE A DRIVER HAD BEEN DRINKING\*

TABLE 10.03

AGE	PERSONS KILLED	PERSONS INJURED
0 - 4	1	47
5 - 9	1	27
10 - 14	1	62
15 - 19	30	1,601
20 - 24	46	1,901
25 - 29	18	993
30 - 34	18	544
35 - 39	13	304
40 - 44	6	177
45 - 49	7	118
50 - 54	3	111
55 - 59	3	92
60 - 64	1	47
65 - 69	2	36
70 - 74	2	15
75 & Older Not Stated	2 3 3	18 371
Total	158	6,464

<sup>\*</sup>Drivers in this category were listed on the traffic accident report as "under the influence" or "had been drinking".

TABLE 10.04
DRINKING DRIVER FATALITY SUMMARY, 1973-1982

1973	(%)	1974	(%)	1975	(%)	1976	(%)	1977	(%)	1978	(%)	1979	(%)	1980	(%)	1981	(%)	1982	(%)	
1,024		852		777		809		856		980	1	881		863		763		581		People were killed in motor vehicle crashes
561	54.8	501	58.8	431	55.5	478	59.1	476	55.6	5 576	58.8	523	59.4	519	60.1	437	57.3	321	55.2	Drivers were killed
406	72.4	337	67.3	230	53.4	289	60.5	276	58.0	381	66.1	329	62.9	337	64.9	288	65.9	232	72.3	Fatally injured drivers were tested for alcohol
240	59.1	202	59.9	142	61.7	185	64.0	166	60.1	241	63.3	190	57.8	232	68.8	178	61.8	126	54.3	Of those tested had alcohol in their systems (called positive cases)
206	50.7	171	50.7	114	49.6	154	53.3	148	53.6	5 196	51.4	147	44.7	195	57.9	150	52.1	112	48.3	Of those tested were at or above the .100 level of intoxication
206	85.8	171	84.7	114	80.3	154	83.2	148	89.2	2 196	81.3	147	77.4	195	84.1	150	84.3	112	88.9	Of the positive cases were at or bove the .100 level of intoxication
227	94.6	187	92.6	124	87.3	173	93.5	148	89.2	2 222	92.1	169	88.9	211	90.9	162	91.0	116	92.1	Of the positive cases were male
13	5.4	15	7.4	18	12.7	12	6.5	18	10.8	3 19	7.9	21	11.1	21	9.1	16	91.0	10	7.9	Of the positive cases were female
85	41.3	68	39.8	41	36.0	56	36.4	48	32.4	78	39.8	57	30.0	68	34.9	61	40.7	41	36.6	Of the positive which tested at .100 or higher occurred between midnight and 3:00 am
105	43.8	93	46.0	81	57.0	90	48.6	84	50.6	5 113	46.9	104	54.7	121	52.2	83	46.6	52	41.3	Of the positive cases were between the ages of 16 and 24
85	80.9	79	84.9	63	77.8	72	80.0	73	86.9	87	77.0	75	72.1	96	79.3	66	79.5	46	41.1	Of the 16 to 24 year olds testing positive were at or above .100
21	8.8	9	4.5	9	6.3	26	14.1	14	8.4	32	13.3	27	14.2	23	9.9	17	9.6	9	7.1	Of the positive cases were under the legal drinking age

The age of majority was legally lowered to 18 years of age on June 1, 1973.

The legal drinking age was raised to 19 years of age on September 1, 1976.

