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1976 Minnesota Motor Vehicle Crash Facts



This Report was Produced By The:

Minnesota Department of Public Safety Office of Traffic Safety 207 Transportation Building St. Paul, Minnesota 55155

1976 PERSONAL LOSS: 809 KILLED 41,491 INJURED, 116,390 CRASHES

ESTIMATED ECONOMIC LOSS: \$450,335,290

IN 1976:

- Two persons killed every day
- One traffic death every 10 hours 50 minutes
- One pedestrian killed every 73 hours
- One bicyclist killed every 9 days (May Oct.)
- One person injured every 12³/₄ minutes
- One pedestrian injured every 5 hours and 5 minutes
- One bicyclist injured every 4 hours (May Oct.)
- 114 persons injured daily due to traffic accidents
- Economic loss in traffic accidents was \$856.80 per minute
- One traffic accident every 4½ minutes
- One motorcycle accident every 1 hour 48 minutes (May Oct.)
- One property damage accident every 6
 minutes
- 319 traffic accidents occurred daily
- One driver out of every 12 involved in an accident
- One vehicle out of every 14 involved in an accident

The Auto Insurance Rate Rise:



Source: Motor Crash Estimating Guide October, November 1975

COST OF HUMAN REPAIR TOO, HAS RISEN.

	1972 Cost	Minnesota 1976 Cost	Percent Change
Outpatient Care	\$ 25.02	\$ 44.51	77.8%
Room and Board and Ancillary Services	\$ 99.63	\$159.43	60.0%
Intensive Care	\$119.44	\$200.00	67.4%

Source: Minnesota Hospital Association, Ramsey County Hospital

1976 Minnesota Motor Vehicle Crash Facts

This report has been prepared by the Minnesota Department of Public Safety in accordance with Minnesota Statutes, Section 169.10, for the year 1976. The information is derived principally from reports submitted by drivers and police agencies on crashes involving death, personal injury or property damage of \$100 or more.

Selected highway crash data are presented to determine trends, to point out problem areas and to establish the dominant characteristics of motor vehicle crashes in Minnesota so that appropriate countermeasures can be implemented.

In 1976, 809 people were killed and 41,491 injured in 116,390 crashes throughout the state. Over 2.9 million vehicles traveled 27 billion miles on 128,456 miles of roadway. Approximately 2.34 million Minnesota citizens had a license to drive last year.

In addition to death and injury the economic loss due to traffic crashes in our state in 1976 has been set at \$450,335,290. This figure is derived from cost breakdowns established by the Department of Transportation for fatalities, injuries and damage resulting from fatal, personal injury and property damage crashes.

The report itself is divided into ten parts: the first examining the vehicles, drivers and crashes; the others reviewing holidays, pedestrians, alcohol involvement, and selected types of motor vehicle crashes. Graphical charts as well as data tables have been included in the hope that this will enable the reader to more clearly understand and analyze the trends present in the picture for the State of Minnesota through 1976.

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PEDESTRIAN

BICYCLE

MOTORCYCLE

TRAIN

SNOWMOBILE

SCHOOL BUS

HOLIDAY

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Crash Facts Summary

TRENDS BY YEAR, MONTH, DAY AND HOUR

In 1976 Minnesota experienced a 5½ percent reduction in traffic accidents, which amounted to 6,716 fewer occurrences. Although traffic fatalities increased by 4.1% from 777 in 1975 to 809 in 1976, the fatality rate decreased by 1 percent from 3.03 fatalities per hundred million vehicle miles traveled in 1975 to 3.00 in 1976. This phenomenon is explained by the fact that even though the actual number of fatalities for a given year may increase, the number of vehicle miles traveled in Minnesota shows a proportion-ately larger increase.

In 1976 each licensed driver traveled an average of 11,544 miles, a 2.5 percent increase from 1975. This increase is similar to that experienced from 1974 to 1975 and could be expected since the number of licensed drivers and the number of miles traveled has continually increased every year since 1965 (with the exception of 1974, during which miles traveled dropped due to the energy crisis).

One out of every 4,900 Minnesota residents and one out of every 2,886 licensed drivers died in Minnesota traffic accidents in 1976. Compared to 1975, Minnesotans were slightly more likely to become a traffic fatality.

As usual, summer and fall months continued to contribute larger numbers of fatalities and fatal crashes than the remaining months of the year. Fifty-one percent of the 1976 fatalities and fatal accidents occurred during the months of May through September. An average of three people a day were killed on Minnesota roadways during these five months, while during the other seven months of the year, an average of two people per day were killed. Friday and Saturday consistently accounted for the greatest number of accidents; on these two days 35 percent of all crashes and 36 percent of fatal crashes occurred. Fatal crashes also occurred in disproportionately large numbers on Sundays, with Friday, Saturday and Sunday accounting for 52.5 percent of all fatal crashes.

When all crashes were broken down by hour of the day, 3 p.m. to 6 p.m. showed the peak number of crashes (23%). Fatal crashes displayed a peak between 1 and 2 a.m. with 70 (9.7%) crashes, and another lower peak between 5 and 6 p.m. with 49 (6.8%) crashes. The greatest number of crashes per hour occurred on Friday between 3 and 6 p.m. when people were hurrying home to start their weekends. The post party and drinking hours of midnight to 2 a.m. on both Saturday and Sunday mornings accounted for the largest number of fatal crashes.

TYPES OF CRASHES

The most commonly occurring crash in the state of Minnesota in 1976 involved two motor vehicles in traffic. This type of crash, along with crashes involving parked cars or cars that ran off the road, accounted for 91.6 percent of the total crash picture.

Compared to all other collisions, railroad train and pedestrian accidents have the highest fatality ratios. One out of every 20 railroad train-motor vehicle collisions resulted in a fatality, while one out of every 15 pedestrian-motor vehicle crashes produced a fatality. These ratios compare with an overall rate of one in every 162 occurrences involving any type vehicle resulting in a fatality.

In terms of injury and death, pedestrian and bicycle crashes are by far the most severe. In 1976, pedestrians involved in crashes had a 100 percent chance of injury, and bicyclists involved in crashes had a 93 percent chance of injury.

URBAN-RURAL

The metropolitan areas of Minneapolis, St. Paul and Duluth contributed 28 percent of all crashes, but only 11 percent of all fatal crashes in 1976. This follows the typical pattern of urban areas contributing more of the injury (69%) and property damage (76%) accidents while most of the fatal crashes take place in rural areas (67%).

ROAD CONDITIONS AND WEATHER FACTORS

Because many road and weather conditions are difficult to accurately categorize, a large portion of the 1976 crashes are classified as "all others and not stated". The following observations can be made for the remaining accidents which could be easily assigned to a category. Approximately 66 percent of all collisions and 81 percent of all fatal collisions occurred on dry pavements. Nearly 89 percent of all crashes took place on clear or cloudy days, with 90 percent of fatal crashes occurring under such relatively favorable skies.

DRIVERS INVOLVED IN CRASHES

In 1976, 197,786 drivers were involved in traffic accidents, and of those in which driver's sex was stated, 71 percent were males and 29 percent were females. Although males made up the greater portion of all drivers in crashes, there proved to be little difference between the sexes in terms of degree of severity of crash. Less than 10 percent of both groups were involved in fatal collisions, between 23 and 24 percent were involved in personal injury crashes (females being involved in 0.6 percent more than males), and the remaining 76 percent were involved in property damage only collisions.

Examining the ages of all licensed drivers and comparing them with the ages of the driver population involved in crashes, produces an interesting pattern. Although several of the age groups indicated show some disproportionate involvement in accidents in relation to their relative appearance in the licensed driver population, some age groups show greater disproportion than others. The age group 20-24 shows the largest disproportion, followed by the 15-19 year olds, and then the 25-29 year old group. Farther up the age range, disproportionate involvement diminishes and becomes insignificant. The most probable reason for this recurring trend is that the early years are usually the most mobile for the average driver and thus the chance of accident involvement is significantly higher.

VEHICLE MOVEMENTS IN CRASHES

In two vehicle accidents the most often occurring intersection type crash was that involving two vehicles entering an intersection^{*} at right angles. Forty-eight percent of all fatal intersection crashes were of this type.

In the two vehicle non-intersection crashes, the most frequently occurring accident involved a moving vehicle colliding with a parked unit. This type of two vehicle, non-intersection crash occurred 40 percent of the time. Although not the most frequently occurring, the head-on type crash between two motor vehicles moving in opposite directions had by far the greatest chance for a fatality. Nearly one out of every 26 non-intersection crashes of this type, and one out of every 32 intersection crashes of this type resulted in a fatality.

MOTOR VEHICLES IN CRASHES

There were 2,924,381 vehicles registered in Minnesota during 1976, and 213,480 of these were involved in a crash of some type. Passenger cars made up 72.7 percent of the registered vehicles and contributed 79.1 percent of all vehicles involved in crashes. Trucks accounted for 20.3 percent of the registered vehicles and comprised 13.3 percent of all vehicles involved in crashes.

Three vehicle types stand out as the most hazardous when involved in crashes; a fatality resulted from one in every 17 crashes involving farm equipment. One out of every 40 motorcycle collisions resulted in a fatality in 1976, while in 1975, a fatality resulted from one in 39 motorcycle crashes. Snowmobile collisions were the most hazardous in 1975, with a fatality resulting from one in every 24 crashes, however in 1976, a fatality only resulted from one in every 46 crashes involving snowmobiles.

MOTOR VEHICLE INSPECTION

In 1976: 125,042 cars; 30,046 trucks; 18,589 school buses and 1,370 motorcycles were inspected. Since 1972, school buses have been inspected twice yearly, therefore the figures here represent two inspections of the same vehicle.

The number of motorcycles inspected during 1976 increased 99 percent, the number of trucks inspected increased 36 percent, and the number of cars inspected increased 16 percent. Even with the increase in vehicle inspections, motorcycles had the second lowest rejection rate, although it was up slightly from 1975. School buses held the lowest rejection rate, dropping from that in 1975, as did the rates for autos and trucks as well.

ROADWAY MILEAGE AND CRASHES

During 1976, Minnesotans traveled 26.9 billion miles on 128,456 miles of roadway. The trunk highway and interstate systems carried 60 percent of this vehicle mileage, while constituting less than 10 percent of the available road miles. This resulted in some very dense traffic at times, especially in the larger metropolitan areas.

The trunk highway system contributed a slightly higher portion of all accidents (36 percent) than any other road system, with local streets following closely with 34 percent: however the trunk highway system contributed by far the greatest portion of fatal crashes (48 percent). This pattern of fatal crashes generally occurring on trunk highways is largely due to the heavy load (vehicle miles) as well as the aging construction (narrow lanes, blind curves, etc.) and the absence of modern high speed safety features on many of the older roadways which make up the "backbone" of Minnesota's vehicle movement system.

Summary and Rate Information





125,000



TRAFFIC FATALITIES, 1967-1976



TRAFFIC INJURIES, 1967-1976



10

REGISTERED MOTOR VEHICLES, 1967-1976



LICENSED DRIVERS, 1967-1976



VEHICULAR MILES TRAVELED, 1967-1976



Fatality Rate PER HUNDRED MILLION VEHICLE MILES TRAVELED, 1967-1976





FATALITY RATE PER 100,000 POPULATION 1967-1976



INJURY RATE PER 100 MILLION VEHICLE MILES TRAVELED 1967-1976

INJURY RATE PER 100,000 REGISTERED VEHICLES 1967-1976

INJURY RATE PER 100,000 POPULATION 1967-1976

14

CRASH RATE PER 100 MILLION VEHICLE MILES TRAVELED 1967-1976

CRASH RATE PER 100,000 REGISTERED VEHICLES 1967-1976

CRASH RATE PER 100,000 POPULATION 1967-1976

MINNESOTA TRAFFIC TOLL: 1976 VS. AVERAGE OF 1971-1975

a sub-searched	1971-1975	1976
Deaths	942	809
Injuries	41,098	41,491
Crashes	109,838	116,3 <mark>90</mark>
Registered Motor Vehicles	2,330,026	2,924,381
Licensed Drivers	2,197,000	2,335,000
Vehicle Miles Traveled (Millions)	24,731	26,956
Fatality Rate per 100 Million Vehicle Miles Traveled	3.82	3.00

Fatal Crashes and Fatalities by Month

Crashes by Day of Week

FATAL CRASHES

ALL CRASHES

Crashes by Hour of Day

FATAL CRASHES

ALL CRASHES

D Accident L DAY OF WEEK AND TIME OF DAY

HOUR	ΤΟΤΑΙ	ACC.	MON	DAY	TUES	DAY	WEDN	ESDAY	тни	RSDAY	FR	DAY	SATI	JRDAY	SUN	DAY
BEGIN	ALL	FATAL	ALL	FATAL	ALL	FATAL	ALL	FATAL	ALL	FATAL	ALL	FATAL	ALL	FATAL	ALL	FATAL
Midnite	3,615	51	314	3	328	3	330	5	383	8	472	6	954	15	834	11
1:00 a.m.	5,701	70	237	6	425	2	446	7	697	9	700	7	1,597	19	1,599	20
2:00	2,550	41	120		183	6	187	4	271	4	285	6	[,] 744	13	760	8
3:00	1,333	17	66	2	82	2	90	1	156		144	3	366	5	429	4
4:00	823	10	57		66		70		90	1	98	1	200	2	242	6
5:00	693	9	62	2	89	1	66		69		81	2	141	1	185	3
6:00	1,408	11	237	1	230	2	223	2	208	1	258	2	120	2	132	1
7:00	4,337	17	755	3	828	3	857	4	772	2	792	2	191	3	142	
8:00	4,325	20	721	2	764	8	850	1	725	3	812	2	271	3	182	1
9:00	3,706	11	581	2	530	4	513	1	537	2	643		551	1	351	1
10:00	4,570	13	672	2	591	2	581	3	650	2	771	1	832	2	473	1
11:00	5,381	19	741	2	714	3	708	3	752	2	932	2	1,010	3	524	4
Noon	6,178	21	889	4	825	3	802	2	829	4	1,116	3	1,029	3	688	2
1:00 p.m.	5,814	24	864	10	798	2	730	3	755	1	1,016	4	988	3	663	1
2:00	6,838	27	951	6	990	1	892	4	959	1	1,255	2	1,076	8	715	5
3:00	8,938	27	1,350	6	1,351	3	1,277	4	1,310	4	1,749	3	1,143	3	758	4
4:00	9,768	37	1,493	7	1,543	3	1,384	8	1,565	4	1,948	7	1,111	5	724	3
5:00	8,200	49	1,195	10	1,225	9	1,199	7	1,290	10	1,573	8	999	1	719	4
6:00	5,819	35	762	6	762	5	732	3	832	6	1,067	5	997	7	667	3
7:00	5,682	41	710	7	625	7	734	3	799	7	1,082	5	1,036	9	696	3
8:00	4,629	42	546	6	532	1	546	1	687	6	878	6	911	14	529	8
9:00	4,541	33	490	3	565	7	577	1	687	2	888	10	828	8	506	2
10:00	4,433	32	481	3	524	1	545	4	586	4	934	8	890	5	473	7
11:00	4,633	51	383	1	467	2	551	4	601	7	1,217	20	1,033	9	381	8
Not stated	2,475	12	301	2	292		293		341	1	446		444	2	358	7
Total																
Accidents	116,390	720	1 <mark>4,9</mark> 78	96	15,329	80	15,183	75	16,551	91	21,157	115	19,462	146	13,730	117

