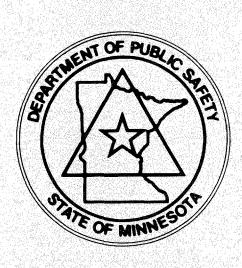
# MINNESOTA 1981

# MOTOR VEHICLE CRASH DATA

A COMPILATION OF STATISTICAL TABLES LISTING FATALITIES, INJURIES, AND PROPERTY DAMAGE RESULTING FROM MOTOR VEHICLE CRASHES AND ROADWAY ACCIDENTS IN MINNESOTA DURING 1981 (WITH HISTORICAL REFERENCES TO ANNUAL CRASH STATISTICS FOR THE PREVIOUS DECADE)



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# STATE OF MINNESOTA DEPARTMENT OF PUBLIC SAFETY SAINT PAUL 55155

To whom it may concern, Recipients of Minnesota Crash Data:

You are currently on the mailing list to receive this annual Minnesota Department of Public Safety Crash Data book. Because this comprehensive 80 page publication is expensive to produce and distribute, our department has prepared a four page Crash Facts brochure. The brochure highlights in 26 tables the most frequently requested and often utilized statistical information.

Because of tightening budgets we would like to reduce the number of 80 page <u>Crash Data</u> books printed. We would therefore appreciate your prompt response to the brief questionaire below so we may appropriately adjust our mailing lists for the two publications. If we do not hear from you by December 15, WE WILL ASSUME THAT YOU NO LONGER DESIRE TO BE ON A MAILING LIST TO RECEIVE EITHER OF OUR "CRASH" INFORMATION PUBLICATIONS (Crash Facts brochure and <u>Crash Data</u> book).

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MINNESOTA 1981

# MOTOR VEHICLE CRASH DATA

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

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The 1981 edition of Minnesota Motor Vehicle Crash Data has been produced by the Office of Traffic Safety, Minnesota Department of Public Safety, in accordance with Minnesota Statutes, Section 169.10. The information presented is derived from accident reports submitted by citizens and law enforcement agencies for motor vehicle crashes involving death, personal injury, or property damage.

During 1981 there were 763 people killed and 43,739 injured in a total of 97,879 crashes throughout the state. The total number of Minnesota driver licenses held in 1981 was 2,771,754. Over three million vehicles traveled 28.6 billion miles on our state's roadways.

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 1980 by the National Safety Council for fatalities, injuries, and damage resulting from fatal, personal injury and property damage crashes.

The total dollar value is determines as follows:

| 763    | Deaths                      | 9 | \$170,000 | = | \$129,710,000 |
|--------|-----------------------------|---|-----------|---|---------------|
| 6,961  | Incapacitating Injuries     | 9 | 14,700    | = | 102,326,700   |
| 18,138 | Non-incapacitating Injuries | 9 | 4,400     | = | 79,807,200    |
| 18,640 | Possible Injuries           | 9 | 1,100     | = | 20,504,000    |
| 66,969 | Accidents                   | 6 | 980       | = | 65,629,620    |
|        |                             |   | Total     | _ | 397. 977. 520 |

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

1981 was a very good year for Minnesota in terms of traffic accidents and injuries. The total accident figure of 97,879 was the fewest Minnesota has experienced since 1968. (Some of the decrease could be due to the change in the reporting threshold from \$300 to \$500 on August 1, 1981. But a large amount of the difference was evident even in the first half of the year.) Traffic injuries decreased for the third year in a row, reaching the lowest point since 1976. Traffic fatalities continued to decline, and reached the lowest level since 1965. Even more important, the fatality rate per 100 million vehicle miles traveled fell to 2.67, the lowest Minnesota has ever achieved.

TABLE 1.01

CRASH, FATALITY AND INJURY RATES, 1972-1981

|   | 1972    | 1973    | 1974    | 1975    | 1976    | 1977    | 1978    | 1979    | 1980    | 1981   |
|---|---------|---------|---------|---------|---------|---------|---------|---------|---------|--------|
| Traffic Crashes   | 111,180 | 107,956 | 102,964 | 123,206 | 116,390 | 119,754 | 118,833 | 120,633 | 103,612 | 97,879 |
| Traffic Fatalities  | 1,031   | 1,024   | 852     | 777     | 809     | 856     | 980     | 881     | 863     | 763    |
| Traffic Injuries  | 42,009  | 42,772  | 39,537  | 41,931  | 41,580  | 45,200  | 50,332  | 49,604  | 45,227  | 43,739 |
| Registered Motor Vehicles                                   | 2.41    | 2.51    | 2.67    | 2.69    | 2.92    | 2.77    | 2.90    | 3.00    | 3.01    | 3.09   |
| (Millions of Vehicles) Licensed Drivers                     | 2.50    | 2.38    | 2.44    | 2.51    | 2.57    | 2.63    | 2.64    | 2.67    | 2.71    | 2.77   |
| (Millions of Drivers) Vehicular Miles Traveled              | 24.9    | 25.2    | 24.6    | 25.6    | 27.0    | 28.1    | 28.8    | 29.0    | 28.5    | 28.6   |
| (Billions of Miles) Fatality Rate Per Hundred               | 4.14    | 4.07    | 3.47    | 3.03    | 3.00    | 3.05    | 3.40    | 3.04    | 3.03    | 2.67   |
| Million Vehicle Miles Traveled Fatality Rate Per 100,000    | 42.7    | 40.5    | 32.0    | 28.9    | 27.7    | 30.9    | 33.8    | 29.3    | 28.7    | 24.7   |
| Registered Vehicles Fatality Rate Per 100,000               | 26.5    | 26.3    | 21.8    | 19.8    | 20.4    | 21.6    | 24.5    | 21.7    | 21.2    | 16.1   |
| Population Injury Rate Per Hundred                          | 169     | 170     | 161     | 164     | 154     | 161     | 175     | 171     | 159     | 153    |
| Million Vehicle Miles Traveled Injury Rate Per 100,000      | 1,743   | 1,691   | 1,481   | 1,559   | 1,424   | 1,632   | 1,737   | 1,652   | 1,506   | 1,413  |
| Registered Vehicles<br>Injury Rate Per 100,000              | 1,078   | 1,098   | 1,009   | 1,068   | 1,049   | 1,144   | 1,256   | 1,222   | 1,111   | 921    |
| Population<br>Crash Rate Per Hundred                        | 447     | 429     | 419     | 481     | 432     | 426     | 412     | 417     | 364     | 342    |
| Million Vehicle Miles Traveled<br>Crash Rate Per 100,000    | 4,613   | 4,265   | 3,862   | 4,580   | 3,980   | 4,323   | 4,100   | 4,018   | 3,446   | 3,163  |
| Registered Vehicles<br>Crash Rate Per 100,000<br>Population | 2,858   | 2,770   | 2,628   | 3,143   | 2,936   | 3,032   | 2,965   | 2,971   | 2,546   | 2,060  |

TABLE 1.02

1981 TRAFFIC TOLL COMPARED WITH 1976-1980 AVERAGE

|  | 1976-1980<br>Average | 1981   |
|--|----------------------|--------|
| Deaths   | 878                  | 763    |
| Injuries   | 46,389               | 43,739 |
| Crashes  | 115,844              | 97,879 |
| Registered Motor<br>Vehicles (Millions)                    | 2.92                 | 3.09   |
| Licensed Drivers (Millions)                                | 2.64                 | 2.77   |
| Vehicle Miles Traveled<br>(Billions)                       | 28.3                 | 28.6   |
| Fatality Rate Per<br>100 Million Vehicle<br>Miles Traveled | 3.10                 | 2.67   |

TABLE 1.03

CRASHES, INJURIES, FATAL CRASHES, FATALITIES BY MONTH

|           | All Crashes | Injuries | Fatal Crashes | Fatalities |  |
|-----------|-------------|----------|---------------|------------|--|
| January   | 8,548       | 3,341    | 51            | 61         |  |
| February  | 9,571       | 3,229    | 27            | 28         |  |
| March     | 5,947       | 2,657    | 33            | 37         |  |
| April     | 7,162       | 3,256    | 64            | 69         |  |
| May       | 7,867       | 4,021    | 64            | 77         |  |
| June      | 8,516       | 4,482    | 68            | 73         |  |
| July      | 7,310       | 4,038    | 72            | 77         |  |
| August    | 7,955       | 4,154    | 76            | 82         |  |
| September | 7,339       | 3,714    | 47            | 54         |  |
| October   | 8,973       | 4,039    | 63            | 80         |  |
| November  | 8,154       | 3,087    | 52            | 58         |  |
| December  | 10,537      | 3,721    | 55            | 67         |  |
| Total     | 97,879      | 43,739   | 672           | 763        |  |

TABLE 1.04

FATAL CRASHES, ALL CRASHES BY DAY OF WEEK

| Day       | Fatal Crashes | All Crashes |
|-----------|---------------|-------------|
| Sunday    | 107           | 11,902      |
| Monday    | 55            | 12,402      |
| Tuesday   | 68            | 12,172      |
| Wednesday | 78            | 13,326      |
| Thursday  | 79            | 14,328      |
| Friday    | 122           | 16,641      |
| Saturday  | 163           | 17,108      |
|           |               |             |
| Total     | 672           | 97,879      |

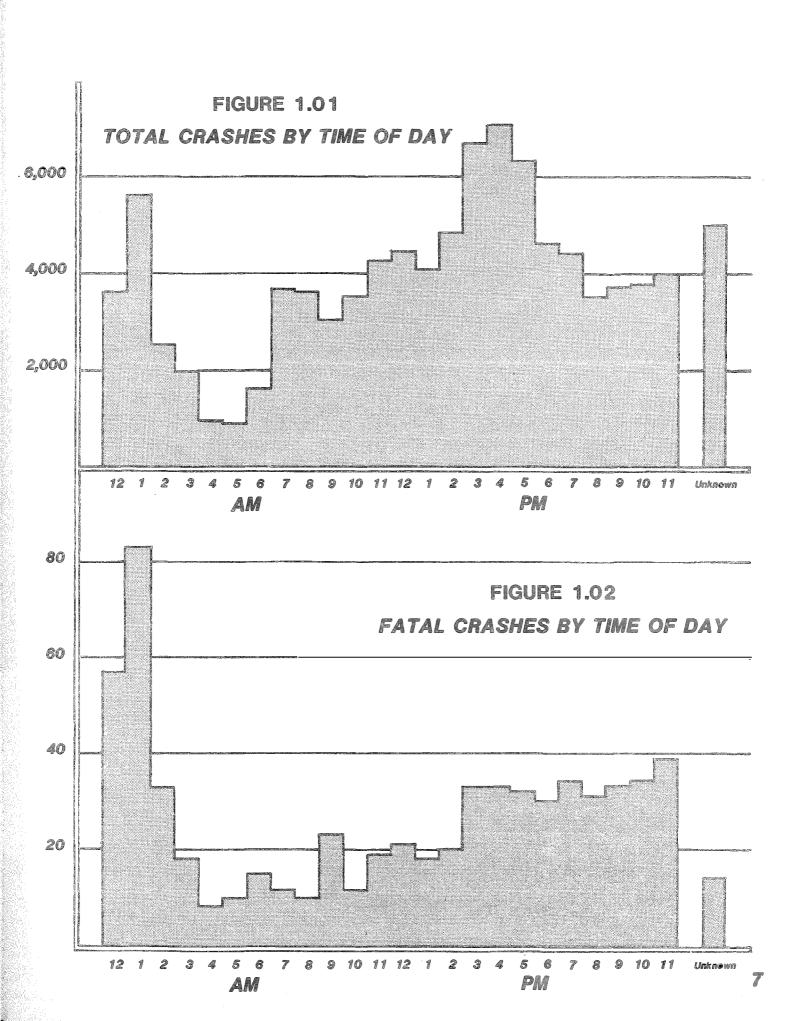


TABLE 1.05

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

| Hour       |        | Crashes |        | day   |        | sday |        | esday |        | ırsday |        | iday  |        | urday |        | ınday |
|------------|--------|---------|--------|-------|--------|------|--------|-------|--------|--------|--------|-------|--------|-------|--------|-------|
| Beginning  | A11    | Fatal   | A11    | Fatal | AII    | Fata | I AII  | Fatal | AII    | Fatal  | A11    | Fatal | A11    | Fatal | AII    | Fatal |
| Midnight   | 3,688  | 57      | 356    | 4     | 316    | 4    | 344    | 7     | 426    | 8      | 418    | 6     | 961    | 18    | 867    | 10    |
| 1:00       | 5,661  | 83      | 249    | 1     | 361    | 4    | 476    | 10    | 706    | 10     | 701    | 11    | 1,657  | 22    | 1,511  | 25    |
| 2:00       | 2,578  | 33      | 105    | 1     | 186    | 5    | 174    | 1     | 332    | 6      | 248    | 0     | 799    | 14    | 734    | 6     |
| 3:00       | 1,487  | 18      | 98     | 2     | 117    | 1    | 76     | 0     | 169    | 1      | 138    | 1     | 426    | 8     | 463    | 5     |
| 4:00       | 950    | 8       | 69     | 0     | 67     | 0    | 77     | 1     | 125    | 0      | 91     | 2     | 253    | 0     | 268    | 5     |
| 5:00       | 889    | 10      | 111    | 0     | 82     | 1    | 89     | 0     | 105    | 1      | 108    | 0     | 202    | 7     | 192    | 1     |
| 6:00       | 1,674  | 15      | 337    | 2     | 215    | 0    | 265    | 1     | 270    | 2      | 233    | 4     | 188    | 4     | 166    | 2     |
| 7:00       | 3,695  | 12      | 792    | 3     | 617    | 1    | 676    | 3     | 618    | 1      | 635    | 2     | 210    | 1     | 147    | 1     |
| 8:00       | 3,604  | 10      | 704    | 1     | 594    | 2    | 652    | 3     | 624    | 1      | 580    | 2     | 305    | 1     | 145    | 0     |
| 9:00       | 3,076  | 23      | 526    | 1     | 418    | 4    | 459    | 5     | 442    | 2      | 445    | 3     | 493    | 5     | 293    | 3     |
| 10:00      | 3,548  | 12      | 511    | 1     | 470    | 1    | 473    | 2     | 515    | 3      | 537    | 1     | 689    | 3     | 353    | 1     |
| 11:00      | 4,276  | 19      | 604    | 1     | 578    | 4    | 632    | 3     | 622    | 2      | 647    | 2     | 781    | 4     | 412    | 3     |
| Noon       | 4,447  | 21      | 569    | 2     | 579    | 1    | 617    | 5     | 653    | 5      | 691    | 3     | 798    | 3     | 540    | 2     |
| 1:00       | 4,145  | 18      | 582    | 6     | 558    | 0    | 564    | 1     | 593    | 1      | 600    | 3     | 767    | 3     | 481    | 4     |
| 2:00       | 4,872  | 20      | 691    | 4     | 658    | 4    | 747    | 3     | 727    | 2      | 832    | 5     | 759    | 0     | 458    | 2     |
| 3:00       | 6,721  | 33      | 963    | 4     | 998    | 3    | 1,074  | 5     | 1,099  | 5      | 1,229  | 3     | 814    | 9     | 544    | 4     |
| 4:00       | 7,139  | 33      | 1,077  | 6     | 1,051  | 8    | 1,157  | 2     | 1,111  | 1      | 1,430  | 6     | 772    | 8     | 541    | 2     |
| 5:00       | 6,368  | 32      | 870    | 2     | 943    | 1    | 1,036  | 3     | 1,010  | 6      | 1,203  | 7     | 776    | 6     | 530    | 7     |
| 6:00       | 4,667  | 30      | 571    | 3     | 601    | 2    | 620    | 4     | 713    | 3      | 904    | 8     | 752    | 8     | 506    | 2     |
| 7:00       | 4,394  | 34      | 470    | 4     | 534    | 4    | 571    | 6     | 650    | 6      | 841    | 4     | 821    | 4     | 507    | 6     |
| 8:00       | 3,550  | 31      | 395    | 2     | 415    | 2    | 503    | 4     | 508    | 3      | 712    | 10    | 615    | 7     | 402    | 3     |
| 9:00       | 3,755  | 33      | 390    | 0     | 457    | 5    | 485    | 3     | 520    | 3      | 825    | 8     | 676    | 9     | 402    | 5     |
| 10:00      | 3,770  | 34      | 367    | Ŏ     | 407    | 5    | 464    | 3     | 535    | 2      | 838    | 16    | 769    | 5     | 390    | 3     |
| 11:00      | 3,917  | 39      | 333    | 2     | 373    | 4    | 450    | 3     | 518    | 3      | 984    | 15    | 919    | 10    | 340    | 2     |
| Not Stated | 5,008  | 14      | 662    | 3     | 577    | 2    | 645    | 0     | 737    | 2      | 771    | 0     | 906    | 4     | 710    | 3     |
| Total      | 97,879 | 672     | 12,402 | 55    | 12,172 | 68   | 13,326 | 78    | 14,328 | 79     | 16,641 | 122   | 17,108 | 163 1 | 11,902 | 107   |