TABLE 10.05
DRIVER FATALITIES' LEVEL OF INTOXICATION BY AGE

			tion	Percent Positive Of Total	Percent Intoxi- cated Of Total	Percent Of Total Positive					
Age	Total Killed	Total Tested	Total Positive	.010-	.050-	.100- .149	.150- .249	.250 & Over	Tested In Age Group	Tested In Age Group	By Age Group
15 And Below	5	3	0						0.0	0.0	0.0
16	5	2	1	1					50.0	0.0	0.8
17	7	3	1					1	33.3	33.3	0.8
18	13	11	7		1	2	3	1	63.6	54.5	5.6
19	9	6	7 4			1	3		66.7	66.7	3.2
20	13	10	8			4	3	1	80.0	80.0	6.3
21 - 25	79	56	38	2	2	6	22	6	67.9	60.7	30.2
26 - 30	38	31	21	2	2	3	11	3	67.7	54.8	16.7
31 - 35	33	26	14	1	1	1	6	5	53.8	46.2	11.1
36 - 40	21	15	12			1	5	6	80.0	80.0	9.5
41 - 45	14	11	4			1	2	1	36.4	36.4	3.2
46 - 50	16	11	4			2	1	1	36.4	36.4	3.2
51 - 55	10	7	1					1	14.3	14.3	0.8
56 - 60	11	9	2				2		22.2	22.2	1.6
61 - 65	6	5	2		1		1		40.0	20.0	1.6
66 And Above	41	26	7		1	1	4	11	26.9	23.1	5.6
Total	321	232	126	6	8	22	63	27	54.3	48.3	100.2

TABLE 10.06

DRIVER FATALITIES' LEVEL OF INTOXICATION BY MONTH

Time	Total Killed	Total Tested	Total Positive	Bloo .010- .049	d Alco .050- .099			ation .250 & Over	Percent Of All Positive
January	11	9	2				.1	1	1.6
February	14	8	3				2	1	2.4
March	16	12	4	1			2	1	3.2
April	21	11	6		1	2	3		4.8
May	20	. 15	11	1	1	. 1	6	2	8.7
June	24	13	6		1		4	1	4.8
July	54	34	19	1	2	6	6	4	15.1
August	42	33	19	3	1	6	6	3	15.1
September	18	16	7				6	1	5.6
October	35	33	19			4	10	5	15.1
November	32	21	14		1	3	7	3	11.1
December	34	27	16		. 1		10	5	12.7
Total	321	232	126	6	8	22	63	27	100.2
iviai	321	232	120	O	0	22	03	21	100.2

TABLE 10.07

DRIVER FATALITIES' LEVEL OF INTOXICATION BY ROAD TYPE

Road Type	Total Killed	Total Tested	Total Positive			ohol C .100- .149		ration .250 & Over	Percent Of All Positive
Interstate	17	13	5				1	4	4.0
Trunk Highway	172	117	61	3	2	10	33	13	48.4
County Road	103	83	53	2	6	12	24	9	42.1
City Street	14	10	2	1		•	1		1.6
Township Road	14	8	5				4	1	4.0
Other Road	1	1	0					, ja	d.0.0
								\$44	<b>X</b>
Total	321	232	126	6	8	22	63	<b>27</b> :-:-	100.1

TABLE 10.08

DRIVER FATALITIES' LEVEL OF INTOXICATION BY TIME OF DAY

Time	Total Killed	Total Tested	Total Positive			nol Com .100- .149		ation .250 & Over	Percent Of All Positive
Midnight-									
2:59 AM	68	48	43	1	1	13	20	8	34.1
3:00 AM-									
5:59 AM	25	18	16			1	11	4	12.7
6:00 AM-									
8:59 AM	25	21	8			3	4	1	6.3
9:00 AM-									
11:59 AM	32	21	1					1	0.8
Noon-									
2:59 PM	49	35	6		1		. 3	2	4.8
3:00 PM-									
5:59 PM	49	37	13	1	2	2	5	3	10.3
6:00 PM-									
8:59 PM	31	20	14	2	2	1	7	2	11.1
9:00 PM-									
11:59 PM	38	30	24	2	2	1	13	6	19.0
Unknown	4	2	1			1			0.8
	<u> </u>			<del></del>					
Total	321	232	126	6	8	22	63	27	99.9