Type of Crash

Fatalities and Injuries BY TYPE OF MOTOR VEHICLE CRASH IN MINNESOTA

TYPE OF CRASH*		NUMB	ER OF CRA	SHES		NUMBER OF PERSONS					
			Personal	Property			I	njury Types	**	1,000	
	All	Fatal	Injury	Damage	Killed	Injured	А	В	С	Crashes	
Single-vehicle crash:			-								
Ran off the road	17,611	291	6,238	11,082	304	8,863	4,309	2,770	1,784	17.3	
Overturned on the road	714	7	405	302	7	532	244	194	94	9.8	
Vehicle collided with:											
Pedestrian	1,723	116	1,595	12	117	1,705	887	427	391	67.9	
Motor vehicle in traffic	75,630	257	15,568	59,805	329	26,078	7,671	6,347	12,060	4.4	
Parked motor vehicle	13,316	4	1,206	12,106	4	1,502	662	445	395	0.3	
Railroad train	244	12	102	130	14	143	78	39	26	57.4	
Bicyclist	1,217	20	1,091	106	21	1,141	499	474	168	17.3	
Animal	1,857		147	1,710		183	70	54	59	0.0	
Fixed Object	3,329	7	832	2,490	7	1,087	484	347	256	2.1	
Other Object	345		61	284		72	37	19	16	0.0	
Other Non-collision	404	6	164	234	6	185	102	54	29	14.9	
TOTALS:	116,390	720	27,409	88,261	809	41,491	15,043	11,170	15,278		

*All crashes are coded according to the first event; e.g., if a car hits a pedestrian and then a parked car, the crash is coded as a collision with a pedestrian.

- **Injury type A Visible signs of injury, bleeding wound, distorted member
 - B Other visible injury, such as bruises, abraisons, swelling
 - C No visible injury, but complaint of pain or momentary unconsciousness

"我们要是要是我们是你们的。" 医中静脉管的 建树枝

Crashes, Killed and Injured BY COUNTY FOR 1976 AND THE AVERAGE OF 1971-1975

	ALL CR	ASHES	KILL	ED	INJUP	ED			ALLCR	ASHES	KILL	ED	INJUR	ED
COUNTY	Avg. 1971-75	1976	Avg. 1971-75	1976	Avg. 1971-75	1976		COUNTY	Avg. 1971-75	1976	Avg. 1971-75	1976	Avg. 1971-75	1976
Aitkin	247	279	4	12	112	131		Marshall	190	255	7	8	88	106
Anoka	3,964	4,489	28	25	1,909	2,042		Martin	640	616	7	3	263	213
Becker	539	759	12	10	251	310		Meeker	4'30	474	8	3	152	169
Beltrami	641	772	10	9	218	227		Mille Lacs	361	417	8	6	162	166
Benton	633	663	9	9	318	317		Morrison	708	787	15	8	314	332
Big Stone	156	201	2	2	54	62		Mower	1 102	1.133	10	9	401	403
Blue Earth	2,053	1,884	15	11	729	597		Murray	177	216	5	6	69	83
Brown	790	811	10	5	289	296		Nicollet	618	604	7	3	231	216
Carlton	595	623	12	5	233	218		Nobles	568	586	6	6	173	208
Carver	738	840	15	8	346	382		Norman	122	144	3	7	55	58
Cass	342	406	13	4	159	135		Olmsted	2 5 7 2	2 868	17	15	1 000	1 046
Chippewa	308	409	5	4	97	119		Otter Tail	Q17	1 000	15	11	361	371
Chisago	417	540	9	7	197	184		Pennington	400	1,000	2	1	1 20	153
Clay	1,528	750	13	18	370	478		Pine	338	400	a 2	7	135	175
Clearwater	121	154	4	4	49	50		Pipestone	255	265	5	2	81	103
Cook	107	140	3	1	49	59		Polk	864	1 1 0 2	15	14	327	321
Cottonwood	302	287	5	5	109	64		Popo	173	1,102	13	6	63	53
Crow Wing	1,058	1,316	10	16	397	416		Bamsey	17 248	16 863	57	51	5 895	5 508
Dakota	3,797	4,455	34	31	1,658	1,858		Red Lake	80	10,000	1	2	3,000	35
Dodge	232	260	6	2	116	122		Redwood	357	388	5	5	156	109
Douglas	618	771	7	3	225	246		Renville	301	406	10	a	148	209
Faribault	368	408	7	7	157	143		Rice	1 1 2 /	1 200	14	14	442	437
Fillmore	398	404	7	8	144	147		Bock	230	286	3	די ר	72	79
Freeborn	1,020	1,001	10	8	378	351		Roseau	165	200	4	3	52	47
Goodhue	929	1,051	11	15	371	404		St Louis	5 394	6 6 9 5	64	50	1 875	2 1 1 9
Grant	103	121	4	2	53	57		Scott	805	830	16	7	429	408
Hennepin	33,486	32,669	103	89	11,980	11,404		Sherburne	540	533	15	7	223	221
Houston	358	414	5	10	142	141		Sibley	275	308	5	, ,	120	125
Hubbard	253	293	5	7	112	110		Stearns	2/3	3 2 1 6	26	27	1 153	1 1 76
Isanti	299	353	7	3	144	165		Steele	788	851	20	21	283	289
Itasca	758	1,104	11	14	327	488		Stevens	212	247	1	6	79	71
Jackson	333	319	4	2	138	95		Swift	274	271	5	7	93	89
Kanabec	188	210	5	6	100	95		Todd	2/7	192	8	, ,	165	264
Kandiyohi	958	1,104	11	5	313	321		Traverse	80	95	3	1	35	33
Kittson	109	116	2	4	49	58		Wabasha	410	465	10	10	126	183
Koochiching	401	506	6	6	173	187	÷.,	Wadana	2/17	340	3		63	103
Lac qui Parle	180	238	5	3	78	79		Wasaca	247	/181	6	5	142	103
Lake	314	377	5	5	118	154		Washington	1 0 4 0	2 265	21	26	001	022
Lake of the								Watanington	1,949	2,200	7	20	1 01	126
Woods	59	78	1	2	24	18		Wilkie	341	200			70	106
Le Sueur	456	473	8	10	186	242		Winoca	1 250	1 209	14		19	100
Lincoln	117	152	2	2	55	45			1,250	1,319	14		404	400 522
Lvon	554	605	10	8	202	200		vvright	892	1,130	81		465	533
McLeod	663	747	. U Q	R	202	266		Yellow			_			00
Mahnomen	83	103	3	1	26	29		Wiedicine	238	290	5		92	80
								TOTALS	109,838	116,390	942	809	41,098	41,491