TABLE 1.06

FATALITIES AND INJURIES BY TYPE OF CRASH

| Type of Crash                                       | All<br>Crashes | Fatal<br>Crashes | Personal<br>Injury<br>Crashes | Property<br>Damage<br>Crashes | Killed | Injured | Fatality<br>Rate Per<br>1,000 Crashes |
|---|----------------|------------------|-------------------------------|-------------------------------|--------|---------|---------------------------------------|
| Collision With<br>Other Motor<br>Vehicle            | 58,623         | 270              | 16,993                        | 41,360                        | 329    | 26,963  | 5.6                                   |
| Collision With<br>Motor Vehicle In<br>Other Roadway | 203            | 0                | 41                            | 162                           | 0      | 54      | 0.0                                   |
| Collision With<br>Parked Motor<br>Vehicle           | 11,078         | 12               | 1,306                         | 9,760                         | 12     | 1,611   | 1.1                                   |
| Collision With<br>Railroad<br>Train                 | 192            | 13               | 55                            | 124                           | 15     | 87      | 78.1                                  |
| Collision With<br>Bicyclist                         | 1,255          | 11               | 1,206                         | 38                            | 12     | 1,267   | 9.6                                   |
| Collision With<br>Pedestrian                        | 1,648          | 96               | 1,547                         | 5                             | 98     | 1,658   | 59.5                                  |
| Collision With<br>Animal                            | 2,710          | 4                | 198                           | 2,508                         | 4      | 251     | 1.5                                   |
| Collision With<br>Fixed Object                      | 15,529         | 148              | 5,401                         | 9,980                         | 165    | 7,106   | 10.6                                  |
| Collision with<br>Other Object                      | 541            | 1                | 162                           | 378                           | 1      | 209     | 1.8                                   |
| Overturn  | 4,756          | 100              | 2,742                         | 1,914                         | 110    | 3,816   | 23.1                                  |
| Fire/Explosion                                      | 105            | 2                | 13                            | 90                            | 2      | 16      | 19.0                                  |
| Submersion  | 46             | 5                | 16                            | 25                            | 5      | 23      | 108.7                                 |
| Other   | 1,193          | 10               | 558                           | 625                           | 10     | 678     | 8.4                                   |
| Total   | 97,879         | 672              | 30,238                        | 66,969                        | 763    | 43,739  | 7.8                                   |

TABLE 1.07

# CRASHES, KILLED AND INJURED BY COUNTY FOR 1981 COMPARED WITH 1976-1980 AVERAGE

| Aitkin 276 248 8 5 132 139 Anoka 4,608 4,040 28 27 2,254 2,222 Becker 651 512 11 7 318 306 Beltrami 738 554 9 4 280 247 Benton 680 573 11 5 329 282 Big Stone 165 116 2 3 56 40 Biue Earth 1,825 1,568 10 9 604 585 Brown 792 638 6 2 307 313 Carlton 594 478 8 5 251 217 Carver 901 798 12 13 472 433 Cass 400 352 10 2 189 213 Chippewa 337 238 5 12 119 111 Chisago 563 541 8 7 256 259 Clay 1,611 1,077 15 6 495 Clarwater 126 84 2 1 59 47 Cook 126 109 1 1 64 45 Cottonwood 272 174 5 2 94 86 Crow Wing 1,221 1,024 18 16 480 459 Dakota 4,947 4,377 38 36 2,242 2,176 Dodge 291 258 4 0 136 480 459 Dakota 4,947 4,377 38 36 2,242 2,176 Dodge 291 258 4 0 136 150 Douglas 763 639 7 9 313 345 Faribault 376 279 7 2 153 107 Freeborn 960 741 10 9 359 378 Goodhue 1,045 919 12 16 429 428 Grant 112 65 2 1 49 32 Hennepin 33,551 29,475 107 118 13,490 13,090 Houston 382 319 7 6 167 178 Kanabec 212 180 6 3 112 83 Koochiching 428 269 5 3 194 127 Kanabec 212 180 6 3 112 83 Koochiching 428 269 5 3 194 127 Lake 358 221 5 3 159 129 Lake 0f The Woods 76 50 4 0 0 30 35 Lincoln 135 115 2 3 51 60 Lvon 571 419 7 4 207 254 |
|---|
| Lyon     571     419     7     4     207     254       Mcleod     681     644     5     4     284     256       Mahnomen     100     73     2     5     44     38   |

### TABLE 1.07 (CONTINUED)

# CRASHES, KILLED AND INJURED BY COUNTY FOR 1981 COMPARED WITH 1976-1980 AVERAGE

|   | All Cra<br>Average   | shes  | Kil<br>Average  | led   | Injur<br>Average  | red  |
|---|--|---|---|---|---|--|
| County  | 1976-1980  | 1981  | 1976-1980   | 1981  | 1976-1980   | 1981   |
| Marshall Martin Meeker Mille Lacs Morrison Mower Murray Nicollet Nobles Norman Olmsted Otter Tail Pennington Pine Pipestone Polk Pope Ramsey Red Lake Redwood Renville Rice Rock Roseau St Louis Scott Sherburne Sibley Stearns Steele Stevens Swift Todd Traverse Wabasha Wadena Waseca Washington Watonwan Wilkin Winona Wright Yellow Medicine | 205<br>433<br>367<br>429<br>676<br>999<br>171<br>601<br>540<br>143<br>2,791<br>1,002<br>430<br>405<br>242<br>932<br>182<br>17,835<br>97<br>356<br>383<br>1,153<br>241<br>191<br>5,597<br>1,074<br>603<br>277<br>3,172<br>854<br>228<br>254<br>464<br>87<br>467<br>291<br>423<br>2,401<br>301<br>238<br>1,302<br>1,180<br>236 | 172<br>444<br>425<br>375<br>343<br>777<br>147<br>551<br>404<br>112<br>2,261<br>783<br>273<br>308<br>194<br>607<br>182<br>15,475<br>63<br>289<br>276<br>952<br>197<br>146<br>3,911<br>1,074<br>568<br>217<br>2,789<br>549<br>181<br>190<br>445<br>67<br>436<br>259<br>339<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189<br>2,189 | 7<br>4<br>5<br>7<br>10<br>9<br>4<br>5<br>5<br>4<br>9<br>12<br>3<br>9<br>4<br>3<br>13<br>5<br>4<br>9<br>15<br>3<br>3<br>4<br>9<br>15<br>3<br>10<br>9<br>4<br>3<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10 | 2 5 9 6 1 2 6 5 5 4 3 5 1 4 2 1 3 3 3 1 1 6 4 4 9 9 2 2 6 3 0 2 1 4 1 7 2 4 9 2 5 3 1 9 | 95 203 182 202 342 370 73 226 197 52 1,081 414 163 182 84 341 68 6,012 35 169 184 499 69 50 2,021 501 303 125 1,265 301 79 90 228 33 204 105 160 1,074 110 91 458 595 | 106<br>237<br>173<br>199<br>331<br>329<br>60<br>221<br>173<br>44<br>937<br>363<br>114<br>143<br>70<br>294<br>84<br>5,562<br>31<br>118<br>132<br>421<br>66<br>66<br>1,613<br>569<br>303<br>108<br>1,287<br>243<br>68<br>71<br>217<br>35<br>176<br>103<br>156<br>1,114<br>85<br>75<br>441<br>592 |

TABLE 1.08

COUNTY CRASH REPORT

| County  | All<br>Crashes   | Fatal<br>Crashes                                    | Number<br>Killed   | Personal<br>Injury<br>Crashes  | Injured  | Property<br>Damage<br>Crashes   |
|---|--|---|--|--|--|---|
| Aitkin Anoka Becker Beltrami Benton Big Stone Blue Earth Brown Carlton Carver Cass Chippewa Chisago Clay Clearwater Cook Cottonwood Crow Wing Dakota Dodge Douglas Faribault Fillmore Freeborn Goodhue Grant Hennepin Houston Hubbard Isanti Itasca Jackson Kanabec | 248 4,040 512 554 573 116 1,568 638 478 798 352 238 541 1,077 84 109 174 1,024 4,377 258 639 279 346 741 919 65 29,475 319 280 379 700 233 180 |   | 5<br>27<br>7<br>4<br>5<br>3<br>9<br>2<br>5<br>13<br>2<br>12<br>7<br>6<br>1<br>1<br>2<br>16<br>36<br>0<br>9<br>2<br>7<br>9<br>16<br>1<br>118<br>6<br>2<br>6<br>13<br>4<br>3 | Injury Crashes  91 1,462 203 165 194 29 420 220 149 290 140 70 181 281 34 31 58 314 1,499 96 223 84 133 262 293 23 9,124 122 101 151 253 74 50 | 139 2,222 306 247 282 40 585 313 217 433 213 111 259 410 47 45 86 459 2,176 150 345 107 219 378 428 32 13,090 178 145 242 369 117 83 | Damage<br>Crashes  152 2,553 302 385 376 85 1,139 416 324 498 210 162 353 790 49 77 115 695 2,847 162 410 193 209 470 612 41 20,243 193 177 222 438 155 127 |
| Kandiyohi Kittson Koochiching Lac Qui Parle Lake Lake Of The Woods Le Sueur Lincoln Lyon Mcleod Mahnomen  | 928<br>76<br>269<br>159<br>221<br>50<br>502<br>115<br>419<br>644<br>73   | 8<br>0<br>3<br>1<br>3<br>0<br>2<br>3<br>3<br>4<br>3 | 8<br>0<br>3<br>1<br>3<br>0<br>3<br>3<br>4<br>4<br>5  | 289<br>27<br>92<br>38<br>80<br>17<br>166<br>42<br>173<br>189<br>25   | 405<br>33<br>127<br>58<br>129<br>35<br>253<br>60<br>254<br>256<br>38   | 631<br>49<br>174<br>120<br>138<br>33<br>334<br>70<br>243<br>451<br>45   |

## TABLE 1.08 (CONTINUED)

### COUNTY CRASH REPORT

| County   | All<br>Crashes   | Fatal<br>Crashes   | Number<br>Killed   | Personal<br>Injury<br>Crashes   | Injured  | Property<br>Damage<br>Crashes   |
|--|--|--|--|---|--|---|
| Marshall Martin Meeker Mille Lacs Morrison Mower Murray Nicollet Nobles Norman Olmsted Otter Tail Pennington Pine Pipestone Polk Pope Ramsey Red Lake Redwood Renville Rice Rock Roseau St Louis Scott Sherburne Sibley Stearns Steele Stevens Swift Todd Traverse Wabasha Wadena Washington Watonwan Wilkin Winona Wright | 172 444 425 375 623 777 147 551 404 112 2,261 783 273 308 194 607 182 15,475 63 289 276 952 197 146 3,911 1,074 568 217 2,789 549 181 190 445 67 436 259 339 2,189 214 178 1,093 | 2<br>5<br>7<br>6<br>9<br>6<br>5<br>5<br>3<br>4<br>12<br>2<br>10<br>3<br>10<br>1<br>41<br>3<br>3<br>2<br>8<br>1<br>2<br>3<br>9<br>9<br>2<br>2<br>5<br>3<br>0<br>1<br>0<br>1<br>1<br>0<br>1<br>1<br>1<br>1<br>2<br>4<br>2<br>4<br>2<br>4<br>2<br>4<br>2<br>4<br>2<br>4<br>2<br>4<br>2<br>4 | 2 5 9 6 12 6 5 5 4 3 5 14 2 10 3 10 1 6 44 9 9 2 26 3 0 2 14 1 7 2 4 9 2 5 13 19 | 67<br>159<br>131<br>121<br>214<br>234<br>46<br>155<br>118<br>33<br>674<br>242<br>83<br>92<br>49<br>199<br>58<br>4,056<br>17<br>80<br>85<br>281<br>46<br>36<br>1,102<br>383<br>210<br>72<br>893<br>166<br>50<br>51<br>143<br>24<br>119<br>74<br>118<br>741<br>58<br>51<br>308<br>381 | 106<br>237<br>173<br>199<br>331<br>329<br>60<br>221<br>173<br>44<br>937<br>363<br>114<br>143<br>70<br>294<br>84<br>5,562<br>31<br>118<br>132<br>421<br>66<br>66<br>1,613<br>569<br>303<br>108<br>1,287<br>243<br>68<br>71<br>217<br>35<br>176<br>103<br>156<br>1,114<br>85<br>75<br>441<br>592 | 103<br>280<br>287<br>248<br>400<br>537<br>96<br>391<br>283<br>76<br>1,583<br>529<br>188<br>206<br>142<br>398<br>123<br>11,378<br>43<br>206<br>189<br>663<br>150<br>108<br>2,770<br>682<br>349<br>143<br>1,871<br>380<br>131<br>138<br>292<br>42<br>310<br>184<br>217<br>1,424<br>154<br>123<br>857<br>696 |
| Yellow Medicine  | 195  | 4  | 5  | 60  | 88   | 131   |

### FIGURE 1.03

# COUNTY CRASH REPORT MINNESOTANS KILLED/INJURED IN 1981

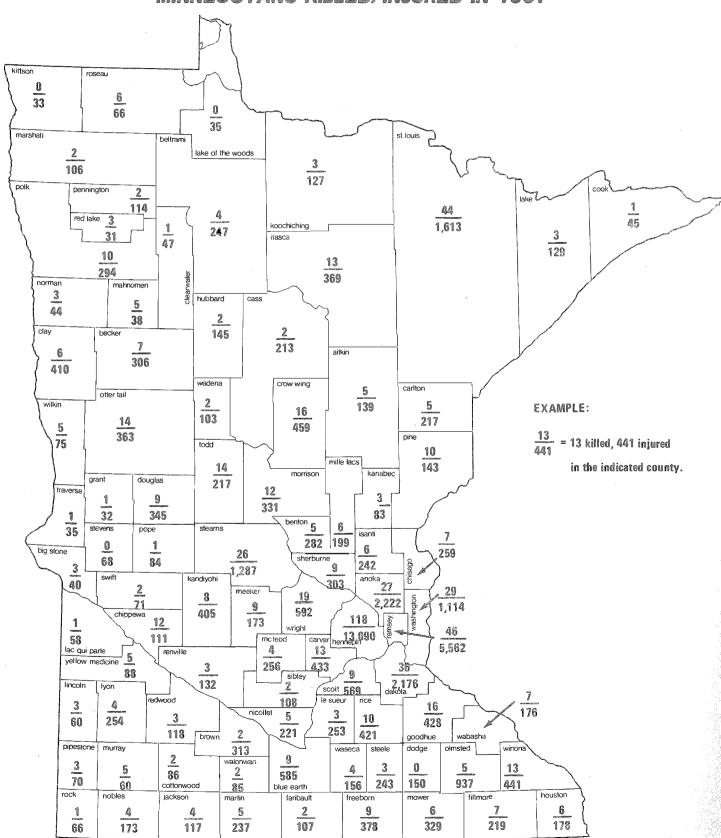


TABLE 1.09

LOCATION OF CRASHES BY POPULATION

| Population     | All<br>Crashes | Fatal<br>Crashes | Personal<br>Injury<br>Crashes | Property<br>Damage<br>Crashes |
|----------------|----------------|------------------|-------------------------------|-------------------------------|
| 250,000 & Over | 26,379         | 69               | 7,212                         | 19,098                        |
| 50,000-249,999 | 5,738          | 9                | 1,660                         | 4,069                         |
| 25,000- 49,999 | 15,671         | 52               | 4,946                         | 10,673                        |
| 10,000- 24,999 | 14,657         | 68               | 4,526                         | 10,063                        |
| 5,000- 9,999   | 6,708          | 35               | 1,990                         | 4,683                         |
| 2,500- 4,999   | 5,235          | 31               | 1,487                         | 3,717                         |
| 1,000- 2,499   | 3,292          | 30               | 816                           | 2,446                         |
| Under 1,000    | 20,199         | 378              | 7,601                         | 12,220                        |
| Total          | 97,879         | 672              | 30,238                        | 66,969                        |

TABLE 1.10
LOCATION OF CRASHES BY URBAN OR RURAL AREA\*

|       |        | rashes<br>Percent | Fatal C<br>Number | rashes<br>Percent | Injury | onal<br>Crashes<br>Percent | Damage | erty<br>Crashes<br>Percent |
|-------|--------|-------------------|-------------------|-------------------|--------|----------------------------|--------|----------------------------|
| Urban | 69,153 | 70.7              | 233               | 34.7              | 20,334 | 67.2                       | 48,586 | 72.5                       |
| Rural | 28,726 | 29.3              | 439               | 65.3              | 9,904  | 32.8                       | 18,383 | 27.5                       |

