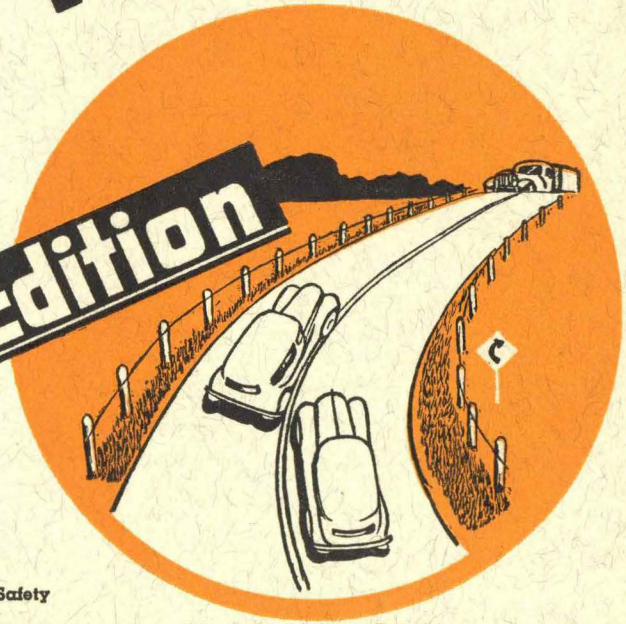
IOWA HIGHWAY ACCIDENT FACTS

1941 Edition



The Cause of Many Fatalities

Published by
STATE OF IOWA
GEO. A. WILSON
Governor
KARL W. FISCHER
Commissioner of Public Safety

ACCIDENT FACTS OF IOWA

1941 EDITION

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THE STATE OF IOWA

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Commissioner of Public Safety

PREPARED BY

The Division of Safety Education of the Iowa Department of Public Safety in cooperation with the Governor's Traffic Safety Commission, M. C. Nelson, Chairman; Iowa State Safety Council, J. R. Hattery, President; Iowa Sheriffs Association; Chiefs of Police; Iowa Highway Patrol, and other Peace Officers.

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SUMMARY OF 1940 MOTOR VEHICLE ACCIDENTS IN THE STATE OF IOWA

INTRODUCTION

by

KARL W. FISCHER
Commissioner of Public Safety

Accident Facts of Iowa is meant to present vividly the salient characteristics of Motor Vehicle Accidents which occurred in Iowa the past year. It is, indeed, important for all to know the facts of Iowa's accident situation. It is the privilege and duty of every public official and those vitally interested in the promotion of safety to help remove the causes and so reduce our accidents.

In order to make full and vital use of the following information, I would like to suggest that you use Accident Facts to its utmost advantage. The facts herein presented should be useful in your conversation, speeches, material for newspaper articles, and in many and various other ways so as to reduce the traffic hazard of our highways.

