

*Joh Williamson*

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MINNESOTA  
1980

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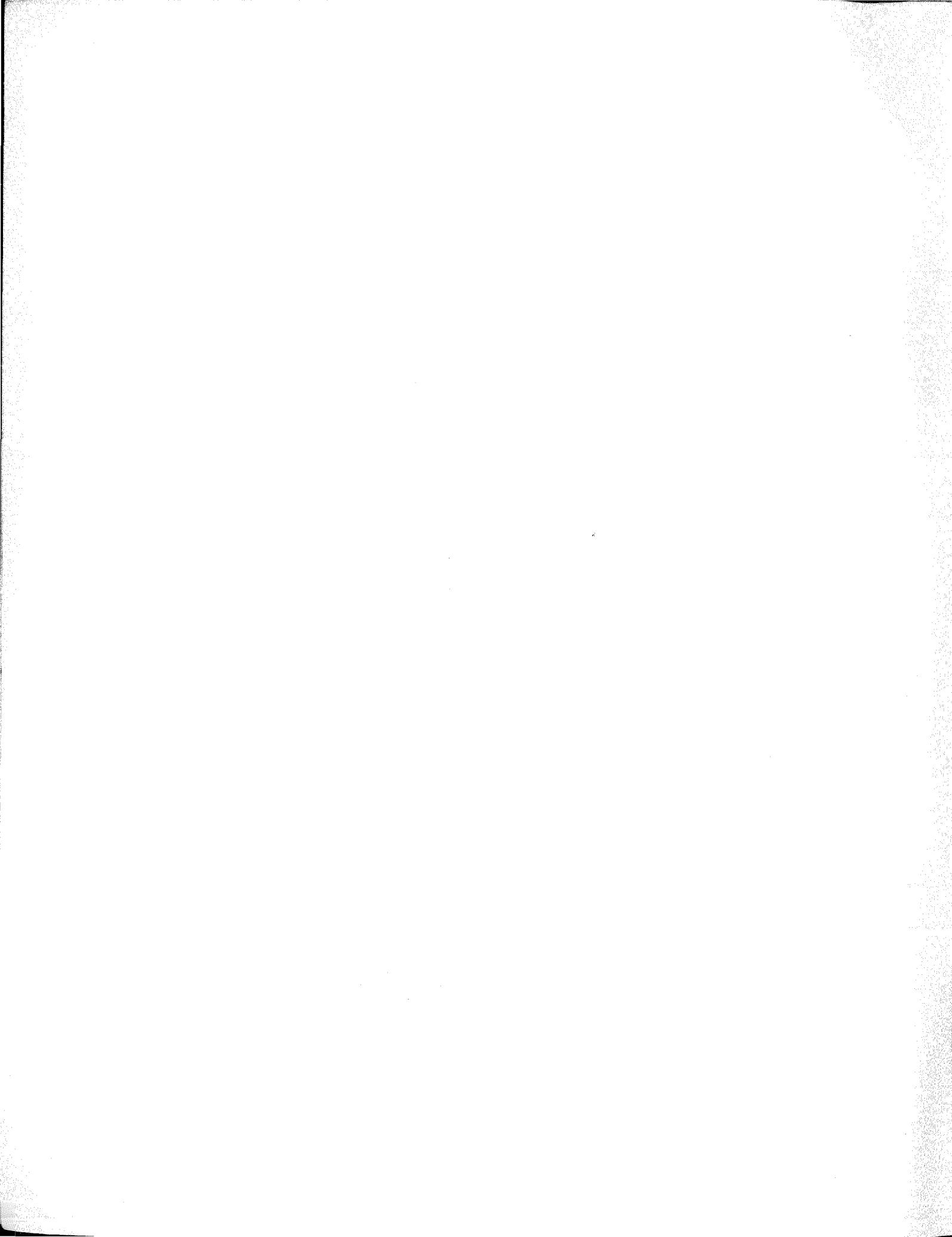
# MOTOR VEHICLE CRASH FACTS

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MINNESOTA  
MOTOR VEHICLE  
CRASH FACTS  
1980

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



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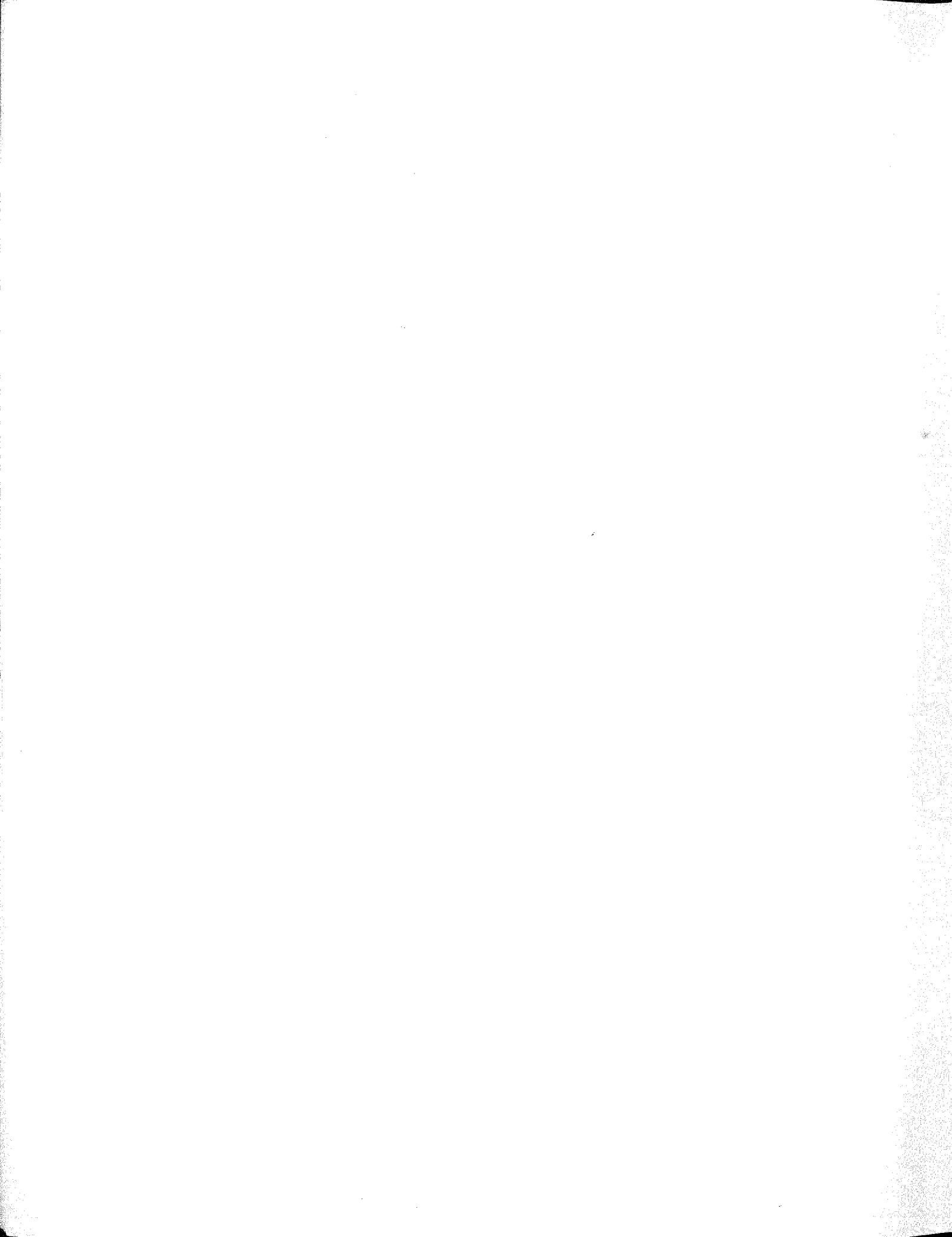
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## INTRODUCTION

The 1980 edition of Minnesota Motor Vehicle Crash Facts has been produced by the Office of Traffic Safety, Minnesota Department of Public Safety, in accordance with Minnesota Statutes, Section 169.10. The information presented is derived from accident reports submitted by citizens and law enforcement agencies for crashes involving death, personal injury, or property damage of \$300 or more.

In 1980, 863 people were killed and 45,227 were injured in 103,612 crashes throughout the state. Over three million vehicles traveled 28.5 billion miles on our state's roadways. During 1980 2,766,032 people held Minnesota driving licenses.

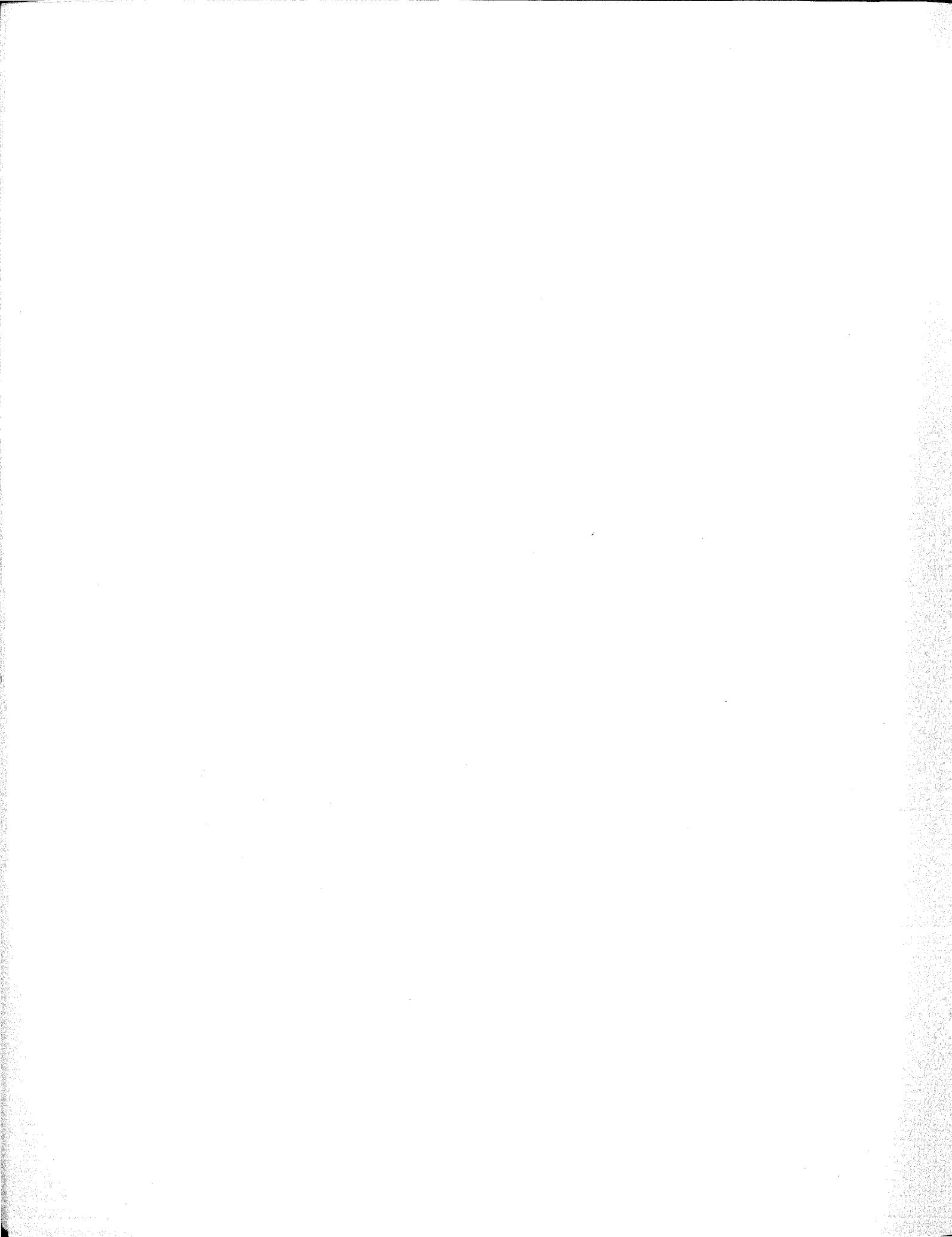
The total economic loss resulting from motor vehicle accidents in Minnesota was nearly four hundred million dollars. This figure is calculated from costs estimated for 1979 by the National Safety Council for fatalities, injuries, and damage resulting from fatal, personal injury and property damage crashes.

The total dollar value is determined as follows:

863 Deaths	@	\$160,000 =	\$138,080,000
7,469 Incapacitating Injuries	@	13,500 =	100,831,500
18,511 Non-incapacitating Injuries	@	4,000 =	74,044.000
19,247 Possible Injuries	@	1,000 =	19,247,000
72,163 Property Damage Accidents	@	870 =	62,781,810
		Total	= \$394,984,310

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

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



## PART I

### SUMMARY INFORMATION

1980 was a good year for Minnesota in terms of traffic accidents and injuries. Due at least in part to a mild winter, the total accident figure of 103,612 was well below 112,435, the average of the previous ten years. Injuries, at 45,227, were at the lowest point since 1977. There has been a slight decrease in the number of fatalities, from 980 in 1978, to 881 in 1979, and to 863 in 1980.