County Comparisons 1976 FATALITIES VS. 1971-1975 AVERAGES

SUMMARY

County Crash Report

ALL COUNTY FATAL CRASHES NUMEER KILLED NUMEER CRASHES NUMEER INJURED DAMAGE CRASHES Airkin 279 8 12 75 131 196 Anoka 4,489 23 25 1,336 2,042 3,130 Becker 759 10 10 185 310 564 Bettrami 772 8 9 155 227 609 Benton 663 7 9 212 317 444 Big Stone 201 2 2 39 62 160 Blue Earth 1.884 7 11 421 597 608 Carver 840 8 8 242 382 501 Chisago 540 6 7 121 184 443 Clay 1,750 12 18 328 478 1,410 Clay 1,750 12 18 326 144 1012 <					PERSONAL		PROPERTY
COUNTY CRASHES CRASHES KILLED CRASHES INJURED CRASHES Aitkin 279 8 12 75 131 196 Anoka 4.489 23 25 1,336 2,042 3,130 Becker 759 10 10 185 310 564 Bettrami 772 8 9 155 227 609 Benton 663 7 9 212 317 444 Big Stone 201 2 239 62 160 Blue Earth 1,884 7 11 421 597 1,456 Brown 811 4 5 199 296 608 Carton 623 5 566 218 4422 322 590 Cass 406 4 91 331 131 Gas 64 423 132 Chisago 144 14 36 50 114 <		ALL	FATAL	NUMBER	INJURY	NUMBER	DAMAGE
Aikin 279 8 12 75 131 196 Anoka 4,489 23 25 1,336 2,042 3,130 Becker 759 10 10 185 310 564 Betrami 772 8 9 1155 227 609 Benton 663 7 9 212 317 444 Big Stone 201 2 2 39 62 160 Blue Earth 1.884 7 11 421 597 1,456 Brown 811 4 5 199 296 608 Carter 8400 8 8.242 382 550 Cass 406 4 4 91 135 311 Chisago 540 6 7 121 184 413 143 Clav 1,750 12 18 328 478 1,410 Clavater	COUNTY	CRASHES	CRASHES	KILLED	CRASHES	INJURED	CRASHES
Anoka 4,489 23 25 1,336 2,042 3,130 Becker 759 10 10 185 310 564 Beltrami 772 8 9 155 227 609 Benton 663 7 9 212 317 444 Big Stone 201 2 2 39 62 160 Blue Earth 1,884 7 11 421 597 1,456 Brown 811 4 5 199 296 608 Carver 840 8 242 382 5111 5111 Chippewa 409 4 4 73 119 332 Chisago 540 6 7 121 184 413 Clay 1,750 12 18 328 478 1,410 Clearwater 154 4 4 36 50 114 Coxo	Aitkin	279	8	12	75	131	196
Arrow Arrow <th< td=""><td>Anoka</td><td>4 4 8 9</td><td>23</td><td>25</td><td>1.336</td><td>2 042</td><td>3.130</td></th<>	Anoka	4 4 8 9	23	25	1.336	2 042	3.130
Deckal Too Too <thtoo< th=""> <thtoo< t<="" td=""><td>Becker</td><td>759</td><td>10</td><td>10</td><td>185</td><td>310</td><td>564</td></thtoo<></thtoo<>	Becker	759	10	10	185	310	564
Benton 663 7 9 212 317 444 Big Stone 201 2 2 39 62 160 Blue Earth 1,884 7 11 421 597 1,456 Brown 811 4 5 199 296 608 Carton 623 5 5 156 218 462 Carver 840 8 242 382 590 Cass 406 4 91 135 311 Chisago 540 6 7 121 184 413 Clay 1,750 12 18 328 478 141 Cook 140 1 1 36 59 103 Cottonwood 287 4 5 38 64 245 Crow Wing 1,316 14 16 209 416 1,012 Dakota 4,455 25 <t< td=""><td>Beltrami</td><td>733</td><td>8</td><td>9</td><td>155</td><td>227</td><td>609</td></t<>	Beltrami	733	8	9	155	227	609
Bin Stone 201 2 2 34 62 160 Blue Earth 1,884 7 11 421 597 1,456 Brown 811 4 5 199 296 608 Carlton 623 5 5 156 218 462 Carver 840 8 242 382 590 Cass 406 4 4 91 135 311 Chippewa 409 4 73 119 332 Chisago 540 6 7 121 184 413 Clay 1,750 12 18 328 478 1,410 Clay 1,750 12 18 328 64 245 Cook 140 1 16 290 416 1,012 Dakota 4,455 25 31 1,243 1,858 3,187 Douglas 771 3	Benton	663	7	9	212	317	444
Big of and Big of and <td>Big Stone</td> <td>201</td> <td>2</td> <td>2</td> <td>39</td> <td>62</td> <td>160</td>	Big Stone	201	2	2	39	62	160
Brown 811 4 5 199 296 608 Garton 623 5 156 218 462 Carver 840 8 8 242 382 590 Cass 406 4 4 91 135 311 Chippewa 409 4 4 73 119 332 Chisago 540 6 7 121 184 413 Clay 1,750 12 18 328 478 1,410 Clearwater 154 4 4 36 50 114 Cook 140 1 1 36 59 103 Cottonwood 287 4 5 38 64 245 Dakota 4,455 25 31 1,243 1,858 3,187 Douglas 771 3 3 162 246 606 Fillmore 404 7<	Blue Earth	1 884	7	11	421	597	1.456
Carlton 623 5 5 166 218 462 Carver 840 8 8 242 382 590 Cass 406 4 4 91 135 311 Chippewa 409 4 4 73 119 332 Chisago 540 6 7 121 184 413 Clay 1,750 12 18 328 478 1,410 Clay 1,750 12 18 328 478 1,410 Clay 1,750 12 18 328 478 1,410 Clay 1,876 31 1,243 1,858 3,187 Cotow 405 2 69 122 189 Dodge 260 2 2 69 122 189 Dodge 260 2 2 69 143 295 Fillmore 404 7 8<	Brown	811	4	5	199	296	608
Carver 840 8 242 382 590 Cass 406 4 4 91 135 311 Chippewa 409 4 4 73 119 332 Chisago 540 6 7 121 184 413 Clay 1,750 12 18 328 478 1,410 Clearwater 154 4 4 36 50 114 Cook 140 1 1 36 59 103 Cottonwood 287 4 5 38 64 245 Crow Wing 1,316 14 16 290 416 1012 Dakota 4,455 25 31 1,243 1,858 3,187 Dodge 260 2 2 69 122 189 Dotylas 771 16 143 295 57 63 Fillmore 404	Carlton	623	5	5	156	218	462
Cass 406 4 4 91 135 311 Chippewa 409 4 4 73 119 332 Chisago 540 6 7 121 184 413 Clay 1,750 12 18 328 478 1,410 Clearwater 154 4 4 36 50 114 Cook 140 1 1 36 59 103 Cottonwood 287 4 5 38 64 245 Crow Wing 1,316 14 16 290 416 1,012 Dakota 4,455 25 31 1,243 1,858 3,187 Dodge 260 2 2 69 122 189 Douglas 771 3 3 162 246 606 Freeborn 1,001 6 8 238 351 757 Godhue	Carver	840	8	8	242	382	590
Chippewa 409 4 4 73 119 332 Chisago 540 6 7 121 184 413 Clay 1,750 12 18 328 478 1,410 Clearwater 154 4 4 36 59 103 Cook 140 1 136 59 103 Cottonwood 287 4 5 38 64 245 Crow Wing 1,316 14 16 290 416 1,012 Dakota 4,455 25 31 1,243 1,858 3,187 Douglas 771 3 3 162 246 606 Faribault 408 7 7 106 143 295 Fillmore 404 7 8 92 147 305 Grant 121 2 2 36 57 83 Hennepin 32,669 86 89 7,450 11,404 25,133 Houston 414<	Cass	406	4	4	.91	135	311
Chisago54067121184413Clay1,75012183284781,410Clearwater154443650114Cook140113659103Cottonwood287453864245Crow Wing1,31614162904161.1012Dakota4,45525311,2431,8583,187Dodge2602269122189Douglas77133162246606Faribault40877106143295Fillmore4047892147305Freeborn1,00168238351757Goodhue1,0511515273404763Grant12122365783Hennepin32,66986897,45011,40425,133Houston41461094141314Hubbard2935769110219Isanti35333103165247Kandec210566295143Kandiyohi1,10444305882Kochiching50666116187384Lake37755	Chippewa	409	4	4	73	119	332
Ontsoge Ord Ord <thord< th=""> <thord< <="" td=""><td>Chisago</td><td>540</td><td>6</td><td>7</td><td>121</td><td>184</td><td>413</td></thord<></thord<>	Chisago	540	6	7	121	184	413
Only 1,103 1,2 1,3 1,2 1,2 1,3 1,2 1,2 1,3 1,2 1,2 1,3 1,2 1,2 1,3 1,3 1,2 1,2 1,3 1,3 1,2 1,2 1,3 1,3 1,3 1,3 1,3 1,3 1,3 1,3 1,3<	Clav	1 750	12	18	328	478	1 410
Cook 101 1 36 59 103 Cottonwood 287 4 5 38 64 245 Crow Wing 1,316 14 16 290 416 1,012 Dakota 4,455 25 31 1,243 1,858 3,187 Douglas 771 3 3 162 246 606 Faribault 408 7 7 106 143 295 Fillmore 404 7 8 92 147 305 Freeborn 1,001 6 8 238 351 757 Goodhue 1,051 15 15 273 404 25,133 Hennepin 32,669 86 89 7,450 11,404 25,133 Houston 414 6 10 94 141 314 Hubbard 293 5 7 69 110 219 Isanti	Clearwater	154	4	4	36	50	114
Cottorwood 287 4 5 38 64 245 Crow Wing 1,316 14 16 290 416 1,012 Dakota 4,455 25 31 1,243 1,858 3,187 Dodge 260 2 2 69 122 189 Douglas 771 3 3 162 246 606 Faribault 408 7 7 106 143 295 Fillmore 404 7 8 92 147 305 Freeborn 1,001 6 8 238 351 757 Goodhue 1,051 15 15 273 404 763 Grant 121 2 2 36 57 83 Hennepin 32,669 86 89 7,450 11,404 25,133 Houston 414 6 10 94 141 314 <t< td=""><td>Cook</td><td>140</td><td>1</td><td>1</td><td>36</td><td>59</td><td>103</td></t<>	Cook	140	1	1	36	59	103
Crow Wing1.3161.41.62904161.012Dakota4,45525311,2431,8583,187Dodge2602269122189Douglas77133162246606Faribault40877106143295Fillmore4047892147305Freeborn1,00168238351757Goodhue1,0511515273404763Grant12122365783Hennepin32,66986897,45011,40425,133Houston41461094141314Hubbard2935769110219Isanti35333103165247Itasca1,1041414302488788Jackson319227095247Kanabec210566295143Kandiyohi1,1045578154294Lake3775578154294Lake3775578154294Lake of the Woods7812121865Le Sueur473810141242324Lincoln15212 <td>Cottonwood</td> <td>287</td> <td>4</td> <td>5</td> <td>38</td> <td>64</td> <td>245</td>	Cottonwood	287	4	5	38	64	245
Dakota4,45525311,2431,8583,187Dodge2602269122189Douglas77133162246606Faribault40877106143295Fillmore4047892147305Freeborn1,00168238351757Goodhue1,05115152365783Hennepin32,66986897,45011,40425,133Houston41461094141314Hubbard2935769110219Isanti35333103165247Itasca1,1041414302488788Jackson319227095247Kandiyohi1,10455219321880Kittson11644305882Koochiching50666116187384Lake3775578154294Lake of the Woods7812121865Le Sueur473810141242324Lincoln152123345118Lyon60588139200458Mahnomen10311 <t< td=""><td>Crow Wing</td><td>1 316</td><td>14</td><td>16</td><td>290</td><td>416</td><td>1.012</td></t<>	Crow Wing	1 316	14	16	290	416	1.012
Dodge 260 2 69 122 189 Douglas 771 3 3 162 246 606 Faribault 408 7 7 106 143 295 Fillmore 404 7 8 92 147 305 Freeborn 1,001 6 8 238 351 757 Goodhue 1,051 15 15 273 404 763 Grant 121 2 2 36 57 83 Hennepin 32,669 86 89 7,450 11,404 25,133 Houston 414 6 10 94 141 314 Hubbard 293 5 7 69 110 219 Isanti 353 3 3 103 165 247 Itasca 1,104 14 14 302 488 788 Jackson 319	Dakota	4,455	25	31	1.243	1.858	3.187
Douglas 771 3 3 162 246 606 Faribault 408 7 7 106 143 295 Fillmore 404 7 8 92 147 305 Freeborn 1,001 6 8 238 351 757 Goodhue 1,051 15 15 273 404 763 Grant 121 2 2 36 57 83 Hennepin 32,669 86 89 7,450 11,404 25,133 Houston 414 6 10 94 141 314 Hubbard 293 5 7 69 110 219 Isanti 353 3 3 103 165 247 Itasca 1,104 14 14 302 488 788 Jackson 319 2 2 70 95 247 Kandiyohi	Dodge	260	2	2	69	122	189
Faribault40877106143295Fillmore4047892147305Freeborn1,00168238351757Goodhue1,0511515273404763Grant12122365783Hennepin32,66986897,45011,40425,133Houston41461094141314Hubbard2935769110219Isanti35333103165247Itasca1,1041414302488788Jackson319227095247Kanabec210566295143Kandiyohi1,10455219321880Kittson11644305882Koochiching50666116187384Lake3775578154294Lake of the Woods7812121865Le Sueur473810141242324Lincoln152123345118Lyon60588139200458Mahnomen10311202982	Douelas	771	3	3	162	246	606
Fillmore4047892147305Freeborn1,00168238351757Goodhue1,0511515273404763Grant12122365783Hennepin32,66986897,45011,40425,133Houston41461094141314Hubbard2935769110219Isanti35333103165247Itasca1,1041414302488788Jackson319227095247Kanabec210566295143Kandiyohi1,10455219321880Kittson11644305882Koochiching50666116187384Lac Qui Parle238335579180Lake of the Woods7812121865Le Sueur473810141242324Lincoln152123345118Lyon60588139200458Mahnomen10311202982	Faribault	408	7	7	106	143	295
Freeborn1,00168238351757Goodhue1,0511515273404763Grant12122365783Hennepin32,66986897,45011,40425,133Houston41461094141314Hubbard2935769110219Isanti35333103165247Itasca1,1041414302488788Jackson319227095247Kanabec210566295143Kandiyohi1,10455219321880Kittson11644305882Koochiching50666116187384Lac Qui Parle238335579180Lake3775578154294Lake of the Woods7812121865Le Sueur473810141242324Lincoln152123345118Lyon60588139200458Mahnomen10311202982	Fillmore	404	7	8	92	147	305
Goodhue1,0511515273404763Grant12122365783Hennepin32,66986897,45011,40425,133Houston41461094141314Hubbard2935769110219Isanti35333103165247Itasca1,1041414302488788Jackson319227095247Kanabec210566295143Kandiyohi1,10455219321880Kitson11644305882Koochiching50666116187384Lake3775578154294Lake3775578154294Lake of the Woods78123345118Lyon60588139200458McLeod74788176266563Mahnomen10311202982	Freeborn	1,001	6	8	238	351	757
Grant12122365783Hennepin32,66986897,45011,40425,133Houston41461094141314Hubbard2935769110219Isanti35333103165247Itasca1,1041414302488788Jackson319227095247Kanabec210566295143Kandiyohi1,10455219321880Kittson11644305882Koochiching50666116187384Lac Qui Parle238335579180Lake of the Woods7812121865Le Sueur473810141242324Lincoln152123345118Lyon60588139200458McLeod74788176266563Mahnomen10311202982	Goodhue	1,051	15	15	273	404	763
Hennepin32,66986897,45011,40425,133Houston41461094141314Hubbard2935769110219Isanti35333103165247Itasca1,1041414302488788Jackson319227095247Kanabec210566295143Kandiyohi1,10455219321880Kittson11644305882Koochiching50666116187384Lac Qui Parle238335579180Lake of the Woods7812121865Le Sueur473810141242324Lincoln152123345118Lyon60588139200458McLeod74788176266563Mahnomen10311202982	Grant	121	2	2	36	57	83
Houston41461094141314Hubbard2935769110219Isanti35333103165247Itasca1,1041414302488788Jackson319227095247Kanabec210566295143Kandiyohi1,10455219321880Kittson11644305882Koochiching50666116187384Lac Qui Parle238335579180Lake3775578154294Lake of the Woods7812121865Le Sueur473810141242324Lincoln152123345118Lyon60588139200458McLeod74788176266563Mahnomen10311202982	Hennepin	32,669	86	89	7,450	11,404	25,133
Hubbard2935769110219Isanti35333103165247Itasca1,1041414302488788Jackson319227095247Kanabec210566295143Kandiyohi1,10455219321880Kittson11644305882Koochiching50666116187384Lac Qui Parle238335579180Lake3775578154294Lake of the Woods7812121865Le Sueur473810141242324Lincoln152123345118Lyon60588139200458McLeod74788176266563Mahnomen10311202982	Houston	414	6	10	94	141	314
Isanti35333103165247Itasca1,1041414302488788Jackson319227095247Kanabec210566295143Kandiyohi1,10455219321880Kittson11644305882Koochiching50666116187384Lac Qui Parle238335579180Lake3775578154294Lake of the Woods7812121865Le Sueur473810141242324Lincoln152123345118Lyon60588139200458McLeod74788176266563Mahnomen10311202982	Hubbard	293	5	7	69	110	219
Itasca1,1041414302488788Jackson319227095247Kanabec210566295143Kandiyohi1,10455219321880Kittson11644305882Koochiching50666116187384Lac Qui Parle238335579180Lake3775578154294Lake of the Woods7812121865Le Sueur473810141242324Lincoln152123345118Lyon60588139200458McLeod74788176266563Mahnomen10311202982	Isanti	353	3	3	103	165	247
Jackson319227095247Kanabec210566295143Kandiyohi1,10455219321880Kittson11644305882Koochiching50666116187384Lac Qui Parle238335579180Lake3775578154294Lake of the Woods7812121865Le Sueur473810141242324Lincoln152123345118Lyon60588139200458McLeod74788176266563Mahnomen10311202982	Itasca	1,104	14	14	302	488	788
Kanabec210566295143Kandiyohi1,10455219321880Kittson11644305882Koochiching50666116187384Lac Qui Parle238335579180Lake3775578154294Lake of the Woods7812121865Le Sueur473810141242324Lincoln152123345118Lyon60588139200458McLeod74788176266563Mahnomen10311202982	Jackson	319	2	2	70	95	247
Kandiyohi1,10455219321880Kittson11644305882Koochiching50666116187384Lac Qui Parle238335579180Lake3775578154294Lake of the Woods7812121865Le Sueur473810141242324Lincoln152123345118Lyon60588139200458McLeod74788176266563Mahnomen10311202982	Kanabec	210	5	6	62	95	143
Kittson11644305882Koochiching50666116187384Lac Qui Parle238335579180Lake3775578154294Lake of the Woods7812121865Le Sueur473810141242324Lincoln152123345118Lyon60588139200458McLeod74788176266563Mahnomen10311202982	Kandiyohi	1,104	5	5	219	321	880
Koochiching50666116187384Lac Qui Parle238335579180Lake3775578154294Lake of the Woods7812121865Le Sueur473810141242324Lincoln152123345118Lyon60588139200458McLeod74788176266563Mahnomen10311202982	Kittson	116	4	4	30	58	82
Lac Qui Parle238335579180Lake3775578154294Lake of the Woods7812121865Le Sueur473810141242324Lincoln152123345118Lyon60588139200458McLeod74788176266563Mahnomen10311202982	Koochiching	506	6	6	116	187	384
Lake3775578154294Lake of the Woods7812121865Le Sueur473810141242324Lincoln152123345118Lyon60588139200458McLeod74788176266563Mahnomen10311202982	Lac Qui Parle	238	3	3	55	79	180
Lake of the Woods7812121865Le Sueur473810141242324Lincoln152123345118Lyon60588139200458McLeod74788176266563Mahnomen10311202982	Lake	377	5	5	78	154	294
Le Sueur473810141242324Lincoln152123345118Lyon60588139200458McLeod74788176266563Mahnomen10311202982	Lake of the Woods	78	1	2	12	18	65
Lincoln152123345118Lyon60588139200458McLeod74788176266563Mahnomen10311202982	Le Sueur	473	8	10	141	242	324
Lyon60588139200458McLeod74788176266563Mahnomen10311202982	Lincoln	152	1	2	33	45	118
McLeod 747 8 8 176 266 563 Mahnomen 103 1 1 20 29 82	Lyon	605	8	8	139	200	458
Mahnomen 103 1 1 20 29 82	McLeod	747	8	8	176	266	563
	Mahnomen	103	1	1	20	29	82

				PERSONAL		PROPERTY
	ALL	FATAL	NUMBER	INJURY	NUMBER	DAMAGE
COUNTY	CRASHES	CRASHES	KILLED	CRASHES	INJURED	CRASHES
Marshall	255	7	8	64	106	184
Martin	616	3	3	141	213	472
Meeker	474	3	3	109	169	362
Mille Lacs	417	5	6	97	166	315
Morrison	787	7	8	197	332	583
Mower	1,133	7	9	284	403	842
Murray	216	3	6	52	83	161
Nicollet	604	3	3	158	216	443
Nobles	586	4	6	126	208	456
Norman	144	4	7	36	58	104
Olmsted	2,868	15	15	695	1,046	2,158
Otter Tail	1,099	11	11	243	371	845
Pennington	499	1	1	104	153	394
Pine	411	6	7	98	175	307
Pipestone	265	2	3	68	103	195
Polk	1,102	13	14	218	321	871
Pope	180	6	6	34	53	140
Ramsey	16,863	43	51	3,828	5,508	12,992
Red Lake	122	2	2	20	35	100
Redwood	388	4	5	73	109	311
Renville	406	8	9	113	209	285
Rice	1,209	11	14	298	437	900
Rock	286	3	3	51	79	232
Roseau	202	3	3	32	47	167
St. Louis	6,695	47	50	1,427	2,119	5,221
Scott	968	7	7	260	408	701
Sherburne	533	7	7	135	221	391
Sibley	308	3	3	77	125	228
Stearns	3,216	26	27	759	1,176	2,431
Steele	851	2	2	190	289	659
Stevens	247	6	6	46	71	195
Swift	271	7	7	59	89	205
Todd	492	3	3	116	264	373
Traverse	85	1	1	17	33	67
Wabasha	465	8	10	113	183	344
Wadena	340	0	0	64	103	276
Waseca	481	5	5	125	187	351
Washington	2,265	23	26	625	933	1,617
Watonwan	358	3	3	82	136	273
Wilkin	289	4	5	72	106	213
Winona	1,319	13	16	301	406	1,005
Wright	1.130	11	11	318	533	801
Yellow Medicine	290	1	1	63	86	226
Total	116 390	720	809	27 409	41 491	88 261
	110,000	, 20	000	21,700	,	00,201