TABLE 10.09
DRINKING PEDESTRIAN FATALITY SUMMARY, 1973-1982

1973	(%)	1974	(%)	1975	(%)	1976	(%)	1977	(%)	1978	(%)	1979	(%)	1980	(%)	1981	(%)	1982	(%)	
149		105	٠	121		120		140		115		117		114		100		76		Pedestrians Were Killed In Motor Vehicle Crashes
73	49.0	46	43.8	45	37.2	58	48.3	62	44.3	54	47.0	56	47.9	48	42.1	53	53.0	40	52.6	Fatally Injured Pedestrians Were Tested For Alcohol
30	41.1	28	60.9	26	57.8	25	43.1	32	51.6	33	61.1	29	51.8	28	58.3	26	26.0	18	45.0	Of Those Tested Had Alcohol In Their Systems (Called Positive Cases)
23	31.5	25	54.3	22	48.9	22	37.9	32	51.6	22	40.7	26	46.4	26	54.2	23	23.0	17	42.5	Of Those Tested Were At Or Above The .100 Level Of Intoxication
23	76.7	25	89.3	22	84.6	22	88.0	32	100.0	22	66.7	26	89.7	26	92.9	23	88.5	17	94.4	Of The Positive Cases Were At Or Above The .100 Level Of Intoxication
4	13.3	5	17.9	2	7.7	4	16.0	6	18.8	3	9.1	4	13.8	2	7.1	1	3.8	1	2.5	Of The Positive Cases Were 66 Or Older
3	10.0	3	10.7	1	3.8	7	28.0	15	46.9	3	9.1	5	17.2	2	7.1	3	11.5	2	10.0	Of The Positive Cases Were Under The Legal Drinking Age

The age of majority was legally lowered to 18 years of age on June 1, 1973.

The legal drinking age was raised to 19 years of age on September 1, 1976.

Only pedestrians 16 years of age or older are required to be tested for alcohol. Thus, although the percentages given reflect the total number of pedestrians killed, those under age 16 would not have been tested in any case.

TABLE 10.10
PEDESTRIAN FATALITIES' LEVEL OF INTOXICATION BY AGE

			Bloo	d Alcoh	ol Conc	entrati	on		Percent Positive Of Total	Percent Intoxi- cated Of Total	Percent Of Total
Age		Total Tested	Total Positi <b>v</b> e	.010- .049	.050- .099	.100- .149	.150- .249	.250 & Over	Tested In Age Group	Tested In Age Group	Positive By Age Group
15 & Below	13	2	0						0.0	0.0	0.0
16	5	1	0						0.0	0.0	0.0
17	2	1	1				1		100.0	100.0	5.6
18	2	1	1				1		100.0	100.0	5.6
19	5	3	1		1				33.3	0.0	5.6
20	2	0	0						0.0	0.0	0.0
21 - 25	7	4	3	•		1	2		75.0	75.0	16.7
26 - 30	6	5	4				2	2	80.0	80.0	22.2
31 - 35	3	3	1				1		33.3	33.3	5.6
36 - 40	4	3	3				1	2	100.0	100.0	16.7
41 - 45	2	2	2				1	1	100.0	100.0	11.1
46 - 50	1	1	0						0.0	0.0	0.0
51 - 55	1	1	0						0.0	0.0	0.0
56 - 60	3	1	0						0.0	0.0	0.0
61 - 65	4	1	0	-					0.0	0.0	0.0
66 & Above	14	9	1			1			1.1	1.1	5.6
Unknown	2	2	1			1			50.0	50.0	5.6
Total	76	40	18	0	1	3	9	5	45.0	42.5	100.3

TABLE 10.13

PEDESTRIAN FATALITIES' LEVEL OF INTOXICATION BY TIME OF DAY

Time	Total Killed	Total Tested	Total Positive	Bloo .010- .049	.050-			.250 &	Percent Of All Positive
Midnight- 2:59 AM	17	12	8			2	4	2	44.4
3:00 AM- 5:59 AM	5	2	. 2				2		11.1
6:00 AM- 8:59 AM	5	2	0						0.0
9:00 AM- 11:59 AM	4	3	0				n		0.0
Noon- 2:59 PM	3	1	0				. *		0.0
3:00 PM- 5:59 PM	18	9	1				1		5.6
6:00 PM- 8:59 PM	15	7	3			1	2		16.7
9:00 PM- 11:59 PM	9	4	4		1	zyr.	······································	3	22.2
Total	76	40	18	0	1	3	9	5	100.0