TABLE 1.01

## CRASH, FATALITY AND INJURY RATES, 1971-1980

	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
TRAFFIC CRASHES	104,030	111,180	107,956	102,964	123,206	116,390	119,754	118,833	120,633	103,612
TRAFFIC FATALITIES	1,024	1,031	1,024	852	777	809	856	980	881	863
TRAFFIC INJURIES	39,242	42,009	42,772	39,537	41,931	41,580	45,200	50,332	49,604	45,227
REGISTERED MOTOR VEHICLES (MILLIONS OF VEHICLES)	2.36	2.41	2.51	2.67	2.69	2.92	2.77	2.90	3.00	3.37
LICENSED DRIVERS (MILLIONS OF DRIVERS)	2.33	2.50	2.38	2.44	2.51	2.57	2.63	2.64	2.67	2.71
VEHICULAR MILES TRAVELED (BILLIONS OF MILES)	23.4	24.9	25.2	24.6	25.6	27.0	28.1	28.8	29.0	28.5
FATALITY RATE PER HUNDRED MILLION VEHICLE MILES TRAVELED	4.38	4.14	4.07	3.47	3.03	3.00	3.05	3.40	3.04	3.03
FATALITY RATE PER 100,000 REGISTERED VEHICLES	43.5	42.7	40.5	32.0	28.9	27.7	30.9	33.8	29.3	25.6
FATALITY RATE PER 100,000 POPULATION	26.5	26.5	26.3	21.8	19.8	20.4	21.6	24.5	21.7	21.2
INJURY RATE PER HUNDRED MILLION VEHICLE MILES TRAVELED	168	169	170	161	164	154	161	175	171	159
INJURY RATE PER 100,000 REGISTERED VEHICLES	1,663	1,743	1,691	1,481	1,559	1,424	1,632	1,737	1,652	1,342
INJURY RATE PER 100,000 POPULATION	1,017	1,078	1,098	1,009	1,068	1,049	1,144	1,256	1,222	1,111
CRASH RATE PER HUNDRED MILLION VEHICLE MILES TRAVELED	445	447	429	419	481	432	426	412	417	364
CRASH RATE PER 100,000 REGISTERED VEHICLES	4,464	4,613	4,265	3,862	4,580	3,980	4,323	4,100	4,018	3,075
CRASH RATE PER 100,000 POPULATION	2,695	2,858	2,770	2,628	3,143	2,936	3,032	2,965	2,971	2,546

TABLE 1.02

## 1980 TRAFFIC TOLL COMPARED WITH 1975-1979 AVERAGE

	1975-1979 AVERAGE	1980
DEATHS	861	863
INJURIES	45,729	45,227
CRASHES	119,763	103,612
REGISTERED MOTOR VEHICLES (MILLIONS)	2.86	3.37
LICENSED DRIVERS (MILLIONS)	2.60	2.71
VEHICLE MILES TRAVELED (BILLIONS)	27.7	28.5
FATALITY RATE PER 100 MILLION VEHICLE MILES TRAVELED	3.10	3.03

TABLE 1.03

## CRASHES, INJURIES, FATAL CRASHES, FATALITIES BY MONTH

	ALL CRASHES	INJURIES	FATAL CRASHES	FATALITIES
JANUARY	10,322	3,319	37	43
FEBRUARY	9,403	3,081	25	30
MARCH	8,393	2,949	32	34
APRIL	6,857	3,238	64	71
MAY	7,653	4,002	77	83
JUNE	7,673	3,916	75	88
JULY	7,982	4,390	86	97
AUGUST	9,124	4,757	78	93
SEPTEMBER	8,217	3,907	70	83
OCTOBER	8,640	3,905	70	88
NOVEMBER	9,137	3,778	69	75
DECEMBER	10,211	3,985	69	78
TOTAL	103,612	45,227	752	863

TABLE 1.04

## FATAL CRASHES, ALL CRASHES BY DAY OF WEEK

DAY	FATAL CRASHES	ALL CRASHES
SUNDAY	138	12,803
MONDAY	67	11,946
TUESDAY	70	13,259
WEDNESDAY	88	14,159
THURSDAY	102	15,114
FRIDAY	111	18,763
SATURDAY	176	17,568
TOTAL	752	103,612

FIGURE 1.01

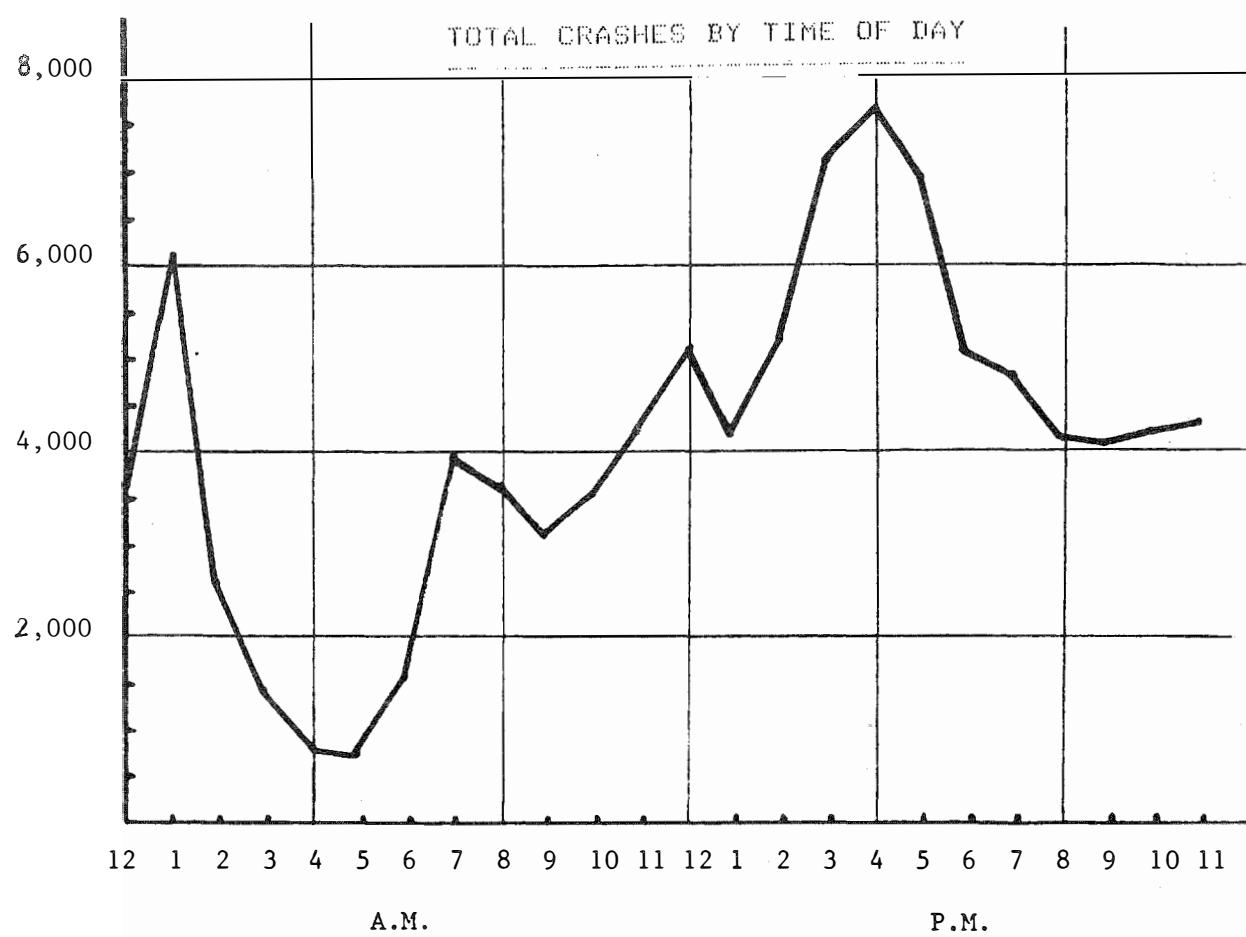


FIGURE 1.02

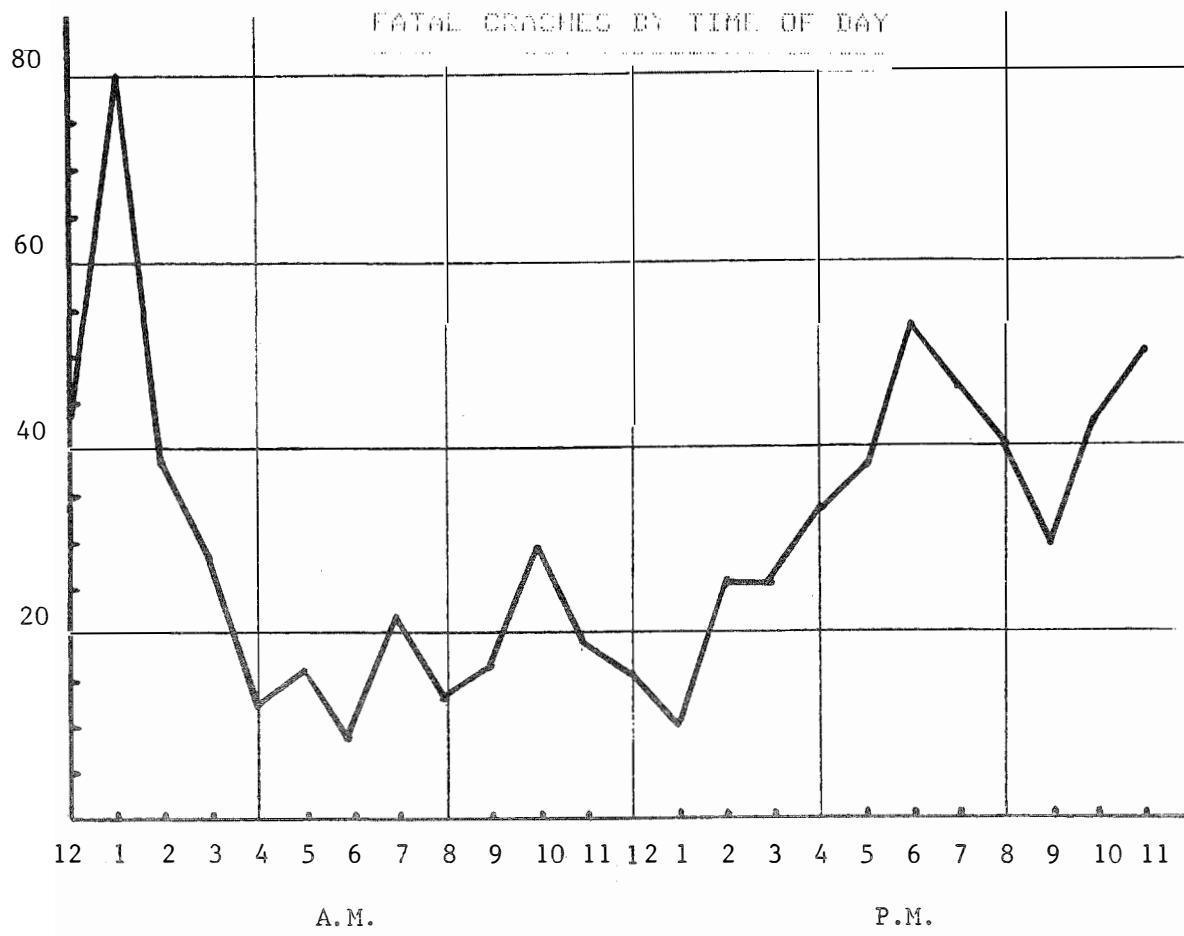


TABLE 1.05

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

HOUR BEGINNING	TOTAL CRASHES		MONDAY		TUESDAY		WEDNESDAY		THURSDAY		FRIDAY		SATURDAY		SUNDAY		
	ALL	FATAL	ALL	FATAL	ALL	FATAL	ALL	FATAL	ALL	FATAL	ALL	FATAL	ALL	FATAL	ALL	FATAL	
MIDNIGHT	3,612	44	276	1	308	2	322	3	397	6	44	6	3	1,014	11	849	18
1:00	6,053	80	261	4	511	3	514	5	574	6	720	12	1,852	32	1,621	18	
2:00	2,687	38	102	1	258	3	215	3	224	6	276	2	821	8	791	15	
3:00	1,463	28	60	1	129	1	91	2	139	3	148	3	461	10	435	8	
4:00	872	12	50	1	93	1	51	1	64	0	94	1	246	5	274	3	
5:00	806	16	76	0	90	1	69	1	104	2	91	3	167	5	209	4	
6:00	1,617	8	215	0	300	4	236	1	302	2	250	0	161	1	153	0	
7:00	3,923	22	608	1	753	4	723	3	785	5	675	0	209	6	170	3	
8:00	3,670	13	561	3	689	2	606	0	729	3	631	0	258	1	196	4	
9:00	3,075	17	450	4	426	2	430	2	510	1	480	3	462	2	317	3	
10:00	3,585	29	469	3	493	2	473	4	552	7	551	3	638	8	409	2	
11:00	4,249	19	540	2	543	1	593	3	666	6	686	4	834	2	382	1	
NOON	5,065	16	589	2	663	2	658	3	793	2	850	3	950	2	562	2	
1:00	4,246	10	587	0	590	2	555	1	632	2	691	2	705	1	486	2	
2:00	5,243	25	700	4	701	7	728	2	834	2	965	3	759	5	556	2	
3:00	7,159	25	1,016	3	1,006	1	1,048	8	1,175	4	1,455	4	844	4	615	1	
4:00	7,644	33	1,086	2	1,092	7	1,137	6	1,274	2	1,656	5	768	7	631	4	
5:00	6,911	38	920	5	985	3	1,002	5	1,114	7	1,459	6	782	6	649	6	
6:00	5,053	53	581	5	601	5	756	3	710	6	1,035	9	749	12	621	13	
7:00	4,782	46	545	6	570	5	810	8	672	7	894	4	735	10	556	6	
8:00	4,058	40	406	0	462	3	660	4	562	6	814	9	702	11	452	7	
9:00	4,037	29	444	2	454	2	635	5	539	4	824	4	704	5	437	7	
10:00	4,144	43	425	9	435	2	591	6	538	3	973	12	796	8	386	3	
11:00	4,305	50	371	7	436	5	579	8	525	6	1,107	12	949	9	338	3	
NOT STATED	5,353	18	608	1	666	0	677	1	700	4	992	4	1,002	5	708	3	
TOTAL	103,612	752	11,946	67	13,259	70	14,159	88	15,114	102	18,763	111	17,568	176	12,803	138	

TABLE 1.06

## FATALITIES AND INJURIES BY TYPE OF CRASH

TYPE OF CRASH	ALL CRASHES	PERSONAL PROPERTY			FATALITY RATE PER 1,000 CRASHES		
		FATAL CRASHES	INJURY CRASHES	DAMAGE CRASHES	KILLED	INJURED	
COLLISION WITH OTHER MOTOR VEHICLE	62,178	311	17,002	44,865	382	27,509	6.1
COLLISION WITH MOTOR VEHICLE IN OTHER ROADWAY	251	0	46	205	0	70	.0
COLLISION WITH PARKED MOTOR VEHICLE	12,647	8	1,393	11,246	11	1,751	.9
COLLISION WITH RAILROAD TRAIN	271	12	109	150	15	161	55.4
COLLISION WITH BICYCLIST	1,276	18	1,223	35	19	1,296	14.9
COLLISION WITH PEDESTRIAN	1,629	101	1,522	6	110	1,660	67.5
COLLISION WITH ANIMAL	2,385	4	177	2,204	4	250	1.7
COLLISION WITH FIXED OBJECT	15,679	163	5,470	10,046	175	7,317	11.2
COLLISION WITH OTHER OBJECT	592	0	184	408	0	232	.0
OVERTURN	5,119	122	2,884	2,113	133	4,124	26.0
FIRE/EXPLOSION	94	4	7	83	5	9	53.2
SUBMERSION	44	0	15	29	0	19	.0
OTHER	1,447	9	665	773	9	829	6.2
TOTAL	103,612	752	30,697	72,163	863	45,227	8.3