Location of Crashes by Population

	ALL CRASHES	FATAL CRASHES	PERSONAL INJURY CRASHES	PROPERTY DAMAGE CRASHES
MINNEAPOLIS (434,400)	17,375	36	3,648	13,691
ST. PAUL (309,866)	12,186	27	2,616	9,543
DULUTH (105,578)	3,060	16	610	2,434
BLOOMINGTON (81,970)	2,715	10	717	1,988
25,000 — 50,000	18,251	46	4,242	13,963
10,000 — 25,000	17,821	51	4,131	13,639
2,500 — 10,000	14,700	52	2,984	11,664
RURAL (Under 2,500)	30,282	482	8,461	21,339

KILLED	INJURED	
36	5,666	
32	3,695	
16	840	
12	1,084	
49	6,212	
58	5,992	
55	4,390	
551	13.612	

LOCATION OF CRASHES BY URBAN OR RURAL AREA

ACCIDENTS BY DRIVER RESIDENCE

DRIVER RESIDENCE	TOTAL	FATAL	PERSONAL INJURY	PROPERTY DAMAGE
Urban Resident	128,026	435	31,293	96,298
Rural Resident	41,503	444	9,841	31,218
Non-Resident	11,105	98	2,719	8,288
Not Stated	17,152	46	1,599	15,507
TOTAL	197,786	1,023	45,452	151,311

Crashes by City Groups

G R	OUP	CITY	ALL CRASHES	FATAL CRASHES	NUMBER .KILLED	PERSONAL INJURY CRASHES	NUMBER INJURED	PROPERTY DAMAGE CRASHES
Α.	Pop. 100,000 or more	Minneapolis	17,375	36	36	3,648	5,666	13,691
		St. Paul	12,186	27	32	2,616	3,695	9,543
		Duluth	3,060	16	16	610	840	2,434
В.	Pop. 20,000 – 99,999	Austin	809	1	1	188	254	620
		Bloomington	2,715	10	12	717	1,084	1,988
		Brooklyn Center	991	2	2	223	342	766
		Brooklyn Park	691	4	4	196	291	491
		Columbia Heights	595	3	3	135	188	457
		Coon Rapids	818	4	4	254	405	560
		Crystal	599	2	2	118	205	479
		Edina	1,048	1	1	243	342	804
		Fridley	940	5	5	277	393	658
		Golden Valley	1,082	2	2	304	471	776
		Mankato	1,431	3	3	272	376	1,156
		Maplewood	852	1	1	247	358	604
		Minnetonka	896	5	5	192	314	699
		Moorhead	1,377	_	_	265	369	1,112
		Richfield	1,351	1	1	297	424	1,053
		Rochester	2,150	3	3	476	692	1,6/1
		Roseville	950	3	4	203	310	744
		St. Cloud	1,958	4	5	440	643	1,514
		St. Louis Park	1,358	3	3	341	485	1,014
		South St. Paul	580	2	2	119	177	459
		White Bear Lake	552	4	6	153	236	395
		Winona	841	5	6	198	263	638
С.	Pop. 10,000 - 19,999	Albert Lea	674	2	2	145	211	527
		Anoka	536	_	-	138	201	398
		Bemidji	477	3	3	76	101	398
		Blaine	667	1	1	193	290	473
		Brainerd	637	1	1	97	118	539
		Burnsville	768	8	9	203	310	557
		Cottage Grove	248	2	· 4	67	99	179
		Eagan	420	4	5	129	181	287
		Faribault	632	_	_	138	203	494
		Fairmont	347	_	_	57	79	290
		Fergus Falls	398	_	-	61	. 79	337
		Hastings	384	1	1	96	141	287
		Hibbing	652	_	_	120	185	532
		Hopkins	624	_	-	105	158	519
		Inver Grove Heights	435	1	2	135	201	299
		New Brighton	464	1	1	122	162	341
		New Hope	335	_	_	83	119	252
		New UIm	452	_	_	95	135	537
		Northfield	208	3	3	36	57	169
		North St. Paul	319	_	_	92	140	227
		Owatonna	544	_	_	112	152	432
	*Poi	pulation figures are from	the U.S. 1970 ce	nsus.				

GROUPS CONTINUED

GROUP	CITY	ALL CRASHES	FATAL CRASHES	NUMBER Killed	PERSONAL INJURY CRASHES	NUMBER INJURED	PROPERTY DAMAGE CRASHES
	Plymouth	584	2	2	163	262	419
-	Red Wing	465	3	3	110	147	352
	Robbinsdale	526	3	3	140	200	383
	Shoreview	231	_	_	60	89	171
	Stillwater	317	-	_	78	107	239
	Virginia	655	3	3	114	159	538
	West St. Paul	527	_	-	161	231	366
	Willmar	677	1	1	106	149	570
D. Pop. 5,000 – 9,000	Alexandria	454	1	1	78	121	375
	Apple Valley	244	-	-	70	104	174
	Chisholm	147	-	-	18	24	129
	Cloquet	308	3	3	64	90	241
	Crookston	340	1	1	48	59	291
	Detroit Lakes	299	-	-	54	77	245
	East Grand Forks	366	1	1	62	87	303
	Eden Prairie	345	3	3	107	176	235
	Ely	116	-	-	12	18	104
	Eveleth	156	-	_	22	36	134
	Falcon Heights	133	_	-	23	30	110
	Grand Rapids	406	-	_	56	74	350
	Ham Lake	82	—		34	51	48
	Hutchinson	291	1	1	40	53	250
	International Falls	284	-	-	61	87	223
	Litchfield	158	-	-	19	25	139
	Little Falls	329	2	2	55	72	272
	Maple Grove	193	2	2	62	92	129
	Marshall	294	_	-	54	68	240
	Mendota Heights	277	2	2	79	129	196
	Montevideo	212		_	24	34	188
	Mound	166	1	1	44	65	121
	Mounds View	280	1	1	90	159	189
	New Prague	63	-	-	9	9	54
		154	-	-	37	43	117
	Dinastana	100	-	_	59	94 24	02
	Pipestone St. Anthony	122	I	I	20	54	140
	St. Anthony	70	_	_	30 1 E	19	55
	SL. Faul Faik St. Potor	70	1	1	15	79	160
	Sult Papida	122	1	1	50 42	57	09
	Sauk napius Shakonaa	132	1	1	42	57 84	204
	Shakupee Spring Lako Park	172	2	י ר	59	100	112
	Thiof Divor Falls	173	2	2	59 74	100	336
	Wacaca	246	1	`	/4	54	198
	Worthington	367	_	_	67	99	300
E. Pop. 2,500 – 4,999	Arden Hills	234	2	2	53	81	179
	Aurora	69	_	_	12	18	57
	Babbitt	34	_	_	3	3	31
	Bayport	42	_	_	10	14	32
-	Benson	. 95	_	_	16	21	79
	Blue Earth	86	_	_	13	18	73

GROUP	CITY	ALL CRASHES	FATAL CRASHES	NUMBER Killed	PERSONAL INJURY CRASHES	NUMBER INJURED	PROPERTY DAMAGE CRASHES
	Breckenridge	154	1	1	25	33	128
	Buffalo	102	_	-	18	28	84
	Caledonia	70	_	. —	7	10	63
	Cambridge	122	1	1	22	30	99
	Chanhassen	190	_	-	67	107	123
	Chaska	143	I	1	34	46	108
	Circle Pines	50	-	-	13	17	37
	Deephaven	44	_		12	20	32
	East Bethel	82	I	1	32	59	49
	East Granite Falls	19	-	_	3	6	16
	Excelsior	65	_	_	9	14	56
	Farmington	75	1	1	22	37	52
	Forest Lake	134	2	2	27	35	105
	Glencoe	102	I	1	18	26	83
	Glenwood	55	_	-	10	13	45
	Granite Falls	69	_	_	10	13	59
	Hoyt Lakes	46	2	2	8	20	30
	Jackson	124	_	_	14	16	70
	LaCrescent	88	I	1	17	20	70
	Lake City	/8	-	-	15	25	03
		249	1	<u>ح</u>	61	84	187
		94	4	4	36	63	54
	Le Sueur	69	1	1	13	16	55
	Little Canada	228	2	2	47	72	179
	Luverne	149	—	-	20	27	129
	Mahtomedi	53	-	_	15	19	38
	Minnetrista	/2	2	2	27	45	43
	Mora	81	_	_	12	15	69
	Morris	145	-	-	18	21	127
	Newport	133	_	_	29	53	104
	Olivia	64	_	. —	12	14	52
	Ortonville	88	_	_	6	/	82
	Osseo	85	_	_	10	11	/5
	Park Rapids	83	_	_	15	22	68
	Princeton	98	_	_	19	21	/9
	Proctor	,55	-	_	14	19	41
	Redwood Falls	1/4	-	_	22	35	152
	Roseau	/5	-	_	/	13	68
	St. James	116	_	_	26	34	90
		93	-	-	9	11	84
	Shorewood	90	2	3	22	39	66
	Silver Bay	55	_	_	4	6	51
	Sleepy Eye	107	_	_	19	30	88
	Springfield	58	_	_	/	8	51
	Staples	/2	_	-	1	1	71
	Stewartville	48	_	—	9	13	39
		40	_		8 15	12	38 105
	I WO Harbors	140	_	_	15	26	105
	Vadnais Heights	143	1	Т	41	66	101
J.		189	—	_	29	48	100
		180	-	-	4/	72	133
	vvayzata	191	-	-	45	62	146
		61 140	-	-	/	/	54
	Windom	149	-	_	16	26	133
	woodbury	150	Ζ.	2	40	рд	108

SUMMARY

Weather and Light Conditions

	WEATHER CONDITIONS	ALL CRASHES	FATAL CRASHES	PERSONAL INJURY CRASHES	PROPERTY DAMAGE CRASHES
	CLEAR	72,781	637	24,141	48,003
All Crashes Daylight 61.2%	RAIN	3,821	28	1,234	2,559
Darkness 38.8%	SNOW OR SLEET	5,311	36	1,325	3,950
Fatal Crashes Daylight 40.3%	FOG	240	4	94	142
Darkness	ALL OTHERS	34,237	15	615	33,607
59.7%	TOTAL	116,390	720	27,409	88,261

LIGHT CONDITIONS	ALL CRASHES	FATAL CRASHES	PERSONAL INJURY CRASHES	PROPERTY DAMAGE CRASHES	NUMBER KILLED	NUMBER INJURED
Daylight	71,224	290	15,833	55,101	332	23,744
Darkness	45,166	430	11,576	33,160	477	17,747
TOTAL	116,390	720	27,409	88,261	809	41,491

Road Surface and Character

ROAD SURFACE CONDITIONS	ALL CRASHES	FATAL CRASHES	PERSONAL INJURY CRASHES	PROPERTY DAMAGE CRASHES
DRY	47,396	518	17,204	29,674
WET	9,268	64	3,059	6,145
SNOWY OR ICY	15,259	61	3,635	11,563
ALL OTHERS & NOT STATED	44,467	77	· 3,511	40,879
TOTAL	116,390	720	27,409	88,261

ROAD CHARACTER

ROAD MILEAGE SUMMARY

Road Classification MILEAGE AND CRASH DISTRIBUTION

Type Road	Miles	Percent
Interstate	803	0.6%
Trunk Highways	11,391	8.9%
County State		
Aid Highways	29,860	23.2%
County Roads	15,172	11.8%
Township Roads	56,299	43.8%
Local Streets	10,867	8.5%
Other Roads	4,064	3.2%
TOTAL	128 <mark>,456</mark>	100.0%

CRASHES BY TYPE OF ROAD CLASSIFICATION

Road Classification	All Crashes	Fatal Crashes	Personal Injury Crashes	Property Damage Crashes		Number of People Killed	Number of People Injured
Urban* Interstate Rural Interstate	5,648 1,106	20 3	1,266 242	4,362 861		24 3	1,846 385
Urban [*] Trunk Highway	28,713	93	6,883	21,737		99	10,5 <mark>4</mark> 5
Rural Trunk Highway	13,203	255	3,720	9,228		308	6,145
County State Aid Highway	23,328	207	6,531	16,590		225	10,088
County Road	2,229	29	757	1,443		30	1,206
Township Road	2,461	26	703	1,732	-	27	1,124
Local Street	39,175	83	7,175	31,917		89	9,953
Other Road	527	4	132	891		4	199
TOTAL	116,390	720	27,409	<mark>8</mark> 8,261		809	41,491

*Any built-up area of 2,500 or more population.