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

TABLE 1.11

CRASHES BY CITY GROUPS

| Gro | up              | City            | A11<br>Crashes | Fatal<br>Crashes | Number<br>Killed | Personal<br>Injury<br>Crashes | Number<br>Injured | Property<br>Damage<br>Crashes |
|-----|-----------------|-----------------|----------------|------------------|------------------|-------------------------------|-------------------|-------------------------------|
|     |                 |                 |                |                  |                  |                               |                   |                               |
| Α.  | Population      | Minneapolis     | 15,336         | 48               | 50               | 4,478                         | 6,528             | 10,810                        |
|     | 100,000 Or More | St. Paul        | 11,043         | 21               | 24               | 2,734                         | 3,680             | 8,288                         |
| В.  | Population      | Apple Valley    | 322            | 1                | 2                | 116                           | 171               | 205                           |
|     | 20,000-99,999   | Austin          | 536            | 1                | 1                | 158                           | 215               | 377                           |
|     |                 | Blaine          | 667            | 4                | 5                | 251                           | 412               | 412                           |
|     |                 | Bloomington     | 2,518          | 5                | 5<br>5<br>5      | 761                           | 1,052             | 1,752                         |
|     |                 | Brooklyn Center | 966            | 5<br>5           | 5                | 314                           | 434               | 647                           |
|     |                 | Brooklyn Park   | 788            | 6                |                  | 312                           | 467               | 470                           |
|     |                 | Burnsville      | 875            | 3                | 9<br>3           | 291                           | 423               | 581                           |
|     |                 | Coon Rapids     | 703            | 3                | 3                | 260                           | 369               | 440                           |
|     |                 | Crystal         | 414            | 1                | 1                | 156                           | 240               | 257                           |
|     |                 | Duluth          | 1,651          | 2                | 2                | 458                           | 640               | 1,191                         |
|     |                 | Eagan           | 471            | 4                | 4                | 162                           | 229               | 305                           |
|     |                 | Edina           | 866            | 0                | 0                | 305                           | 413               | 561                           |
|     |                 | Fridley         | 787            | 3                | 3                | 272                           | 418               | 512                           |
|     |                 | Golden Valley   | 930            | 1                | 1                | 283                           | 397               | 646                           |
|     |                 | Hibbing         | 473            | 5                | 7                | 122                           | 176               | 346                           |
|     |                 | Mankato         | 1,085          | 0                | 0                | 280                           | 385               | 805                           |
|     |                 | Maple Grove     | 252            | 2                | 2                | 88                            | 120               | 162                           |
|     |                 | Maplewood       | 793            | 6                | 6                | 249                           | 366               | 538                           |
|     |                 | Minnetonka      | 896            | 4                | 4                | 290                           | 432               | 602                           |
|     |                 | Moorhead        | 761            | 0                | 0                | 182                           | 253               | 579                           |
|     |                 | New Brighton    | 313            | 2                | 2                | 100                           | 138               | 211                           |
|     |                 | New Hope        | 307            | 1                | 1                | 94                            | 117               | 212                           |
|     |                 | Plymouth        | 629            | 3                | 3                | 187                           | 279               | 439                           |
|     |                 | Richfield       | 940            | 2                | 2                | 300                           | 417               | 638                           |
|     |                 | Rochester       | 1,569          | 2                | 2                | 441                           | 601               | 1,126                         |
|     |                 | Roseville       | 888            | 4                | 4                | 230                           | 340               | 888                           |
|     |                 | St. Cloud       | 1,658          | 4                | 4                | 484                           | 678               | 1,170                         |
|     |                 | St. Louis Park  | 1,214          | 2                | 2                | 403                           | 527               | 809                           |
|     |                 | So. St. Paul    | 435            | 1                | 2                | 109                           | 145               | 325                           |
|     |                 | White Bear Lake | 484            | 1                | 1                | 164                           | 237               | 319                           |
|     |                 | Winona          | 741            | 2                | 2                | 180                           | 241               | 559                           |
| С.  | Population      | Albert Lea      | 444            | 0                | 0                | 150                           | 204               | 294                           |
|     | 10,000-19,000   | Anoka           | 456            | 2                | 2                | 168                           | 247               | 286                           |
|     |                 | Bemidji         | 316            | 1                | 1                | 83                            | 120               | 316                           |
|     |                 | Brainerd        | 460            | 1                | 1                | 121                           | 165               | 338                           |

TABLE 1.11 (CONTINUED)

### CRASHES BY CITY GROUP

| Gro | oup                         | City                         | All<br>Crashes    | Fatal<br>Crashes | Number<br>Killed | Personal<br>Injury<br>Crashes | Number<br>Injured | Property<br>Damage<br>Crashes |
|-----|-----------------------------|------------------------------|-------------------|------------------|------------------|-------------------------------|-------------------|-------------------------------|
| C . | Population<br>10,000-19,999 | Cloquet<br>Columbia Heights  | 206<br>442        | 2<br>0           | 2<br>0           | 58<br>145                     | 84<br>218         | 146<br>297                    |
|     |                             | Cottage Grove                | 239               | 2                | 2                | 69                            | 101               | 239                           |
|     |                             | Eden Prairie<br>Fairmont     | 432<br>229        | 9<br>. 1         | 9<br>1           | 178<br>67                     | 282<br>100        | 245<br>161                    |
|     |                             | Faribault                    | 433               | 2                | 4                | 125                           | 159               | 306                           |
|     |                             | Fergus Falls                 | 245               | 1                | 1                | 57                            | 75                | 187                           |
|     |                             | Hastings<br>Hopkins          | 287<br>466        | 0<br>1           | - 0<br>1         | 91<br>152                     | 119<br>196        | 196<br>313                    |
|     |                             | Inver Grove Hgts.            | 398               | 6                | 9                | 169                           | 263               | 223                           |
|     |                             | Lakeville                    | 288               | 3                | 3                | 113                           | 175               | 172                           |
|     |                             | Marshall                     | 169<br>211        | 0                | 0                | 66<br>73                      | 88<br>111         | 103<br>138                    |
|     |                             | Mounds View<br>New Ulm       | 324               | 0<br>0           | 0<br>0           | 73<br>89                      | 129               | 235                           |
|     |                             | Northfield                   | 152               | ĺ                | 1                | 38                            | 56                | 113                           |
| Į.  |                             | No. St. Paul                 | 234               | 0                | 0                | 63                            | 80                | 171                           |
|     |                             | Oakdale<br>Owatonna          | 118<br>334        | 3<br>1           | 3                | 44<br>90                      | 64<br>124         | 71<br>243                     |
|     |                             | Ramsey                       | 100               | 1                | 1                | 44                            | 70                | 55                            |
|     |                             | Red Wing                     | 393               | 1                | 1                | 104                           | 133               | 288                           |
|     |                             | Robbinsdale                  | 408               | 1                | 1                | 124                           | 184               | 283                           |
|     |                             | Shoreview<br>Stillwater      | 283<br>283        | 2<br>2           | 2<br>2           | 83<br>90                      | 110<br>118        | 198<br>191                    |
|     |                             | Virginia                     | 315               | 2                | 2                | 60                            | 79                | <b>25</b> 3                   |
|     |                             | W. Št. Paul                  | 425               | 1                | 1                | 133                           | 186               | 291                           |
|     |                             | Willmar<br>Woodbury          | 562<br>233        | 0                | 0<br>4           | 147<br>77                     | 201<br>129        | 415<br>153                    |
| D.  | Population                  | Alexandria                   | 318               | 0                | 0                | 93                            | 120               | 225                           |
|     | 5,000-9,999                 | Andover .                    | 104               | 1                | 1                | 40                            | 55                | 63                            |
| M   |                             | Arden Hills                  | 311               | 3                | 3                | 84                            | 125               | 224                           |
|     |                             | Champlin<br>Chanhassen       | 184<br>177        | 2<br>1           | 2<br>1           | 69<br>76                      | 95<br>110         | 113<br>100                    |
|     |                             | Chaska                       | 187               | 0                | 0                | 54                            | 81                | 133                           |
|     |                             | Chisholm                     | 96                | 0                | 0                | 21                            | 27                | 75                            |
|     |                             | Crookston                    | 156               | 0                | 0                | 44                            | 56<br>7.5         | 112<br>128                    |
|     |                             | Detroit Lakes<br>East Bethel | 182<br><b>7</b> 1 | 0<br>0           | 0<br>0           | 54<br>26                      | 75<br>41          | 128<br>45                     |
|     |                             | E. Grand Forks               | 210               | 4                | 4                | 58                            | 89                | 148                           |

TABLE 1.11 (CONTINUED)

## CRASHES BY CITY GROUP

| Gro | oup         | City                    | All<br>Crashes | Fatal<br>Crashes | Number<br>Killed | Personal<br>Injury<br>Crashes | Number<br>Injured | Property<br>Damage<br>Crashes |
|-----|-------------|-------------------------|----------------|------------------|------------------|-------------------------------|-------------------|-------------------------------|
|     |             |                         |                |                  |                  |                               |                   |                               |
| D.  | Population  | Elk River               | 146            | 2                | 2                | 51                            | 78                | 93                            |
|     | 5,000-9,999 | Eveleth                 | 109            | 1                | 2                | 20                            | 26                | 88                            |
|     |             | Falcon Heights          | 127            | 0                | 0                | 35                            | 42                | 92                            |
|     |             | Grand Rapids            | 220            | 0                | 0                | 53                            | 74                | 167                           |
|     |             | Ham Lake                | 136            | 4                | 4                | 50                            | 85                | 82                            |
|     |             | Hutchinson              | 243            | 1                | 1                | 63                            | 85                | 179                           |
|     |             | Int'l Falls             | 121            | 0                | 0                | 37                            | 46                | 84                            |
|     |             | Lake Elmo               | 85             | 1                | 2                | 27                            | 42                | 5 <b>7</b>                    |
|     |             | Litchfield              | 125            | 0                | 0                | 37                            | 43                | 88                            |
|     |             | Little Canada           | 363            | 0                | 0                | 107                           | 140               | 256                           |
|     |             | Little Falls            | 213            | 1                | 1.               | 52                            | 79                | 160                           |
|     |             | Mendota Heights         | 295            | 2                | 2                | 91                            | 129               | 202                           |
|     |             | Montevideo              | 106            | 0                | 0                | 27                            | 36                | 79                            |
|     |             | Morris                  | 1.10           | 0                | 0                | 28                            | 38                | 82                            |
|     |             | Mound                   | 103            | 1                | 2                | 30                            | 40                | 72                            |
|     |             | No. Mankato             | 140            | 0                | 0                | 30                            | 41                | 110                           |
|     |             | Orono                   | 191            | 2                | 2                | 69                            | 102               | 120                           |
|     |             | Prior Lake              | 166            | 2                | 2                | 70                            | 124               | 94                            |
|     |             | Redwood Falls           | 128            | 0                | 0                | 23                            | 29                | 105                           |
|     |             | Rosemount               | 119            | 2                | 2                | 40                            | 54                | 77                            |
|     |             | St. Anthony             | 126            | 0                | 0                | 38                            | 51                | 88                            |
|     |             | St. Peter ~             | 166            | 0                | 0                | 43                            | 60                | 1.23                          |
|     |             | Sauk Rapids             | 96             | 0                | 0                | 33                            | 47                | 63                            |
|     |             | Shakopee                | 291            | 1                | 1                | 86                            | 117               | 204                           |
|     |             | Spring Lake Park        | 126            | 0                | 0                | 47                            | 67                | 79                            |
|     |             | Thief River Falls       | 217            | 0                | 0                | 58                            | 79                | 159                           |
|     |             | <b>V</b> adnais Heights | 183            | 1                | 1                | 64                            | 87                | 118                           |
|     |             | Waseca                  | 153            | 1                | 1                | 29                            | 38                | 123                           |

TABLE 1.12
CRASHES BY WEATHER CONDITION

|                        | CRASHES        | BY WEATHER COM   | NOITION                       |                               |
|------------------------|----------------|------------------|-------------------------------|-------------------------------|
| Weather<br>Condition   | All<br>Crashes | Fatal<br>Crashes | Personal<br>Injury<br>Crashes | Property<br>Damage<br>Crashes |
| Clear                  | 50,985         | 386              | 16,575                        | 34,024                        |
| Cloudy                 | 24,379         | 176              | 8,033                         | 16,170                        |
| Rain                   | 9,374          | 56               | 2,963                         | 6,355                         |
| Snow/Sleet             | 7,965          | 29               | 1,791                         | 6,145                         |
| Fog                    | 785            | 12               | 306                           | 467                           |
| Other                  | 447            | 5                | 108                           | 334                           |
| Not Stated/<br>Unknown | 3,944          | 8                | 462                           | 3,474                         |
| Total                  | 97,879         | 672              | 30,238                        | 66,969                        |
|                        |                |                  |                               |                               |
|                        |                | TABLE 1.13       |                               |                               |
|                        | CRASHES        | S BY LIGHT COND  | NOITION                       |                               |
| Light<br>Condition     | All<br>Crashes | Fatal<br>Crashes | Personal<br>Injury<br>Crashes | Property<br>Damage<br>Crashes |
| Daylight               | 52,017         | 257              | 16,435                        | 35,325                        |
| Dawn/Dusk              | 6,085          | 29               | 1,720                         | 4,336                         |

381

5

672

35,224

4,553

97,879

Darkness

Total

Other/ Unknown 11,575

30,238

508

23,268

4,040

66,969

TABLE 1.14 CRASHES BY ROAD SURFACE CONDITION

| Road<br>Surface<br>Condition | All<br>Crashes | Fatal<br>Crashes | Personal<br>Injury<br>Crashes | Property<br>Damage<br>Crashes |
|------------------------------|----------------|------------------|-------------------------------|-------------------------------|
| Dry                          | 59,032         | 515              | 20,215                        | 38,302                        |
| Wet                          | 16,658         | 94               | 5,410                         | 11,154                        |
| Snow/Slush                   | 5,200          | 20               | 1,249                         | 3,931                         |
| Ice/Packed<br>Snow           | 12,297         | 31               | 2,552                         | 9,714                         |
| Other                        | 1,035          | 7                | .357                          | 671                           |
| Not Stated/<br>Unknown       | 3,657          | 5                | 455                           | 3,197                         |
| Total                        | 97,879         | 672              | 30,238                        | 66,969                        |

TABLE 1.15 ROAD MILEAGE SUMMARY

| Type Of<br>Roadway           | Miles Of<br>Roadway | Percent |
|------------------------------|---------------------|---------|
| Interstates                  | 868                 | .7      |
| Trunk Highways               | 11,251              | 8.6     |
| County State Aid<br>Highways | 29,936              | 22.9    |
| County Roads                 | 15,276              | 11.7    |
| Township Roads               | 55,229              | 42.3    |
| Local Streets                | 15,182              | 11.6    |
| Other Roads                  | 2,879               | 2.2     |
|                              |                     |         |
| Total                        | 130,621             | 100.0   |

TABLE 1.16

CRASHES BY TYPE OF ROADWAY

| Type Of<br>Roadway            | All<br>Crashes | Fatal<br>Crashes | Personal<br>Injury<br>Crashes | Property<br>Damage<br>Crashes |
|-------------------------------|----------------|------------------|-------------------------------|-------------------------------|
| Interstate                    | 5,973          | 49               | 1,492                         | 4,432                         |
| Trunk<br>Highway              | 32,660         | 290              | 10,954                        | 21,416                        |
| County State Aid<br>. Highway | 20,887         | 205              | 7,628                         | 13,054                        |
| County<br>Road                | 2,306          | 25               | 906                           | 1,375                         |
| Township<br>Road              | 2,163          | 33               | 839                           | 1,291                         |
| Local<br>Street               | 32,394         | 67               | 8,156                         | 24,171                        |
| Other<br>Road                 | 1,496          | 3                | 263                           | 1,230                         |
| Total                         | 97,879         | 672              | 30,238                        | 66,969                        |

TABLE 1.17
MILEAGE AND CRASH DISTRIBUTION BY TYPE OF ROADWAY

| Type of<br>Roadway          | Percent of<br>Road<br>Mileage | Percent of<br>Vehicle<br>Mileage | Percent of<br>All<br>Crashes | Percent of<br>Fatal<br>Crashes |
|-----------------------------|-------------------------------|----------------------------------|------------------------------|--------------------------------|
| Interstates                 | .7                            | 16.3                             | 6.1                          | 7.3                            |
| Trunk<br>Highways           | 8.6                           | 41.4                             | 33.4                         | 43.2                           |
| County State Ai<br>Highways | d<br>22.9                     | 20.5                             | 21.3                         | 30.5                           |
| County<br>Roads             | 11.7                          | 2.5                              | 2.4                          | 3.7                            |
| Township<br>Roads           | 42.3                          | 2.5                              | 2.2                          | 4.9                            |
| Local<br>Streets            | 11.6                          | 16.7                             | 33.1                         | 10.0                           |
| Other<br>Roads              | 2.2                           | .1                               | 1.5                          | .4                             |