TABLE 1.07  
CRASHES, KILLED AND INJURED BY COUNTY  
FOR 1980 COMPARED WITH 1975-1979 AVERAGE

	ALL CRASHES		KILLED		INJURED	
	AVERAGE		AVERAGE		AVERAGE	
	1975-1979	1980	1975-1979	1980	1975-1979	1980
AITKIN	278	242	6	10	123	125
ANOKA	4,786	4,437	25	34	2,169	2,345
BECKER	675	559	10	17	308	339
BELTRAMI	348	634	9	13	272	286
BENTON	699	626	10	8	321	349
BIG STONE	177	128	3	1	53	66
BLUE EARTH	1,568	1,649	11	13	623	561
BROWN	850	628	6	8	319	244
CARLTON	620	522	8	9	252	246
CARVER	905	864	13	5	456	491
CASS	398	367	8	19	177	217
CHIPPEWA	357	275	5	5	121	118
CHISAGO	552	537	8	9	236	296
CLAY	1,522	1,162	14	19	496	401
CLEARWATER	134	107	3	3	60	58
COOK	126	94	1	2	58	68
COTTONWOOD	299	219	5	2	93	104
CROW WING	1,287	1,066	16	16	467	461
DAKOTA	4,955	4,706	33	44	2,122	2,363
DODGE	288	282	4	5	136	135
DOUGLAS	770	652	6	8	297	310
FARIBAULT	403	277	8	2	162	127
FILLMORE	402	387	7	5	161	183
FREEBORN	1,016	821	11	9	370	303
GOODHUE	1,043	987	12	12	425	408
GRANT	117	99	2	2	49	53
HENNEPIN	34,578	30,834	109	97	13,171	13,496
HOUSTON	400	290	7	6	165	140
HUBBARD	283	274	6	4	124	145
ISANTI	395	385	5	4	196	214
ITASCA	832	791	19	10	456	395
JACKSON	320	263	3	4	119	119
KANABEC	222	160	5	6	118	68
KANDIYOHIE	1,115	875	11	13	345	426
KITTSON	97	75	3	4	44	29
KOOCHICHING	458	324	5	3	197	168
LAC QUI PARLE	218	175	4	4	79	69
LAKE	378	250	6	0	159	112
LAKE OF THE WOODS	75	67	2	2	27	29
LE SUEUR	594	542	5	4	232	244
LINCOLN	143	110	2	2	56	48
LYON	618	483	7	9	209	218
MCLEOD	715	616	5	3	279	280
MAHNOMEN	102	93	1	1	39	40

TABLE 1.07 (CONTINUED)

## CRASHES, KILLED AND INJURED BY COUNTY

FOR 1980 COMPARED WITH 1975-1979 AVERAGE

COUNTY	ALL CRASHES		KILLED		INJURED	
	AVERAGE 1975-1979	1980	AVERAGE 1975-1979	1980	AVERAGE 1975-1979	1980
MARSHALL	182	151	7	4	98	77
MARTIN	506	438	4	7	226	220
MEEKER	477	411	6	6	184	188
MILLE LACS	421	421	7	9	183	246
MORRISON	730	553	10	8	349	294
MOWER	1,078	847	11	4	374	338
MURRAY	186	123	4	0	73	78
NICOLLET	630	567	5	5	226	220
NOBLES	602	404	5	3	205	159
NORMAN	146	120	4	5	56	41
OLMSTED	2,898	2,407	17	23	1,106	942
OTTER TAIL	1,043	857	13	11	401	422
PENNINGTON	462	331	3	0	159	163
PINE	414	351	9	6	174	167
PIPESTONE	277	165	3	3	83	75
POLK	1,010	703	13	10	356	280
POPE	186	187	5	5	68	66
RAMSEY	18,388	16,428	53	53	6,090	5,772
RED LAKE	101	74	1	2	37	24
REDWOOD	384	304	4	6	164	181
RENVILLE	427	275	9	8	183	145
RICE	1,195	1,035	15	12	489	537
ROCK	258	199	3	1	72	67
ROSEAU	200	152	3	4	54	67
ST LOUIS	6,042	4,361	55	49	2,064	1,705
SCOTT	1,042	1,155	11	13	482	544
SHERBURNE	581	598	8	12	278	311
SIBLEY	293	235	4	6	123	120
STEARN	3,310	2,820	24	38	1,259	1,213
STEELE	871	753	4	4	297	310
STEVENS	249	174	3	0	81	76
SWIFT	265	223	3	2	93	81
TODD	449	467	8	3	225	198
TRAVERSE	95	70	2	1	36	30
WABASHA	467	457	8	7	192	219
WADENA	300	261	3	4	101	98
WASECA	443	345	6	6	164	151
WASHINGTON	2,387	2,243	25	35	1,028	1,134
WATONWAN	344	183	4	1	121	57
WILKIN	257	211	3	6	90	96
WINONA	1,302	1,224	11	10	479	461
WRIGHT	1,132	1,209	14	13	566	663
YELLOW MEDICINE	254	186	4	3	98	94

TABLE 1.08

## COUNTY CRASH REPORT

COUNTY	ALL CRASHES	FATAL CRASHES	NUMBER KILLED	PERSONAL INJURY		PROPERTY DAMAGE CRASHES
				CRASHES	INJURED	
AITKIN	242	6	10	77	125	159
ANOKA	4,437	34	37	1,539	2,345	2,864
BECKER	559	12	17	195	339	352
BELTRAMI	634	12	13	181	286	441
BENTON	626	7	8	214	349	405
BIG STONE	128	1	1	43	66	84
BLUE EARTH	1,649	10	11	398	561	1,241
BROWN	628	5	8	179	244	444
CARLTON	522	9	9	173	246	340
CARVER	864	3	5	313	491	549
CASS	367	15	19	131	217	221
CHIPPEWA	275	5	5	83	118	187
CHISAGO	537	7	9	186	296	344
CLAY	1,162	14	19	272	401	876
CLEARWATER	107	3	3	40	58	64
COOK	94	1	2	41	68	52
COTTONWOOD	219	2	2	67	104	150
CROW WING	1,006	14	16	304	461	748
DAKOTA	4,706	38	45	1,586	2,363	3,082
DODGE	282	5	5	87	135	190
DOUGLAS	652	6	8	185	310	461
FARIBAULT	277	2	2	88	127	187
FILLMORE	397	5	5	134	183	248
FREEBORN	821	7	8	214	303	600
GOODHUE	987	9	11	277	408	701
GRANT	99	2	2	31	53	66
MNNEPIN	30,834	88	97	9,326	13,496	21,420
GSTON	290	6	6	98	140	186
HUBBARD	274	4	4	94	145	176
ISANTI	385	3	4	128	214	254
ITASCA	791	10	10	262	395	519
JACKSON	263	4	4	80	119	179
KANABEC	160	5	6	47	68	108
KANDIYOH	875	10	12	263	426	602
KITTSON	75	4	4	21	29	50
KOOCHICHING	324	3	3	117	168	204
LAC QUI PARLE	175	4	4	39	69	132
LAKE	250	0	0	82	112	168
LAKE OF THE WOODS	67	2	2	21	29	44
LE SUEUR	542	4	5	163	244	375
LINCOLN	110	2	2	30	48	78
LYON	483	6	9	157	218	320
MCLEOD	616	3	3	189	280	424
MAHNOMEN	93	1	1	24	40	68

TABLE 1.08 (CONTINUED)

## COUNTY CRASH REPORT

COUNTY	ALL CRASHES	FATAL CRASHES	NUMBER KILLED	PERSONAL INJURY CRASHES	INJURED	PROPERTY DAMAGE CRASHES
MARSHALL	151	3	4	41	77	107
MARTIN	438	7	7	138	220	293
MEEKER	411	7	7	133	188	271
MILLE LACS	421	9	9	146	246	266
MORRISON	553	6	8	181	294	366
MOWER	847	4	4	235	338	608
MURRAY	123	0	0	51	78	72
NICOLLET	567	4	5	152	220	411
NOBLES	404	2	3	108	159	294
NORMAN	120	5	5	29	41	86
OLMSTED	2,407	21	23	646	942	1,740
OTTER TAIL	857	10	11	284	422	563
PENNINGTON	331	0	0	112	163	219
PINE	351	6	6	107	167	238
PIPESTONE	165	3	3	48	75	114
POLK	703	10	10	196	283	497
POPE	187	4	5	45	66	138
RAMSEY	16,428	46	50	4,151	5,772	12,231
RED LAKE	74	2	2	18	24	54
REDWOOD	304	5	6	102	181	197
RENVILLE	275	7	8	93	145	175
RICE	1,035	9	11	335	537	691
ROCK	199	1	1	44	67	154
ROSEAU	152	3	4	48	67	101
ST LOUIS	4,361	45	49	1,178	1,705	3,138
SCOTT	1,155	12	13	369	544	774
SHERBURNE	598	11	12	196	311	391
SIBLEY	235	3	6	79	120	153
STEARNS	2,820	27	36	831	1,213	1,962
STEELE	753	4	4	210	310	539
STEVENS	174	0	0	49	76	125
SWIFT	223	2	2	55	81	116
TODD	467	3	4	135	198	329
TRAVERSE	70	1	1	25	30	44
WABASHA	457	6	7	155	219	296
WADENA	261	2	4	65	98	194
WASECA	345	6	6	106	151	233
WASHINGTON	2,243	31	35	705	1,134	1,507
WATONWAN	183	1	1	45	57	137
WILKIN	211	6	6	61	96	144
WINONA	1,224	10	10	332	461	882
WRIGHT	1,209	12	13	417	663	780
YELLOW MEDICINE	186	3	3	62	94	121

TABLE 1.09-

## LOCATION OF CRASHES BY POPULATION

POPULATION	ALL CRASHES	FATAL CRASHES	PERSONAL INJURY CRASHES	PROPERTY DAMAGE CRASHES
250,000 & OVER	28,107	63	7,645	20,399
50,000-249,999	6,074	27	1,712	4,335
25,000- 49,999	16,563	65	5,000	11,498
10,000- 24,999	15,876	77	4,461	11,338
5,000- 9,999	7,198	38	2,015	5,135
2,500- 4,999	5,539	29	1,477	4,033
1,000- 2,499	3,367	30	820	2,517
UNDER 1,000	20,898	423	7,567	12,900
TOTAL	103,612	752	30,697	72,163

TABLE 1.10

## LOCATION OF CRASHES BY URBAN OR RURAL AREA\*

	ALL CRASHES NUMBER	ALL CRASHES PERCENT	FATAL CRASHES NUMBER	FATAL CRASHES PERCENT	PERSONAL INJURY CRASHES NUMBER	PERSONAL INJURY CRASHES PERCENT	PROPERTY DAMAGE CRASHES NUMBER	PROPERTY DAMAGE CRASHES PERCENT
URBAN	73,808	71.2	270	35.9	20,833	67.9	52,705	73.0
RURAL	29,804	28.8	482	64.1	9,864	32.1	19,458	27.0

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

TABLE 1.11

## CRASHES BY CITY GROUPS

GROUP	CITY	ALL CRASHES	FATAL CRASHES	NUMBER KILLED	PERSONAL INJURY CRASHES	NUMBER INJURED	PROPERTY DAMAGE CRASHES
A. POPULATION 100,000 OR MORE	MINNEAPOLIS	16,367	38	42	4,777	6,949	11,552
	ST. PAUL	11,740	25	28	2,868	3,961	8,847
B. POPULATION 20,000-99,999	APPLE VALLEY	326	4	6	104	124	260
	AUSTIN	608	2	2	152	216	454
	BLAINE	813	8	10	321	507	484
	BLOOMINGTON	2,550	5	6	781	1,105	1,764
	BROOKLYN CENTER	925	3	3	291	416	631
	BROOKLYN PARK	797	2	2	278	445	517
	BURNSVILLE	924	4	4	339	508	581
	COON RAPIDS	780	3	3	273	404	504
	CRYSTAL	429	3	3	128	182	298
	DULUTH	1,840	14	14	523	745	1,303
	EAGAN	483	6	7	173	261	304
	EDINA	823	2	2	267	377	554
	FRIDLEY	852	5	6	288	417	559
	GOLDEN VALLEY	1,003	2	2	324	438	677
	HIBRIGING	509	2	2	112	155	395
	MANKATO	1,187	1	1	257	339	929
	MAPLE GROVE	254	3	3	72	113	179
	MAPLEWOOD	851	8	8	249	366	594
	MINNETONKA	940	5	5	303	475	632
	MOORHEAD	855	3	3	179	259	673
	NEW BRIGHTON	349	3	3	82	107	264
	NEW HOPE	398	1	1	119	165	278
	PLYMOUTH	601	4	4	188	269	409
	RICHFIELD	1,018	2	2	296	402	720
	ROCHESTER	1,684	8	8	408	558	1,268
	ROSEVILLE	969	3	3	260	344	706
	ST. CLOUD	1,781	4	5	504	721	1,273
	ST. LOUIS PARK	1,262	4	4	396	559	862
	SO. ST. PAUL	478	0	0	125	168	353
	WHITE BEAR LAKE	519	0	0	134	209	385
	WINONA	756	1	1	183	243	572
C. POPULATION 10,000-19,000	ALBERT LEA	494	1	1	108	146	385
	ANOKA	461	1	1	165	238	295
	BEMIDJI	385	3	3	83	115	299
	BRAINERD	496	1	1	93	132	402

TABLE 1.11 (CONTINUED)

## CRASHES BY CITY GROUP

GROUP	CITY	ALL CRASHES	FATAL CRASHES	NUMBER KILLED	PERSONAL INJURY CRASHES	NUMBER INJURED	PROPERTY DAMAGE CRASHES
C. POPULATION 10,000-19,999	COLUMBIA HEIGHTS	476	1	1	131	198	344
	CLOQUET	227	2	2	79	110	146
	COTTAGE GROVE	290	4	4	68	102	218
	EDEN PRAIRIE	408	3	3	153	225	252
	FAIRMONT	234	1	1	58	88	175
	FARIBAULT	471	3	3	140	212	328
	FERGUS FALLS	277	1	1	79	112	197
	HASTINGS	325	0	0	89	145	236
	HOPKINS	516	2	2	147	197	367
	INVER GROVE HGTS.	410	4	7	162	233	244
	LAKEVILLE	310	2	2	106	152	202
	MARSHALL	242	1	2	72	95	169
	MOUNDS VIEW	216	0	0	71	105	145
	NEW ULM	336	1	1	85	109	250
	NORTHFIELD	189	2	3	54	75	133
	NO. ST. PAUL	246	0	0	58	77	188
	OAKDALE	138	3	3	54	82	81
	OWATONNA	455	0	0	100	135	355
	RAMSEY	128	1	1	44	80	83
	RED WING	415	4	4	96	147	315
	ROBBINSDALE	426	0	0	137	207	289
	SHOREVIEW	279	1	1	73	101	205
	STILLWATER	273	2	2	87	131	184
	VIRGINIA	381	2	2	68	90	311
	W. ST. PAUL	490	1	1	171	249	318
	WILLMAR	512	4	4	118	189	390
	WOODBURY	197	3	3	56	95	138
D. POPULATION 5,000-9,999	ALEXANDRIA	341	2	3	79	124	260
	ANDOVER	105	1	1	37	53	67
	ARDEN HILLS	327	3	3	82	123	242
	CHAMPLIN	149	1	1	61	105	87
	CHANHASSEN	205	1	2	72	116	132
	CHASKA	183	0	0	63	94	120
	CHISHOLM	91	0	0	17	21	74
	CROOKSTON	199	0	0	37	50	162
	DETROIT LAKES	196	1	1	56	89	139
	EAST BETHEL	77	0	0	25	44	52
	E. GRAND FORKS	229	0	0	53	74	176

TABLE 1.11 (CONTINUED)