MILEAGE AND CRASH DISTRIBUTION BY TYPE OF ROADWAY

Ages of Killed and Injured

PERCENT OF FATALITIES BY AGE GROUP

PERCENT OF INJURIES BY AGE GROUP

AGE AND SEX OF TOTAL FATALITIES AND INJURIES

Age	÷	Total Kill	ed			Total Injured	
Group	All	Male	Female		All	Male	Female
0-4	22	14	8		958	501	457
5-9	22	14	8	1	1,406	781	625
10-14	24	13	11		1,732	953	779
15-19	169	129	40		9,559	5,681	3,878
20-24	145	124	21		8,296	5,170	3,126
25-34	122	89	33	1	7,682	4,611	3,071
35-44	59	45	14	11	3,417	1,856	1,561
45-54	65	60	5	1	2,977	1,557	1,420
55-64	66	44	22	- 1	2,258	1,097	1,161
65-74	43	26	17		1,439	637	802
75-up	67	43	24	- 1	849	412	437
Not Stated	5	2	3		918	390	528
TOTAL	809	603	206		41,491	23,646	17,845

Drivers Involved in Crashes

DISTRIBUTION OF DRIVERS IN CRASHES BY SEX AND DEGREE OF SEVERITY

AGE DISTRIBUTION OF LICENSED DRIVERS AND THEIR INVOLVEMENT IN CRASHES



DRIVERS IN TRAFFIC CRASHES

· · · · · · · · · · · · · · · · · · ·		Number o			
Age	All Crashes	Fatal Crashes	Personal Injury Crashes	Property Damage Crashes	Number Licensed Drivers
14-Under	205	4	73	128	0
15-19	34,411	184	8,703	25,524	271,7,49
20-24	38,466	239	10,182	28,045	330,118
25-29	25,353	137	6,469	18,747	301,972
30-34	15,993	86	4,166	11,741	232,508
35-39	11,453	57	2,851	8,545	185,511
40-44	9,331	51	2,252	7,028	160,099
45-49	8,868	55	2,216	6,597	159,667
50-54	8,563	48	2,027	6,488	158,124
55-59	7,334	37	1,652	5,645	145,602
60-64	5,912	32	1,354	4,526	128,560
65-69	4,179	22	969	3,188	101,925
70-74	3,207	23	704	2,480	75,501
75-Over	3,795	38	889	2,868	83,664
Sub Total	177,070	1,013	44,507	131,550	2,335,000
Not Stated	20,716	10	945	19,761	0
TOTAL	197,786	1,023	45,452	151,311	2,335,000

PROBABLE DRIVER BEHAVIORS IN CRASHES

Driver Behavior Indicated	All Crashes	Fatal Crashes	Personal Injury Crashes	Property Damage Crashes
Illegal/Unsafe Speed	13,257	195	5,239	7,823
Traffic Control Violation	2,854	26	1,388	1,440
Over Center Line, Wrong Lane	2,721	95	1,027	1,599
Improper Parking, Starting, Stopping	1,731	6	353	1,372
Improper Passing	1,376	9	270	1,097
Following Too Closely	3,578	2	1,205	2,371
Failure To Yield Right-Of-Way	12,790	74	4,425	8,291
No Signal/Improper Signal	527	1	111	415
Vision Obscurement	2,277	15	705	1,557
Bicycle Violation	474	9	457	8
Impeding Traffic	266	0	79	187
Improper Left Turn	774	10	153	611
Improper Right Turn	470	0	51	419
Other Improper Turn	1,527	1	291	1,235
Beyond Driver's Control	34,899	229	11,599	23,071
Defective Equipment	1,808	6	604	1,198
Pedestrian Violation	723	38	662	23
Other	115,734	307	16,833	98,594
TOTAL	197,786	1,023	45,452	151,311

Vehicle Movement

TWO VEHICLE NON-INTERSECTION CRASHES



TWO-VEHICLE INTERSECTION CRASHES



ENTERING AT ANGLE

All Crashes	16,531
Fatal Crashes	85
Personal Injury	
Crashes	5,667
Property Damage	
Crashes	10,799

GOING STRAIGHT

All Crashes

Crashes

Crashes

Fatal Crashes

Personal Injury

Property Damage





SIDESWIPE All Crashes **Fatal Crashes** Personal Injury Crashes Property Damage Crashes

SAME DIRECTION **ALL OTHERS**

All Crashes	1,513
Fatal Crashes	0
Personal Injury	
Crashes	195
Property Damage	
Crashes	1,318



SAME DIRECTION ONE TURNING, ONE STRAIGHT

473 83 389	TURNING, UNE STRAIGH				
1	All Crashes	3,641			
	Fatal Crashes	3			
83	Personal Injury				
	Crashes	1,030			
389	Property Damage				
	Crashes	2,608			

OPPOSITE DIRECTION ALL OTHERS

All Crashes	753
Fatal Crashes	0
Personal Injury	
Crashes	170
Property Damage	
Crashes	583

NOT STATED

All Crashes	74
Fatal Crashes	0
Personal Injury	
Crashes	9
Property Damage	
Crashes	65

TOTAL TWO VE	HICLE
All Crashes	34,210
Fatal Crashes	117
Personal Injury	
Crashes	11,089
Property Damage	
Crashes	23 004

All Grashes	10,001
Fatal Crashes	85
Personal Injury	
Crashes	5,667
Property Damage	

Crashes Property Damage Crashes

OPPOSITE DIRECTION

261

132

121

8

All Crashes 7,066 **Fatal Crashes** Personal Injury 2,311 4,751

ONE TURNING LEFT, **ONE STRAIGHT**

3,898

1,492

2,390

16

All Crashes

Crashes

Fatal Crashes

Personal Injury Crashes

Property Damage

REAR END

4

Crash Involvement COMPARED WITH REGISTRATIONS BY TYPE OF MOTOR VEHICLE

VEHICLES IN CRASHES



MOTOR VEHICLE REGISTRATIONS

Type Motor Vehicle	1976 Registrations
Passenger Cars Trucks Gross Weight Farm Urban Buses Motorcycles Recreational Tax Exempt	2,125,167 476,351 114,643 4,464 6,414 143,237 20,619 36,486
TOTAL	2, <mark>924,38</mark> 1

VEHICLES IN CRASHES

(e.)	Number of Vehicles in:					
Type Motor Vehicle	All Crashes	Fatal Crashes	Personal Injury Crashes	Property Damage Crashes		
Passenger Cars	168,942	679	37,334	130,929		
Pass. Car & Trailer	333	2	74	257		
Trk/Trk Tractor	25,386	175	5,506	19,705		
Trk Tractor & Semi-Trail.	2,598	61	617	1,920		
Trk Tractor & Twin-Trail.	10	0	3	7		
Other Truck Comb.	405	6	76	323		
Farm Tractor and/or						
Farm Equipment	219	13	75	131		
Taxicab	496	1	96	399		
Bus	741	3	162	576		
School Bus	599	9	119	471		
Motorcycle	2,531	66	1,914	551		
Snowmobile	97	2	52	43		
Emergency Vehicles	245	1	56	188		
Military Vehicles	10	0	2	8		
Other Public Vehicles	1,270	4	261	1,005		
Hit-Run Vehicles	9,282	16	896	8,370		
Other and Not Stated	316	3	77	236		
TOTAL VEHICLES	213,480	1,041	47,320	165,119		

Type of Vehicle	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976
Passenger Cars Trucks	1,578,791	1,643,025	1,694,936	1,732,607	1,782,734	1,806,394	1,866,756	1,931,493	1,943,956	2,125,167
Gross Weight	246,135	265,678	288,778	310,150	334,414	355,100	385,826	425,743	442,904	476,351
Farm	104,124	105,074	105,242	105,212	105,202	103,346	104,200	108,714	101,976	114,643
Urban	3,925	4,037	4,250	4,402	4,731	4,645	4,410	4,605	4,571	4,464
Subtotal,										
Trucks	354,184	374,789	398,270	419,764	444,347	463,091	494,436	539,062	549,451	592,458
Tax Exempt	25,997	29,603	26,647	24,438	26,296	24,443	31,740	35,848	33,273	36,486
Buses	1,943	1,970	1,948	1,799	1,300	2,956	3,019	3,165	2,352	2,432
School Buses	4,038	4,314	4,508	4,740	5,093	3,604	3,491	3,665	3,797	3,982
Motorcycles	55,892	60,886	61,199	71,914	90,150	103,286	119,227	138,193	136,256	143,237
Recreational ¹	1,286			4,834	6,592	9,233	12,318	14,328	16,200	20,619
Motor Vehicle										
Sub-Total	2,022,131	2,114,587	2,187,514	2,260,096	2,356,512	2,413,007	2,531,037	2,665,754	2,685,285	2,924,381
Mobile Homes ²	23,904	25,997	28,728	34,440	38,670	30,560	604	54,589		
Trailers ³	79,073	290,125	333,085	336,686	378,939	398,718	451,539	459,049	497,071	490,585
Sub-Total,										
Trailers	102,977	316,122	361,813	371,126	417,609	429,278	452,143	513,638	497,071	490,585
Collector's										
ltem ⁴					7,779	8,504	9,427	10,120	10,806	13,174
GRAND										
TOTAL ⁵	2,125,108	2,430,709	2,549,327	2,631,222	2,781,900	2,850,789	2,992,607	3,189,512	3,193,162	3,428,140

1. Motor-powered vehicles used for human habitation during recreational activities.

2. The reduction in 1972 registrations of mobile homes is due to a change in registration year from January 1 through December 31 to October 1 through September 30.

- 3. After May 24, 1973, mobile homes are no longer required to be registered with the Department of Motor Vehicles.
- 4. The number of vehicles registered as collector's items is unknown prior to 1971.
- 5. Does not include foreign based prorate vehicles.

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MINNESOTA VEHICLE

REGISTRATION, 1967-1976

Driver License Data

DRIVER LICENSING DATA, 1967-1976

	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976
Number of										
Licensed Drivers	1,950,000	2,000,000	2,025,000	2,050,000	2,125,000	2,150,000	2,200,000	2,235,000	2,275,000	2,335,000
Permits Issued	164,303	170,826	168,061	167,713	168,110	156,230	162,016	126,860	128,159	129,459
Written Tests	173,475	207,068	241,720	266,649	264,068	226,000	238,482	287,392	312,407	332,669
Road Tests	178,921	200,373	213,058	221,856	221,741	198,000	215,604	234,076	211,335	226,648
Regular Licenses										
Issued	519,673	666,566	534,356	522,528	613,000		Ì			
Classified Licenses										
Issued: * *						720,777	630,689	591,489	671,618	753,085
Class A					1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 -	60,306	62,371	9,048	6,860	60,154
Class B						22,139	24,825	10,415	9,912	27,512
Class C						638,332	543,493	572,036	654,846	665,419
Duplicate						-		-		
Licenses Issued:	185,039	197,779	202,373	209,393	217,331	190,265	203,836	189,617	188,711	197,227
Endorsements on						-				
Licenses										
Motorcycle	*	*	*	*	*	N.A.	55,377	91,024	127,081	152,138
School Bus	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	16,469	18,439	19,757	20,837
Driver Evaluations	14,189	15,294	14,254	15,201	13,033	18,783	12,744	10,811	12,194	13,036
Driver Evaluation					-	-				
Suspensions	16,775	17,069	16,212	14,669	11,065	11,901	12,011	10,563	9,623	11,176
Suspensions Due					-	-				
to Non-Payment										
of Fine***									5,042	7.837
Safety Respon-										
sibility Act					1					
Suspensions	21,067	19,585	21,602	26,431	23,734	17.734	19,060	17,502	1.089	528
No-Fault Sus-					,					
pensions –									1	
Driver						7				
License * * *									6,246	10.559
Revocations	8,912	10.819	11.961	12,134	12.974	12.624	14.987	16.733	20.381	16.381
License Cancel-							,			
lations	3,338	4,004	3,540	3.357	3.447	5.656	4,789	6.232	4.380	2,566
Medical Referrals	4,894	6,136	4,155	2,752	3.892	2,442	2,724	2,960	13,397	19.425
Referrals to Driver	.,				-,	_,	,,	2,000		10,120
Improvement										
Clinics							643	633	508	1 065
Reported		ļ			ļ					.,
Convictions	219,938	239,627	241,579	235,676	253,652	225,491	297,412	307,528	348,979	376,902

*Motorcycle license data are included in total number of licensed drivers, but not broken out separately.

Beginning in 1972, classified licenses were issued. *Beginning January 1, 1975.

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Motor Vehicle Inspection

	Type of	Number	Number	Number	Percent
	Vehicle	Defects	Kejected	Inspected	Rejected
	Cars	57,920	36,314	66,070	55.0%
1070	Trucks	18,330	10,599	19,570	54.1%
1370	School Buses	2,283	2,223	4,835	46.0%
	TOTAL VEHICLES ³	78,533	49,136	90,475	54.3%
	Cars	67,187	42,019	84,945	49.5%
	Trucks	14,466	10,030	21,224	47.3%
1971	School Buses	2,782	2,468	5,035	49.0%
	Motorcycles	32	29	172	16.8%
	TOTAL VEHICLES	84,467	54,546	111,376 ²	49.0%
	Cars	68,171	36,010	79,959	45.0%
	Trucks	17,205	8,402	18,050	46.5%
1972 ¹	School Buses	9,162	3,825	8,012	47.7%
	Motorcycles	72	50	194	25.8%
	TOTAL VEHICLES	94,610	48,287	106,215	45.5%
	Cars	78,800	42,190	89,505	47.1%
	Trucks	18,393	9,241	19,311	47.9%
1973	School Buses ⁴	12,278	5,885	15,793	37.3%
	Motorcycles	113	80	384	20.8%
	TOTAL VEHICLES	100,584	57,396	124,993	45.9%
	Cars	62,241	34,764	91,842	37.9%
	Trucks	15,838	7,772	21,869	35.5%
1974	School Buses	10,973	4,852	16,439	29.5%
	Motorcycles	149	86	529	16.3%
	TOTAL VEHICLES	89,201	47,474	130,679	36.3%
	Cars	82,431	43.776	107,565	40.7%
	Trucks	21,079	9,433	22,104	42.7%
1975	School Buses	19,366	3,191	18,122	17.6%
	Motorcycles	236	119	689	17.3%
	TOTAL VEHICLES	123,112	56,519	148,480	38.1%
	Cars	90 954	49 648	125 042	39.7%
	Trucks	25,388	12,391	30 046	41 2%
1976	School Buses	20,152	2,939	18,589	15.8%
	Motorcycles	451	276	1.370	20.1%
		126 045	65.254	175.047	27 20/
	IUTAL VERIGLES	130,945	03,254	175,047	37.3%

¹Due to coding error, 8,858 vehicles inspected in District 25 are not represented in this table. ²Includes only those vehicles for which complete inspection reports are available.

³Motorcycles were not inspected in 1970.

⁴Beginning in 1973 all school buses are inspected twice yearly, thus these figures represent two inspections of the same vehicle.

PEDESTRIAN

Crashes Involving Pedestrians

Pedestrians, by virtue of the fact that skin and bone are no match for two tons of steel, are more vulnerable to injury than the victims of any other type crash.

Since 1967 there have been an average of 1,914 pedestrian crashes annually in which an average of 131 fatalities and 1,906 injuries have occurred. During 1976 there were 1,723 pedestrian-involved collisions in which 120 pedestrians were killed and an additional 1,726 were injured. Minnesota experienced only a slight decrease in pedestrian fatalities in 1976, although both the number of injured pedestrians and the number of pedestrian crashes decreased more than 10 percent. Considering the fact that the number of fatalities dropped by only one, and the number of crashes dropped significantly, we see that those pedestrian crashes that occurred were more likely to result in a fatality. In 1975, one out of every 16 pedestrian crashes resulted in a fatality; in 1976, however, one out of every 14 crashes resulted in a pedestrian death. Both the number of pedestrian crashes and pedestrians injured were at their lowest since 1962. This decrease is even more encouraging when we realize that vehicle miles traveled increased 5.2 percent in 1976, the number of registered vehicles increased by 8.9 percent and the number of licensed drivers increased 2.6 percent. It's normally the very young and the

very old age groups that contribute the

most to the pedestrian fatality picture. During 1976, although those over 75 made up the largest number of fatalities, the young 5 to 9 year olds who were prominent in 1975 were replaced by the 15 to 19 year olds who contributed the next largest number of fatalities in 1976. Injuries show that the majority are under the age of 20, and 75 percent of the injured are under 9 years old. What this implies is that it is the young who are involved in the majority of pedestrian type crashes, but since they are physically better able to recover from serious injury they do not contribute as much to the fatality picture as they conceivably could. The very old, on the other hand, do not mend as easily and thus contribute heavily to the fatality picture even though they appear relatively less often in the overall pedestrian crash picture.