TABLE 1.18

LOCATIONS OF CRASHES AND FATAL CRASHES BY TIME OF DAY

| Time of Day        | Trunk Highways and<br>County State-Aid Highways |                      | Roadways Other Than Trunk Highways and County State-Aid Highways |               |  |
|--------------------|---|----------------------|--|---------------|--|
|                    | All Crashes                                     | <u>Fatal Crashes</u> | All Crashes  | Fatal Crashes |  |
| Midnight - 2:59 AM | 7,301   | 140                  | 4,626  | 33            |  |
| 3:00 AM - 5:59 AM  | 2,078   | 28                   | 1,248  | 8             |  |
| 6:00 AM - 8:59 AM  | 5,773   | 32                   | 3,200  | 5             |  |
| 9:00 AM - 11:59 AM | 6,580   | 45                   | 4,320  | 9             |  |
| Noon - 2:59 PM     | 8,036   | 37                   | 5,428  | 22            |  |
| 3:00 PM - 5:59 PM  | 12,376  | 79                   | 7,852  | 19            |  |
| 6:00 PM - 8:59 PM  | 7,868   | 79                   | 4,743  | 16            |  |
| 9:00 PM - 11:59 PM | 7,012   | 91                   | 4,430  | 15            |  |
| Not Stated         | 2,459   | 13                   | 2,549  | 1             |  |
| Total              | 59,483  | 544                  | 38,396   | 128           |  |

TABLE 1.19

AGE AND SEX OF FATALITIES

| Age Group  | Male | Female | Total |
|------------|------|--------|-------|
| 0- 4       | 7    | 5      | 12    |
| 5- 9       | 9    | 2      | 11    |
| 10-14      | 17   | 9      | 26    |
| 15-19      | 88   | 55     | 143   |
| 20-24      | 130  | 21     | 151   |
| 25-29      | 83   | 17     | 100   |
| 30-34      | 47   | 9      | 56    |
| 35-39      | 32   | 11     | 43    |
| 40-44      | 12   | 4      | 16    |
| 45-49      | 16   | 9      | 25    |
| 50-54      | 19   | 9      | 28    |
| 55-59      | 18   | 12     | 30    |
| 60-64      | 14   | 8      | 22    |
| 65-69      | 8    | 9      | 17    |
| 70-74      | 10   | 14     | 24    |
| 75 & Over  | 20   | 30     | 50    |
| Not Stated | 5    | 4      | 9     |
| Total      | 535  | 228    | 763   |

TABLE 1.20

AGE AND SEX OF INJURIES

| Age Group            | Male   | Female | Not Stated | Total  |
|----------------------|--------|--------|------------|--------|
| 0- 4                 | 580    | 494    | 3          | 1,077  |
| 5- 9                 | 730    | 563    | 5          | 1,298  |
| 10-14                | 921    | 773    | 2          | 1,696  |
| 15-19                | 4,985  | 3,759  | 4          | 8,748  |
| 20-24                | 5,048  | 3,291  | 2          | 8,341  |
| 25-29                | 3,132  | 2,179  | 1          | 5,312  |
| 30-34                | 1,929  | 1,551  | 2          | 3,482  |
| 35-39                | 1,232  | 1,118  | 2          | 2,352  |
| 40-44                | 824    | 842    | 3          | 1,669  |
| 45-49                | 612    | 652    | 0          | 1,264  |
| 50-54                | 669    | 630    | 0          | 1,299  |
| 55-59                | 543    | 588    | 1          | 1,132  |
| 60-64                | 463    | 552    | 0          | 1,015  |
| 65-69                | 386    | 412    | 1          | 799    |
| 70-74                | 264    | 367    | 0          | 631    |
| <b>75 &amp;</b> Over | 370    | 476    | 1          | 847    |
| Not Stated           | 865    | 1,086  | 825        | 2,776  |
| Total                | 23,553 | 19,333 | 852        | 43,738 |

TABLE 1.21

AGE DISTRIBUTION OF LICENSED DRIVERS

AND THEIR INVOLVEMENT IN CRASHES

| Age Group  | Percent of<br>Licensed<br>Drivers | Percent of<br>Drivers in<br>Fatal<br>Crashes | Percent of<br>Drivers in<br>All Crashes |
|------------|-----------------------------------|--|---|
| 15-19      | 9.5                               | 16.4   | 15.8                                    |
| 20-24      | 14.0                              | 21.4   | 17.4                                    |
| 25-29      | 13.1                              | 15.7   | 12.0                                    |
| 30-34      | 11.7                              | 8.9  | . 9.1                                   |
| 35-39      | 9.1                               | 7.0  | 6.1                                     |
| 40-44      | 7.2                               | 4.1  | 4.4                                     |
| 45-49      | 6.2                               | 3.3  | 3.6                                     |
| 50-54      | 6.1                               | 4.8  | 3.3                                     |
| 55-59      | 6.0                               | 3.3  | 3.1                                     |
| 60-64      | 5.4                               | 3.2  | 2.5                                     |
| 65-69      | 4.5                               | 2.2  | 1.9                                     |
| 70-74      | 3.4                               | 1.6  | 1.4                                     |
| 75 & Over  | 3.9                               | 3.1  | 1.8                                     |
| Not Stated | 0.0                               | 4.9  | 17.8                                    |
| Total      | 100.1                             | 99.9   | 100.2                                   |

TABLE 1.22

AGE AND SEX OF DRIVERS IN ALL CRASHES \*

| Age Group  | Male    | Female | Not<br>Stated | Total   |
|------------|---------|--------|---------------|---------|
| 15-19      | 19,009  | 8,563  | 83            | 27,655  |
| 20-24      | 20,911  | 9,472  | 86            | 30,469  |
| 25-29      | 14,356  | 6,618  | 65            | 21,039  |
| 30-24      | 10,530  | 5,275  | 66            | 15,871  |
| 35-39      | 6,883   | 3,712  | 35            | 10,630  |
| 40-44      | 5,088   | 2,554  | 28            | 7,670   |
| 45-49      | 4,193   | 2,030  | 29            | 6,252   |
| 50-54      | 3,946   | 1,835  | 17            | 5,798   |
| 55-59      | 3,866   | 1,638  | 19            | 5,523   |
| 60-64      | 2,972   | 1,330  | 18            | 4,320   |
| 65-69      | 2,270   | 1,002  | 15            | 3,287   |
| 70-74      | 1,648   | 861    | 9             | 2,518   |
| 75 & Over  | 2,188   | 894    | 15            | 3,097   |
| Not Stated | 7,547   | 3,030  | 20,660        | 31,237  |
| Total      | 105,407 | 48,814 | 21,145        | 175,366 |

<sup>\*</sup>Most crashes involve more than one driver. For that reason, the total number of drivers involved in crashes and listed here will be greater than the total number of all crashes (which was 97,879 in 1981).

TABLE 1.23

AGE AND SEX OF DRIVERS IN FATAL CRASHES\*

| Age Group  | Male | Female | Total |
|------------|------|--------|-------|
| 15-19      | 132  | 36     | 168   |
| 20-24      | 191  | 28     | 219   |
| 25-29      | 139  | 22     | 161   |
| 30-34      | 77   | 14     | 91    |
| 35-39      | 60   | 12     | 72    |
| 40-44      | 35   | 7      | 42    |
| 45-49      | 28   | 6      | 34    |
| 50-54      | 35   | 14     | 49    |
| 55-59      | 30   | 4      | 34    |
| 60-64      | 24   | 9      | 33    |
| 65-59      | 18   | 4      | 22    |
| 70-74      | 12   | 4      | 16    |
| 75 & Over  | 24   | 8      | 32    |
| Not Stated | 43   | 7      | 50    |
| Total      | 848  | 175    | 1023  |

<sup>\*</sup>Most crashes involve more than one driver. For that reason, the total number of drivers involved in fatal crashes and listed here will be greater than the total number of fatal crashes (which was 672 in 1981).

TABLE 1.24

DRIVER LICENSE\* SUMMARY BY AGE, 1972-1981

|                   | 1972      | 1973      | 1974      | 1975      | 1976      | 1977      | 1978      | 1979      | 1980      |           | 1981      |           |
|-------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Age               |           |           |           |           |           |           |           |           |           | Male      | Female    | Total     |
| 15-19             | 290,750   | 288,506   | 290,620   | 300,906   | 307,481   | 315,138   | 304,021   | 290,570   | 281,750   | 141,083   | 128,494   | 269,577   |
| 20-24             | 372,108   | 347,893   | 356,806   | 366,037   | 373,524   | 381,161   | 381,377   | 385,831   | 391,310   | 204,386   | 191,110   | 395,496   |
| 25-29             | 322,306   | 295,193   | 309,647   | 326,743   | 341,678   | 347,358   | 343,112   | 350,879   | 360,167   | 190,612   | 178,624   | 369,236   |
| 30-34             | 250,325   | 236,114   | 243,925   | 249,022   | 263,080   | 278,622   | 285,395   | 299,790   | 317,137   | 169,453   | 160,035   | 329,488   |
| 35-39             | 201,257   | 191,902   | 196,270   | 202,558   | 209,903   | 221,252   | 229,247   | 235,994   | 240,789   | 132,831   | 124,619   | 257,450   |
| 40-44             | 193,734   | 179,544   | 179,361   | 178,964   | 181,150   | 183,921   | 186,793   | 190,213   | 196,020   | 105,984   | 98,333    | 204,317   |
| 45-49             | 193,940   | 183,932   | 181,799   | 181,586   | 180,661   | 178,614   | 173,818   | 173,194   | 172,813   | 91,360    | 83,836    | 175,196   |
| 50-54             | 182,701   | 173,896   | 177,473   | 178,987   | 178,916   | 179,266   | 176,922   | 174,754   | 173,760   | 91,514    | 81,847    | 173,361   |
| 55-59             | 166,132   | 160,738   | 160,332   | 161,616   | 155,747   | 166,771   | 165,288   | 167,712   | 168,986   | 90,374    | 78,746    | 169,120   |
| 60-64             | 141,294   | 135,037   | 138,223   | 141,978   | 145,464   | 146,736   | 147,428   | 147,381   | 148,512   | 80,930    | 71,174    | 152,104   |
| 65-69             | 113,174   | 106,488   | 109,932   | 113,363   | 115,327   | 117,955   | 118,899   | 121,295   | 124,469   | 69,182    | 59,128    | 128,310   |
| 70-74             | 84,369    | 75,788    | 79,335    | 82,527    | 85,428    | 86,494    | 87,833    | 90,064    | 92,061    | 52,266    | 43,119    | 95,385    |
| <b>75</b> & Older | 102,901   | 80,248    | 86,548    | 95,318    | 94,665    | 93,383    | 96,487    | 97,741    | 98,499    | 65,561    | 41,296    | 106,857   |
| Total             | 2,614,991 | 2,455,279 | 2,510,271 | 2,579,605 | 2,633,024 | 2,696,671 | 2,696,620 | 2,725,418 | 2,766,273 | 1,485,536 | 1,340,361 | 2,825,897 |

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

TABLE 1.25

APPARENT CONTRIBUTING FACTORS IN CRASHES

| Apparent<br>Contributing<br>Factors            | All<br>Crashes | Fatal<br>Crashes | Personal<br>Injury<br>Crashes | Property<br>Damage<br>Crashes |
|--|----------------|------------------|-------------------------------|-------------------------------|
| Failure to Yield<br>Right of Way               | 14,447         | 88               | 5,787                         | 8,572                         |
| Illegal/Unsafe Speed                           | 14,606         | 229              | 5 <b>,</b> 946                | 8,431                         |
| Following Too Closely                          | 4,930          | 3                | 1,888                         | 3,039                         |
| Disregard For Traffic<br>Control Device        | 3,920          | 37               | 2,036                         | 1,847                         |
| Driving Left of Roadway<br>CenterNot Passing   | 2,820          | 88               | 1,164                         | 1,568                         |
| Improper Passing/<br>Overtaking                | 2,112          | 14               | 601                           | 1,497                         |
| Improper/Unsafe Lane<br>Use                    | 5,474          | 41               | 1,420                         | 4,013                         |
| <pre>Improper Parking/ Starting/Stopping</pre> | 1,467          | 8                | 443                           | 1,016                         |
| Improper Turn                                  | 3,243          | 11               | 883                           | 2,349                         |
| Unsafe Backing                                 | 1,707          | 0                | 140                           | 1,567                         |
| No/Improper Signal                             | 365            | 2                | 94                            | 269                           |
| Impeding Traffic                               | 435            | 1                | 185                           | 249                           |
| Driver Inattention/<br>Distraction             | 25,933         | 154              | 10,178                        | 15,601                        |
| Driver Inexperience                            | 5,368          | 27               | 2,020                         | 3,321                         |
| Physical Impairment                            | 8,791          | 188              | 4,504                         | 4,099                         |
| Vision Obscured                                | 3,488          | 21               | 1,338                         | 2,129                         |
| Defective Equipment                            | 1,372          | 4                | 516                           | 852                           |
| Pedestrian Violation/<br>Error                 | 764            | 47               | 695                           | 22                            |
| Other  | 3,320          | 31               | 1,325                         | 1,964                         |

TABLE 1.26

VEHICLE MOVEMENT IN MULTI-VEHICLE INTERSECTION CRASHES

| Vehicle<br>Movement                                  | All<br>Crashes | Fatal<br>Crashes | Personal<br>Injury<br>Crashes | Property<br>Damage<br>Crashes |
|--|----------------|------------------|-------------------------------|-------------------------------|
| Entering at Angle                                    | 13,846         | 84               | 5,452                         | 8,310                         |
| Same DirectionBoth<br>Going Straight                 | 2,135          | 4                | 764                           | 1,367                         |
| SideswipePassing                                     | 633            | 0                | 112                           | 521                           |
| Same DirectionOne<br>Turning, One Straight           | 2,012          | 1                | 579                           | 1,432                         |
| Same DirectionOne<br>Stopped                         | 4,367          | 1                | 1,840                         | 2,526                         |
| Same DirectionAll<br>Others                          | 1,601          | 1                | 303                           | 1,297                         |
| Head On  | 382            | 9                | 196                           | 177                           |
| SideswipeMeeting                                     | 225            | 1                | 47                            | <u>1</u> 77                   |
| Opposite Direction<br>One Left Turn, One<br>Straight | 4,387          | 17               | 1,717                         | 2,653                         |
| Opposite Direction<br>All Others                     | 257            | 4                | 50                            | 203                           |
| Backed Into  | 187            | 0                | 17                            | 170                           |
| Not Stated   | 39             | 0                | 9                             | 30                            |
| Total  | 30,071         | 122              | 11,086                        | 18,863                        |

TABLE 1.27

VEHICLE MOVEMENT IN MULTI-VEHICLE NON-INTERSECTION CRASHES

| Vehicle<br>Movement                  | All<br>Crashes | Fatal<br>Crashes | Personal<br>Injury<br>Crashes | Property<br>Damage<br>Crashes |
|--------------------------------------|----------------|------------------|-------------------------------|-------------------------------|
| Head On                              | 956            | 98               | 598                           | 260                           |
| Same DirectionBoth<br>Going Straight | 2,867          | 14               | 933                           | 1,920                         |
| SideswipePassing                     | 2,366          | 8                | 599                           | 1,759                         |
| One Car Parked                       | 9,333          | 12               | 1,268                         | 8,053                         |
| One Car Stopped In<br>Traffic        | 1,720          | 3                | 689                           | 1,028                         |
| One Car Entering<br>Parked Position  | 104            | 0                | 27                            | 77                            |
| One Car Leaving<br>Parked Position   | 610            | 0                | 72                            | 538                           |
| One Car Entering<br>Driveway Access  | 1,613          | 7                | 480                           | 1,126                         |
| One Car Leaving<br>Driveway Access   | 1,329          | 1                | 278                           | 1,050                         |
| Backed Into                          | 375            | 0                | 32                            | 343                           |
| All Others                           | 880            | 16               | 257                           | 607                           |
| Not Stated                           | 63             | 1                | 12                            | 50                            |
| Total                                | 22,216         | 160              | 5,245                         | 16,811                        |

TABLE 1.28

MOTOR VEHICLE REGISTRATIONS, 1977-1981

| Type of Vehicle                | 1977      | 1978      | 1979      | 1980      | 1981      |
|--------------------------------|-----------|-----------|-----------|-----------|-----------|
| Passenger Cars                 | 1,911,108 | 1,976,349 | 2,028,324 | 2,017,865 | 2,092,170 |
| Pickup Trucks                  |           |           |           |           | 410,349   |
| Commercial Station Wagons      | 6,390     | 6,225     | 5,930     | 5,481     | 4,408     |
| Farm Trucks                    | 118,303   | 121,311   | 123,421   | 123,261   | 72,234    |
| Gross Weight Trucks            | 490,863   | 534,996   | 565,855   | 573,472   | 216,965   |
| Urban Zone Trucks              | 5,845     | 6,615     | 7,119     | 7,280     | 7,111     |
| Commercial Zone Trucks         |           |           |           |           | 2         |
| Minnesota Based Prorate Trucks | 16,309    | 20,029    | 22,486    | 21,330    | 21,426    |
| Recreational Vehicles          | 25,172    | 30,861    | 33,640    | 34,827    | 35,187    |
| Motorcycles                    | 151,763   | 151,016   | 156,552   | 157,815   | 166,151   |
| Mopeds                         |           | 2,385     | 7,877     | 12,056    | 13,955    |
| School Buses                   | 4,232     | 4,192     | 4,259     | 4,123     | 4,031     |
| Buses                          | 2,445     | 2,642     | 2,785     | 3,026     | 3,256     |
| Tax Exempt Vehicles            | 38,863    | 41,408    | 43,919    | 46,169    | 47,694    |
| Motor Vehicle Subtotal         | 2,771,293 | 2,898,029 | 3,002,167 | 3,006,705 | 3,094,939 |
| Trailers                       | 507,525   | 526,424   | 540,432   | 552,558   | 565,914   |
| Collector's Items              | 15,662    | 17,978    | 20,165    | 23,092    | 26,579    |
| Grand Total                    | 3,294,480 | 3,442,431 | 3,562,764 | 3,582,355 | 3,687,432 |