## CRASHES BY CITY GROUP

GROUP	CITY	ALL CRASHES	FATAL CRASHES	NUMBER KILLED	PERSONAL INJURY CRASHES	NUMBER INJURED	PROPERTY DAMAGE CRASHES
0. POPULATION 5,000-9,999	ELK RIVER	197	3	3	59	100	135
	EVELETH	111	0	0	12	15	99
	FALCON HEIGHTS	149	0	0	49	73	100
	GRAND RAPIDS	260	1	1	68	92	191
	HAM LAKE	140	6	6	53	97	81
	HUTCHINSON	253	1	1	54	70	198
	INT'L FALLS	152	2	2	40	51	110
	LAKE ELMO	100	0	0	30	48	70
	LITCHFIELD	124	0	0	36	46	88
	LITTLE CANADA	358	0	0	104	144	254
	LITTLE FALLS	184	1	1	48	74	135
	MENDOTA HEIGHTS	294	4	4	99	134	191
	MONTEVIDEO	135	1	1	32	40	102
	MOUND	134	0	0	37	44	97
	MORRIS	106	0	0	23	36	83
	NO. MANKATO	133	0	0	31	37	102
	ORONO	185	1	1	65	98	119
	PRIOR LAKE	176	2	2	64	111	110
	REDWOOD FALLS	117	0	0	28	45	89
	ROSEMOUNT	142	1	1	51	74	90
	ST. ANTHONY	104	0	0	24	32	80
	ST. PETER	191	1	2	49	69	141
	SAUK RAPIDS	136	0	0	43	55	93
	SHAKOPEE	328	1	2	94	129	233
	SPRING LAKE PARK	162	0	0	46	60	116
	THIEF RIVER FALLS	255	0	0	72	104	183
	VADNAIS HEIGHTS	187	1	2	58	81	128
	WASECA	154	2	2	28	37	124

TABLE 1.12

## CRASHES BY WEATHER CONDITION

WEATHER CONDITION	ALL CRASHES	FATAL CRASHES	PERSONAL INJURY CRASHES	PROPERTY DAMAGE CRASHES
CLEAR	54,636	468	17,207	36,961
CLOUDY	26,175	208	8,256	17,711
RAIN	6,787	30	2,138	4,619
SNOW/SLEET	9,950	24	2,162	7,764
FOG	1,025	14	340	671
OTHER	494	2	107	385
NOT STATED/ UNKNOWN	4,545	6	487	4,052
TOTAL	103,612	752	30,697	72,163

TABLE 1.13

## CRASHES BY LIGHT CONDITION

LIGHT CONDITION	ALL CRASHES	FATAL CRASHES	PERSONAL INJURY CRASHES	PROPERTY DAMAGE CRASHES
DAYLIGHT	53,380	275	16,118	36,987
DAWN/DUSK	6,508	34	1,730	4,744
DARKNESS	38,315	434	12,316	25,565
OTHER/ UNKNOWN	5,409	9	533	4,867
TOTAL	103,612	752	30,697	72,163

TABLE 1.14  
CRASHES BY ROAD SURFACE CONDITION

ROAD SURFACE CONDITION	ALL CRASHES	FATAL CRASHES	PERSONAL INJURY CRASHES	PROPERTY DAMAGE CRASHES
DRY	63,310	626	21,056	41,628
WET	14,620	65	4,625	9,930
SNOW/SLUSH	5,218	10	1,198	4,010
ICE/PACKED SNOW	15,179	37	2,966	12,176
OTHER	1,133	9	391	733
NOT STATED/ UNKNOWN	4,152	5	461	3,686
TOTAL	103,612	752	30,697	72,163

TABLE 1.15  
ROAD MILEAGE SUMMARY

TYPE OF ROADWAY	MILES OF ROADWAY	PERCENT
INTERSTATES	860	.7
TRUNK HIGHWAYS	11,273	8.7
COUNTY STATE AID HIGHWAYS	29,967	23.1
COUNTY ROADS	15,215	11.7
TOWNSHIP ROADS	54,921	42.3
LOCAL STREETS	14,721	11.3
OTHER ROADS	2,892	2.2
TOTAL	129,849	100.0

TABLE 1.16

## CRASHES BY TYPE OF ROADWAY

TYPE OF ROADWAY	ALL CRASHES	FATAL CRASHES	PERSONAL INJURY CRASHES	PROPERTY DAMAGE CRASHES
INTERSTATE	5,873	32	1,524	4,317
TRUNK HIGHWAY	34,838	337	11,320	23,181
COUNTY STATE AID HIGHWAY	21,862	232	7,640	13,990
COUNTY ROAD	2,407	33	941	1,433
TOWNSHIP ROAD	2,163	24	800	1,339
LOCAL STREET	34,834	92	8,226	26,516
OTHER ROAD	1,635	2	246	1,387
<b>TOTAL</b>	<b>103,612</b>	<b>752</b>	<b>30,697</b>	<b>72,163</b>

TABLE 1.17

## MILEAGE AND CRASH DISTRIBUTION BY TYPE OF ROADWAY

TYPE OF ROADWAY	PERCENT OF ROAD MILEAGE	PERCENT OF VEHICLE MILEAGE	PERCENT OF ALL CRASHES	PERCENT OF FATAL CRASHES
INTERSTATES	.7	16.3	5.7	4.3
TRUNK HIGHWAYS	8.7	41.3	33.6	44.8
COUNTY STATE AID HIGHWAYS	23.1	20.9	21.1	30.9
COUNTY ROADS	11.7	2.5	2.3	3.2
TOWNSHIP ROADS	42.5	2.5	2.1	3.2
LOCAL STREETS	14.3	16.3	33.6	12.2
OTHER ROADS	2.2	.1	1.6	.3

TABLE 1.18

## LOCATIONS OF CRASHES AND FATAL CRASHES BY TIME OF DAY

TIME OF DAY	TRUNK HIGHWAYS AND COUNTY STATE-AID HIGHWAYS		ROADWAYS OTHER THAN HIGH- WAYS AND COUNTY STATE-AID HIGHWAYS	
	ALL CRASHES	FATAL CRASHES	ALL CRASHES	FATAL CRASHES
MIDNIGHT - 2:59 AM	6,709	122	5,643	40
3:00 AM - 5:59 AM	1,764	42	1,377	14
6:00 AM - 8:59 AM	4,980	37	4,230	6
9:00 AM - 11:59 AM	6,039	46	4,870	19
NOON - 2:59 PM	7,930	38	6,624	13
3:00 PM - 5:59 PM	12,136	78	9,578	18
6:00 PM - 8:59 PM	7,877	106	6,016	33
9:00 PM - 11:59 PM	6,877	88	5,609	34
NOT STATED	2,390	12	2,963	6
TOTAL	56,702	569	46,910	183

TABLE 1.19  
AGE AND SEX OF FATALITIES

AGE GROUP	MALE	FEMALE	TOTAL
0- 4	4	14	18
5- 9	9	9	18
10-14	22	8	30
15-19	126	41	167
20-24	139	38	177
25-29	84	19	102
30-39	47	9	56
35-39	33	5	38
40-44	16	15	31
45-49	19	12	31
50-54	20	11	31
55-59	20	12	32
60-64	16	18	34
65-69	16	12	28
70-74	13	4	17
75 & OVER	21	31	52
NOT STATED	0	1	1
TOTAL	605	258	863

TABLE 1.20  
AGE AND SEX OF INJURIES

AGE GROUP	MALE	FEMALE	NOT STATED	TOTAL
0-4	526	495	3	1,024
5-9	734	627	10	1,371
10-14	894	789	5	1,688
15-19	5,685	4,139	3	9,827
20-24	5,390	3,438	5	8,841
25-29	3,299	2,166	0	5,465
30-34	1,971	1,451	1	3,423
35-39	1,190	1,061	0	2,251
40-44	852	755	0	1,607
45-49	692	627	0	1,319
50-54	627	663	2	1,292
55-59	572	583	0	1,155
60-64	441	502	0	943
65-69	349	425	0	774
70-74	258	367	1	626
75 & OVER	395	524	0	919
NOT STATED	811	982	909	2,702
TOTAL	24,694	19,594	939	45,227

TABLE 1.21  
AGE DISTRIBUTION OF LICENSED DRIVERS  
AND THEIR INVOLVEMENT IN CRASHES

AGE GROUP	PERCENT OF DRIVERS IN FATAL CRASHES		
	PERCENT OF LICENSED DRIVERS	PERCENT OF DRIVERS IN ALL CRASHES	
14 & UNDER	0.0	0.0	0.0
15-19	10.2	19.1	16.8
20-24	14.2	22.4	17.2
25-29	13.0	12.0	11.9
30-34	11.5	8.1	8.3
35-39	8.7	6.6	5.7
40-44	7.1	3.6	4.2
45-49	6.2	3.6	3.5
50-54	6.3	2.7	3.3
55-59	6.1	1.9	3.0
60-64	5.4	2.4	2.3
65-69	4.5	4.7	1.8
70-74	3.3	2.4	1.3
75 & OVER	3.6	2.4	1.6
NOT STATED	0.0	8.3	19.6
TOTAL	100.1	100.2	100.1

TABLE 1.22  
AGE AND SEX OF DRIVERS IN ALL CRASHES

AGE GROUP	MALE	FEMALE	NOT STATED	TOTAL
14 & UNDER	0	0	0	0
15-19	21,883	9,240	63	31,186
20-24	22,680	9,860	84	32,624
25-29	15,554	6,896	60	22,510
30-34	10,620	5,028	34	15,682
35-39	7,011	3,726	27	10,764
40-44	5,210	2,695	15	7,920
45-49	4,478	2,135	11	6,624
50-54	4,336	1,949	13	6,298
55-59	4,006	1,688	15	5,709
60-64	3,075	1,292	16	4,383
65-69	2,327	1,061	8	3,396
70-74	1,713	795	10	2,518
75 & OVER	2,271	822	8	3,101
NOT STATED	8,695	3,707	24,758	37,160
TOTAL	113,859	50,894	25,122	189,875

TABLE 1.23  
AGE AND SEX OF DRIVERS IN FATAL CRASHES

AGE GROUP	MALE	FEMALE	TOTAL
14 & UNDER	0	0	0
15-19	251	55	306
20-24	311	48	359
25-29	161	31	192
30-34	88	42	130
35-39	81	25	106
40-44	34	23	57
45-49	41	17	58
50-54	34	9	43
55-59	22	9	31
60-64	27	12	39
65-69	44	31	75
70-74	29	9	38
75 & OVER	23	15	38
NOT STATED	89	45	134
TOTAL	1,235	371	1,606

TABLE 1.24  
DRIVER LICENSE\* SUMMARY BY AGE, 1972-1980

AGE	1972	1973	1974	1975	1976	1977	1978	1979	1980		
									MALE	FEMALE	TOTAL
15-19	290,750	288,506	290,620	300,906	307,481	315,138	304,021	290,570	147,881	133,869	281,750
20-24	372,108	347,893	356,806	366,037	373,524	381,161	381,377	385,831	202,973	188,337	391,310
25-29	322,306	295,193	309,647	326,743	341,678	347,358	343,112	350,879	185,859	174,308	360,167
30-34	250,325	236,114	243,925	249,022	263,080	278,622	285,395	299,790	163,630	153,507	317,137
35-39	201,257	191,902	196,270	202,558	209,903	221,252	229,247	235,994	124,327	116,462	240,789
40-44	193,734	179,544	179,361	178,964	181,150	183,921	186,793	190,213	101,657	94,363	196,020
45-49	193,940	183,932	181,799	181,586	180,661	178,614	173,818	173,194	90,872	81,941	172,572
50-54	182,701	173,896	177,473	178,987	178,916	179,266	176,922	174,754	91,872	81,888	173,760
55-59	166,132	160,738	160,332	161,616	155,747	166,771	165,288	167,712	90,601	78,395	168,986
60-64	141,294	135,037	138,223	141,978	145,464	146,736	147,428	147,381	79,623	68,889	148,512
65-69	113,174	106,488	109,932	113,363	115,327	117,955	118,899	121,295	67,715	56,754	124,469
70-74	84,369	75,788	79,335	82,527	85,428	86,494	87,833	90,064	51,096	40,965	92,061
75 & OLDER	102,901	80,248	86,548	95,318	94,665	93,383	96,487	97,741	61,515	36,984	98,499
TOTAL	2,614,931	2,455,279	2,510,271	2,579,605	2,633,024	2,696,671	2,696,620	2,725,418	1,459,380	1,306,652	2,766,032

\*INCLUDES LEARNER'S PERMITS

TABLE 1.25

## APPARENT CONTRIBUTING FACTORS IN CRASHES

APPARENT CONTRIBUTING FACTORS	ALL CRASHES	FATAL CRASHES	PERSONAL INJURY CRASHES	PROPERTY DAMAGE CRASHES
FAILURE TO YIELD RIGHT OF WAY	14,460	96	5,429	8,935
ILLEGAL/UNSAFE SPEED	15,832	257	6,105	9,470
FOLLOWING TOO CLOSELY	4,918	12	1,799	3,107
DISREGARD FOR TRAFFIC CONTROL DEVICE	4,081	50	2,059	1,972
DRIVING LEFT OF ROADWAY CENTER--NOT PASSING	3,059	113	1,187	1,759
IMPROPER PASSING/ OVERTAKING	2,283	28	577	1,678
IMPROPER/UNSAFE LANE USE	5,719	52	1,408	4,259
IMPROPER PARKING/ STARTING/STOPPING	1,555	11	375	1,169
IMPROPER TURN	3,572	11	880	2,681
UNSAFE BACKING	1,898	3	108	1,787
NO/IMPROPER SIGNAL	344	2	97	245
IMPEDING TRAFFIC	461	0	177	284
DRIVER INATTENTION/ DISTRACTION	27,030	107	10,230	16,693
DRIVER INEXPERIENCE	5,413	46	1,990	3,377
PHYSICAL IMPAIRMENT	8,586	184	4,233	4,169
VISION OBSCURED	3,694	36	1,402	2,256
DEFECTIVE EQUIPMENT	1,361	8	409	944
PEDESTRIAN VIOLATION/ ERROR	743	49	636	58
OTHER	3,526	36	1,289	2,201

TABLE 1.26

## VEHICLE MOVEMENT IN MULTI-VEHICLE INTERSECTION CRASHES

VEHICLE MOVEMENT	ALL CRASHES	FATAL CRASHES	PERSONAL INJURY CRASHES	PROPERTY DAMAGE CRASHES
ENTERING AT ANGLE	14,158	103	5,381	8,674
SAME DIRECTION--BOTH GOIN STRAIGHT	2,423	2	838	1,583
SIDESWIPE--PASSING	677	1	121	555
SAME DIRECTION--ONE TURNING, ONE STRAIGHT	2,152	6	570	1,576
SAME DIRECTION--ONE STOPPED	4,477	5	1,791	2,681
SAME DIRECTION--ALL OTHERS	1,558	1	258	1,299
HEAD ON	365	18	195	152
SIDESWIPE--MEETING	295	1	72	222
OPPOSITE DIRECTION-- ONE LEFT TURN, ONE STRAIGHT	4,361	12	1,647	2,702
OPPOSITE DIRECTION-- ALL OTHERS	332	3	73	256
BACKED INTO	213	0	16	197
NOT STATED	38	0	7	31
TOTAL	31,049	152	10,969	19,928