IOWA MOTOR VEHICLE ACCIDENTS REPORTED BY COUNTIES—1939-40

County	1939 Total Accidents	1939 Persons Injured	1939 Persons Killed	1940 Total Accidents	1940 Persons Injured	1940 Persons Killed
Adair	58	27	2	56	36	1
Adams	27	42	2	32	25	1
Allamakee	52	39	1	57	48	2
Appanoose	99	70	....	173	96	3
Audubon	27	30	1	44	35	1
Benton	125	101	11	288	172	6
Black Hawk	831	433	15	1,223	470	13
Boone	105	118	8	196	151	8
Bremer	70	57	5	97	68	5
Buchanan	108	99	5	124	73	10
Buena Vista	121	100	4	160	93	4
Butler	64	63	2	78	86	6
Calhoun	86	51	6	95	86	2
Carroll	129	102	5	169	118	5
Cass	97	89	4	144	110	3
Cedar	74	74	1	78	51	4
Cerro Gordo	122	120	13	200	143	4
Cherokee	108	80	4	138	97	1
Chickasaw	48	57	4	43	48	4
Clarke	58	29	....	63	55	1
Clay	149	127	2	209	91	6
Clayton	93	50	3	122	110	6
Clinton	297	247	14	452	234	7
Crawford	91	80	1	139	84	5
Dallas	118	118	5	114	130	7
Davis	38	38	....	34	17	....
Decatur	21	22	2	47	30	6
Delaware	68	99	4	78	67	2
Des Moines	160	120	5	221	120	5
Dickinson	89	67	5	88	74	4
Dubuque	251	171	4	302	185	10
Emmet	67	50	3	88	51	3
Fayette	76	80	4	130	88	6
Floyd	59	52	2	128	82	1
Franklin	125	96	6	154	81	7
Fremont	52	51	6	46	32	2
Greene	33	52	4	115	75	2
Grundy	73	47	1	91	68	2
Guthrie	106	95	2	100	71	5
Hamilton	147	93	8	196	105	5
Hancock	65	75	3	61	70	1
Hardin	113	92	3	190	99	2
Harrison	63	58	13	119	115	7
Henry	72	47	1	119	73	3
Howard	53	17	2	101	69	8
Humboldt	56	41	1	79	75	3
Ida	31	21	3	73	65	3
Iowa	102	91	8	111	71	8
Jackson	73	42	5	115	57	10
Jasper	186	141	4	257	180	12
Jefferson	105	60	1	154	71	4

IOWA MOTOR VEHICLE ACCIDENTS REPORTED BY COUNTIES—1939-40

County	1939 Total Accidents	1939 Persons Injured	1939 Persons Killed	1940 Total Accidents	1940 Persons Injured	1940 Persons Killed
Johnson	332	147	7	359	179	5
Jones	54	62	3	59	41	4
Keokuk	81	83	5	100	82	2
Kossuth	106	108	5	145	122	7
Lee	169	155	10	215	139	5
Linn	840	628	15	1,167	685	15
Louisa	30	39	2	33	41	1
Lucas	40	52	6	73	48	4
Lyon	51	36	3	92	39	4
Madison	82	65	2	60	43	1
Mahaska	204	132	8	221	140	5
Marion	88	74	6	80	45	5
Marshall	349	231	7	448	262	8
Mills	34	38	2	46	38	3
Mitchell	19	23	2	32	43	5
Monona	34	42	8	46	53	7
Monroe	55	53	10	81	81	1
Montgomery	82	70	3	99	80	1
Muscatine	249	171	10	265	168	12
O'Brien	70	64	4	127	106	5
Osceola	41	24	....	68	36	1
Page	79	72	5	94	100	5
Palo Alto	91	74	6	102	71	1
Plymouth	95	114	9	130	116	10
Pocahontas	73	92	4	70	60	3
Polk	2,887	1,434	35	2,932	1,338	43
Pottawattamie	341	286	15	601	313	11
Poweshiek	104	77	8	130	122	8
Ringgold	34	22	....	54	39	4
Sac	52	41	4	89	73	4
Scott	764	450	18	821	407	16
Shelby	50	48	3	53	54	3
Sioux	60	70	6	98	60	7
Story	258	198	5	330	176	6
Tama	130	123	12	209	138	5
Taylor	39	50	5	47	54	3
Union	50	45	1	82	49	1
Van Buren	30	30	1	42	43	5
Wapello	161	155	5	394	251	6
Warren	81	75	11	143	112	9
Washington	169	122	2	185	132	6
Wayne	54	41	1	57	30	4
Webster	285	184	11	443	243	10
Winnebago	31	33	....	40	20	3
Winneshiek	119	74	4	143	67	4
Woodbury	399	494	18	850	567	16
Worth	41	31	4	66	47	3
Wright	49	50	1	94	83	4
TOTALS	14,977	11,003	530	19,806	12,037	537

ACCIDENT FACTS

Accident Facts, the first published by the Iowa Department of Public Safety, is meant to assume the nature of an Annual Report.

Iowa's record, during 1940, as compared to that of the nation, shows a percentage increase of fatalities of approximately 1.3% over 1939 as against a national average of approximately 9.2% increase over 1939. Thus, Iowa's traffic safety program is showing results.