TABLE 1.29

TYPES OF VEHICLES IN CRASHES\*

| Motor Vehicle Type                | All<br>Crashes | Fatal<br>Crashes |
|-----------------------------------|----------------|------------------|
| Passenger Car                     | 130,182        | 643              |
| Passenger Car & Trailer           | 95             | 0                |
| Truck Or Truck Tractor            | 24,529         | 190              |
| Truck Tractor and<br>Semi-Trailer | 2,653          | 36               |
| Truck Tractor and<br>Twin Trailer | 6              | 0                |
| Truck With Other Trailer          | 114            | 2                |
| Motorcycle                        | 3,143          | 94               |
| Motorscooter/Motorbike            | 53             | 4                |
| Motorized Bike/Moped              | 112            | 0                |
| School Bus                        | 692            | 2                |
| Bus                               | 545            | 3                |
| Motorhome/Camper                  | 392            | 6                |
| Snowmobile                        | 67             | 3                |
| Farm Tractor or Equipment         | 193            | 6                |
| Taxicab                           | 281            | 0                |
| Police Vehicle                    | 389            | 2                |
| Fire Department Vehicle           | 39             | 0                |
| Ambulance                         | 47             | 0                |
| Military Vehicle                  | 20             | 0                |
| Road Maintenance Vehicle          | 144            | 0                |
| Hit-And-Run Vehicle               | 10,750         | 18               |
| Other                             | 920            | 3                |
| Total                             | 175,366        | 1,012            |

<sup>\*</sup>Most crashes involve more than one vehicle. For that reason, the total number of vehicles involved in crashes and listed here is greater than the actual 1981 total number of crashes (which was 97,879) or fatal crashes (which was 672).

#### PART II

#### PEDESTRIAN INFORMATION

In 1981, there were 59.5 pedestrian fatalities for every 1,000 pedestrian accidents. The especially high vulnerability of pedestrians 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 7.8.

For the fourth year, pedestrian fatalities were substantially lower than the 1972-1977 average of 128. Despite this decrease, however, pedestrian fatalities constituted 13.1% of the total fatality toll.

It is primarily the young and the aged who are victims of pedestrian crashes. In 1981, persons under 15 years of age accounted for 15.0% of the fatalities and 32.8% of the injuries, and persons age 65 and older made up 30.0% of the fatalities and 11.6% of the injuries.

TABLE 2.01

PEDESTRIAN CRASHES, INJURIES, FATALITIES, 1972-1981

|                        | 1972  | 1973  | 1974  | 1975  | 1976  | 1977 | 1978  | 1979  | 1980  | 1981  |  |
|------------------------|-------|-------|-------|-------|-------|------|-------|-------|-------|-------|--|
| Pedestrian<br>Crashes* | 1,941 | 1,940 | 1,750 | 1,925 | 1,723 | **   | 1,731 | 1,700 | 1,629 | 1,648 |  |
| Pedestrians<br>Injured | 1,930 | 1,940 | 1,753 | 1,918 | 1,726 | **   | 1,723 | 1,678 | 1,636 | 1,658 |  |
| Pedestrians<br>Killed  | 132   | 149   | 106   | 121   | 120   | 140  | 115   | 117   | 114   | 100   |  |

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

TABLE 2.02

PEDESTRIAN CRASHES, INJURIES, FATAL CRASHES, FATALITIES BY MONTH

| Month  | All Crashes   | Injuries  | Fatal Crashes   | Fatalities   |
|--|---|---|---|--|
| January February March April May June July August September October November | 168<br>157<br>112<br>103<br>142<br>145<br>128<br>106<br>139<br>168<br>128 | 158<br>154<br>113<br>103<br>144<br>145<br>137<br>110<br>143<br>168<br>128 | 14<br>10<br>3<br>8<br>6<br>9<br>8<br>7<br>7<br>7<br>8 | 15<br>10<br>4<br>8<br>6<br>9<br>9<br>7<br>7<br>7<br>8<br>8 |
| December   | 152   | 155   | 8<br>   | 9  |
| Total  | 1,648   | 1,658   | 96  | 100  |

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

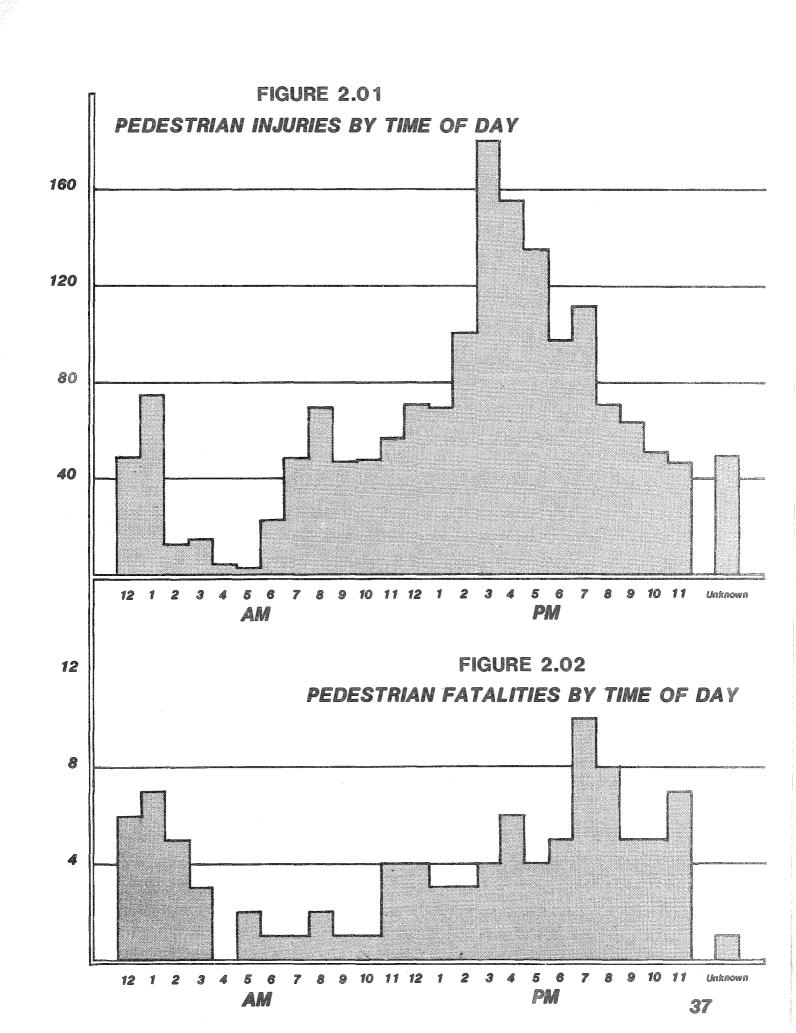


TABLE 2.03

VEHICLE MOVEMENT IN PEDESTRIAN CRASHES

| Vehicle<br>Movement | All<br>Crashes | Fatal<br>Crashes | Personal<br>Injury<br>Crashes | Property<br>Damage<br>Crashes |
|---------------------|----------------|------------------|-------------------------------|-------------------------------|
| Car Going Straight  | 1,082          | 73               | 1,004                         | 5                             |
| Car Turning Left    | 178            | 3                | 175                           | 0                             |
| Car Turning Right   | 95             | 0                | 95                            | 0                             |
| Car Backing         | 51             | 0                | 51                            | 0                             |
| All Others          | 221            | 17               | 204                           | 0                             |
| Not Stated          | 21.            | 3                | 18                            | 0                             |
| Total               | 1,648          | 96               | 1,547                         | 5                             |

TABLE 2.04

AGE AND SEX OF PEDESTRIAN FATALITIES

| Age Group  | Male | Female | Total |
|------------|------|--------|-------|
| 0- 4       | 3    | 0      | 3     |
| 5- 9       | 3    | 1      | 4     |
| 10-14      | 4    | 4      | 8     |
| 15-19      | 7    | 5      | 12    |
| 20-24      | 9    | 0      | 9     |
| 25-34      | 10   | 3      | 13    |
| 35-44      | 5    | 2      | 7     |
| 45-54      | 4    | 1      | 5     |
| 55-64      | 4    | 3      | 7     |
| 65-74      | 6    | 6      | 12    |
| 75 & Over  | 3    | 15     | 18    |
| Not Stated | 1    | 1      | 2     |
| Total      | 59   | 41     | 100   |

TABLE 2.05

AGE AND SEX OF PEDESTRIANS INJURED

| Age Group  | ge Group Male |     | Total |
|------------|---------------|-----|-------|
| 0- 4       | 56            | 44  | 100   |
| 5- 9       | 161           | 92  | 253   |
| 10-14      | 99            | 92  | 191   |
| 15-19      | 103           | 89  | 192   |
| 20-24      | 105           | 79  | 184   |
| 25-34      | 135           | 93  | 228   |
| 35-44      | 63            | 35  | 98    |
| 45-54      | 41            | 30  | 71    |
| 55-64      | 22            | 46  | 68    |
| 65-74      | 42            | 53  | 95    |
| 75 & Over  | 30            | 67  | 97    |
| Not Stated | 42            | 39  | 81    |
| Total      | 899           | 759 | 1,658 |

TABLE 2.06

PRIOR ACTION OF PEDESTRIAN FATALITIES AND INJURIES

| Action                                   | Number Killed | Number Injured |
|--|---------------|----------------|
| Crossing With Signal                     | 2             | 232            |
| Crossing Against Signal                  | 2             | 105            |
| Crossing In Crosswalk<br>No Signal       | 8             | 82             |
| Crossing No Crosswalk<br>No Signal       | 33            | 426            |
| Walking In Road<br>With Traffic          | 6             | 69             |
| Walking In Road<br>Against Traffic       | 4             | 24             |
| Standing In Road                         | 7             | . 85           |
| Emerging From Front/Behind<br>Parked Car | 1             | 113            |
| Child Getting On/Off<br>School Bus       | 1             | 12             |
| Getting On/Off Vehicle                   | 0             | 14             |
| Pushing/Working On Vehicle               | 2             | 9              |
| Working In Road                          | 2             | 11             |
| Playing In Road                          | 1             | 33             |
| Not In Road                              | 7             | 27             |
| Other Pedestrian Action                  | 24            | 201            |
| Unknown                                  | 0             | 215            |
| Total                                    | 100           | 1,658          |

## PART III

## BICYCLE INFORMATION

Even though bicycling is increasing in popularity as a means of transportation and recreation, there was a reduction in the number of bicyclists killed and injured as a result of bicycle-motor vehicle collisions during 1981. The injuries received in these crashes continued to be a problem primarily for the young male population in Minnesota. In 1981, 71.3% of the bicyclists killed or injured were male, and of these, 84.1% were under age 25.

TABLE 3.01

BICYCLE-INVOLVED CRASHES, INJURIES, FATALITIES, 1972-1981

|                       | 1972  | 1973  | 1974  | 1975  | 1976  | 1977 | 1978  | 1979  | 1980  | 1981  |
|-----------------------|-------|-------|-------|-------|-------|------|-------|-------|-------|-------|
| Bicycle<br>Crashes*   | 1,044 | 1,301 | 1,350 | 1,302 | 1,217 | **   | 1,154 | 1,060 | 1,276 | 1,255 |
| Bicyclists<br>Injured | 949   | 1,197 | 1,246 | 1,202 | 1,114 | **   | 1,105 | 993   | 1,295 | 1,213 |
| Bicyclists<br>Killed  | 27    | 17    | 16    | 23    | 21    | 24   | 23    | 14    | 19    | 10    |

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

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

| Month  | All Crashes                               | Injuries                           | Fatal Crashes              | Fatalities            |
|--|---|------------------------------------|----------------------------|-----------------------|
| January<br>February<br>March<br>April<br>May<br>June | 5<br>18<br>57<br>91<br>147<br>232         | 5<br>18<br>57<br>88<br>144<br>221  | 1 2                        | 1 2                   |
| July August September October November December      | 232<br>240<br>190<br>155<br>75<br>39<br>6 | 238<br>180<br>152<br>70<br>34<br>6 | 0<br>2<br>0<br>2<br>2<br>3 | 0<br>2<br>0<br>2<br>3 |
| Total  | 1,255                                     | 1,213                              | 10                         | 10                    |

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

TABLE 3.03

AGE AND SEX OF BICYCLIST INJURIES

| Age Group | Male | Female | Total |
|-----------|------|--------|-------|
| 0- 4      | 16   | 5      | 21    |
| 5- 9      | 141  | 41     | 1.82  |
| 10-14     | 273  | 104    | 377   |
| 15-19     | 201  | 85     | 286   |
| 20-24     | 96   | 55     | 151   |
| 25-34     | 58   | 38     | 96    |
| 35 & Over | 48   | 12     | . 60  |
| Unknown   | 31   | 9      | 40    |
| Total     | 864  | 349    | 1,213 |

TABLE 3.04

AGE AND SEX OF BICYCLIST FATALITIES

| Age Group | Male | Female | Total |
|-----------|------|--------|-------|
| 0- 4      | 0    | 1      | 1     |
| 5-9       | 2    | 0      | 2     |
| 10-14     | 3    | 1      | 4     |
| 15-19     | 0    | 0      | 0     |
| 20-24     | 1    | 0      | 1     |
| 25-34     | 0    | 0      | 0     |
| 35 & Over | 1    | 0      | 1     |
| Unknown   | 1    | 0      | 1     |
| Total     | 8    | 2      | 10    |

TABLE 3.05

PRIOR ACTION OF BICYCLIST FATALITIES AND INJURIES

| Action                 | Number Killed | Number Injured |
|------------------------|---------------|----------------|
| Riding With Traffic    | 3             | 462            |
| Riding Against Traffic | 3 *           | 102            |
| Making Left Turn       | 1             | 72             |
| Making Right Turn      | 0             | 22             |
| Making U Turn          | 0             | 7              |
| Riding Across Road     | 2             | 318            |
| Other                  | 1             | 230            |
|                        |               |                |
| Total                  | 10            | <b>1,</b> 213  |

#### 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 the five years prior to the change in the helmet law (1972-1976), Minnesota had an average of 58 motorcyclist fatalities each year. Since repeal, however, Minnesota has experienced an average of 103 fatalities each year. Even though the actual number of motorcyclists killed decreased in 1981, the 96 deaths still made up a significant portion of the total traffic fatalities.