TABLE 1.27

## VEHICLE MOVEMENT IN MULTI-VEHICLE NON-INTERSECTION CRASHES

VEHICLE MOVEMENT	ALL CRASHES	FATAL CRASHES	PERSONAL INJURY CRASHES	PROPERTY DAMAGE CRASHES
HEAD ON	1,043	99	623	321
SAME DIRECTION--BOTH GOING STRAIGHT	3,162	17	1,016	2,129
SIDESWIPE--PASSING	2,625	7	582	2,036
ONE CAR PARKED	10,548	8	1,332	9,208
ONE CAR STOPPED IN TRAFFIC	1,696	8	698	990
ONE CAR ENTERING PARKED POSITION	102	0	24	78
ONE CAR LEAVING PARKED POSITION	687	1	62	624
ONE CAR ENTERING DRIVEWAY ACCESS	1,662	6	498	1,158
ONE CAR LEAVING DRIVEWAY ACCESS	1,350	5	291	1,054
BACKED INTO	367	0	27	340
ALL OTHERS	783	16	253	514
NOT STATED	31	0	4	27
TOTAL	24,056	167	5,410	18,479

TABLE 1.28  
MOTOR VEHICLE REGISTRATIONS

TYPE OF VEHICLE	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
PASSENGER CARS*	1,782,734	1,860,394	1,866,756	1,931,493	1,943,956	2,215,167	1,911,108	1,976,349	2,028,324	2,376,806
GROSS WEIGHT TRUCKS	334,414	355,100	385,826	425,743	442,904	476,351	513,562	561,250	594,271	600,283
FARM TRUCKS	105,202	103,346	104,200	108,714	101,976	114,643	118,303	121,311	123,421	123,261
URBAN TRUCKS	4,731	4,645	4,410	4,605	4,571	4,464	5,845	6,615	7,119	7,280
TAX EXEMPT VEHICLE	26,296	24,443	31,740	35,848	33,273	36,486	38,863	41,408	43,919	46,169
BUSES	1,300	2,956	3,019	3,165	2,352	2,432	2,445	2,642	2,785	3,026
SCHOOL BUSES	5,093	3,604	3,491	3,665	3,797	3,982	4,232	4,192	4,259	4,123
MOTORCYCLES	90,150	103,286	119,227	138,193	136,256	143,237	151,763	151,016	156,552	157,815
MOPEDS**								2,385	7,877	12,056
RECREATIONAL VEHICLES***	6,592	9,233	12,318	14,328	16,200	20,619	25,172	30,861	33,640	34,827
MOTOR VEHICLE SUBTOTAL	2,356,512	2,413,007	2,513,037	2,665,754	2,685,285	2,924,381	2,771,293	2,898,029	3,002,167	3,365,646
TRAILERS	378,939	398,718	451,539	459,049	497,071	490,585	507,525	526,424	540,432	552,558
COLLECTOR'S ITEM	7,779	8,504	9,427	10,120	10,806	13,174	15,662	17,978	20,165	23,092
GRAND TOTAL****	2,743,230	2,820,229	2,974,003	3,134,923	3,193,162	3,428,140	3,294,480	3,442,431	3,562,764	3,941,296

\*BEGINNING IN 1977, ONLY THOSE VEHICLE CURRENTLY REGISTERED ON DECEMBER 31 ARE INCLUDED IN THE TOTALS. ANY VEHICLE NOT REGISTERED (JUNKED, ABANDONED, MOVED OUT OF STATE, ETC.) WOULD NOT BE INCLUDED.

\*\*MOPEDS WERE NOT REGISTERED SEPARATELY FROM MOTORCYCLES UNTIL 1978.

\*\*\*RECREATIONAL VEHICLES ARE MOTOR-POWERED VEHICLES USED FOR HUMAN HABITATION DURING RECREATIONAL ACTIVITIES.

\*\*\*\*THE GRAND TOTAL DOES NOT INCLUDE FOREIGN-BASED PRORATE TRUCKS.

INFORMATION FOR THIS TABLE IS SUPPLIED BY THE DIVISION OF DRIVER AND VEHICLE SERVICES, DEPARTMENT OF PUBLIC SAFETY.

TABLE 1.29  
TYPES OF VEHICLES IN CRASHES

MOTOR VEHICLE TYPE	ALL CRASHES	FATAL CRASHES
PASSENGER CAR	137,642	670
PASSENGER CAR & TRAILER	115	3
TRUCK OR TRUCK TRACTOR	26,544	218
TRUCK TRACTOR AND SEMI-TRAILER	2,996	55
TRUCK TRACTOR AND TWIN TRAILER	8	1
TRUCK WITH OTHER TRAILER	126	4
MOTORCYCLE	3,408	115
MOTORSOOTER/MOTORBIKE	37	0
MOTORIZED BIKE/MOPED	95	4
SCHOOL BUS	678	1
BUS	663	2
MOTORHOME/CAMPER	367	4
SNOWMOBILE	79	5
FARM TRACTOR OR EQUIPMENT	225	6
TAXICAB	372	0
POLICE VEHICLE	437	0
FIRE DEPARTMENT VEHICLE	43	1
AMBULANCE	49	0
MILITARY VEHICLE	15	0
ROAD MAINTENANCE VEHICLE	143	0
HIT-AND-RUN VEHICLE	11,684	18
OTHER	1,053	8
<b>TOTAL</b>	<b>186,779</b>	<b>1,115</b>

## PART II

### PEDESTRIAN INFORMATION

In 1980, there were 70 pedestrian fatalities for every 1,000 pedestrian accidents. The especially high vulnerability of pedestrian to injury and death in motor vehicle accidents is apparent when this fatality rate is compared to the overall motor vehicle fatality rate per 1,000 accidents of 8.3.

For the third year, pedestrian fatalities were substantially lower than the 1971-1977 average of 132. Despite this decrease, however, pedestrian fatalities constituted 13.2% of the total fatality toll.

It is primarily the young and the aged who are victims of pedestrian crashes. In 1980, persons under 15 years of age accounted for 16.7% of the fatalities and 30.7% of the injuries, and persons age 65 and older made up 29.8% of the fatalities and 8.6% of the injuries.

TABLE 2.01  
PEDESTRIAN CRASHES, INJURIES, FATALITIES, 1971-1980

	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
PEDESTRIAN CRASHES*	1,960	1,941	1,940	1,750	1,925	1,723	**	1,731	1,700	1,629
PEDESTRIANS INJURED	2,000	1,930	1,940	1,753	1,918	1,726	**	1,723	1,678	1,636
PEDESTRIANS KILLED	157	132	149	106	121	120	140	115	117	114

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

\*\*PEDESTRIAN INJURY INFORMATION IS NOT AVAILABLE FOR 1977.

TABLE 2.02  
PEDESTRIAN CRASHES, INJURIES, FATAL CRASHES, FATALITIES BY MONTH

MONTH	ALL CRASHES	INJURIES	FATAL CRASHES	FATALITIES
JANUARY	138	138	6	6
FEBRUARY	113	116	5	6
MARCH	114	121	3	3
APRIL	152	143	12	12
MAY	132	130	9	9
JUNE	122	125	7	8
JULY	124	126	9	9
AUGUST	153	157	9	9
SEPTEMBER	141	135	13	13
OCTOBER	153	153	15	16
NOVEMBER	125	123	10	11
DECEMBER	162	169	12	12
TOTAL	1,629	1,636	110	114

FIGURE 2.01

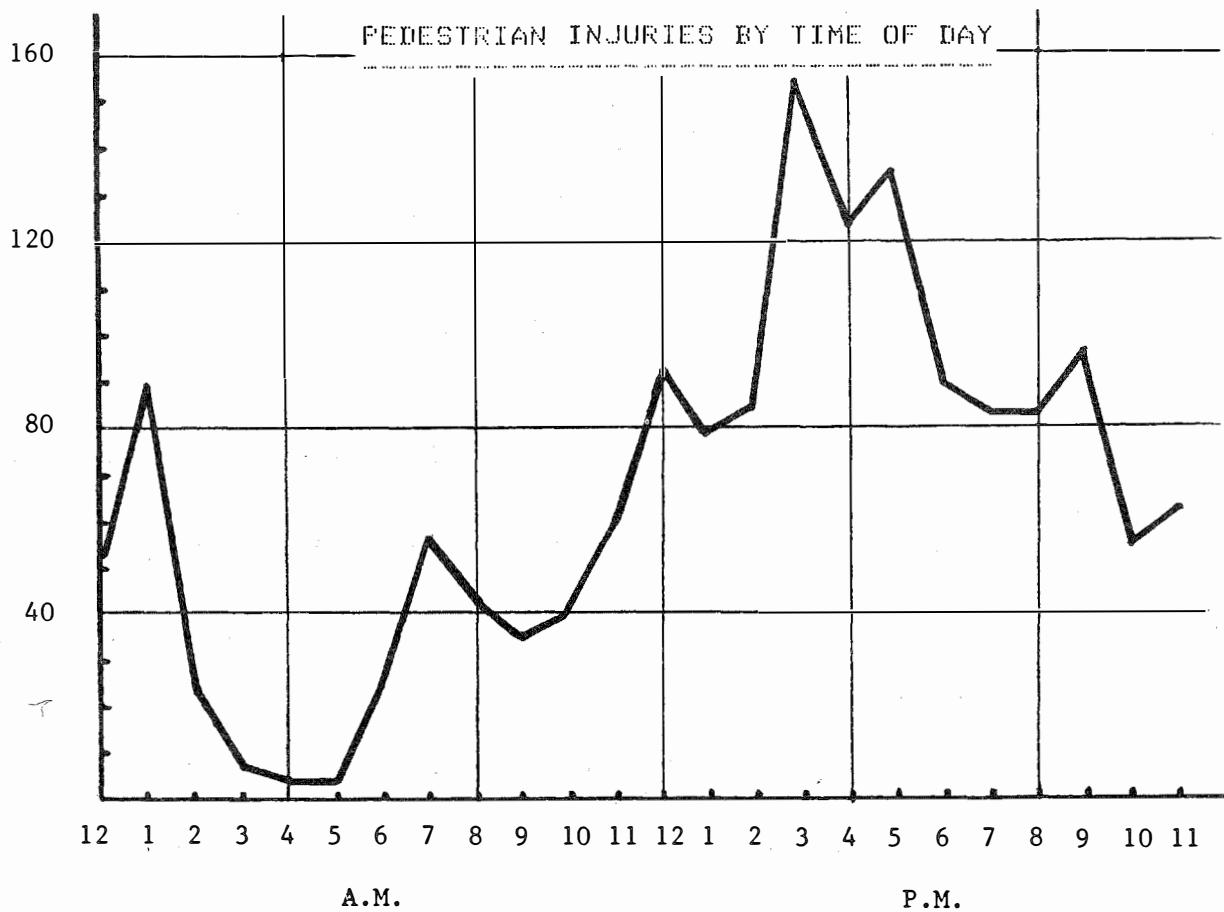


FIGURE 2.02

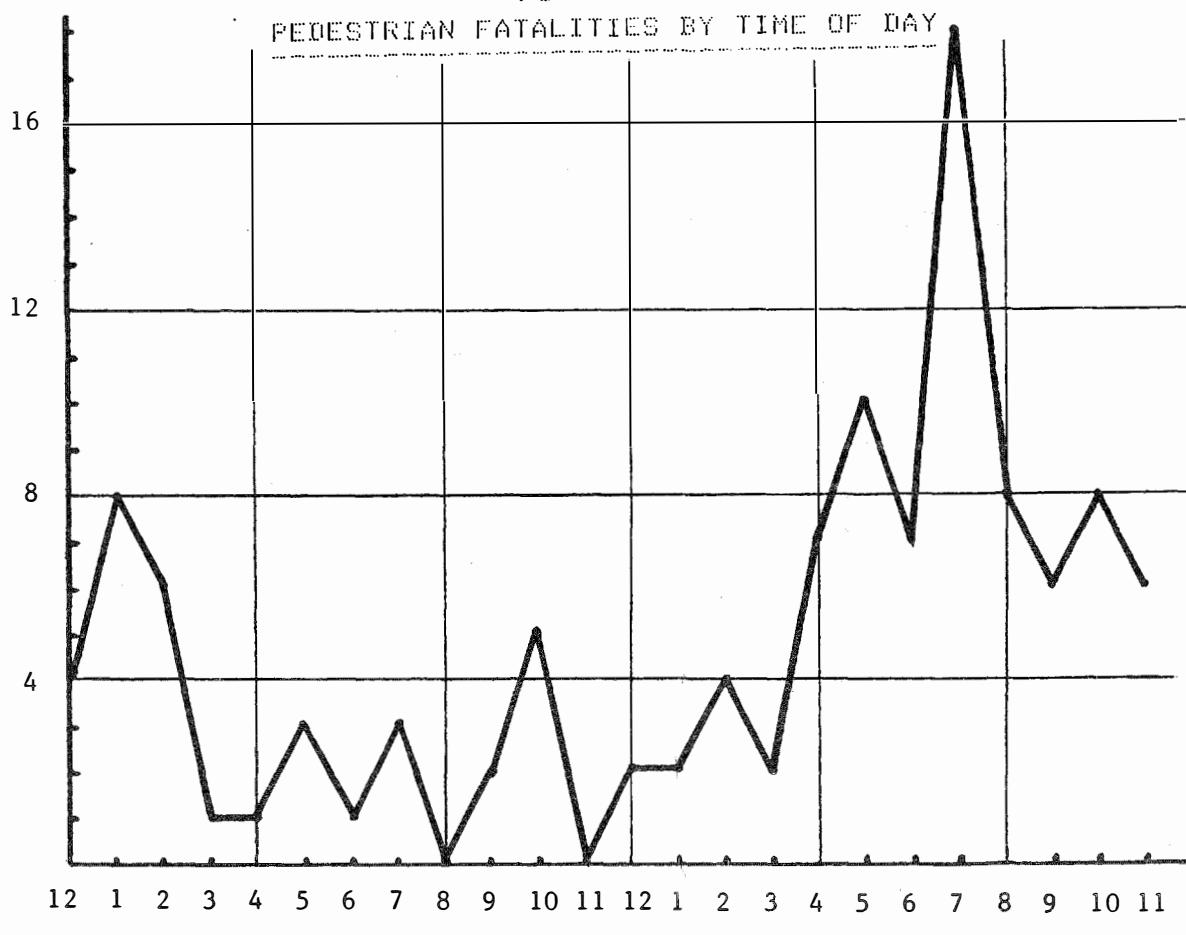


TABLE 2.03

## VEHICLE MOVEMENT IN PEDESTRIAN CRASHES

VEHICLE MOVEMENT	ALL CRASHES	FATAL CRASHES	PERSONAL INJURY CRASHES	PROPERTY DAMAGE CRASHES
CAR GOING STRAIGHT	1,096	75	1,016	5
CAR TURNING LEFT	167	6	161	0
CAR TURNING RIGHT	77	1	76	0
CAR BACKING	46	3	43	0
ALL OTHERS	227	15	211	1
NOT STATED	16	10	6	0
TOTAL	1,629	110	1,513	6

TABLE 2.04

## AGE AND SEX OF PEDESTRIAN FATALITIES

AGE GROUP	MALE	FEMALE	TOTAL
0- 4	1	6	7
5- 9	6	2	8
10-14	3	1	4
15-19	8	2	10
20-24	6	3	9
25-34	13	1	14
35-44	3	3	6
45-54	5	5	10
55-64	6	6	12
65-74	7	2	9
75 & OVER	8	17	25
TOTAL	66	48	114

TABLE 2.05  
AGE AND SEX OF PEDESTRIANS INJURED

AGE GROUP	MALE	FEMALE	TOTAL
0- 4	63	30	93
5- 9	140	80	220
10-14	106	84	190
15-19	124	106	230
20-24	94	71	165
25-34	145	96	241
35-44	72	43	115
45-54	50	38	88
55-64	32	48	80
65-74	23	47	70
75 & OVER	27	44	71
NOT STATED	47	26	73
TOTAL	923	713	1,636

TABLE 2.06  
PRIOR ACTION OF PEDESTRIAN FATALITIES AND INJURIES

ACTION	NUMBER KILLED	NUMBER INJURED
CROSSING WITH SIGNAL	4	236
CROSSING AGAINST SIGNAL	6	98
CROSSING IN CROSSWALK NO SIGNAL	4	90
CROSSING NO CROSSWALK NO SIGNAL	38	450
WALKING IN ROAD WITH TRAFFIC	10	58
WALKING IN ROAD AGAINST TRAFFIC	2	25
STANDING IN ROAD	12	79
EMERGING FROM FRONT/BEHIND PARKED CAR	2	95
CHILD GETTING ON/OFF SCHOOL BUS	1	9
GETTING ON/OFF VEHICLE	1	15
PUSHING/WORKING ON VEHICLE	2	6
WORKING IN ROAD	0	10
PLAYING IN ROAD	0	32
NOT IN ROAD	2	33
OTHER PEDESTRIAN ACTION	12	147
UNKNOWN	18	253
TOTAL	114	1,636

## PART III

### BICYCLE INFORMATION

Injuries received as a result of bicycle-motor vehicle collisions continue to be a problem primarily for the young male population in Minnesota. In 1980, nearly 70% of the bicyclists injured were male, and of these over 80% were under age 25.