In the United States during 1940 over 35,000 persons were killed by automobiles and 1,320,000 were more or less seriously injured. Iowa's total of this number came to 537 fatalities and 12,037 injured.

That there is a need to point out to visiting motorists from other states the necessity of careful driving on the highways of Iowa is brought to attention by the following facts: 3,300 accidents, 152 of which were fatal, 1,268 injured, and 1,888 property damage accidents were charged to out-of-state drivers during 1940.

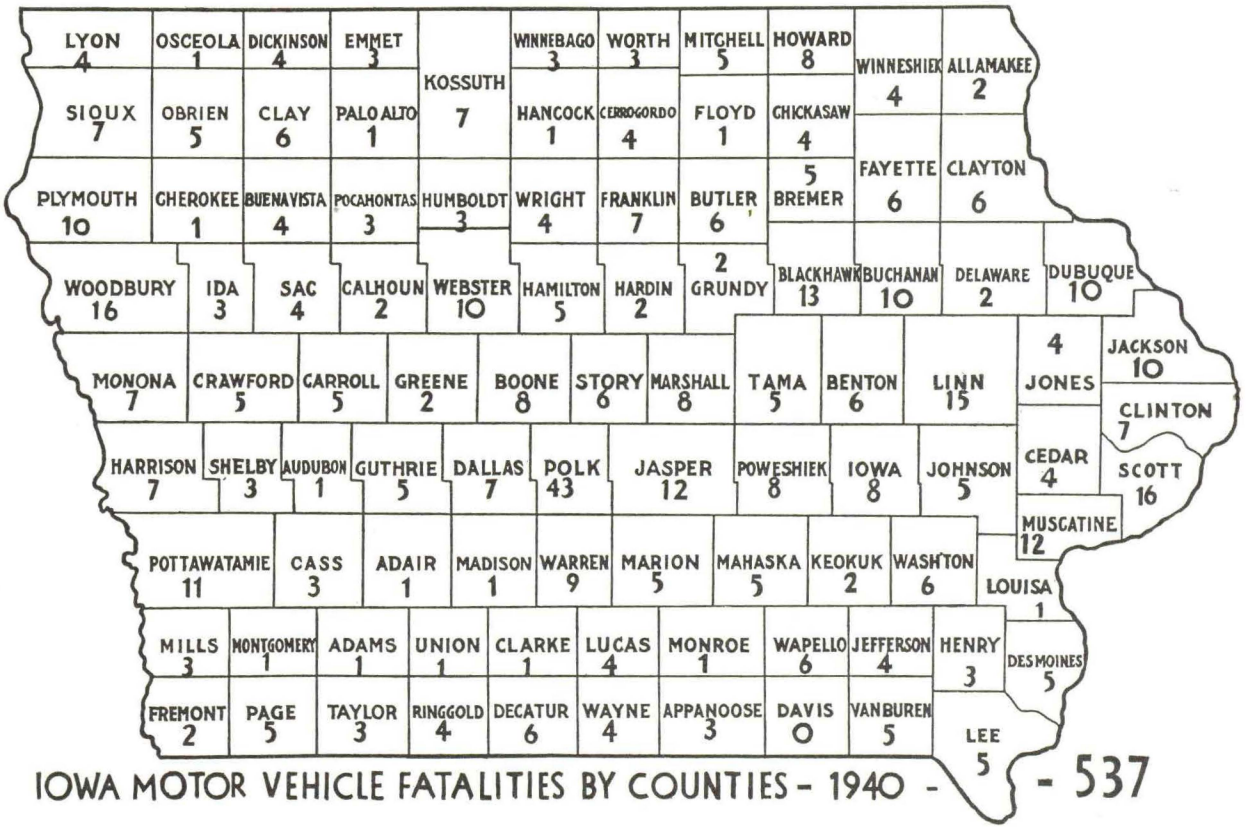
As will be noted in the chart of Pedestrian Fatalities, 1940 showed 123 fatalities. This was an increase over 1939 of seven. The need to educate the pedestrian on how to walk is clearly indicated and a program of this type is certainly recommended.