TABLE 4.01

MOTORCYCLE-INVOLVED CRASHES BY ACCIDENT TYPE

| Accident<br>Type   | All<br>Crashes | Fatal<br>Crashes | Personal<br>Injury<br>Crashes | Property<br>Damage<br>Crashes |
|--|----------------|------------------|-------------------------------|-------------------------------|
| Collision With<br>Other Motor<br>Vehicle                 | 1,638          | 48               | 1,292                         | 298                           |
| Collision With<br>Motor Vehicle<br>In Other Road-<br>Way | . 2            | 0                | 2                             | 0                             |
| Collision With<br>Parked Motor<br>Vehicle                | 122            | 2                | 59                            | 61                            |
| Collision With<br>Railroad Train                         | n 1            | 0                | 0                             | 1                             |
| Collision With<br>Bicyclist                              | 35             | 1                | 34                            | 0                             |
| Collision With<br>Pedestrian                             | 28             | 1                | 27                            | 0                             |
| Collision With<br>Animal                                 | 72             | 3                | 64                            | 5                             |
| Collision With<br>Fixed Object                           | 319            | 17               | 280                           | 22                            |
| Collision With<br>Other Object                           | 23             | 0                | 22                            | 1                             |
| 0verturn   | 666            | 14               | 602                           | 50                            |
| Fire/Explosion   | 7              | 1                | 2                             | 4                             |
| Submersion   | 1              | 0                | 1                             | 0                             |
| Other/Unknown  | 149            | 5                | 131                           | 13                            |
| Total  | 3,063          | 92               | 2,516                         | 455                           |

TABLE 4.02

MOTORCYCLIST CRASHES, INJURIES, FATAL CRASHES, FATALITIES BY MONTH

| Month     | All Crashes | Injuries | Fatal Crashes | Fatalities |  |  |
|-----------|-------------|----------|---------------|------------|--|--|
| January   | 13          | 11       | 1             | 1          |  |  |
| February  | 20          | 19       | 0             | 0          |  |  |
| March     | 96          | 93       | 1             | 1          |  |  |
| April     | 258         | 252      | 8             | 8          |  |  |
| May       | 506         | 513      | 11            | 11         |  |  |
| June      | 536         | 546      | 13            | 13         |  |  |
| July      | 599         | 619      | 22            | 23         |  |  |
| August    | 461         | 470      | 19            | 21         |  |  |
| September | 360         | 352      | 9             | 9          |  |  |
| October   | 142         | 134      | 3             | 4          |  |  |
| November  | 67          | 58       | 5             | 5          |  |  |
| December  | 5           | 3        | 0             | 0          |  |  |
| Total     | 3,063       | 3,070    | 92            | 96         |  |  |

TABLE 4.03

MOTORCYCLE ACCIDENT SUMMARY, 1972-1981

|  | 1972        | 1973        | 1974          | 1975        | 1976        | 1977        | 1978        | 1979        | 1980        | 1981        |
|--|-------------|-------------|---------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Total Motorcycle-Involved                          |             |             |               |             |             |             |             |             |             |             |
| Accidents Fatal Motorcycle-Involved                | 2,013       | 2,411       | 2,400         | 2,400       | 2,460       | 2,718       | 2,827       | 2,872       | 3,308       | 3,063       |
| Accidents  | 52          | 63          | 51            | 62          | 61          | 88          | 103         | 95          | 112         | 92          |
| Personal Injury Motorcycle<br>Involved Accidents   | 1,583       | 1,890       | 1,865         | 1,818       | 1,862       | 2,120       | 2,345       | 2,391       | 2,728       | 2,516       |
| Persons Killed In Motorcycle Involved Accidents:   | 55          | 65          | 54            | 72          | 62          | 94          | 107         | 98          | 122         | 96          |
| Motorcycle Drivers                                 | 50          | 56          | 43            | 61          | 55          | 85          | 89          | 83          | 107         | 84          |
| Motorcycle Passengers<br>Pedestrians               | 4<br>1      | 7<br>1      | 8<br><b>2</b> | 2<br>1      | 2<br>2      | 9<br>0      | 17<br>0     | 14<br>1     | 14<br>0     | 12<br>0     |
| Bicyclists   | 0           | 1           | 0             | 0           | 1           | 0           | 1           | 0           | 1           | 0           |
| Others Persons Injured In                          | 0           | 0           | 1             | 8           | 2           | 0           | 0           | 0           | 0           | 0           |
| Motorcycle Accidents:                              | 1,972       | 2,334       | 2,245         | 2,247       | 2,266       | 2,564       | 2,907       | 2,904       | 3,393       | 3,168       |
| Motorcyclists<br>Pedestrians                       | 1,920<br>25 | 2,267<br>31 | 2,184<br>25   | 2,205<br>18 | 2,223<br>28 | 2,522<br>20 | 2,860<br>17 | 2,833<br>42 | 3,359<br>13 | 3,070<br>45 |
| Bicyclists   | 27          | 36          | 36            | 24          | 15          | 22          | 30          | 29          | 21          | 53          |
| Number of Licensed<br>Operators                    | NA          | 55,377      | 91,024        | 127,081     | 152,138     | 172,223     | 184,545     | 201,075     | 222,330     | 238,926     |
| Number of Registered                               |             | ,           | ĺ             |             | *           | •           | •           | •           | ·           | •           |
| Motorcycles  | 103,286     | 119,227     | 138,193       | 136,256     | 143,237     | 151,763     | 151,016     | 156,552     | 157,815     | 166,151     |
| Rates:   |             |             |               |             |             |             |             |             |             |             |
| Motorcyclist Injuries Per<br>Motorcyclist Fatality | 35.         | 6 36.       | 0 42.         | 8 35.       | 0 39.       | 0 26.       | 8 27.       | 0 29.       | 2 27.       | 8 29.9      |
| Total Injuries Per<br>Fatality (All Vehicles)      | 40.         | 7 41.       | 8 46.         | 4 54.       | 0 51.       | 3 52.       | 8 51.       | 4 56.       | 3 52.       | 4 57.3      |
| Total Motorcycle Crashes Per                       |             |             |               |             |             |             |             |             |             |             |
| Fatal Motorcycle Crash<br>Total Crashes Per Fatal  | 38.         | 7 38.       | 3 47.         | 1 38.       | 7 40.       | 3 30.       | 9 27.       | 4 30.       | 2 29.       | 5 33.3      |
| Crash (All Vehicles)                               | 128.        | 6 123.      | 0 140.        | 5 181.      | 8 161.      | 7 161.      | 4 140.      | 4 153.      | 3 137.      | 8 145.7     |
| Fatalities Per 10,000<br>Motorcycle Registrations  | 5.          | 2 5.        | 3 3.          | 7 4.        | 6 4.        | 0 6.        | 2 7.        | 0 6.        | .2 7.       | 7 5.8       |
| Injuries Per 10,000                                |             |             |               |             |             |             |             |             |             |             |
| Motorcycle Registrations                           | 185.        | 9 190.      | 1 158.        | 0 161.      | 8 155.      | 2 166.      | 2 189.      | 4 181.      | .0 212.     | υ 1/3.0     |

Helmet Law May 1, 1968

TABLE 4.04

AGE AND SEX OF MOTORCYCLIST FATALITIES

| Age Group  | Male | Female | Total |
|------------|------|--------|-------|
| 0- 4       | 0    | 0      | 0     |
| 5- 9       | 2    | 0      | 2     |
| 10-14      | 2    | 0      | 2     |
| 15-19      | 13   | 3      | 16    |
| 20-24      | 27   | 2      | 29    |
| 25-29      | 24   | 0      | 24    |
| 30-34      | 6    | 0      | 6     |
| 35-39      | 9    | 3      | 12    |
| 40-44      | 0    | 0 .    | 0     |
| 45 & Over  | 2    | 0      | 2     |
| Not Stated | 3    | 0      | 3     |
| Total      | 88   | 8      | 96    |

TABLE 4.05

AGE AND SEX OF MOTORCYCLIST INJURIES

| Age Group  | Male  | Female | Not Stated | Total |
|------------|-------|--------|------------|-------|
| 0- 4       | 10    | 4      | 0          | 14    |
| 5- 9       | 13    | 8      | 0          | 21    |
| 10-14      | 71    | 20     | 0          | 91    |
| 15-19      | 592   | 115    | 0          | 707   |
| 20-24      | 879   | 118    | 0          | 997   |
| 25-29      | 456   | 62     | 0          | 518   |
| 30-34      | 227   | 25     | 0          | 252   |
| 35-39      | 125   | 23     | 0          | 148   |
| 40-44      | 60    | 15     | 1          | 76    |
| 45 & Over  | 109   | 17     | 0          | 126   |
| Not Stated | 52    | 21     | 47         | 120   |
| Total      | 2,594 | 428    | 48         | 3,070 |

TABLE 4.06

<u>HELMET USAGE OF MOTORCYCLIST FATALITIES AND INJURIES</u>

| Helmet Usage | Number Killed | Number Injured |
|--------------|---------------|----------------|
| Used         | 25            | 782            |
| Not Used     | 61            | <b>9</b> 58    |
| Unknown      | 10            | 1,330          |
| Total        | 96            | 3,070          |

## PART V

## RAILROAD INFORMATION

For the second year in a row, the number of fatal accidents involving railroad trains and motor vehicles was below the average of the previous five years. Equally important is the fact that railroad crossing accidents in general have decreased by 29%, from 271 in 1980 to 192 in 1981.

TABLE 5.01

RAILROAD CROSSING FATAL CRASHES, FATALITIES, 1972-1981

|                  | 1972 | 1973 | 1974 | 1975 | 1976 | 1977 | 1978 | 1979 | 1980 | 1981 |
|------------------|------|------|------|------|------|------|------|------|------|------|
| Fatal<br>Crashes | 31   | 22   | 26   | 19   | 12   | 22   | 25   | 23   | 12   | 13   |
| Fatalities       | 36   | 29   | 29   | 21   | 14   | 26   | 34   | 32   | 15   | 15   |

TABLE 5.02

RAILROAD CRASHES, INJURIES, FATAL CRASHES, FATALITIES BY MONTH

| Month     | All Crashes | Injuries | Fatal Crashes | Fatalities |
|-----------|-------------|----------|---------------|------------|
| January   | 18          | 10       | 1             | 1          |
| February  | 25          | 10       | 0             | 0          |
| March     | 14          | 8        | 1             | 1          |
| April     | 11          | 3        | 1             | 1          |
| May       | 15          | 4        | 0             | 0          |
| June      | 13          | 12       | 2             | 2          |
| July      | 9           | 5        | 0             | 0          |
| August    | 16          | 7        | 4             | 4          |
| September | 6           | 2        | 0             | 0          |
| October   | 17          | 6        | 1             | 3          |
| November  | 21          | 8        | 1             | 1          |
| December  | 27          | 12       | 2             | 2          |
| Total     | 192         | 87       | 13            | 15         |

TABLE 5.03

AGE AND SEX OF RAILROAD FATALITIES AND INJURIES

| Age Group   |                                 | atalitie<br>Female    |                                 | Male                              | Injuries<br>Female         |                               |
|---|---------------------------------|-----------------------|---------------------------------|-----------------------------------|----------------------------|-------------------------------|
| 0- 4<br>5- 9<br>10-14<br>15-19<br>20-24<br>25-34<br>35-44 | 0<br>0<br>0<br>2<br>1<br>0<br>3 | 0<br>0<br>0<br>5<br>0 | 0<br>0<br>0<br>7<br>1<br>0<br>3 | 1<br>1<br>4<br>14<br>8<br>10<br>3 | 2<br>0<br>0<br>6<br>5<br>3 | 3<br>1<br>4<br>20<br>13<br>13 |
| 45-54<br>55-64<br>65-74<br>75 & Over<br>Not Stated        | 3<br>0<br>0<br>0<br>0           | 0<br>0<br>0<br>1<br>0 | 3<br>0<br>0<br>1<br>0           | 2<br>3<br>3<br>4<br>4             | 1<br>3<br>1<br>0<br>6      | 3<br>6<br>4<br>4<br>10        |
| Total   | 9                               | 6                     | 15                              | 57                                | 30                         | 87                            |

TABLE 5.04

RAILROAD CRASHES AND FATAL CRASHES
BY TIME OF DAY

| Time                 | All Crashes | Fatal Crashes |
|----------------------|-------------|---------------|
| Midnight-<br>2:59 AM | 31          | 1             |
| 3:00 AM-<br>5:59 AM  | 10          | 0             |
| 6:00 AM-<br>8:59 AM  | 14          | 0             |
| 9:00 AM-<br>11:59 AM | 29          | 3             |
| Noon-<br>2:59 PM     | 31          | 2             |
| 3:00 PM-<br>5:59 PM  | 22          | 1             |
| 6:00 PM-<br>8:59 PM  | 27          | 2             |
| 9:00 PM-<br>11:59 PM | 24          | 4             |
| Unknown              | 4 .         | 0             |
| Total                | 192         | 13            |

TABLE 5.05

RAILROAD CRASHES BY COUNTY\*

| County     | Number of Crashes |
|------------|-------------------|
| Hennepin   | 31                |
| Ramsey     | 23                |
| Clay       | 10                |
| St. Louis  | < 8               |
| Scott      | 7                 |
| Brown      | 5                 |
| Freeborn   | 5                 |
| Olmsted    | 5                 |
| Wright     | 5                 |
| All Others | 93                |
| Total      | 102               |
| Total      | 192               |

<sup>\*</sup> Counties listed individually are those with 5 or more crashes in 1981.

# PART VI

## SCHOOL BUS INFORMATION

After an unusually high year in 1979, school bus accidents returned to the "normal" range during 1980 and 1981. The number of school buses involved in injury accidents was the lowest since 1976, and only two vehicles were involved in fatal accidents.

TABLE 6.01

SCHOOL BUSES INVOLVED IN CRASHES, 1972-1981

|  | 1972 | 1973 | 1974 | 1975 | 1976 | 1977 | 1978 | 1979 | 1980 | 1981 |
|--|------|------|------|------|------|------|------|------|------|------|
| School Buses<br>Involved In<br>Crashes                       | 462  | 421  | 539  | 708  | 599  | 724  | 698  | 866  | 678  | 692  |
| School Buses<br>Involved In<br>Personal<br>Injury<br>Crashes | 103  | 116  | 148  | 154  | 119  | 162  | 166  | 187  | 171  | 161  |
| School Buses<br>Involved In<br>Fatal<br>Crashes              | 3    | 4    | 6    | 2    | 9    | 1,   | 2    | 6    | 1    | 2    |

TABLE 6.02

SCHOOL BUS INVOLVED CRASHES BY ACCIDENT TYPE

| Accident<br>Type  | All<br>Crashes | Fatal<br>Crashes | Personal<br>Injury<br>Crashes | Property<br>Damage<br>Crashes |
|---|----------------|------------------|-------------------------------|-------------------------------|
| Collision With<br>Other Motor<br>Vehicle                | 578            | 1                | 128                           | 449                           |
| Collision With<br>Motor Vehicle<br>In Other Road<br>Way | - 1            | 0                | 1                             | 0                             |
| Collision With<br>Parked Motor<br>Vehicle               | 58             | 0                | . 0                           | 58                            |
| Collision With<br>Railroad Trai                         | n 0            | 0                | 0                             | 0                             |
| Collision With<br>Bicyclist                             | 1              | 0                | 1                             | 0                             |
| Collision With<br>Pedestrian                            | 15             | 1                | 14                            | 0                             |
| Collision With<br>Animal                                | 2              | 0                | 0                             | 2                             |
| Collision With<br>Fixed Object                          | 14             | 0                | 4                             | 10                            |
| Collision With<br>Other Object                          | 1              | 0                | 0                             | 1                             |
| Overturn  | 6              | 0                | 4                             | 2                             |
| Other   | 5              | 0                | 3                             | 2                             |
| Total   | 681            | 2                | 155                           | 524                           |

# 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 13 people were killed, compared to 7 people who might have been killed during a similar, non-holiday period.

TABLE 7.01

HOLIDAY ACCIDENT SUMMARY, 1974-1981

|              | Year   | Hours  | Total<br>Crashes   | Fatal<br>Crashes                           | Personal<br>Injury<br>Crashes                        | Property<br>Damage<br>Crashes                                    | Killed                                      | Injured  |
|--------------|--|--|--|--|--|--|---|--|
| Memorial Day | 1974<br>1975<br>1976<br>1977<br>1978<br>1979<br>1980<br>1981 | 78<br>78<br>78<br>78<br>78<br>78<br>78<br>78         | 702<br>871<br>875<br>854<br>1,030<br>775<br>693<br>876             | 6<br>11<br>7<br>8<br>13<br>8<br>8          | 239<br>286<br>281<br>258<br>343<br>307<br>316<br>298 | 457<br>574<br>587<br>588<br>674<br>440<br>369<br>569             | 9<br>13<br>7<br>8<br>14<br>9<br>9           | 374<br>503<br>471<br>406<br>616<br>469<br>465<br>470 |
| July 4th     | 1974<br>1975<br>1976<br>1977<br>1978<br>1979<br>1980<br>1981 | 102<br>78<br>78<br>78<br>30<br>30<br>78<br>78        | 1,000<br>791<br>942<br>941<br>348<br>346<br>827<br>788             | 11<br>14<br>11<br>18<br>7<br>2<br>16<br>13 | 311<br>246<br>293<br>274<br>154<br>148<br>339<br>328 | 678<br>531<br>638<br>649<br>187<br>196<br>472<br>447             | 11<br>19<br>11<br>19<br>7<br>2<br>18<br>13  | 474<br>441<br>505<br>453<br>258<br>233<br>548<br>502 |
| Labor Day    | 1974<br>1975<br>1976<br>1977<br>1978<br>1979<br>1980<br>1981 | 78<br>78<br>78<br>78<br>78<br>78<br>78<br>78         | 769<br>807<br>899<br>765<br>906<br>857<br>899<br>736               | 15<br>9<br>7<br>9<br>10<br>11<br>7         | 248<br>227<br>285<br>293<br>335<br>296<br>310<br>273 | 506<br>571<br>605<br>465<br>562<br>551<br>578<br>456             | 17<br>9<br>10<br>10<br>11<br>11<br>12<br>10 | 426<br>363<br>480<br>496<br>511<br>473<br>499<br>403 |
| Thanksgiving | 1974<br>1975<br>1976<br>1977<br>1978<br>1979<br>1980<br>1981 | 102<br>102<br>102<br>102<br>102<br>102<br>102<br>102 | 1,255<br>1,931<br>1,508<br>2,017<br>1,746<br>1,423<br>2,121<br>961 | 9<br>3<br>9<br>7<br>7<br>9<br>8<br>7       | 275<br>326<br>342<br>370<br>407<br>397<br>486<br>260 | 971<br>1,602<br>1,157<br>1,640<br>1,332<br>1,017<br>1,627<br>694 | 10<br>3<br>11<br>7<br>8<br>9<br>10<br>7     | 434<br>513<br>545<br>598<br>653<br>622<br>751<br>384 |
| Christmas    | 1974<br>1975<br>1976<br>1977<br>1978<br>1979<br>1980<br>1981 | 30<br>30<br>78<br>78<br>78<br>30<br>30<br>78         | 261<br>481<br>619<br>882<br>982<br>204<br>206<br>893               | 1<br>5<br>3<br>6<br>2<br>5<br>7            | 48<br>86<br>136<br>212<br>225<br>46<br>46<br>211     | 212<br>394<br>478<br>667<br>751<br>161<br>155<br>675             | 1<br>1<br>6<br>3<br>7<br>2<br>5             | 72<br>130<br>232<br>373<br>371<br>70<br>82<br>323    |
| New Year's   | 1974<br>1975<br>1976<br>1977<br>1978<br>1979<br>1980<br>1981 | 30<br>30<br>78<br>78<br>78<br>30<br>30<br>78         | 391<br>506<br>932<br>1,568<br>1,196<br>609<br>698<br>1,360         | 2<br>5<br>4<br>6<br>5<br>4<br>6<br>4       | 100<br>120<br>206<br>312<br>292<br>175<br>218<br>298 | 289<br>381<br>722<br>1,250<br>899<br>417<br>474<br>1,058         | 2<br>6<br>4<br>6<br>5<br>4<br>6<br>5        | 182<br>201<br>318<br>500<br>453<br>274<br>355<br>454 |