TABLE 3.01  
BICYCLE-INVOLVED CRASHES, INJURIES, FATALITIES, 1971-1980

	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
BICYCLE CRASHES*	912	1,044	1,301	1,350	1,302	1,217	**	1,154	1,068	1,276
BICYCLISTS INJURED	844	949	1,197	1,246	1,202	1,114	**	1,105	993	1,295
BICYCLISTS KILLED	19	27	17	16	23	21	24	23	14	19

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

\*\*BICYCLIST INJURY INFORMATION IS NOT AVAILABLE FOR 1977.

TABLE 3.02

BICYCLE CRASHES, INJURIES, FATAL CRASHES, FATALITIES BY MONTH

MONTH	ALL CRASHES	INJURIES	FATAL CRASHES	FATALITIES
JANUARY	3	2		
FEBRUARY	1	1		
MARCH	27	26		
APRIL	118	122		
MAY	185	186	6	6
JUNE	251	265	3	3
JULY	257	256	3	3
AUGUST	195	197	2	2
SEPTEMBER	137	142	2	3
OCTOBER	65	64	1	1
NOVEMBER	25	22	1	1
DECEMBER	12	12		
TOTAL	1,276	1,295	18	19

TABLE 3.03  
AGE AND SEX OF BICYCLIST INJURIES

AGE GROUP	MALE	FEMALE	TOTAL
0- 4	15	4	19
5- 9	160	41	201
10-14	251	114	365
15-19	206	112	318
20-24	105	52	157
25-34	85	36	121
35 & OVER	54	24	78
UNKNOWN	20	16	36
<b>TOTAL</b>	<b>896</b>	<b>399</b>	<b>1,295</b>

TABLE 3.04  
AGE AND SEX OF BICYCLIST FATALITIES

AGE GROUP	MALE	FEMALE	TOTAL
0- 4	0	0	0
5- 9	1	2	3
10-14	7	1	8
15-19	2	0	2
20-24	0	3	3
25-34	1	1	2
35 & OVER	0	1	1
<b>TOTAL</b>	<b>11</b>	<b>8</b>	<b>19</b>

TABLE 3.05

## PRIOR ACTION OF BICYCLIST FATALITIES AND INJURIES

ACTION	NUMBER KILLED	NUMBER INJURED
RIDING WITH TRAFFIC	9	485
RIDING AGAINST TRAFFIC	1	106
MAKING LEFT TURN	2	93
MAKING RIGHT TURN	0	32
RIDING ACROSS ROAD	5	262
OTHER	2	317
TOTAL	19	1,295

## PART IV

### MOTORCYCLE INFORMATION

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

In 1980, the number of motorcyclists killed climbed to 121, the highest figure ever. In the four years prior to repeal (1973-1976), Minnesota had an average of 59 motorcyclist fatalities each year. Since repeal, however, Minnesota has experienced an average of 105 fatalities each year. This increase is especially tragic when it is realized that, even when controlling for increases in registered motorcycles and licensed operators, we should have expected an average of no more than 70 fatalities per year during the post-repeal years.

TABLE 4.01  
MOTORCYCLE-INVOLVED CRASHES BY ACCIDENT TYPE

ACCIDENT TYPE	ALL CRASHES	FATAL CRASHES	PERSONAL INJURY CRASHES	PROPERTY DAMAGE CRASHES
COLLISION WITH OTHER MOTOR VEHICLE	1,791	62	1,410	319
COLLISION WITH MOTOR VEHICLE IN OTHER ROADWAY	8	0	5	3
COLLISION WITH PARKED MOTOR VEHICLE	115	0	52	63
COLLISION WITH RAILROAD TRAIN	3	0	2	1
COLLISION WITH BICYCLIST	54	1	52	1
COLLISION WITH PEDESTRIAN	35	0	35	0
COLLISION WITH ANIMAL	61	2	53	6
COLLISION WITH FIXED OBJECT	353	27	308	18
COLLISION WITH OTHER OBJECT	40	0	36	4
OVERTURN	693	17	639	37
FIRE/EXPLOSION	1	0	0	1
SUBMERSION	0	0	0	0
OTHER/UNKNOWN	154	3	136	15
TOTAL	3,308	112	2,728	468

TABLE 4.02

## MOTORCYCLIST CRASHES, INJURIES, FATAL CRASHES, FATALITIES BY MONTH

MONTH	ALL CRASHES	INJURIES	FATAL CRASHES	FATALITIES
JANUARY	5	7		
FEBRUARY	2	2		
MARCH	31	26		
APRIL	347	364	11	11
MAY	514	526	19	19
JUNE	617	616	19	22
JULY	665	713	21	22
AUGUST	563	565	10	11
SEPTEMBER	335	327	5	5
OCTOBER	162	150	2	3
NOVEMBER	60	58		
DECEMBER	7	5		
TOTAL	3,308	3,359	111	121

TABLE 4.03

## MOTORCYCLE ACCIDENT SUMMARY, 1971-1980

	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
TOTAL MOTORCYCLE-INVOLVED ACCIDENTS	1,689	2,013	2,411	2,400	2,400	2,460	2,718	2,827	2,872	3,308
FATAL MOTORCYCLE-INVOLVED ACCIDENTS	48	52	63	51	62	61	88	103	95	112
PERSONAL INJURY MOTORCYCLE-INVOLVED ACCIDENTS	1,318	1,583	1,890	1,865	1,818	1,862	2,120	2,345	2,391	2,728
PERSONS KILLED IN MOTORCYCLE-INVOLVED ACCIDENTS:	51	55	65	54	72	62	94	107	98	122
MOTORCYCLE DRIVERS	43	50	56	43	61	55	85	89	83	107
MOTORCYCLE PASSENGERS	5	4	7	8	2	2	9	17	14	14
PEDESTRIANS	1	1	1	2	1	2	0	0	1	0
BICYCLISTS	1	0	1	0	0	1	0	1	0	1
OTHERS	1	0	0	1	8	2	0	0	0	0
PERSONS INJURED IN MOTORCYCLE ACCIDENTS:	1,628	1,972	2,334	2,245	2,247	2,266	2,564	2,907	2,904	3,393
MOTORCYCLISTS	1,563	1,920	2,267	2,184	2,205	2,223	2,522	2,860	2,833	3,359
PEDESTRIANS	38	25	31	25	18	28	20	17	42	13
BICYCLISTS	27	27	36	36	24	15	22	30	29	21
NUMBER OF LICENSED OPERATORS	N.A.	N.A.	55,377	91,024	127,081	152,138	172,223	184,545	201,075	222,330
NUMBER OF REGISTERED MOTORCYCLES	90,150	103,286	119,227	138,193	136,256	143,237	151,763	151,016	156,552	157,815
RATES:										
MOTORCYCLIST INJURIES PER MOTORCYCLIST FATALITY	32.6	35.6	36.0	42.8	35.0	39.0	26.8	27.0	29.2	27.8
TOTAL INJURIES PER FATALITY	38.3	40.7	41.8	46.4	54.0	51.3	52.8	51.4	56.3	52.4
TOTAL MOTORCYCLE CRASHES PER FATAL MOTORCYCLE CRASHES	35.2	38.7	38.3	47.1	38.7	40.3	30.9	27.4	30.2	29.5
TOTAL CRASHES PER FATAL CRASH	123.4	128.6	123.0	140.5	181.8	161.7	161.4	140.4	153.3	137.8
FATALITIES PER 10,000 MOTORCYCLE REGISTRATIONS	5.3	5.2	5.3	3.7	4.6	4.0	6.2	7.0	6.2	7.7
INJURIES PER 10,000 MOTORCYCLE REGISTRATIONS	173.4	185.9	190.1	158.0	161.8	155.2	166.2	189.4	181.0	212.8

HELMET LAW MAY 1, 1968

EYE PROTECTION AND LIGHTS-ON LAW AUGUST 1, 1975

HELMET LAW REPEAL APRIL 7, 1977

TABLE 4.04  
AGE AND SEX OF MOTORCYCLIST FATALITIES

AGE GROUP	MALE	FEMALE	TOTAL
0-4	0	0	0
5-9	1	0	1
10-14	4	0	4
15-19	25	2	27
20-24	43	2	45
25-29	19	2	21
30-34	10	2	12
35-39	3	0	3
40-44	3	1	4
45 & OVER	3	1	4
NOT STATED	0	0	0
<b>TOTAL</b>	<b>111</b>	<b>10</b>	<b>121</b>

TABLE 4.05  
AGE AND SEX OF MOTORCYCLIST INJURIES

AGE GROUP	MALE	FEMALE	TOTAL
0-14	0	1	1
15-19	699	94	793
20-24	1,023	180	1,203
25-29	508	108	616
30-34	242	43	285
35-39	109	29	138
40-44	65	21	86
45 & OVER	79	21	100
NOT STATED	123	14	137
<b>TOTAL</b>	<b>2,840</b>	<b>511</b>	<b>3,359</b>

TABLE 4.06  
HELMET USAGE OF MOTORCYCLIST FATALITIES AND INJURIES

HELMET USAGE	NUMBER KILLED	NUMBER INJURED
USED	31	727
NOT USED	77	1,095
UNKNOWN	13	1,537
TOTAL	121	3,359

## PART V

### RAILROAD INFORMATION

During 1980, fatal accidents involving railroad trains and motor vehicles were at a low point. Twelve fatal crashes occurred; in the ten year period from 1971 to 1980, only 1976 had such a low figure.

TABLE 5.01

## RAILROAD CROSSING FATAL CRASHES, FATALITIES, 1971-1980

	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
FATAL CRASHES	30	31	22	26	19	12	22	25	23	12
FATALITIES	41	36	29	29	21	14	26	34	32	15

TABLE 5.02

## RAILROAD CRASHES, INJURIES, FATAL CRASHES, FATALITIES BY MONTH

MONTH	ALL CRASHES	INJURIES	FATAL CRASHES	FATALITIES
JANUARY	42	40	2	3
FEBRUARY	25	8		
MARCH	21	18		
APRIL	18	10	1	1
MAY	13	7	1	1
JUNE	15	7		
JULY	16	8		
AUGUST	22	12		
SEPTEMBER	17	8		
OCTOBER	19	9	1	1
NOVEMBER	27	8	1	1
DECEMBER	36	17	6	8
TOTAL	271	152	12	15

TABLE 5.03

## AGE AND SEX OF RAILROAD FATALITIES AND INJURIES

AGE GROUP	FATALITIES			INJURIES		
	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL
0-4			2	3		5
5-9			6	3		9
10-14			5	2		7
15-19	1		1	22	13	35
20-24	3		3	18	10	28
25-29	3		3	26	4	30
35-44	1		1	10	3	13
45-54	2		2	6	5	11
55-64	2	1	3	3	2	5
65-74	2		2	1	1	2
75 AND OVER				1	1	2
NOT STATED				4	1	5
TOTAL	14	1	15	104	48	152

TABLE 5.04

## RAILROAD CRASHES AND FATAL CRASHES

BY TIME OF DAY

TIME	ALL CRASHES	FATAL CRASHES
MIDNIGHT-		
2:59 AM	45	
3:00 AM-		
5:59 AM	19	2
6:00 AM-		
8:59 AM	24	1
9:00 AM-		
11:59 AM	33	2
NOON-		
2:59 AM	37	2
3:00 PM-		
5:59 PM	38	
6:00 PM-		
8:59 PM	31	1
9:00 PM-		
11:59 PM	39	4
UNKNOWN	5	
TOTAL	271	12

## PART VI

### SCHOOL BUS INFORMATION

After an unusually high year in 1979, school bus accidents started to drop back into the "normal" range in 1980. Only one person was killed in a school bus accident during the year.

TABLE 6.01  
SCHOOL BUSES INVOLVED IN CRASHES, 1971-1980

	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
SCHOOL BUSES INVOLVED IN CRASHES	397	462	421	539	708	599	724	698	866	678
SCHOOL BUSES INVOLVED IN PERSONAL INJURY CRASHES	95	103	116	148	154	119	162	166	187	171
SCHOOL BUSES INVOLVED IN FATAL CRASHES	2	3	4	6	2	9	1	2	6	1

TABLE 6.02  
SCHOOL BUS-INVOLVED CRASHES BY ACCIDENT TYPE

ACCIDENT TYPE	ALL CRASHES	FATAL CRASHES	PERSONAL INJURY CRASHES	PROPERTY DAMAGE CRASHES
COLLISION WITH OTHER MOTOR VEHICLE	553		138	415
COLLISION WITH MOTOR VEHICLE IN OTHER ROAD- WAY	5		1	4
COLLISION WITH PARKED MOTOR VEHICLE	62		5	57
COLLISION WITH RAILROAD TRAIN	1		1	
COLLISION WITH BICYCLIST	1		1	
COLLISION WITH PEDESTRIAN	11	1	10	
COLLISION WITH ANIMAL	5		1	4
COLLISION WITH FIXED OBJECT	17		4	13
COLLISION WITH OTHER OBJECT	3		0	3
OVERTURN	2		2	
OTHER	12		8	4
TOTAL	672	1	171	500

## PART VII

### HOLIDAY INFORMATION

Because of high traffic volumes, the accidents which occur during holiday periods continue to be of special interest. Last year, the holiday period which had the worst profile in comparison to the average was the Fourth of July. During that period 18 people were killed, compared to 8 people who might have been killed during a similar, non-holiday period.