Like crashes involving only motor vehicles or motor vehicles and other objects, pedestrian-involved crashes tend to increase during the peak people movement hours of 3 to 6 p.m. These three hours contribute 30 percent of all pedestrian crashes. The hourly breakdowns for fatal pedestrian-involved crashes also closely follows that for fatal motor vehicle accidents discussed previously. The "rush hour" of 5 to 8 p.m. provides one peak (the largest), with a second smaller peak occurring between 1 and 2 a.m.



PEDESTRIAN CRASHES, 1967-1976



PEDESTRIANS INJURED, 1967-1976

PEDESTRIANS KILLED, 1967-1976



KILLED AND INJURED PEDESTRIANS, BY AGE AND SEX

Age		Total Killed		Total Injured					
Group	Male	Female	Total	Male	Female	Total			
0-4	7	4	11	76	50	126			
5-9	6	4	10	205	99	304			
10-14	4	3	7	109	91	200			
15-19	10	4	14	139	124	263			
20-24	7	0	7	101	73	174			
25-34	8	3	11	109	61	170			
35-44	2	2	4	53	39	92			
45-54	8	2	10	67	40	107			
55-64	9	4	13	51	45	96			
65-74	5	4	9	52	66	118			
75-Over	13	10	23	31	45	76			
Not Stated	1	0	1	0	0	0			
TOTAL	80	40	120	993	733	1,726			



AGES OF PEDESTRIANS KILLED AND INJURED

IN 1976 COMPARED WITH THE AVERAGE YEAR FROM 1971-1975



Fatalities, 1976 Fatalities, 1971-1975 Average

> Injuries, 1976 Injuries, 1971-1975 Average

ACTIONS OF PEDESTRIANS



CROSSING NOT AT INTERSECTION 38 Killed

457 Injured



STANDING IN ROADWAY 4 Killed 69 Injured



CROSSING AT INTERSECTION 27 Killed 571 Injured



WORKING IN ROADWAY 0 Killed 39 Injured



WALKING IN ROAD WITH TRAFFIC 6 Killed 70 Injured



PLAYING IN ROADWAY 1 Killed 25 Injured



WALKING IN ROAD AGAINST TRAFFIC 3 Killed 30 Injured



GETTING ON-OFF VEHICLE OR SCHOOL BUS 2 Killed 54 Injured

ALL OTHERS STATED

7 Killed 46 Injured

NOT STATED

32 Killed 365 Injured

ACTIONS OF PEDESTRIANS, BY AGE, KILLED IN CRASHES

Action	Total Killed	0-4	5-9	10-14	15-19	20-24	25-44	45-64	65- Over	Not Stated
Çrossing at intersection	27	0	0	2	0	0	3	7	14	1
Crossing not at intersection	38	6	4	3	2	2	5	5	11	
Walking in road with traffic	6	0	0	0	3	3	0	0	0	
Walking in road against traffic	3	0	0	0	0	0	0	1	2	
Standing in road	4	0	0	0	1	0	0	2	1	
Entering or leaving vehicle	1	0	0	0	0	0	0	0	0	
Crossing to or from school bus	2	0	1	0	1	0	0	0	0	
Working on vehicle in roadway	0	0	0	0	0	0	0	0	0	
Working in roadway	0	0	0	0	0	0	0	0	0	
Playing in roadway	1	1	0	0	0	0	0	0	0	
Other in roadway	4	2	0	0	2	0	0	0	0	
Not in roadway	3	0	0	0	0	1	2	0	0	
Not stated	32	2	5	2	5	1	5	8	4	
TOTAL	120	11	10	7	14	7	15	23	32	1

ACTIONS OF PEDESTRIANS, BY AGE, INJURED IN CRASHES

Action	Total Injured	0-4	5-9	10-14	15-19	20-24	25-44	45-64	65- Over
Crossing at intersection	571	16	80	58	54	47	95	111	110
Crossing not at intersection	457	61	138	63	68	32	39	22	34
Walking in road with traffic	70	0	3	13	26	9	9	4	6
Walking in road against traffic	30	0	3	3	8	5	6	3	2
Standing in road	69	3	1	6	24	8	20	6	1
Entering or leaving vehicle	42	0	6	7	5	8	7	4	5
Crossing to or from school bus	12	0	7	2	3	0	0	.0	0
Working on vehicle in roadway	31	0	0	1	5	14	7	3	1
Working in roadway	8	0	1	0	1	1	3	2	0
Playing in roadway	25	7	9	5	2	1	1	0	0
Other in roadway	19	4	6	0	1	1	4	3	0
Not in roadway	27	1	2	3	7	3	4	4	3
Not stated	365	34	48	39	59	45	67	41	32
TOTAL	1,726	126	304	200	263	174	262	203	194

Crashes Involving Bicycles

The increasing popularity of the bicycle as a means of transportation, method of exercise and source of pleasure has obviously contributed to an increase in the numbers of this vehicle type on the roadways and consequently has increased the chances for bicyclist involvement in motor vehicle crashes. In its product hazard list, the Consumer Product Safety Commission ranks the bicycle number one most hazardous in a list that includes nearly every product used in and around the house. Surveying hospital emergency rooms, the commission estimates some 460,000 bicycle-related injuries in this country every year and most of those are not reported to police as traffic accidents.

In 1976, Minnesotans were involved in 1,217 bicycle crashes, a 6.5 percent decrease from 1975. Fortunately, the majority of these accidents produced injury rather than death with 21 bicyclists killed (an 8.7 percent decrease from 1975) and another 1,114 injured.

Similar to the case with pedestrian crashes, the younger age groups contribute most to the total number of injuries and fatalities. The 5 to 19 year old age group accounted for 77 percent of the non-fatal injuries and 85 percent of the fatal injuries. This is to be expected since it's generally the younger age groups who predominately use bicycles for recreational and transportation purposes.

The bicycle season normally occurs in Minnesota between May and October, but in 1976 there was one fatality each in the peripheral months of March and October. The most dangerous months were August with 5 fatalities and April and September with 4 each. Fridays ranked highest in bicyclist injuries with 184, followed closely by Tuesday (182) and Thursday (181). The late afternoon hours were by far the riskiest for bicyclists, since 34 percent of all accidents involving bicyclists occurred between 3 and 6 p.m.

As is the case nationally, most bicycle crashes in Minnesota are caused by the bicyclist. Failure to obey signs and signals, swerving into traffic, failure to yield when entering traffic from a driveway or alley – these are the principal errors of bicycle drivers. On the other hand, motorists are not free of blame. Many are unwilling to yield the right of way, and drinking drivers are often responsible as well.



BICYCLE CRASHES, 1967-1976

NOTE:

A "Bicycle Crash" is a crash in which the first object that was struck by a motor vehicle was a bicyclist.

BICYCLISTS INJURED, 1967-1976



BICYCLISTS KILLED, 1967-1976



KILLED AND INJURED BICYCLISTS, BY AGE AND SEX

	В	ICYCLISTS KILLE	D	BICYCLISTS INJURED				
AGE GROUP	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL		
0-4	1	0	1	9	2	11		
5-9	4	2	6	161	54	215		
10-14	5	3	8	272	99	371		
15-19	4	0	4	185	84	269		
20-24	0	1	1	68	48	116		
25-34				47	22	69		
35-44	0	1	1	11	6	17		
45-54		and the second se		7	7	14		
55-64				8	3	11		
65-74				2	1	3		
75-Over				2	0	2		
Not Stated				14	2	16		
TOTAL	14	7	21	786	328	1,114		

Crashes Involving Motorcycles

The motorcycle has evolved as an inexpensive, quick, sporty, energy efficient means of transportation. More and more people are purchasing these two-wheeled motor vehicles each year and are using them daily as a means of transportation to and from work. This increasing usage coupled with the inherent vulnerability of the motorcycle rider, has led to steadily increasing numbers of injuries and fatalities. With the recent passing of the helmet repeal law we may expect to experience another increase in 1977.

Riders of motorcycles are without doubt the most endangered segment of the motorized population which commonly utilizes the state's roadways. Out of the 2,460 motorcycle-involved crashes during 1976, only 22 percent were non-injury crashes. This compares to 77 percent of the crashes involving all other vehicle types. Of the 2,328 injuries sustained in motorcycle-involved crashes, 11 percent were very serious (Type 'A') in nature. By comparison, in crashes involving all other vehicle types, 38 percent of the injuries were of the very minor 'C' type, while less than 37 percent were serious or fatal. In essence, then, motorcycle-involved crashes: 1) are more likely to be fatal; 2) are conducive to more serious injuries; 3) tend to be injurious to the motorcycle rider more often than not.

150 143.2 140 136.2 130 119 3 120 103.3 90.2 71.9 61.2 60.9 55.9 50 40 30 1968 1969 1970 1976 1967 1971 1972 1973 1974 1975

REGISTERED MOTORCYCLES, 1967-1976



MOTORCYCLES INVOLVED IN ACCIDENTS, 1967-1976

FATALITIES IN MOTORCYCLE CRASHES, 1967-1976





INJURIES IN MOTORCYCLE CRASHES, 1967-1976

SEVERITY OF CRASHES

INVOLVING MOTORCYCLES AND ALL OTHER MOTOR VEHICLES



SEVERITY OF INJURIES

AND ALL OTHER MOTOR VEHICLES Injuries in Crashes Injuries in Crashes Involving Motorcycles Involving All Other Vehicle Types 62 2.7% 747 1.9% FATAL-INJURY 13,760 34.4% 1,283 A . INJURY* 55.1% 10,438 26.1% B INJURY 732 31.4% 15,027 37.6% C. 251 INJURY 10.8% 2 329 100% TOTAL INJURIES 39,972 100% ALL VEHICLES: 42,300

*INJURY TYPE A - Visible signs of injury, bleeding wound, distorted member

B – Other visible injury such as bruises, abrasions, swelling

C - No visible injury, but complaint of pain or momentary unconsciousness

MOTORCYCLE ACCIDENT SUMMARY, 1970-1976

Motorcycle Accidents	1970	1971	1972	1973	1974	1975	1976		
I otal Motorcycle-	1 260	1 690	2 012	2/11	2 4 0 0	2 400	2 460		
Eatal Motorcycle	1,209	1,009	2,013	2,411	2,400	2,400	2,400		
involved accidents	40	48	52	63	51	62	61		
Personal Injury			02						
Motorcycle-]								
involved accidents	1,005	1,318	1,583	1,890	1,865	1,818	1,862		
Killed in Motorcycle-						J			
involved accidents	43	51	55	65	54	72	62		
Killed on Motor-									
cycles	24	40	го.	50	12	61	55		
Motorcycle drivers	34	43 5	50	50	43 8	2	200		
Pedestrians killed in	0	5	4		0	2	2		
motorcycle									
accidents	1	1	1	1	2	1	2		
Bicyclists killed	0	1	0	1	0	0	1		
Others killed	drivers	pass.			drivers	2 other dr.	1 other dr.		
	2	1.	0	0	1	6 other pass.	1 other pass.		
Injured in Motor-									
cycle-involved						0.047	0.000		
accidents	1,220	1,628	1,972	2,334	2,245	2,247	2,266		
Pedestrians injured	22	38	25	31	25	18	28		
Bicyclists injured	15	27	21	30	30	24	15		
NO. IICENSED				55 377	91 024	127 081	152 138		
No registered		W.A.	1	00,077	01,021	127,001	102,100		
motorcycles	71,914	90,150	103,286	119,227	138,193	136,256	143,237		
Rates						-			
Motorcycle									
injuries/motor-]					
cycle fatalities	28.4	31.9	35.9	35.9	41.6	31.2	36.5		
All injuries/all	20.0		40.7	41.0	10.4	540	51.0		
fatalities All motorovelo	39.0	38.3	40.7	41.8	46.4	54.0	51.3		
crashes/fatal									
motorcycle crashes	31.7	35.2	38.7	38.3	47.1	38.7	40.3		
All crashes/fatal)						
crashes	121.8	123.4	128.6	123.0	140.5	181.8	161.7		
Fatalities per 1,000		0.57	0.50	0.47	0.00	0.50	0.40		
registrations	0.60	0.5/	0.53	0.47	0.39	0.53	0.43		
registrations	16.96	18.06	19.10	19.58	16.25	16.49	15.82		
Helmet Law	Helmet Law May 1, 1968								
Eye Protection and Li	ghts-on L	.aw A	August 1,	1975					
Helmet Law Repeal	-	A	April 7, 19	77					

Crashes Involving Trains

Although there is no reliable information available as to an increase or decrease in frequency of contact between trains and motor vehicles, accurate information is available as to the outcome of crashes between these types of transportation.

There were 244 crashes involving railroad trains and motor vehicles in 1976. Twelve of these crashes were fatal, killing fourteen people. The totals and proportions have remained much the same over the years with the chances for fatality always being considerably higher in crashes involving trains than in crashes involving other types of vehicles.

Railroad crossing fatalities have been steadily decreasing since 1970, and in 1976 they were at an all time low. However, prior to 1970 no pattern was discernable; approximately forty to fifty fatalities occurred annually with each new year bringing the chance of either an increase or a decrease.

RAILROAD CROSSING FATALITIES

1930		46	1954 36
1931		62	1955 35
1932		62	1956 41
1933		30	1957 51
1934		44	1958 33
1935		38	1959 49
1936		37	1960
1937		50	1961 30
1938		36	1962 34
1939		18	1963 42
1940		34	1964 38
1941		52	1965 40
1942		38	1966 48
1943		36	1967 46
1944		31	1968 52
1945		46	1969 5'
1946		48	1970 54
1947		38	1971 4
1948		25	1972
1949		35	1973 30
1950		45	1974 29
1951		53	1975 2'
1952	_.	41	1976 14
1953	••••	51	

NUMBER OF TRAIN CRASHES, 1967-1976



TRAIN

Crashes Involving Snowmobiles

Like the motorcycle, the snowmobile has entered the limelight in the past few years as a means of opening up Minnesota's great outdoors to larger and larger numbers of people. The upward trend in snowmobile registrations continued in 1976, bringing them up to 93,767, a 46.6 percent increase over 1975.