Drunken Drivers caused a great number of fatalities. Approximately one out of nine fatal accidents involved a driver of this type. The fact that alcohol and gasoline do not mix is of utmost importance, and as is shown by the following pages, a problem which demands fair, unbiased and punitive action by the courts of the State of Iowa.

During the past few years there has been a decided change in the attitude of traffic enforcement departments. They are putting forth hours of conscientious effort to bring the driving public to a realization of the merits of safe and sane driving. This attitude has permeated the courts which are on the whole endeavoring to carry out the full provisions of law, irrespective of person, with the thought that in so doing they will teach the public the importance of careful operation of a motor vehicle.

The purpose of the following accident facts is to point out the many and various phases of accidents and show that fair, impartial and unbiased action is necessary by all police officers to fix, concretely, the true value of safe driving in the minds of all. It also points out that it is necessary to educate the driver of motor vehicles in the art of Safe Driving. The driver must cooperate to his utmost so that Iowa's accident and fatality rate of motor vehicle accidents will be reduced. These facts intend to show that the most important items should be brought to the attention of all drivers.

MAP OF IOWA SHOWING DEATHS BY COUNTIES—1940



IOWA MOTOR VEHICLE FATALITIES BY COUNTIES - 1940 - 537

MOTOR VEHICLES

Iowa's motor vehicle traffic took a toll of 537 lives in 1940 and 12,037 suffered injury of which 1,879 were major injuries and 10,158 minor.

A fatal accident occurs in Iowa every 16 hours and an accident causing injury happens every 44 minutes. With three deaths occuring every forty-eight hours, and an accident every 26½ minutes, motor vehicles again ranked as a major killer.

Each of Iowa's 11,924 property damage accidents cause an average loss of $68 while each of Iowa's 7,432 injury accidents resulted in an average loss of $465. Each of Iowa's 537 fatalities cost society $34,000.00. Property damage, hospitalization, loss of time, and fatal injuries thus reached a cost of $24,165,000.00 for 1940.

10% of the above accidents and monetary damage can be attributed to vehicular defects. Many vehicular defects have been found in vehicle inspection programs and these have helped eliminate this hazard of the highway. The true importance of vehicular defects has been underestimated and a safety program to educate people about the dangers of unsafe motor vehicles is recommended.

Iowa's motor vehicle registration reached an all time high with 692,318 automobiles, 108,913 trucks, and 2,942 motorcycles. This made a total of 804,173 motor vehicles of all types registered, exclusive of trailers. Over one-half billion gallons of gas were used.

With these 804,173 motor vehicles on the highways of Iowa there were 19,835 accidents or one accident to every 40.5 motor vehicles operated on the highways.