TABLE 10.12

PEDESTRIAN FATALITIES' LEVEL OF INTOXICATION BY ROAD TYPE

Road Type	Total Killed	Total Tested	Total Positive	.010-		nol Coi .100- .149		ation .250 & Over	Percent Of All Positive
Interstate	6	5	5		1		3	1	27.8
Trunk Highway	37	16	7			1	5	1	38.9
County Road	21	12	5			2	1	2	27.8
City Street	12	7	1					1	5.6
Township Road	0	0	0						0.0
Other Road	0	0	0			····	·		0.0
Total	76	40	18	0	1	3	9	5	100.1

TABLE 10.13

PEDESTRIAN FATALITIES' LEVEL OF INTOXICATION BY TIME OF DAY

Time		Total Killed	Total Tested	Total Positive		.050-		.150-	.250 &	Percent Of All Positive
Midni	ght-									
2:59	AM	17	12	8			2	4	2	44.4
3:00	AM-									
5:59	AM	5	2	. 2		•		2		11.1
6:00	AM_								로 기술 시설 시설 - 보고 등 기술 기술	
8:59		5	2	0						0.0
0.00	A 3.4									
9:00 11:59		4	3	0						0.0
11.55	Ari	7	3	O						
Noon-										
2:59	PM	3	1	0				,		0.0
3:00	PM-									
5:59		18	9	1				1		5.6
6:00	PM-									
8:59		15	7	3			1	2		16.7
9:00	PM-									
11:59		9	4	4		1			3	22.2
Total		76	40	18	0	1	3	9	5	100.0

## PART XI

#### SEAT BELT INFORMATION

The latest government observation study of safety belt use indicated that, nationwide, only 11.5% of the motoring public use their safety belts when they drive. The same study indicated that 17% of the drivers in the Minneapolis/St. Paul area used their safety belts. Observation studies conducted by the State of Minnesota indicate that, statewide, only 8% of the adults use their safety belts when they drive. Clearly, a very low percentage of adult motorists make use of the known protection provided by safety belts.

The Minnesota Child Passenger Protection Act, which was put into effect on January 1, 1982, requires parents to install a federally approved child restraint in their car when transporting children younger than age four. Statewide observations indicate that 47% of the infants and 18% of the children age 1 to 3 were properly restrained when traveling in an automobile.

In cases where restraint usage was known, accident data for 1982 indicates that 89% of the people injured and killed in automobile crashes were not wearing seat belts at the time of the crash; 78% of the children under age 4 who were injured or killed were not in child safety seats at the time of the accident.

TABLE 11.01

SEAT BELT USAGE OF FATALITIES AND INJURIES

CARS ONLY\*

	Fatalities	Injuries
Restraining Device Installed And Used	15	1,461
Restraining Device Installed But Not Used	213	11,685
Total	228	13,146

<sup>\*</sup>Based on cases in which seat belts were installed and usage was known.

TABLE 11.02

# INJURY SEVERITY OF CHILDREN UNDER AGE 4\*

Severity of Injury	Child Restraint Used	Child Restraint Not Used
"K" Fatal Injury	2	9
"A" Incapacitating Injury	5	20
"B" Non-Incapacitating Inju	ury 37	131
"C" Possible Injury	42	152
Total	86	312

<sup>\*</sup>Based on cases in which child restraint usage was known.

Minnesota Department of Public Safety Office of Public Information 318 Transportation Building St. Paul, MN 55155

Bulk Rate
U. S. Postage
PAID
Permit No. 171
St. Paul, MN