Contrary to what would be expected with a substantial increase in the number of snowmobiles registered, the number of accidents involving snowmobiles dropped 60 percent, probably the result of insufficient snow this winter. Personal injury crashes decreased from 136 in 1975 to 50 in 1976, a 63 percent drop, and fatal crashes dropped 80 percent from 1975 to 1976. Correspondingly, the number of fatalities and injuries resulting from these snowmobile crashes declined sharply. Fatalities dropped 85 percent and injuries were reduced by 66 percent.

Snowmobiles were less hazardous in 1976 than in 1975, in terms of the chances of being killed when involved in a collision. In 1975, a fatality resulted from one in every 24 crashes involving snowmobiles, but in 1976, this ratio was reduced to one fatality per 46 crashes.

SNOWMOBILE REGISTRATIONS ISSUED, 1970-1976



SNOWMOBILE CRASHES, 1970-1976



93,767

TYPES OF CRASHES AND NUMBER KILLED AND INJURED

Year	All Crashes	Fatal Crashes	Personal Injury Crashes	Property Damage Crashes	Number Killed	Number Injured
1969	70	2	48	20	3	61
1970	117	3	82	32	3	100
1971	148	7	92	49	8	129
1972	139	19	76	44	19	94
1973	149	10	90	49	11	119
1974	112	4	60	48	5	70
1975	232	1-0	136	86	13	169
1976	92	2	50	40	2	57

SEVERITY OF CRASHES

INVOLVING SNOWMOBILES AND ALL OTHER MOTOR VEHICLES



SEVERITY OF INJURIES

INVOLVING SNOWMOBILES AND ALL OTHER MOTOR VEHICLES



^{*}INJURY TYPE A – Visible signs of injury, bleeding wound, distorted member B – Other visible injury such as bruises, abrasions, swelling C '- No visible injury, but complaint of pain or momentary unconsciousness

Crashes Involving School Buses

Over the years school buses have generally tended to contribute very little to the state crash picture. In 1976, 599 school buses were involved in 597 crashes. One hundred eighteen collisions involving 119 school buses produced at least one nonfatal injury and 9 accidents involving 9 school buses resulted in 13 fatalities, none of which were occupants of the school bus.

The statistics from 1967 through 1976 shed a favorable light upon the school bus as a mode of transportation; the number of crashes involving school buses has generally gone up due to the increasing number of registered school buses and the additional licensed school bus drivers. School bus registrations increased 5½ percent over 1975 and the number of licensed school bus drivers increased by 4.9 percent. Partly as a result of the increased use of school buses and the additional miles they travel, the number of fatal school bus accidents increased sharply in 1976, from 2 in 1975 to 9 in 1976.

SCHOOL BUSES INVOLVED IN CRASHES, 1967-1976



化分离分离 计如此接受器 化加油化合物加油的 法建设资源等等

Holiday Accident Summary

The 1976 holiday picture is very revealing in terms of how holiday periods compare to non-holiday periods of equal lengths and identical days of the week. In examining the total number of accidents per holiday period, it's clear that all holiday periods except Thanksgiving, are safer than comparable non-holiday periods, although the accidents that did occur were more often fatal (especially those during the fair weather holidays). Summer weather is conducive to high speed traffic on clear roads and although good driving conditions may reduce the number of crashes, those that do occur are generally more serious due to the speed involved. In 1976, the winter holidays produced fewer crashes than similar non-holiday periods, and also produced fewer fatalities and injuries than their related non-holiday periods. The fact that only the winter holidays clearly displayed fewer fatalities and injuries than comparable non-holiday periods can be explained by the fact that winter weather conditions often result in slower traffic, thereby reducing the severe injuries which generally result from high speed collisions.

In comparing 1976 holidays to the average accident experience during the past 4 years, 1976 showed a decrease in the number of accidents during all holidays. Fatalities went down for all but the Thanksgiving holiday, which increased from 3 fatalities in 1975 to 11 in 1976, although it appears that 1975 was an atypically low year. Thanksgiving injuries only increased 5.9 percent, while the total number of accidents decreased by 22 percent.

	Year	Hours	Total	Fatal	PI	PD		Killed	Injured
MEMORIAL	71	78	727	7	258	462		14	424
DAY	72	78	876	11	280	585		16	489
	73	78	840	11	264	565		11	439
	74	78	702	6	239	457		9	374
	75	78	871	11	286	574		13	503
	76	78	875	7	281	587		7	471
JULY	71	78	736	17	233	486		22	410
4TH	72	102	1,206	17	361	828		18	568
	73	30	356	7	130	219		7	220
	74	102	1,000	11	311	678		11	474
	75	78	791	14	246	531		19	441
	76	78	942	11	293	638		11	505
LABOR	71	78	783	12	255	516		12	454
DAY	72	78	914	19	295	600		23	481
	73	78	941	8	301	632		9	517
	74	78	769	15	248	506		17	426
	75	78	807	9	227	571		9	363
	76	78	899	9	285	605		10	480
THANKSGIVING	71	102	1,666	11	311	1,344		12	524
	72	102	1,191	11	318	862		13	519
	73	102	1,195	14	314	867		20	518
	74	102	1,255	9	275	971		10	434
	75	102	1,931	3	326	1,602		3	513
	76	102	1,508	9	. 342	1,157		11	545
CHRISTMAS	71	78	957	8	228	721		9	397
	72	78	1,223	8	301	914	ŗ	8	494
	73	102	1,764	15	380	1,369		15	593
	74	30	261	1	48	212		1	72
	75	30	481	1	86	394		1	130
•	76	78	619	5	136	478		6	232
NEW	71-72	78	1,013	7	237	769		7	383
YEAR'S	72-73	78	984	6	178	800		6	291
	73-74	102	1,507	8	323	1,176		9	487
	74-75	30	391	2	100	289		2	182
	75-76	30	506	5	120	381		6	201
	76-77	78	932	4	206	722		4	318

ACCIDENT SUMMARY

		To Accio	tal lents	Fa Acci	tal dents	Personal Injury		Inju	ıries	Fata	lities
Holiday	Hours	Holiday	Average*	Holiday	Average*	Accidents		Holiday	Average*	Holiday	Average*
MEMORIAL DAY 6 p.m., May 28 – Mid. Mon., May 31	78	875	1,060.2	7	7.69	281		471	410.1	7	8.6
JULY 4 6 p.m., July 2 – Mid. Mon., July 5	78	942	1,060.2	11	7.69	293		505	410.1	11	8.6
LABOR DAY 6 p.m., September 3 – Mid. Mon., September 6	78	899	1,060.2	9	7.69	285		480	410.1	10	8.6
THANKSGIVI N G 6 p.m., November 24 – Mid. Sun., November 28	102	1,508	1,451.9	9	9.4	342		545	541.4	11	10.5
CHRISTMAS 6 p.m., December 23 – Mid. Sun., December 26	78	619	1,165.1	- 5	8.0	136		232	446.2	6	8.9
NEW YEAR'S 6 p.m., Dec. 31, 1976 – Mid. Sun., Jan. 1, 1977	78	932	1,165.1	4	8.0	206		318	446.2	4	8.9
*Average number of accident	s occurrii	ng during r	non-holiday	periods	of equal	length on	the	same day	s of the v	veek.	

Teenage Driver Crash Facts

Teenage drivers have been stereotyped as a bad risk, both by insurance companies and by older drivers with whom they share the highways and streets. To a certain degree, such typical appraisals of teenage drivers are correct. Taking many factors into consideration, however, teenage drivers deserve a closer look and fairer evaluation.

Teenage drivers have always been disproportionately involved in motor vehicle crashes in relation to their actual representation in the licensed population. Although this phenomenon is not unusual (since it's true of most age groups) teenage drivers over the years have normally shown a larger disproportion than other age groups with the exception of the 20 tc 24 category, which exhibits a slightly higher disproportion.

Over the last ten years, the period of 1967 to 1969 shows the highest accident involvement for teenage drivers as a group. During this period, involvement of teenage drivers in crashes reached a high of 16 out of every 100 drivers. In 1970, teenage driver accident levels decreased and in the following years stabilized and remained at about 12 out of 100 teenage drivers involved in an accident through 1974. This figure rose slightly in 1975 and dropped back down to the normal level in 1976; 11 out of every 100 teen drivers were involved in a traffic accident. In comparison, during the same 10 year period of 1967 through 1976, an average of 7 out of 100 non-teenage drivers were involved in crashes. During 1973 and 1974 the number of non-teenage drivers involved in accidents dropped to about 6 out of 100. In 1975, this figure crept back up to 7.6, but dropped back down to 7.0 in 1976.

A fairly steady increase can be seen for licensed teenage drivers between 1967 and 1976. Licensed teenage drivers increased from 9.7 percent of the driving population in 1967 to 13.2 percent in 1976, an all time high. At the beginning of this ten year period teenagers were involved in 19 percent of all accidents, and in 1976 they were involved in only 19.4 percent of all accidents. Considering the increased number of licensed teenage drivers, this increased involvement is not significant. The number of non-teenage licensed drivers has also increased but their level of accident involvement has decreased. This may show that non-teenage drivers are more conscious of and more affected by safety programs and the energy conservation issue (less driving, less exposure, and reduction in speed).



NUMBER AND PROPORTION OF LICENSED DRIVERS BY AGE, 1967-1976

Year	Teenage	19 Years and Older	Rate (teenage driver/ all other drivers)
1966	176,700	1,723,300	1/10
1967	189,150	1,760,850	1/9
1968	202,000	1,798,000	1/9
1969	196,425	1,828,575	1/9
1970	235,750	1,814,250	1/8
1971	248,625	1,876,375	1/8
1972	238,650	1,911,350	1/8
1973	258,510	1,941,490	1/8
1974	259,260	1,975,740	1/8
1975	263,900	2,011,100	1/8
1976	307,481	2,027,519	1/7

PERCENT OF TEENAGE AND OTHER* LICENSED DRIVERS INVOLVED IN CRASHES, 1967-1976



^{*}Drivers with no age stated are not included

TEENAGE DRIVERS AS A PERCENT OF ALL LICENSED DRIVERS AND AS A PERCENT OF DRIVERS IN CRASHES, 1967-1976*



ALL CRASHES BY HOUR OF DAY/AGE OF DRIVER

FATAL CRASHES BY HOUR OF DAY/AGE OF DRIVER





Drinking Drivers and Pedestrians

The number of 18 to 29 year olds arrested for DWI jumped sharply after the age of majority was lowered in June, 1973 and the percentage of young people testing at or above .10 percent BAC has shown a slight annual increase since then. In 1974, 83 percent of the 18-20 year olds tested had BAC's at or above .10; this percentage increased to 85 percent in 1975 and went back down to 83 percent in 1976. A total of 1,219 young people were arrested for DWI in 1976, of whom 96 percent tested positive.

There were 478 drivers killed in motor vehicle collisions in 1976. Blood alcohol concentration was determined for 289 (60.5%) of these drivers, with 64 percent testing positive and 83.2 percent of these at or above the .10 blood alcohol level declared illegal by Minnesota Statute.

The drinking driver is a danger not only to himself but to all others sharing the road with him. During 1976, 31 percent of the 185 alcohol-positive drivers were involved in multi-vehicle crashes. An additional 64 percent were involved in single car "ran-off-the-road" and "fixed object" type crashes.

The largest number of positive-testing fatal cases occurred in May, July and September, with 11.3 percent, 15.7 percent and 13 percent, respectively. The hours of midnight to 3 a.m. contributed 37.3 percent of all alcohol positive driver fatalities, while the hours of 6 to 9 p.m. and 9 p.m. to midnight contributed the next highest proportions at 13 and 17.9 percent, respectively.

As usual, most alcohol-related driver fatalities occurred on rural trunk highways (194) or county roads (155). Rural trunk highways contributed 41 percent of the positive-testing fatalities and county roads contributed another 35 percent.

Since tests for blood alcohol concentration are only required for pedestrian <u>fatalities</u>, there are no statistics available on the alcohol impairment of pedestrians injured in motor vehicle crashes. Of the 120 pedestrians killed in 1976, 48.3 percent were tested for alcohol. Of these 58 alcohol-tested fatalities, 25 had alcohol in their blood stream, with 22 testing at or above .10 percent BAC level. The two age groups most frequently impaired by alcohol were the 18 to 20 year olds and the 65 and over age group, comprising 20 percent and 16 percent, respectively, of the total number testing positive.

The largest portion of pedestrian positive-testing fatal cases occurred during December (20%) and February (16%). The hours of 6 p.m. to 9 p.m. stand out as contributing the majority of the positivetesting fatalities (40%), with midnight to 3 a.m. producing an additional 36 percent of the positive-testing pedestrian fatalities.

Pedestrian fatalities generally occurred on trunk highways, county roads, or city streets, with urban and rural trunk highways contributing the largest (and equal) proportions to the total number of positive-testing fatalities. Urban trunk highways, however, contributed nearly twice as many fatalities as the rural trunk highway.

In 1976, there were 11,914 DWI (driving while intoxicated) convictions in Minnesota, down 18 percent from 1975. Out of this group, 25.3 percent or 3,012 drivers were convicted for the second time or more. Repeat convictions begin to fall off quite sharply after the second conviction and there are very few people who survive or are caught and convicted five times or more (2.5 percent of the total repeat convictions in 1976). Along with the decline in DWI convictions, revocations under the implied consent law dropped 16 percent in 1976 down to 1,249.

TYPE OF CRASH	NUMBER OF DRIVER FATALITIES	PERCENT OF DRIVER FATALITIE <mark>S</mark>			
Multi-vehicle Collision	58	31.4%			
Ran Off the Road	117	63. <mark>2</mark>			
Collision With:					
Parked Vehicle	1	0.5			
Fixed Object	4	2.2			
Animal, Other Object, Bicycle	0	0.0			
Pedestrian	0	0.0			
Railroad Train	1	0.5			
Snowmobile	0	0.0			
Non-collision Including Overturned	4	2.2			
TOTALS	185	100.0%			

ALCOHOL-POSITIVE DRIVER FATALITIES

COMPARISON OF DRINKING VS. NON-DRINKING DRIVER FATALITIES BY TIME OF CRASH



1969	%	1970	%	1971	%	1972	%	1973	%	1974	%	1975	%	1976	%		
988		987		1,024		1,031		1,024		852		777		809		people were killed in motor vehicle crashes	
504	51.0	488	49.5	510	49.9	567	54.9	561	54.8	501	58.8	431	55.5	478	59.1	drivers were killed	
270	53.5	241	49.4	259	50.8	398	70.2	406	72.4	337	67.3	230	53.4	289	60.5	fatally injured drivers were tested for alcohol	
147	54.5	142	59.0	155	59.8	229	57.5	240	59.1	202	60.0	142	61.7	185	64.0	of those tested had alcohol in their system (called positive cases)	
122	82.9	122	85.9	126	81.3	177	77.3	206	85.8	171	85.2	114	80.3	154	83.2	of the positive cases were at or above the 0.10% level of intoxication	
137	93.1	136	95.8	141	91.0	210	91.7	227	94.6	187	92.6	124	87.3	173	93.5	of the positive cases were male	
10	6.9	6	4.2	14	9.0	19	8.3	13	5.4	15	7.4	18	12.7	12	6.5	of the positive cases were female	
46	31.3	<u>42</u>	29.5	48	31.0	56	31.6	85	41.3	68	33.6	41	35.1	56	36.4	of the positive cases which tested 0.10% or higher occurred between midnight and 3 a.m.	
63	42.9	58	40.8	75	48.4	100	43.7	105	43.8	93	46.0	81	57.0	90	48.6	of the positive cases were between the ages of 16 and 24	
62	98.4	49	84.5	60	80.0	68	68.0	85	80.9	79	84.9	63	77.8	72	80.0	of the 16 to 24-year-olds testing positive were at or above 0.10%	
33	22.4	22	15.5	34	21.9	38	16.6	21*	8.8	9*	4.5	9*	6.3	26*	* 14.1	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.