TABLE 7.02

1981 HOLIDAY CRASHES COMPARED WITH NON-HOLIDAY PERIODS

| Holiday I  | Hours | Total<br>Crashes<br>Holiday | Total<br>Crashes<br>Average | Fatal<br>Crashes<br>Holiday | Fatal<br>Crashes<br>Average | Holiday<br>Injury<br>Crashes | Injum<br>Holiday | ries<br>Average | Fatal<br><u>Holiday</u> | ities<br><u>Average</u> |
|--|-------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|------------------------------|------------------|-----------------|-------------------------|-------------------------|
| Memorial Day<br>6:00 PM Friday, May 22 to<br>Midnight Monday, May 25                 | 78    | 876                         | 897                         | 9                           | 7                           | 298                          | 470              | 434             | 9                       | 8                       |
| July 4<br>6:00 PM Thursday, July 2 to<br>Midnight Sunday, July 5                     | 78    | 788                         | 952                         | 13                          | 7                           | 328                          | 502              | 467             | 13                      | 9                       |
| Labor Day<br>6:00 PM Friday, September 4 to<br>Midnight Monday, September 7          | 78    | 736                         | 897                         | 7                           | 7                           | 273                          | 403              | 434             | 10                      | 8                       |
| Thanksgiving<br>6:00 PM Wednesday, November 25 to<br>Midnight Sunday, November 29    | 102   | 961                         | 1,223                       | 7 ~                         | 9                           | 260                          | 384              | 578             | 7                       | 12                      |
| Christmas<br>6:00 PM Thursday, December 24 to<br>Midnight Sunday, December 27        | 78    | 893                         | 952                         | 7                           | 7                           | 211                          | 323              | 467             | 8                       | 9                       |
| New Year's<br>6:00 PM Thursday, December 31, 19<br>to Midnight Sunday, January 3, 19 |       | 1,360                       | 952                         | 4                           | 7                           | 298                          | 454              | 467             | 5                       | 9                       |

The average consists of the average number of accidents occurring in 1981 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 1981, drivers aged 19 or younger constituted 9.5% of the licensed driver population. These same drivers were involved in 15.8% of the accidents and 16.4% of the fatal accidents.

TABLE 8.01

NUMBER AND PERCENT OF LICENSED TEENAGE DRIVERS,

1974-1981

| Year | Drivers<br>15-19 | Drivers<br>Over 19 | Percent Of<br>Drivers Who<br>Are 15-19 |
|------|------------------|--------------------|--|
| 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                                   |
| 1981 | 269,577          | 2,556,320          | 9.5                                    |
|      |                  |                    |  |

TABLE 8.02

COMPARISON OF ACCIDENT TYPES OF YOUNG DRIVERS\*

| Type of Accident                                    |                           | s Regardless<br>river Age   | Accidents In<br>Was <u>At Least</u> | Which There<br>One Young Driver | Accidents In Which <u>Every</u><br>Driver Was a Young Driver |                             |  |
|---|---------------------------|-----------------------------|-------------------------------------|---------------------------------|--|-----------------------------|--|
|   | Percent of<br>All Crashes | Percent of<br>Fatal Crashes | Percent of<br>All Crashes           | Percent of<br>Fatal Crashes     | Percent of<br>All Crashes                                    | Percent of<br>Fatal Crashes |  |
| Collision With Other<br>Motor Vehicle               | 59.9                      | 40.2                        | 66.5                                | 50.0                            | 25.0   | 15.6                        |  |
| Collision With Motor<br>Vehicle In Other<br>Roadway | .2                        | .0                          | .2                                  | .0                              | .1   | .0                          |  |
| Collision With Parked<br>Motor Vehicle              | 11.3                      | 1.8                         | 7.1                                 | .6                              | .3   | .0                          |  |
| Collision With Railroad<br>Train                    | .2                        | 1.9                         | .1                                  | 2.5                             | . 4  | 6.3                         |  |
| Collision With<br>Bicyclist                         | 1.3                       | 1.6                         | 1.3                                 | 1.9                             | .2   | .0                          |  |
| Collision With<br>Pedestrian                        | 1.7                       | 14.3                        | 1.3                                 | 14.8                            | .3   | 1.6                         |  |
| Collision With Animal                               | 2.8                       | .6                          | 1.4                                 | .0                              | 4.3  | .0                          |  |
| Collision With Fixed<br>Object                      | 15.9                      | 22.0                        | 15.4                                | 16.0                            | 48.4   | 40.6                        |  |
| Collision With Other<br>Object                      | .6                        | .0                          | .4                                  | .0                              | 1.0  | .0                          |  |
| 0verturn  | 4.9                       | 14.9                        | 5.3                                 | 13.6                            | 16.8   | 34.4                        |  |
| Fire/Explosion                                      | .1                        | .3                          | .1                                  | .0                              | .2   | .0                          |  |
| Submersion  | .0                        | .7                          | .0                                  | .6                              | .1   | 1.6                         |  |
| Other   | 1.2                       | 1.5                         | . 9                                 | .0                              | 2.8  | .0                          |  |
| Total   | 100.1                     | 99.8                        | 100.0                               | 100.0                           | 99.9   | 100.1                       |  |

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

TABLE 8.03

COMPARISON OF CONTRIBUTING FACTORS CITED IN CRASHES

BASED ON AGE OF DRIVER INVOLVED

|                        | ALL DRIVERS     |                   |       | RS 19 AND<br>JNGER | DRIVERS 20 AND<br>OLDER |                      |  |
|------------------------|-----------------|-------------------|-------|--------------------|-------------------------|----------------------|--|
| CONTRIBUTING FACTOR    | ALL CRASHES (%) | FATAL CRASHES (%) |       | FATAL CRASHES (%)  |                         | FATAL CRASHES<br>(%) |  |
|                        |                 |                   |       |                    |                         |                      |  |
| Failure to Yield       |                 |                   |       |                    |                         |                      |  |
| Right of Way           | 13.9            | 8.9               | 12.1  | 7.2                | 15.2                    | 8.8                  |  |
| Illegal/Unsafe Speed   | 14.0            | 23.0              | 17.2  | 28.7               | 12.5                    | 21.8                 |  |
| Following Too Closely  | 4.7             | .3                | 4.4   | .0                 | 5.1                     | .4                   |  |
| Disregard for Traffic  |                 |                   |       |                    |                         |                      |  |
| Control Device         | 3.8             | 3.7               | 3.1   | 5.6                | 3.9                     | 3.2                  |  |
| Driving Left of Center |                 |                   |       |                    |                         |                      |  |
| Not Passing            | 2.7             | 8.9               | 2.6   | 11.3               | 2.5                     | 8.4                  |  |
| Improper Passing/      |                 |                   |       |                    |                         |                      |  |
| Overtaking             | 2.0             | 1.4               | 1.7   | 2.1                | 2.0                     | 1.2                  |  |
| Improper/Unsafe        | 200             | ± • ·             | 10,   | C # 1              | 2 8 0                   | _ ·                  |  |
| Lane Use               | 5.3             | 4.1               | 4.0   | 2.1                | 4.8                     | 4.4                  |  |
| Improper Parking/      |                 | , , ,             | 1 8 0 | C # T              | 1 6 0                   | 1 6 1                |  |
| Starting/Stopping      | 1.4             | .8                | 1.0   | .5                 | 1.4                     | .9                   |  |
| Improper Turn          | 3.1             | 1.1               | 2.6   | 1.0                | 3.1                     | 1,2                  |  |
| Unsafe Backing         | 1.3             | .0                | 1.2   | .0                 | 1.5                     | .0                   |  |
| No/Improper Signal     | .4              | .2                | .3    | .0                 | .4                      | .1                   |  |
| Impeding Traffic       | .4              | .1                | .3    | .0                 | .5                      | .1<br>.1             |  |
| Driver Inattention/    | • 1             | • •               | • 0   | • •                | * 0                     | • •                  |  |
| Distraction            | 24.9            | 15.5              | 23.1  | 12.3               | 26.1                    | 16.5                 |  |
| Driver Inexperience    | 5.1             | 2.7               | 12.0  | 6.2                | 2.8                     | 1.5                  |  |
| Physical Impairment    | 8.4             | 18.9              | 7.3   | 13.8               | 9.6                     | 21.3                 |  |
| Vision Obscured        | 3.3             | 2.1               | 3.0   | 3.6                | 3.8                     | 1.7                  |  |
| Defective Equipment    | 1.3             | .4                | 1.4   | .0                 | 1.4                     | .4                   |  |
| Pedestrian Violation/  | 100             | • '               | I .   | • •                | ± • ·                   | • 1                  |  |
| Error                  | .7              | 4.7               | . 3   | 2.6                | ۰.4                     | 4.7                  |  |
| Other                  | 3.2             | 3.1               | 2.6   | 3.1                | 3.2                     | 3.1                  |  |
| Total                  | 99.9            | 99.9              | 100.2 | 100.1              | 100.2                   | 99.7                 |  |

Percentages are based on all contributing factors cited.

# PART IX

### HIT-AND-RUN ACCIDENT INFORMATION

Hit-and-run accidents continue to be a problem in Minnesota. In 1981, 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, 14 (77.8%) resulted in a pedestrian fatality.

TABLE 9.01

HIT-AND-RUN CRASHES BY ACCIDENT TYPE

| Accident<br>Type  | All<br>Crashes | Fatal<br>Crashes | Personal<br>Injury<br>Crashes | Property<br>Damage<br>Crashes |
|---|----------------|------------------|-------------------------------|-------------------------------|
| Collision With<br>Other Motor<br>Vehicle                | 3,905          | 2                | 776                           | 3,127                         |
| Collision With<br>Motor Vehicle<br>In Other Road<br>Way | -<br>12        | 0                | 6                             | 6                             |
| Collision With<br>Parked Motor<br>Vehicle               | 5,268          | 0                | 113                           | 5,155                         |
| Collision With<br>Railroad Trai                         | n 4            | 0                | 0 ,                           | 4                             |
| Collision With<br>Bicyclist                             | 141            | 1                | 126                           | 14                            |
| Collision With<br>Pedestrian                            | 245            | 14               | 227                           | 4                             |
| Collision With<br>Animal                                | 3              | 0                | 0                             | 3                             |
| Collision with Fixed Object                             | 1,682          | . 1              | 101                           | 1,580                         |
| Collision With<br>Other Object                          | 27             | 0                | 0                             | 27                            |
| Overturn  | 57             | 0                | 13                            | 44                            |
| Other/Unknown   | 35             | 0                | 5                             | 30                            |
| Total   | 11,379         | 18               | 1,367                         | 9,994                         |

#### 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.

From 1980 to 1981, the percentage of fatally injured drivers who had been drinking prior to the accident dropped from 68.8% to 61.8%. The percentage of these drivers who were at or above the .10 level of intoxication dropped from 57.9% to 52.1%. Even though this appears to be a dramatic decrease, the percentages of drinking and drunken drivers for 1981 were actually the same as the averages for 1976 to 1980.

# DRINKING DRIVER FATALITY SUMMARY, 1972-1981

| <b>C</b> o |       |       |        |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |  |
|------------|-------|-------|--------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--|
| 1972       | (%)   | 1973  | (%)    | 1974 | (%)  | 1975 | (%)  | 1976 | (%)  | 1977 | (%)  | 1978 | (%)  | 1979 | (%)  | 1980 | (%)  | 1981 | (%)  |  |
| 1,031      |       | 1,024 |        | 852  |      | 777  |      | 809  |      | 856  |      | 980  |      | 881  |      | 863  |      | 763  |      | People were killed<br>in motor vehicle<br>crashes                                    |
| 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 | 437  | 57.3 | Drivers were<br>killed   |
| 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 | 288  | 65.9 | Fatally injured<br>drivers were tested<br>for alcohol                                |
| 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 | 178  | 61.8 | Of those tested had alcohol in their systems (called positive cases)                 |
| 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 | 150  | 52.1 | Of those tested were at or above the .100 level of intoxication                      |
| 177        | 77.3. | . 2   | 0685.8 | 171  | 84.7 | 114  | 80.3 | 154  | 83.2 | 148  | 89.2 | 196  | 81.3 | 147  | 77.4 | 195  | 84.1 | 150  | 84.3 | Of the positive cases were at or above the .100 level of intoxication                |
| 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 | 162  | 91.0 | Of the positive cases were male  |
| 19         | 8.3   | 13    | 5.4    | 15   | 7.4  | 18   | 12.7 | 12   | 6.5  | 18   | 10.8 | 19   | 7.9  | 21   | 11.1 | 21   | 9.1  | 16   | 9.0  | Of the positive cases were female  |
| 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 | 61   | 40.7 | Of the positive which tested at .100 or higher occurred between midnight and 3:00 am |
| 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 | 83   | 46.6 | Of the positive<br>cases were between<br>the ages of 16 and 24                       |
| 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 | 66   | 79.5 | Of the 16 to 24 year olds testing positive were at or above .100                     |
| 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  | 17   | 9.6  | Of the positive<br>cases were under the<br>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<br>Fatal Crashes | Percent of Fatal Crashes With An Alcohol- Positive Driver Fatality* |
|--|-----------------------------|---|
| Collision With Other<br>Motor Vehicle  | 40.2                        | 35.4  |
| Collision With Parked<br>Motor Vehicle | 1.8                         | 1.7   |
| Collision With Railroad<br>Train       | 1.9                         | 1.1   |
| Collision With Bicyclist               | 1.6                         | 0.0   |
| Collision With<br>Pedestrian           | 14.3                        | 0.0   |
| Collision With Animal                  | .6                          | .6  |
| Collision With Fixed<br>Object         | 22.0                        | 34.3  |
| 0verturn                               | 14.9                        | 24.6  |
| Fire/Explosion                         | .3                          | 0.0   |
| Other                                  | 2.4                         | 2.2   |
| Total                                  | 100.0                       | 99.9  |