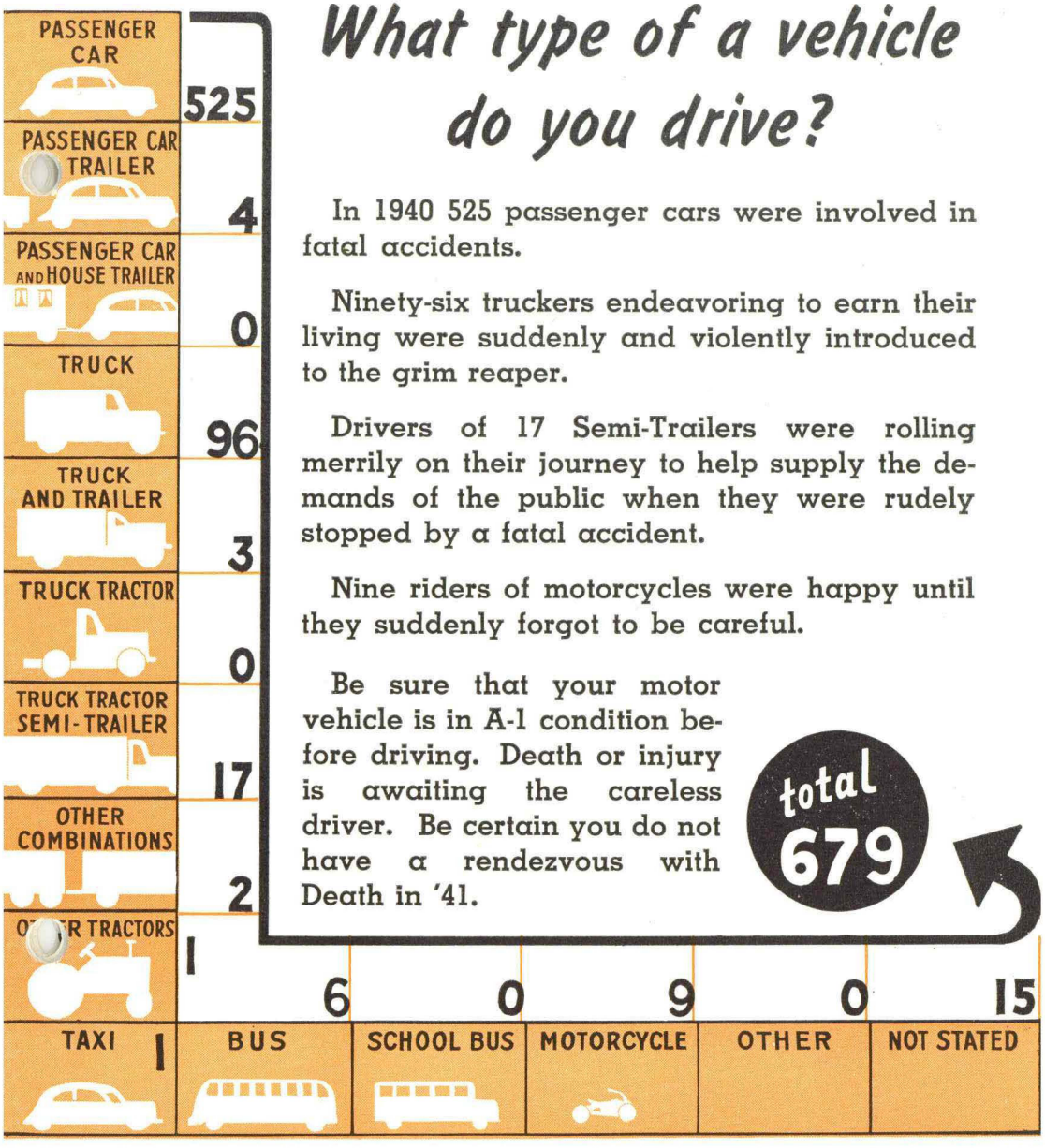
As is shown by the chart on the opposite page, passenger cars led the list with 525 involved in fatal accidents as against the next high of 96 by truck. The total number of passenger cars involved in accidents was 29,394 and 3,297 trucks were in accidents. The percentage of passenger car fatal accidents was lower, however, than for the trucks. Passenger car percentage of fatalities was 1.6% as against 2.4% for the trucks.

School Busses were involved in only 3 accidents during 1940, of which none was fatal.

A close check of the chart will show that Iowa faces a problem to educate the driver of truck and passenger cars so that he will observe safety rules and thus reduce the outstanding cause of death among these types of motor vehicles.

FATAL ACCIDENTS

TYPE OF MOTOR VEHICLE



What type of a vehicle do you drive?

In 1940 525 passenger cars were involved in fatal accidents.

Ninety-six truckers endeavoring to earn their living were suddenly and violently introduced to the grim reaper.

Drivers of 17 Semi-Trailers were rolling merrily on their journey to help supply the demands of the public when they were rudely stopped by a fatal accident.

Nine riders of motorcycles were happy until they suddenly forgot to be careful.

Be sure that your motor vehicle is in A-1 condition before driving. Death or injury is awaiting the careless driver. Be certain you do not have a rendezvous with Death in '41.