INTOXICATION LEVEL OF DRIVER FATALITIES BY AGE

	Total	Total		Blood .010-	d Alcoh	Percent Positive of Total Tested in	Percent of All			
Age	Killed	Tested	Positive	.049	.099	.149	.249	Over	Age Group	Positive
0-17	33	14	8	1	1	4	2	0	57.1	4.3
18-20	94	62	43	1	6	14	21	1	69.4	23.2
21-24	83	53	39	2	7	7	20	3	73.6	21.1
25-29	59	36	19	0	0	0	14	5	52.8	10.3
30-34	23	17	14	0	1	2	8	3	82.4	7.6
35-39	26	19	14	1	2	0	5	6	73.7	7.6
40-44	23	16	9	1	1	2	3	2	56.3	4.9
45-49	23	14	10	0	0	1	4	5	71.4	5.4
50-54	22	12	7.	1	1	1	2	2	58.3	3.8
55-59	21	13	8	1	0	0	4	3	61.5	4.3
60-64	20	12	6	1	1	1	2	1	50.0	3.2
65-Up	51	21	8	1	1	1	5	0	38.1	4.3
Unknown	0	0	0	0	0	0	0	0	0	0
TOTALS	478	289	185	10	21	33	90	31	64.0	100.0

INTOXICATION LEVEL OF DRIVER FATALITIES BY TIME OF CRASH

				Bloo	Percent				
Time	Total Killed	Total Tested	Total Positive	.010- .049	.050- .099	.100- .149	.150- .249	.250- Over	of All Positive
Mid. — 3 a.m.	110	80	69	3	10	15	35	6	37.3%
3 a.m. — 6 a.m.	27	15	14	2	1	3	6	2	7.6%
6 a.m. — 9 a.m.	40	21	6	1	1	0	2	2	3.2%
9 a.m. — Noon	32	15	5	0	1	1	1	2	2.7%
Noon — 3 p.m.	47	23	7	1	0	1	5	0	3.8%
3 p.m. – 6 p.m.	76	46	21	3	2	1	9	6	11.3%
6 p.m. – 9 p.m.	65	39	24	0	1	4	14	5	13.0%
9 p.m. – Mid.	71	43	33	0	3	5	18	7	17.9%
Unknown	10	7	6	0	2	3	0	1	3.2%
TOTALS	478	289	185	10	21	33	90	31	100.0%
DRIVER FATALITIES' LEVEL OF INTOXICATION BY MONTH OF CRASH

				Blo	od Alcol	ı (%)	Percent		
Month	Total Killed	Total Tested	Total Positive	.010- .049	.050- .099	.100- .149	.150- .249	.250- Over	of All Positive
January	15	11	5	0	0	1	4	0	2.7%
February	23	19	11	0	1	3	4	3	5.9%
March	24	15	10	0	2	1	6	1	5.4%
April	32	25	17	0	3	1	12	1	9.2%
May	55	32	21	0	4	2	11	4	11.3%
June	46	11	4	0	0	0	3	1	2.2%
July	63	42	2 9	3	0	7	12	7	15.7%
August	45	2 9	20	5	3	6	5	1	10.8%
September	52	31	24	1	4	4	11	4	13.0%
October	49	34	20	0	3	3	11	3	10.8%
November	41	20	12	1	0	4	5	2	6.5%
December	33	20	12	0	1	1	6	4	6.5%
TOTALS	478	289	185	10	21	33	90	31	100.0%

DRIVER FATALITIES' LEVEL OF INTOXICATION BY ROAD CLASS OF CRASH

				Blo	od Alco	Percent			
Road Class	Total Killed	Total Tested	Total Positive	.010- .049	.050- .099	.100- [.] .149	.150- .249	.250- Over	of All Positive
INTERSTATE rural	3	2	2	1	0	0	1	0	1.1%
INTERSTATE urban	14	8	5	0	1	0	2	2	2.7%
TRUNK HWY rural	194	122	76	6	10	8	33	19	41.1%
TRUNK HWY urban	50	33	14	1	3	2	6	2	7.6%
COUNTY ROAD	155	91	64	2	5	14	37	6	34.5%
CITY STREET	38	22	17	0	2	5	8	2	9.2%
TOWNSHI P ROAD	24	11	7	0	0	4	3	0	3.8%
TOTALS	478	289	185	10	21	33	90	31	100.0%

DWI CONVICTIONS, 1967-1976

19/6	11,914	19/1	 9,687
1975	13,731	1970	 8,634
1974	13,325	1969	 8,471
1973	13,047	1968	 7,431
1972	11,303	1967	 5,977

THE IMPLIED CONSENT LAW, 1967-1976

1976	1,249	1971	 423	
1975	1,488	1970	 855	
1974	. 920	1969	 691	
1973	. 871	1968	 166	L
1972	568	1967	22	

HIGHWAY PATROL DWI ARRESTS AND CONVICTIONS, 1967-1976

	Year	Number Arrests	Number Convictions	Percent Convictions
	1976	4,710	3,168	67.3
	1975	5,045	2,642	52.4
	1974	4,832	3,483	72.1
	1973	4,722	3,391	71.8
	1972	3,534	2,752	77.9
	1971	2,410	1,954	81.1
	1970	1,860	1,510	81.2
	1969	1,640	1,404	85.6
	1968	1,535	1,342	87.4
	1967	1,384	1,242	89.7
; •		· .		

REPEAT DWI CONVICTIONS, 1968-1976

	1968	1969	1970	1971	1972	1973	1974	1975	1976
Second Conviction	983	1,162	1,316	1,454	1,716	1,480	1,803	2,364	2,034
Third Conviction	228	276	351	370	419	479	591	755	719
Fourth Conviction	48	41	64	57	98	102	1,431	194	180
Fifth Conviction	7	10	22	23	24	20	20	44	50
Sixth Conviction	4	3	3	6	4	6	10	17	18
Seventh Conviction	0	0	3	1	2	7	2	3	8
Eighth Conviction	0	0	1	2	2	0	0	4	3
Ninth Conviction	0	0	0	1	0	0	0	1	0
Tenth Conviction	0	0	0	1	0	0	0	0	0
Eleventh Conviction	0	0	0	0	1	0	0	0	0
Twelfth Conviction	0	0	0	0	1	0	0	0	0
Total Repeat Convictions	1,270	1,492	1,760	1,915	2,267	2,094	2,589	3,382	3,012
Total DWI Convictions	7,431	8,471	8,634	9,687	11,303	13,047	13,325	13,731	11,914
Percent Repeat Convictions	17.1%	17.6%	20.4%	19.8%	20.1%	16.0%	19.4%	24.6%	25.3%

BLOOD ALCOHOL LEVELS IN 1976 STATEWIDE DWI ARRESTS, BY AGE (BLOOD SAMPLES ANALYZED BY STATE LABORATORY)

Age	Total Tested	Total Negative	<u>BI</u> .010- .049	ood Alco .050- .099	ohol Concer .100- .149	Total Positive	% of Age Group Positive	% of Total Testing Positive		
Not stated	825	31	13	32	141	494	114	794	96%	11%
< 17	289	32	14	40	93	108	2	257	89%	4%
18-20	1,219	48	24	136	288	680	43	1,171	96%	17%
21-24	1,288	34	31	66	265	788	104	1,254	97%	18%
25-34	1,468	23	16	49	205	990	185	1,445	98%	21%
35-44	837	19	4	11	78	526	199	818	98%	12%
45-54	701	16	7	16	59	433	170	685	98%	10%
55-64	389	18	5	7	35	229	95	371	95%	5%
65+	162	7	0	15	26	90	24	155	96%	2%
TOTALS	7,178	228	114	372	1,190	4,338	936	6,950	97%	100%

BLOOD ALCOHOL LEVELS IN STATEWIDE DWI ARRESTS, 1971-1976 (SAMPLES ANALYZED BY STATE LABORATORY)

	Blood 1971	Blood 1972	Blood 1973	Breath* 1973	Blood 1974	Breath 1974	Blood 1975	Breath 1975	Blood 1976	Breath 1976
Negative	166	193	218	87	210	94	199	112	228	180
.010049	52	80	83	309	98	191	<u>9</u> 1	209	114	235
.050099	229	237	276	820	298	991	344	826	372	905
.100149	469	676	780	2,725	1,019	3,642	1,146	3,087	1,190	3,416
.150199	1,653	1,985	1,830	4,048	2,021	4,715	2,175	4,299	2,391	4,442
.200249	1,063	1,422	1,660	2,548	1,847	2,746	1,861	2,595	1,947	2,675
.250299	570	658	630	826	718	864	678	755	723	731
.300349	74	141	161	181	182	181	169	172	171	150
.350-Over	27	33	81	39	40	35	34	19	42	35
Total										
Samples										
Submitted	4,303	5,425	5,719	11,583	6,433	13,459	6,697	12,074	7,178	12,769
Total										
Samples										
with										
Illegal BAC	3,856	4,915	5,142	10,367	5,827	12,183	6,063	10,927	6,464	11,449

*Breathalyzer samples were not available prior to 1973.

DRINKING PEDESTRIAN FACTS, 1970-1976

1970	%	1971	%	1972	%	1973	%	1974	%	1975	%	1976	%	
149		157		132		149		106		121		120		Pedestrians were killed in motor vehicle crashes*
41	27.5	44	28.0	67	50.8	73	49.0	46	43.4	45	37.2	58	48.3	fatally injured pedestrians were tested for alcohol
20	48.8	30	68.2	31	46.3	30	41.1	28	60.8	26	57.8	25	43.1	of those tested had alcohol in their system (called positive cases)
14	70.0	23	76.7	26	83.9	23	76.7	25	89.2	22	84.6	22	88.0	of the positive cases were at or above the 0.10% level of intoxication
3	15.0	10	33.3	4	12.9	4	3.3	5	17.8	2	7.7	4	16.0	of the positive cases were 65 or older
3	15.0	5	16.7	9	29.0	3**	10.0	3**	10.7	1**	3.8	7**	* 28.0	of the positive cases were under the legal drinking age

*Includes pedestrians killed in all types of motor vehicle crashes, including those in which the pedestrian was hit subsequent to the initial accident.

**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.

INTOXICATION LEVELS OF PEDESTRIAN FATALITIES BY AGE

				BI	ood A	lcohol	Conce	n (%)	Percent of Age Group	Percent of	
Age	Total Killed	Total Tested	Total Negative	.010 .049	.050- .099	.100- .149	.150- .249	.250- Over	Total Positive	Testing Positive	All Positive Cases
0-15	31	4	3	0	0	0	1	0	1	25.0%	4.0%
16-18	5	3	1	0	0	1	1	0	2	66.7%	8.0%
18-20	7	5	0	0	1	2	2	0	5	100.0%	20.1%
21-24	6	5	4	0	0	0	0	1	1	20.0%	4.0%
25-29	8	4	2	0	0	0	0	2	2	50.0%	8.0%
30-34	3	1	0	0	0	0	1	0	1	100.0%	4.0%
35-39	0	0	0	0	0	0	0	0	0	0.0%	0.0%
40-44	4	2	0	0	0	0	1	1	2	100.0%	8.0%
45-49	3	2	2	0	0	0	0	0	0	0.0%	0.0%
50-54	7	4	2	0	0	0	0	2	2	50.0%	8.0%
55-59	8	5	2	0	0	0	1	2	3	60.0%	12.0%
60-64	5	2	1	0	0	0	1	0	1	50.0%	4.0%
65-Up	32	20	16	0	1	1	2	0	4	20.0%	16.0%
Unknown	1	1	0	1	0	0	0	0	1	100.0%	4.0%
TOTALS	120	58	33	1	2	4	10	8	25	43.1%	100.0%

INTOXICATION INCIDENCE OF PEDESTRIAN FATALITIES BY TIME OF CRASH

Time	Total Killed	Total Tested	Total Positive	Percent of Total Testing Positive
Midnight — 3 a.m.	18	11	9	36.0%
3 a.m. — 6 a.m.	1	1	1	4.0%
6 a.m. — 9 a.m.	5	0	0	0.0%
9 a.m. — Noon	9	5	1	4.0%
Noon — 3 p.m.	9	2	0	0.0%
3 p.m. – 6 p.m.	23	9	1	4.0%
6 p.m. – 9 p.m.	32	23	10	40.0%
9 p.m. — Midnight	23	7	3	12.0
Unknown	0	0	0	0.0%
TOTAL	120	58	25	100.0%

PEDESTRIAN FATALITIES' INCIDENCE OF INTOXICATION BY MONTH OF CRASH

Month	Total Killed	Total Tested	Total Positive	Percent of Total Testing Positive
January	4	2	0	0.0%
February	11	7	4	16.0%
March	7	4	1	4.0%
April	5	1	0	0.0%
May	12	3	3	12.0%
June	6	3	2	8.0%
July	15	7	3	12.0%
August	5	3	2	8.0%
September	10	5	1	4.0%
October	7	4	1	4.0%
November	14	6	3	12.0%
December	24	13	5	20.0%
TOTAL	120	58	25	100.0%

PEDESTRIAN FATALITIES' INCIDENCE OF INTOXICATION BY ROAD CLASS OF CRASH

Road Class	Total Killed	Total Tested	Total Positive	Percent of Total Testing Positive
INTERSTATE-rural	0	0	0	0.0%
INTERSTATE-urban	4	3	1	4.0%
TRUNK HWY-rural	17	9	7	28.0%
TRUNK HWY-urban	33	19	7	28.0%
County Road	32	12	4	16.0%
City Street	31	15	6	24.0%
Township Road	3	0	0	0.0%
TOTAL	120	58	25	100.0%

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