<sup>\*</sup>These figures are based on the 178 cases in which a fatally 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

|              |                 |                 | Blood Alcoh       | ol Conc       | entrati       | on            |               |                | Percent<br>Positive                | Intoxi-<br>cated                   | Percent<br>Of Total         |
|--------------|-----------------|-----------------|-------------------|---------------|---------------|---------------|---------------|----------------|------------------------------------|------------------------------------|-----------------------------|
| Age          | Total<br>Killed | Total<br>Tested | Total<br>Positive | .010-<br>.049 | .050-<br>.099 | .100-<br>.149 | .150-<br>.249 | .250 &<br>Over | Of Total<br>Tested In<br>Age Group | Of Total<br>Tested In<br>Age Group | Positive<br>By Age<br>Group |
| 15 And Below | 9               | 2               | 0                 |               |               |               |               |                | 0.0                                | 0.0                                | 0.0                         |
| 16           | ~ 8             | 5               | 3                 | 1             |               | 2             |               |                | 60.0                               | 40.0                               | 1.7                         |
| 17           | 17              | 9               | 7                 |               |               | 3             | 4             |                | 77.8                               | 77.8                               | 3.9                         |
| 18           | 20              | 13              | 7                 | 1             |               |               | 5             | 1              | 53.8                               | 46.2                               | 3.9                         |
| 19           | 19              | 15              | 10                |               | 2             | 1             | 7             |                | 66.7                               | 53.3                               | 5.6                         |
| 20           | 18              | 11              | 8                 | 1             |               | 3             | 4             |                | 72.7                               | 63.6                               | 4.5                         |
| 21 - 25      | 97              | 69              | 53                | 3             | 9             | 4             | 28            | 9              | 76.8                               | 59.4                               | 30.1                        |
| 26 - 30      | 76              | 53              | 41                | 3             | 1             | 10            | 23            | 4              | 77.4                               | 69.8                               | 23.0                        |
| 31 - 35      | 30              | 21              | 19                |               | 2             | 1             | 13            | 3              | 90.5                               | 81.0                               | 10.7                        |
| 36 - 40      | 31              | 20              | 9                 |               |               | 1             | 6             | . 2            | 45.0                               | 45.0                               | 5.1                         |
| 41 - 45      | 12              | 8               | 2                 |               |               |               | 2             |                | 25.0                               | 25.0                               | 1.1                         |
| 46 - 50      | 17              | 11              | 5                 | 1             |               | 1             | 2             | 1              | 45.5                               | 36.4                               | 2.8                         |
| 51 - 55      | 15              | 9               | 2                 |               |               |               | 1             | 1              | 22.2                               | 22.2                               | 1.1                         |
| 56 - 60      | 19              | 11              | 5                 | 1             |               | 2             | 2             |                | 45.5                               | 36.4                               | 2.8                         |
| 61 - 65      | 15              | 10              | 3                 | 2             |               |               |               | 1              | 30.0                               | 10.0                               | 1.7                         |
| 66 And Above | 32              | 20              | 4                 | 1             |               | 1             | 2             | *              | 20.0                               | 15.0                               | 2.2                         |
| Unknown      | 2               | 1               | 0                 |               |               |               |               |                | 0.0                                | 0.0                                | 0.0                         |
| Total        | 437             | 288             | 178               | 14            | 14            | 29            | 99            | 22             | 61.8                               | 52.1                               | 100.2                       |

TABLE 10.04

DRIVER FATALITIES' LEVEL OF INTOXICATION BY MONTH

| Time      | Total<br>Killed | Total<br>Tested | Total<br>Positive |    |    | hol Co<br>.100-<br>.149 |    | ation<br>.250 &<br>Over | Percent<br>Of All<br>Positive |
|-----------|-----------------|-----------------|-------------------|----|----|-------------------------|----|-------------------------|-------------------------------|
| January   | 29              | 20              | 12                | 1  |    | 3                       | 7  | 1                       | 6.7                           |
| February  | 15              | 8               | 6                 |    |    | 1                       | 4  | 1                       | 3.4                           |
| March     | 22              | 18              | 15                | 1  | 2  | 2                       | 8  | 2                       | 8.4                           |
| April     | 41              | 32              | 19                |    | 1  | 2                       | 15 | 1                       | 10.7                          |
| May       | 42              | 32              | 25                | 4  | 2  | 3                       | 14 | 2                       | 14.0                          |
| June      | 45              | 25              | 17                | 3  |    | 3                       | 7  | 4                       | 9.6                           |
| July      | 48              | 26              | 14                | 2  | 1  | 4                       | 6  | 1                       | 7.9                           |
| August    | 54              | 32              | 18                |    | 1  | 1                       | 11 | 5                       | 10.1                          |
| September | 31              | 22              | 12                | 1  | 4  | 3                       | 4  |                         | 6.7                           |
| October   | 42              | 32              | 20                | 2  | 1  | 2                       | 13 | 2                       | 11.2                          |
| November  | 29              | 15              | 9                 |    |    | ,2                      | 7  |                         | 5.1                           |
| December  | 39              | 26              | 11                |    | 2  | 3                       | 3  | 3                       | 6.2                           |
| Total     | 437             | 288             | 178               | 14 | 14 | 29                      | 99 | 22                      | 100.0                         |

TABLE 10.05

DRIVER FATALITIES' LEVEL OF INTOXICATION BY ROAD TYPE

| Road Type        | Total<br>Killed | Total<br>Tested | Total<br>Positive | .010- | .050- |    |    | ration<br>.250 &<br>Over | Percent<br>Of All<br>Positive |
|------------------|-----------------|-----------------|-------------------|-------|-------|----|----|--------------------------|-------------------------------|
| Interstate       | 33              | 27              | 16                |       | 1     | 1, | 12 | 2                        | 9.0                           |
| Trunk<br>Highway | 201             | 127             | 73                | 6     | 4     | 12 | 40 | 11                       | 41.0                          |
| County<br>Road   | 154             | 108             | 72                | 7     | 9     | 14 | 37 | 5                        | 40.4                          |
| City Street      | 27              | 16              | 10                | 1     |       | 1  | 6  | 2                        | 5.6                           |
| Township<br>Road | 20              | 10              | 7                 |       |       | 1  | 4  | 2                        | 3.9                           |
| Other Road       | 2               | 0               |                   |       |       |    |    |                          |                               |
| Total            | 437             | 288             | 178               | 14    | 14    | 29 | 99 | 22                       | 99.9                          |

TABLE 10.06

DRIVER FATALITIES' LEVEL OF INTOXICATION BY TIME OF DAY

| Time                 | Total<br>Killed | Total<br>Tested | Total<br>Positive | .010- | d Alco<br>.050-<br>.099 | • 100 <b>-</b> | .150- | .250 & | Percent<br>Of All<br>Positive |
|----------------------|-----------------|-----------------|-------------------|-------|-------------------------|----------------|-------|--------|-------------------------------|
| Midnight-<br>2:59 AM | 114             | 80              | 72                | 4     | 7                       | 12             | 37    | 12     | 40.4                          |
| 3:00 AM-<br>5:59 AM  | 26              | 18              | 16                |       | 1                       | 4              | 10    | 1      | 9.0                           |
| 6:00 AM-<br>8:59 AM  | 26              | 15              | 6                 | 1     |                         |                | 5     |        | 3.4                           |
| 9:00 AM-<br>11:59 AM | 43              | 26              | 4                 | 2     |                         |                | 2     |        | 2.2                           |
| Noon-<br>2:59 PM     | 36              | 23              | 5                 |       |                         | 1              | 2     | 2      | 2.8                           |
| 3:00 PM-<br>5:59 PM  | 65              | 44              | 15                | 3     |                         |                | 10    | 2      | 8.4                           |
| 6:00 PM-<br>8:59 PM  | 53              | 32              | 21                |       | 2                       | 4              | 13    | 2      | 11.8                          |
| 9:00 PM-<br>11:59 PM | 66              | 46              | 35                | 3     | 4                       | 7              | 18    | 3      | 19.7                          |
| Unknown              | 8               | 4               | 4                 | 1     |                         | 1              | 2     |        | 2.2                           |
| Total                | 437             | 288             | 178               | 14    | 14                      | 29             | 99    | 22     | 99.9                          |

TABLE 10.07

DRINKING PEDESTRIAN FATALITY SUMMARY, 1972-1981

| 1972 | (%)  | 1973 | (%)  | 1974 | (%)  | 1975 | (%)  | 1976 | (%)  | 1977 | (%)   | 1978 | (%)  | 1979 | (%)  | 1980 | (%)  | 1981 | (%)  |  |
|------|------|------|------|------|------|------|------|------|------|------|-------|------|------|------|------|------|------|------|------|--|
| 132  |      | 149  |      | 105  |      | 121  |      | 120  |      | 140  |       | 115  |      | 117  |      | 114  |      | 100  |      | Pedestrians Were Killed<br>In Motor Vehicle Crashes                            |
| 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 | 53   | 53.0 | Fatally Injured<br>Pedestrians Were Tested<br>For Alcohol                      |
| 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 | 26   | 26.0 | Of Those Tested Had<br>Alcohol In Their Systems<br>(Called Positive Cases)     |
| 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 | 23   | 23.0 | Of Those Tested Were At<br>Or Above The .100 Level<br>Of Intoxication          |
| 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 | 23   | 88.5 | Of The Positive Cases<br>Were At Or Above The<br>.100 Level Of<br>Intoxication |
| 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  | 1    | 3.8  | Of The Positive Cases<br><del>We</del> re 66 Or Older                          |
| 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  | 3.   | 11.5 | Of The Positive Cases<br>Were Under The Legal<br>Drinking Age                  |

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

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

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

TABLE 10.08

PEDESTRIAN FATALITIES' LEVEL OF INTOXICATION BY AGE

|            |     |                 | В1оо              | d Alcoh       | ol Conc       | centrati      | on            |                | Percent<br>Positive<br>Of Total | Percent<br>Intoxi-<br>cated<br>Of Total | Percent<br>Of Total<br>Positive |
|------------|-----|-----------------|-------------------|---------------|---------------|---------------|---------------|----------------|---------------------------------|---|---------------------------------|
| Age        |     | Total<br>Tested | Total<br>Positive | .010-<br>.049 | .050-<br>.099 | .100-<br>.149 | .150-<br>.249 | .250 &<br>Over | Tested In<br>Age Group          | Tested In<br>Age Group                  | By Age<br>Group                 |
| 15 & Below | 16  | 4               | 0                 |               |               |               |               |                | 0.0                             | 0.0                                     | 0.0                             |
| 16         | 0   | 0               | 0                 |               |               |               |               |                | 0.0                             | 0.0                                     | 0.0                             |
| 17         | 3   | 2               | 1                 |               |               | 1.            |               |                | 50.0                            | 50.0                                    | 3.8                             |
| 18         | 5   | 3               | 2                 | 1.            |               |               | 1             |                | 66.7                            | 33.3                                    | 7.7                             |
| 19         | 4   | 4               | 1                 |               |               | 1             |               |                | 25.0                            | 25.0                                    | 3.8                             |
| 20         | 1   | 1               | 0                 |               |               |               |               |                | 0.0                             | 0.0                                     | 0.0                             |
| 21 - 25    | 9   | 6               | 5                 |               |               | 1             | 4             |                | 83.3                            | 83.3                                    | 19.2                            |
| 26 - 30    | 10  | 6               | 4                 | 1             | 1             |               | 1             | 1              | 66.7                            | 33.3                                    | 15.4                            |
| 31 - 35    | - 3 | 2               | 2                 |               |               |               | 1             | 1              | 100.0                           | 100.0                                   | 7.7                             |
| 36 - 40    | 2   | 0               | 0                 |               |               |               |               |                | 0.0                             | 0.0                                     | 0.0                             |
| 41 - 45    | 5   | 5               | 4                 |               |               |               | 2             | 2              | 80.0                            | 80.0                                    | 15.4                            |
| 46 - 50    | 4   | 3               | 2                 |               |               |               |               | 2              | 66.7                            | 66.7                                    | 7.7                             |
| 51 - 55    | 1   | 1               | 1.                |               |               |               | 1             |                | 100.0                           | 100.0                                   | 3.8                             |
| 56 - 60    | 5   | 2               | 1                 |               |               |               | 1             |                | 50.0                            | 50.0                                    | 3.8                             |
| 61 - 65    | 4   | 3               | 2                 |               |               |               | 1             | 1              | 66.7                            | 66.7                                    | 7.7                             |
| 66 & Above | 28  | 11              | 1                 |               |               | 1             |               |                | 9.1                             | 9.1                                     | 3.8                             |
| Total      | 100 | 53              | 26                | 2             | 1             | 4             | 12            | 7              | 49.1                            | 43.4                                    | 99.8                            |

TABLE 10.09

PEDESTRIAN FATALITIES' LEVEL OF INTOXICATION BY MONTH

| Month     | Total<br>Killed | Total<br>Tested | Total<br>Positive | .010- |   | hol Co<br>.100-<br>.149 |    | ation<br>.250 &<br>Over | Percent<br>Of All<br>Positive |
|-----------|-----------------|-----------------|-------------------|-------|---|-------------------------|----|-------------------------|-------------------------------|
| January   | 15              | 6               | 3                 |       |   |                         | 2  | 1                       | 11.5                          |
| February  | 10              | 6               | 3                 |       |   | র                       | 2  | 1                       | 11.5                          |
| March     | 4               | 2               | 2                 |       |   |                         | 1  | 1                       | 7.7                           |
| April     | 8               | 3               | 1                 |       |   |                         |    | 1                       | 3.8                           |
| May       | 6               | 4               | 2                 |       |   | 1                       | 1  |                         | 7.7                           |
| June      | 9               | 4               | 3                 |       |   |                         | 2  | 1                       | 11.5                          |
| July      | 9               | 4               | 3                 |       | 1 |                         | 1  | 1                       | 11.5                          |
| August    | 7               | 5               | 3                 | 1     |   |                         | 2  |                         | 11.5                          |
| September | 7               | 3               | 1                 |       |   | 1                       |    |                         | 3.8                           |
| October   | 8               | 4               | 0                 |       |   |                         |    |                         | 0.0                           |
| November  | 8               | 7               | 5                 | 1     |   | 2                       | 1  | 1                       | 19.2                          |
| December  | 9               | 5               | 0                 |       |   |                         |    |                         | 0.0                           |
| Total     | 100             | 53              | 26                | 2     | 1 | 4                       | 12 | 7                       | 99.7                          |

TABLE 10.10

PEDESTRIAN FATALITIES' LEVEL OF INTOXICATION BY ROAD TYPE

| Road Type        | Total<br>Killed | Total<br>Tested | Total<br>Positive | .010- |   | .100-                                       | ncentr<br>.150-<br>.249 | ation<br>.250 &<br>Over | Percent<br>Of All<br>Positive |
|------------------|-----------------|-----------------|-------------------|-------|---|---|-------------------------|-------------------------|-------------------------------|
| Interstate       | 6               | 6               | 4.                |       |   | y prise na reissamentiki 200 m (Yillianisi) | 3                       | - Comment               | 15.4                          |
| Trunk<br>Highway | 36              | 24              | 12                | 1     |   | 2   | 7                       | 2                       | 46.2                          |
| County<br>Road   | 30              | 14              | 8                 | 1     |   | 1   | 2                       | Ą                       | 30.8                          |
| City Street      | 25              | 9               | 2                 |       | 1 | 1   |                         |                         | 7.7                           |
| Township<br>Road | 2               | 0               |                   |       |   |   |                         |                         | 0.0                           |
| Other Road       | 1               | 0               |                   |       |   |   |                         |                         | 0.0                           |
| Total            | 100             | 53              | 26                | 2     | 1 | 4   | 12                      | 7                       | 100.1                         |

TABLE 10.11

PEDESTRIAN FATALITIES' LEVEL OF INTOXICATION BY TIME OF DAY

| Time                 | Total<br>Killed | Total<br>Tested | Total<br>Positive |   | .050- |   |    | ration<br>.250 &<br>Over | Percent<br>Of All<br>Positive |
|----------------------|-----------------|-----------------|-------------------|---|-------|---|----|--------------------------|-------------------------------|
| Midnight-<br>2:59 AM | 17              | 11              | 10                |   |       | 3 | 4  | 3                        | 38.5                          |
| 3:00 AM-<br>5:59 AM  | 6               | 4               | 2                 |   |       |   | 1  | 1                        | 7.7                           |
| 6:00 AM-<br>8:59 AM  | 5               | 3               | 1                 |   |       | × | 1  |                          | 3.8                           |
| 9:00 AM-<br>11:59 AM | 6               | 2               | 0                 |   |       |   |    |                          | 0.0                           |
| Noon-<br>2:59 PM     | 11              | 3               | 0                 |   |       |   |    |                          | 0.0                           |
| 3:00 PM-<br>5:59 PM  | 14              | 7               | 1                 |   |       |   |    | 1                        | 3.8                           |
| 6:00 PM-<br>8:59 PM  | 21              | 10              | 5                 |   | 1     |   | 4  |                          | 19.2                          |
| 9:00 PM-<br>11:59 PM | 19              | 12              | 6                 | 2 |       | 1 | 1  | 2                        | 23.1                          |
| Unknown              | 1               | 1               | 1                 |   |       |   | 1  |                          | 3.8                           |
| Total                | 100             | 53              | 26                | 2 | 1     | 4 | 12 | 7                        | 99.9                          |

# PART XI

# SEAT BELT INFORMATION

The latest government observation study of safety belt use indicated that, nationwide, only 11.5% of the motoring public use their safety belts when they drive. The same study indicated that 16.7% of the drivers in the Minneapolis/St. Paul area used their safety belts. In Minnesota motor vehicle accidents last year, where information on seat belt installation and usage was known, 92.2% of the people killed and 88.2% of the people injured were not wearing safety belts at the time of their accident.

TABLE 11.01

SEAT BELT USAGE OF FATALITIES AND INJURIES

CARS ONLY\*

|   | Fatalities | Injuries |
|---|------------|----------|
| Restraining Device<br>Installed And<br>Used     | 12         | 1,370    |
| Restraining Device<br>Installed But<br>Not Used | 261        | 12,982   |
| Restraining Device<br>Not Installed             | 10         | 360      |
| Total   | 283        | 14,712   |

<sup>\*</sup>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                 | 1                |
| "A"Incapacitating<br>Injury     | 4                |
| "B"Non-Incapacitating<br>Injury | 24               |
| "C"Possible<br>Injury           | 40               |
| Total                           | 69               |

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