TABLE 7.01  
HOLIDAY ACCIDENT SUMMARY, 1974-1980

	YEAR	HOURS	TOTAL	FATAL	INJURY	DAMAGE	KILLED	INJURED
MEMORIAL DAY	1974	78	702	6	239	457	9	374
	1975	78	871	11	286	574	13	503
	1976	78	875	7	281	587	7	471
	1977	78	854	8	258	588	8	406
	1978	78	1,030	13	343	674	14	616
	1979	78	775	8	307	440	9	469
	1980	78	693	8	316	369	9	465
JULY 4TH	1974	102	1,000	11	311	678	11	474
	1975	78	791	14	246	531	19	441
	1976	78	942	11	293	638	11	505
	1977	78	941	18	274	649	19	453
	1978	30	348	7	154	187	7	268
	1979	30	346	2	148	196	2	233
	1980	78	827	16	339	472	18	548
LABOR DAY	1974	78	769	15	248	506	17	426
	1975	78	807	9	227	571	9	363
	1976	78	899	9	285	605	10	480
	1977	78	765	7	293	465	10	496
	1978	78	906	9	335	562	11	511
	1979	78	857	10	296	551	11	473
	1980	78	899	11	310	578	12	499
THANKSGIVING	1974	102	1,255	9	275	971	10	434
	1975	102	1,931	3	326	1,602	3	513
	1976	102	1,508	9	342	1,157	11	545
	1977	102	2,017	7	370	1,640	7	598
	1978	102	1,746	7	407	1,332	8	653
	1979	102	1,423	9	397	1,017	9	622
	1980	102	2,121	8	486	1,627	10	751
CHRISTMAS	1974	30	261	1	48	212	1	72
	1975	30	481	1	86	394	1	130
	1976	78	619	5	136	478	6	232
	1977	78	882	3	212	667	3	373
	1978	78	982	6	225	751	7	371
	1979	30	204	2	46	161	2	70
	1980	30	206	5	46	155	5	82
NEW YEAR'S	1974	30	391	2	100	289	2	182
	1975	30	506	5	120	381	6	201
	1976	78	932	4	206	722	4	310
	1977	78	1,568	6	312	1,250	6	500
	1978	78	1,196	5	292	899	5	453
	1979	30	609	4	175	417	4	274
	1980	30	698	6	218	474	6	355

TABLE 7.02  
1980 HOLIDAY CRASHES COMPARED WITH NON-HOLIDAY PERIODS

HOLIDAY		PERSONAL									
		TOTAL HOURS	CRAshes HOLIDAY	FATAL AVERAGE	HOLIDAY	INJURY INJURIES	AVERAGE	HOLIDAY	FATALITIES	AVERAGE	
MEMORIAL DAY	6:00 PM FRIDAY, MAY 23 TO MIDNIGHT MONDAY, MAY 26	78	693	889	8	8	316	465	415	9	9
JULY 4	6:00 PM FRIDAY, JULY 4 TO MIDNIGHT SUNDAY, JULY 6	78	827	657	16	7	339	548	321	18	8
LABOR DAY	6:00 PM FRIDAY, AUGUST 29 TO MIDNIGHT MONDAY, SEPTEMBER 1	78	899	889	11	8	310	499	415	12	9
THANKSGIVING	6:00 PM WEDNESDAY, NOVEMBER 27 TO MIDNIGHT SUNDAY, NOVEMBER 30	102	2,121	1,300	8	11	486	751	588	10	12
CHRISTMAS	6:00 PM WEDNESDAY, DECEMBER 24 TO MIDNIGHT THURSDAY, DECEMBER 25	30	206	367	5	3	46	82	141	5	3
NEW YEAR'S	6:00 PM WEDNESDAY, DECEMBER 31, 1979 TO MIDNIGHT THURSDAY, JANUARY 1, 1980	30	698	367	6	3	218	355	141	6	3

THE AVERAGE CONSISTS OF AN AVERAGE NUMBER OF ACCIDENTS OCCURRING IN 1980 DURING IN 1980 NON-HOLIDAY PERIODS OF EQUAL LENGTH ON THE SAME DAYS OF THE WEEK.

## PART VIII

### YOUNG DRIVER INFORMATION

Because of their relative inexperience in handling a motor vehicle, the accident experience of young drivers is an area of continuing interest. In 1980, drivers aged 19 or younger constituted 10.2% of the licensed driver population. These same drivers were involved in 16.8% of the accidents and 19.1% of the fatal accidents.

TABLE 8.01  
NUMBER AND PERCENT OF LICENSED TEENAGE DRIVERS,

YEAR	1974-1980		PERCENT OF DRIVERS WHO ARE 15-19
	DRIVERS 15-19	DRIVERS OVER 19	
1974	290,620	2,219,757	11.6
1975	300,906	2,251,699	11.9
1976	307,481	2,334,543	11.6
1977	315,138	2,381,533	11.9
1978	304,021	2,392,599	11.3
1979	290,570	2,434,848	10.7
1980	281,750	2,484,282	10.2

TABLE 8.02  
COMPARISON BY ACCIDENT TYPE OF DRIVERS 19 OR YOUNGER WITH DRIVERS 20 OR OLDER

TYPE OF ACCIDENT	ALL ACCIDENTS REGARDLESS OF DRIVER AGE		ACCIDENTS IN WHICH EVERY DRIVER WAS 19 OR YOUNGER		ACCIDENTS IN WHICH EVERY DRIVER WAS 20 OR OLDER	
	PERCENT OF ALL CRASHES	PERCENT OF FATAL CRASHES	PERCENT OF ALL CRASHES	PERCENT OF FATAL CRASHES	PERCENT OF ALL CRASHES	PERCENT OF FATAL CRASHES
COLLISION WITH OTHER MOTOR VEHICLE	60.0	41.4	69.7	49.8	68.0	52.7
COLLISION WITH MOTOR VEHICLE IN OTHER ROADWAY	.2	.0	.2	.0	.3	.0
COLLISION WITH PARKED MOTOR VEHICLE	12.2	1.1	6.9	1.0	15.7	1.9
COLLISION WITH RAILROAD TRAIN	.3	1.6	.1	.5	.1	1.0
COLLISION WITH BICYCLIST	1.2	2.4	1.1	2.4	1.4	3.4
COLLISION WITH PEDESTRIAN	1.6	13.4	1.3	12.0	1.9	18.4
COLLISION WITH ANIMAL	2.3	.5	1.0	.0	1.3	.4
COLLISION WITH FIXED OBJECT	15.1	21.7	13.3	16.3	7.6	12.8
COLLISION WITH OTHER OBJECT	.6	.0	.4	.0	.4	.0
OVERTURN	4.9	16.2	4.7	15.8	2.4	8.5
FIRE/EXPLOSION	.1	.5	.0	.5	.1	.3
SUBMERSION	.0	.0	.0	.0	.0	.0
OTHER	1.4	1.2	1.1	1.9	.8	.7
TOTAL	99.9	100.0	99.8	100.2	100.0	100.1

## PART IX

### HIT-AND-RUN ACCIDENT INFORMATION

Hit-and-run accidents continue to be a problem in Minnesota. In 1980, nearly 12% of the accidents involved a vehicle which left the scene of the accident. Unfortunately, this is especially evident when a pedestrian is also involved; of the 18 fatal hit-and-run accidents, 12 (66.7%) resulted in a pedestrian fatality.

TABLE 9.01

## HIT-AND-RUN CRASHES BY ACCIDENT TYPE

ACCIDENT TYPE	ALL CRASHES	FATAL CRASHES	PERSONAL INJURY CRASHES	PROPERTY DAMAGE CRASHES
COLLISION WITH OTHER MOTOR VEHICLE	4,146	2	796	3,348
COLLISION WITH MOTOR VEHICLE IN OTHER ROAD- WAY	13	0	2	11
COLLISION WITH PARKED MOTOR VEHICLE	5,867	2	122	5,743
COLLISION WITH RAILROAD TRAIN	1	0	0	1
COLLISION WITH BICYCLIST	165	2	149	14
COLLISION WITH PEDESTRIAN	225	12	211	2
COLLISION WITH ANIMAL	1	0	0	1
COLLISION WITH FIXED OBJECT	1,727	0	116	1,611
COLLISION WITH OTHER OBJECT	48	0	3	45
OVERTURN	58	0	13	45
OTHER/UNKNOWN	43	0	7	36
TOTAL	12,294	18	1,419	10,857

## PART X

### ALCOHOL INFORMATION

Minnesota Statute 169.09, subdivision 11, requires that all drivers who die within four hours of a motor vehicle accident be tested to determine the percentage concentration of alcohol in their blood. In addition, the law requires that all pedestrians 16 years of age or older be tested to determine their blood alcohol concentration if they die within four hours of a traffic accident.

Drunken driving--and the effort to control it--was at an all-time high in Minnesota last year. In 1980--

- \* We drank more, for an all-time high of 36.7 gallons of liquor, beer and wine (in terms of absolute alcohol,  $3\frac{1}{4}$  gallons) for every person over age 15. This is up 3% over 1979, 7% over 1978, and 28% over 1968.
- \* We had an all-time high of drivers killed who were drunk (.10 alcohol concentration or higher)--58% of the drivers who were killed were drunk; 69% had been drinking and had some measurable amount of alcohol in their bodies.
- \* The State Patrol hit an all-time high for drunk drivers arrested--5,255 or 30% more than in 1979.
- \* All police departments in the state made an all-time high number of arrests for drunk driving--nearly 30,000 or 24% more than in 1979. (This includes the State Patrol arrest.)
- \* We had an all-time high number of drunken drivers' licenses revoked--26,618, for a revocation rate of more than 98% of known drunken driving arrests. In addition, 3,863 drivers had their licenses revoked for refusing to take a test.

TABLE 10.01

## DRINKING DRIVER FATALITY SUMMARY, 1971-1980

1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	
1,024	1,031	1,024	852	777	809	856	980	881	863	PEOPLE WERE KILLED IN MOTOR VEHICLE CRASHES
510 49.9	567 54.9	561 54.8	501 58.8	431 55.5	478 59.1	476 55.6	576 58.8	523 59.4	519 60.1	DRIVERS WERE KILLED
259 50.8	398 70.2	406 72.4	337 67.3	230 53.4	289 60.5	276 58.0	381 66.1	329 62.9	337 64.9	FATALLY INJURED DRIVERS WERE TESTED FOR ALCOHOL
155 59.8	229 57.5	240 59.1	202 59.9	142 61.7	185 64.0	166 60.1	241 63.3	190 57.8	232 68.8	OF THOSE TESTED HAD ALCOHOL IN THEIR SYSTEMS (CALLED POSITIVE CASES)
126 48.7	177 44.5	206 50.7	171 50.7	114 49.6	154 53.3	148 53.6	196 51.4	147 44.7	195 57.9	OF THOSE TESTED WERE AT OR ABOVE THE .100 LEVEL OF INTOXICATION
126 81.3	177 77.3	206 85.8	171 84.7	114 80.3	154 83.2	148 89.2	196 81.3	147 77.4	195 84.1	OF THE POSITIVE CASES WERE AT OR ABOVE THE .100 LEVEL OF INTOXICATION
141 91.0	210 91.7	227 94.6	187 92.6	124 87.3	173 93.5	148 89.2	222 92.1	169 88.9	211 90.9	OF THE POSITIVE CASES WERE MALE
14 9.0	.19 0.3	13 5.4	15 7.4	18 12.7	12 6.5	18 10.8	19 7.9	21 11.1	21 9.1	OF THE POSITIVE CASES WERE FEMALE
48 38.1	56 31.1	85 41.3	68 39.8	41 36.0	56 36.4	48 32.4	78 39.8	57 30.0	68 34.9	OF THE POSITIVE WHICH TESTED AT .100 OR HIGHER OCCURRED BETWEEN MIDNIGHT AND 3:00 AM
75 48.4	100 43.7	105 43.8	93 46.0	81 57.0	90 48.6	84 50.6	113 46.9	104 54.7	121 52.2	OF THE POSITIVE CASES WERE BETWEEN THE AGES OF 16 AND 24
60 80.0	68 68.0	85 80.9	79 84.9	63 77.8	72 80.0	73 86.9	87 77.0	75 72.1	96 79.3	OF THE 16 TO 24 YEAR OLDS TESTING POSITIVE WERE AT OR ABOVE .100
34 21.9	38 16.6	21 8.8	9 4.5	9 6.3	26 14.1	14 8.4	32 13.3	27 14.2	23 9.9	OF THE POSITIVE CASES WERE UNDER THE LEGAL DRINKING AGE

THE AGE OF MAJORITY WAS LEGALLY LOWERED TO 18 YEARS OF AGE ON JUNE 1, 1973.

THE LEGAL DRINKING AGE WAS RAISED TO 19 YEARS OF AGE ON SEPTEMBER 1, 1976.

TABLE 10.02  
ACCIDENT TYPES OF FATAL CRASHES COMPARED WITH  
FATAL CRASHES INVOLVING AN ALCOHOL-POSITIVE DRIVER FATALITY

TYPE OF ACCIDENT	PERCENT OF FATAL CRASHES	PERCENT OF FATAL CRASHES WITH AN ALCOHOL- POSITIVE DRIVER FATALITY*
COLLISION WITH OTHER MOTOR VEHICLE	41.4	35.8
COLLISION WITH PARKED MOTOR VEHICLE	1.1	2.2
COLLISION WITH RAILROAD TRAIN	1.6	1.3
COLLISION WITH BICYCLIST	2.4	0.0
COLLISION WITH PEDESTRIAN	13.4	0.0
COLLISION WITH ANIMAL	.5	.4
COLLISION WITH FIXED OBJECT	21.7	36.7
OVERTURN	16.2	21.8
FIRE/EXPLOSION	.5	.9
OTHER	1.2	.9
TOTAL	100.0	100.0

\*THESE FIGURES ARE BASED ON THE 229 CASES IN WHICH A  
FATALIY INJURED DRIVER WAS TESTED FOR BLOOD ALCOHOL  
CONCENTRATION AND WAS FOUND TO HAVE BEEN DRINKING.

TABLE 10.03

## DRIVER FATALITIES' LEVEL OF INTOXICATION BY AGE

AGE	BLOOD ALCOHOL CONCENTRATION								PERCENT OF TOTAL TESTED	PERCENT INTOXI- CATED	PERCENT OF TOTAL POSITIVE BY AGE GROUP
	TOTAL KILLED	TOTAL TESTED	TOTAL POSITIVE, .049	.010- .049	.050- .099	.100- .149	.150- .249	.250 & OVER			
15 AND BELOW	11	4	1			1			25.0	25.0	.4
16	15	9	4	1		1	2		44.4	33.3	1.7
17	14	10	8	2		2	3	1	80.0	60.0	3.4
18	25	14	10	1	2	4	2	1	71.4	50.0	4.3
19	42	29	24	3	2	8	9	2	82.8	65.5	10.4
20	35	27	25	5	2	3	14	1	92.6	66.7	10.8
21 - 25	110	80	56	5	3	10	28	10	70.0	60.0	24.1
26 - 30	74	44	32	1	4	1	15	11	72.7	61.4	13.8
31 - 35	38	25	19			3	11	5	76.0	76.0	8.2
36 - 40	30	15	14	1	2	2	5	4	93.3	73.3	6.0
41 - 45	18	10	6			1	2	3	60.0	60.0	2.6
46 - 50	24	19	14			1	7	6	73.7	73.7	6.0
51 - 55	16	11	5			1		2	45.5	36.4	2.2
56 - 60	14	10	4				3	1	40.0	40.0	1.7
61 - 65	22	14	6				2	4	42.9	42.9	2.6
66 AND ABOVE	31	16	4	1	1	2			25.0	12.5	1.7
TOTAL	519	337	232	20	17	39	105	51	68.8	57.9	99.9

TABLE 10.04  
DRIVER FATALITIES' LEVEL OF INTOXICATION BY MONTH

TIME	TOTAL KILLED	TOTAL TESTED	TOTAL POSITIVE	BLOOD ALCOHOL CONCENTRATION					PERCENT OF ALL POSITIVE
				.010- .049	.050- .099	.100- .149	.150- .249	& OVER	
JANUARY	24	16	10	2	1	1	3	3	4.3
FEBRUARY	19	15	8		1	1	3	3	3.4
MARCH	22	12	8	1		3	2	2	3.4
APRIL	39	26	18	1	2	3	8	4	7.8
MAY	53	31	21	2	1	2	11	5	9.1
JUNE	54	33	24		2	7	13	2	10.3
JULY	59	32	19	2	2	3	7	5	8.2
AUGUST	55	40	25	1	2	6	12	4	10.8
SEPTEMBER	51	31	27	4	1	1	13	8	11.6
OCTOBER	51	41	29	4	1	8	10	6	12.5
NOVEMBER	46	30	25	3	2		16	4	10.8
DECEMBER	46	30	18		2	4	7	5	7.8
TOTAL	519	337	232	20	17	39	105	51	100.0

TABLE 10.05

## DRIVER FATALITIES/ LEVEL OF INTOXICATION BY ROAD TYPE

ROAD TYPE	TOTAL KILLED	TOTAL TESTED	TOTAL POSITIVE	BLOOD ALCOHOL CONCENTRATION					PERCENT OF ALL POSITIVE
				.010+	.050+	.100+	.150+	.250+ OVER	
INTERSTATE	23	13	8	2	1	1	3	1	3.4
TRUNK HIGHWAY	241	156	106	10	8	17	53	18	45.7
COUNTY ROAD	171	114	81	5	4	15	36	21	34.9
CITY STREET	57	35	24	2	2	4	8	6	10.3
TOWNSHIP ROAD	25	17	11	1	2	2	5	1	4.7
OTHER ROAD	2	2	2				2		.9
TOTAL	519	337	232	20	17	39	105	51	99.9

TABLE 10.06

## DRIVER FATALITIES' LEVEL OF INTOXICATION BY TIME OF DAY

TIME	TOTAL KILLED	TOTAL TESTED	TOTAL POSITIVE	BLOOD ALCOHOL CONCENTRATION					PERCENT OF ALL POSITIVE
				.010- .049	.050- .099	.100- .149	.150- .249	.250 & OVER	
<b>MIDNIGHT-</b>									
2:59 AM	113	80	73	2	3	13	42	13	31.5
<b>3:00 AM-</b>									
5:59 AM	46	31	25	1	1	2	19	2	10.8
<b>6:00 AM-</b>									
8:59 AM	32	21	7	2	2	3			34.0
<b>9:00 AM-</b>									
11:59 AM	45	24	9	2	1	3	3	3	33.9
<b>NOON-</b>									
2:59 PM	35	18	6	2	1	3			22.6
<b>3:00 PM-</b>									
5:59 PM	58	40	19	4	2	2	3	8	8.2
<b>6:00 PM-</b>									
8:59 PM	83	50	31	2	4	8	9	8	13.4
<b>9:00 PM-</b>									
11:59 PM	95	66	55	5	6	8	19	17	23.7
<b>UNKNOWN</b>	12	7	7		1	2	4		34.0
<b>TOTAL</b>	519	337	232	20	17	39	105	51	100.1

TABLE 10.07

## DRINKING PEDESTRIAN FATALITY SUMMARY, 1971-1980

1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	
157	132	149	105	121	120	140	115	117	114	PEDESTRIANS WERE KILLED IN MOTOR VEHICLE CRASHES
44 28.0	67 50.8	73 49.0	46 43.8	45 37.2	58 48.3	62 44.3	54 47.0	56 47.9	48 42.1	FATALLY INJURED PEDESTRIANS WERE TESTED FOR ALCOHOL
30 68.2	31 46.3	30 41.1	28 60.9	26 57.8	25 43.1	32 51.6	33 61.1	29 51.8	28 58.3	OF THOSE TESTED HAD ALCOHOL IN THEIR SYSTEMS (CALLED POSITIVE CASES)
23 52.3	26 38.8	23 31.5	25 54.3	22 48.9	22 37.9	32 51.6	22 40.7	26 46.4	26 54.2	OF THOSE TESTED WERE AT OR ABOVE THE .100 LEVEL OF INTOXICATION
23 76.7	26 83.9	23 76.7	25 89.3	22 84.6	22 88.0	32 100.0	22 66.7	26 89.7	26 92.9	OF THE POSITIVE CASES WERE AT OR ABOVE THE .100 LEVEL OF INTOXICATION
10 33.3	4 12.9	4 13.3	5 17.9	2 7.7	4 16.0	6 18.8	3 9.1	4 13.8	2 7.1	OF THE POSITIVE CASES WERE 66 OR OLDER
5 16.7	9 29.0	3 10.0	3 10.7	1 3.8	7 28.0	15 46.9	3 9.1	5 17.2	2 7.1	OF THE POSITIVE CASES WERE UNDER THE LEGAL DRINKING AGE

THE AGE OF MAJORITY WAS LEGALLY LOWERED TO 18 YEARS OF AGE ON JUNE 1, 1973.

THE LEGAL DRINKING AGE WAS RAISED TO 19 YEARS OF AGE ON SEPTEMBER 1, 1976.

ONLY PEDESTRIANS 16 YEARS OF AGE OR OLDER ARE REQUIRED TO BE TESTED FOR ALCOHOL.  
THUS, ALTHOUGH THE PERCENTAGES GIVEN REFLECT THE TOTAL NUMBER OF PEDESTRIANS KILLED,  
THOSE UNDER AGE 16 WOULD NOT HAVE BEEN TESTED IN ANY CASE.

TABLE I. O. 08

## PEDESTRIAN FATALITIES' LEVEL OF INTOXICATION BY AGE

TABLE 10.09

## PEDESTRIAN FATALITIES' LEVEL OF INTOXICATION BY MONTH

MONTH	TOTAL KILLED	TOTAL TESTED	TOTAL POSITIVE	BLOOD ALCOHOL CONCENTRATION					% OF ALL POSITIVE
				.010- .049	.050- .099	.100- .149	.150- .249	.250 & OVER	
JANUARY	5	1	0						0.0
FEBRUARY	7	4	0						0.0
MARCH	3	1	0						0.0
APRIL	12	4	2			1		1	7.1
MAY	9	2	1					1	3.6
JUNE	8	3	2			1		1	7.1
JULY	9	6	4			1	2	1	14.3
AUGUST	8	5	5			2	1	2	17.9
SEPTEMBER	14	7	4				4		14.3
OCTOBER	16	7	4				1	3	14.3
NOVEMBER	11	4	3					3	10.7
DECEMBER	12	4	3		1		1	1	10.7
TOTAL	114	48	28	0	2	4	9	13	100.0

TABLE 10.10

## PEDESTRIAN FATALITIES' LEVEL OF INTOXICATION BY ROAD TYPE

ROAD TYPE	TOTAL KILLED	TOTAL TESTED	TOTAL POSITIVE	BLOOD ALCOHOL CONCENTRATION					% OF ALL POSITIVE
				.010- .049	.050- .099	.100- .149	.150- .249	.250 & OVER	
INTERSTATE	5	2	1					1	3.6
TRUNK HIGHWAY	40	18	9			2	2	5	32.1
COUNTY ROAD	37	19	14			2	2	6	50.0
CITY STREET	32	9	4				1	3	14.3
TOWNSHIP ROAD	0	0	0						0.0
OTHER ROAD	0	0	0						0.0
TOTAL	114	48	28	0	2	4	9	13	100.0

TABLE 10.11

## PEDESTRIAN FATALITIES' LEVEL OF INTOXICATION BY TIME OF DAY

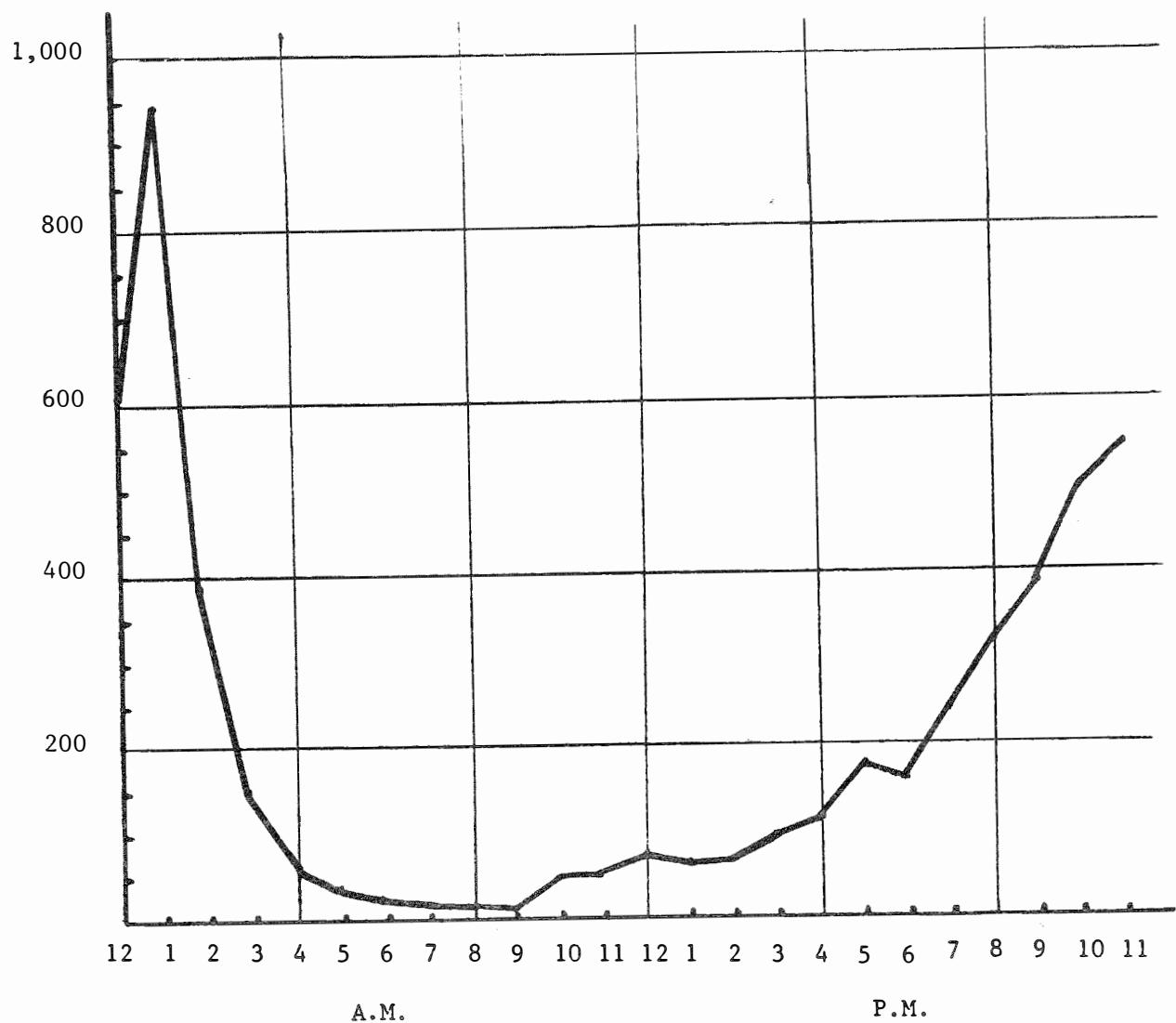
TIME	TOTAL KILLED	TOTAL TESTED	TOTAL POSITIVE	BLOOD ALCOHOL CONCENTRATION					PERCENT OF ALL POSITIVE
				.010-.049	.050-.099	.100-.149	.150-.249	>.250	
<b>MIDNIGHT-</b>									
2:59 AM	18	12	10			1	3	4	35.7
3:00 AM-									
5:59 AM	5	2	2				2		7.1
6:00 AM-									
8:59 AM	4	0							0.0
9:00 AM-									
11:59 AM	7	1	0						0.0
<b>NOON-</b>									
2:59 PM	8	3	2			1		1	7.1
3:00 PM-									
5:59 PM	19	3	1				1		3.6
6:00 PM-									
8:59 PM	33	14	7				1	6	25.0
9:00 PM-									
11:59 PM	20	13	6				1	5	21.4
<b>TOTAL</b>	<b>114</b>	<b>48</b>	<b>28</b>	<b>0</b>	<b>2</b>	<b>4</b>	<b>9</b>	<b>13</b>	<b>99.9</b>

TABLE 10.12  
STATE PATROL DWI ARRESTS BY DAY OF WEEK

DAY	NUMBER OF ARRESTS
SUNDAY	951
MONDAY	366
TUESDAY	438
WEDNESDAY	488
THURSDAY	566
FRIDAY	928
SATURDAY	1,403
TOTAL	5,140

FIGURE 10.01

STATE PATROL DWI ARRESTS BY TIME OF DAY



## PART XI

### SEAT BELT INFORMATION

The latest government observation study of seat belt use indicates that, nationwide, only 11% of the motoring public use their seat belts when they drive. In Minnesota motor vehicle accidents last year, where information on seat belt installation and usage was known, 97.3% of the people killed and 90.3% of the people injured were not wearing seat belts at the time of their accident.

TABLE 11.01  
SEAT BELT USAGE OF FATALITIES AND INJURIES  
CARS ONLY\*

	FATALITIES	INJURIES
RESTRAINING DEVICE INSTALLED AND USED	9	1,454
RESTRAINING DEVICE INSTALLED BUT NOT USED	309	13,178
RESTRAINING DEVICE NOT INSTALLED	10	423
TOTAL	328	15,055

\*BASED ON CASES FOR WHICH SEAT BELT  
INSTALLATION AND USAGE ARE KNOWN.

TABLE 11.02  
INJURY SEVERITY OF CHILDREN INJURED WHILE IN  
CHILD RESTRAINT SYSTEMS

SEVERITY OF INJURY	CHILDREN INJURED
"K"--FATAL INJURY	0
"A"--INCAPACITATING INJURY	2
"B"--NON-INCAPACITATING INJURY	16
"C"--POSSIBLE INJURY	35
TOTAL	53

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