FATAL ACCIDENTS TO PEDESTRIANS

123 Iowans walked to their death in 1940.

Pedestrian accidents resulted in 22.9% of the fatalities in Iowa in 1940. In 1939 pedestrian fatalities were 116 and a percentage of 21.9% of total fatalities. Thus, 1940 was up 1% in pedestrian accidents. 50% of these fatalities were caused by "Jay Walking" or, in other words, "Taking a short cut to the CORONER".

The winter months are the most dangerous months to the pedestrian. Approximately 41% of the total fatalities in November, 44% in December, 43% in January and February, and the high of 45% in March are pedestrian. During July the percentage of pedestrian fatalities hover around 29%. In August the fatalities begin slowly mounting until we come to the dangerous months of winter.

Most of the pedestrians killed in 1940 were committing a violation or engaged in some obviously unsafe act. However, in approximately 40% of the fatalities, the driver was either careless or committing the violation.

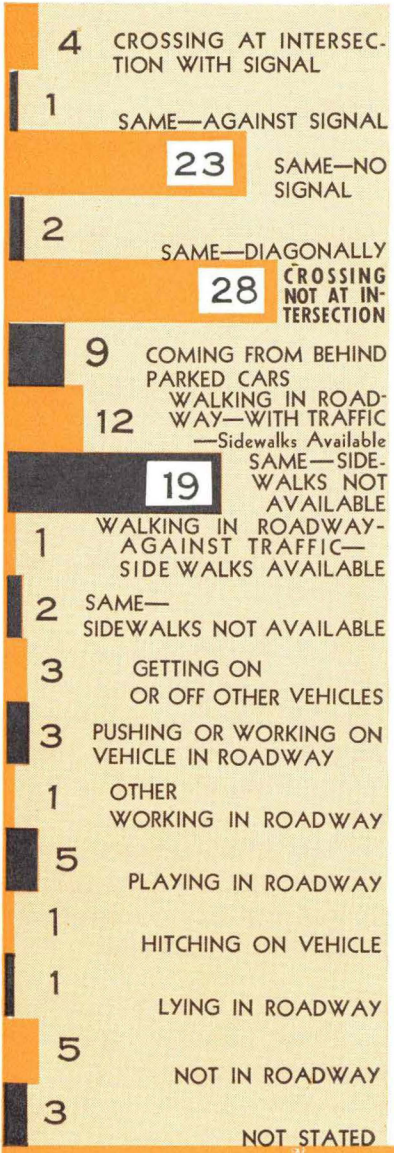
Twenty-eight Iowa pedestrians, causing the greatest number of fatalities, were those who crossed the streets not at an intersection. This was closely followed by pedestrians crossing at an intersection with no signal. Twenty-three thus met death.

Pedestrians in Iowa suffered a total of 1,245 injuries in 1940. Crossing at intersections led with a total of 507 injured. This was followed by crossing not at an intersection with 249 injuries and close behind this came the pedestrians who darted out from behind parked cars with a total of 215 injuries.

One of the greatest problems is to educate the pedestrian in all phases of the dangers of traffic hazards. A common cause of pedestrian accidents is the failure to judge the speed and distance of the approaching vehicle. Safety Education should point to the following facts: Observe signals, do not enter the roadway from behind parked cars, cross the streets at intersections, do not play in the road, and in rural districts especially, walk facing traffic.

By a study of the annual report we find that 117 of the pedestrian fatalities resided within 25 miles of the accident location. Three resided elsewhere in the state while two were from out of the state. One was not stated.

FATAL ACCIDENTS TO PEDESTRIANS



Are your feet killing you?

A campaign by your local Safety Council can help to reduce the fatalities shown in this chart.

The chart is self-explanatory and shows the problem facing Iowa, so let's reduce this danger to our pedestrians.

PEDESTRIAN FATALITIES **total 123**

FATAL ACCIDENTS—LOCATIONS

Although street intersection accidents in urban areas led those at highway intersections in rural areas 5,649 to 1,073, fatal accidents in the country were more numerous than urban fatal accidents. There were 59 rural highway intersection fatal accidents to 48 street intersection fatal accidents in urban territory.

Fatal accidents at rural highway intersections amounted to 12.9% of the total and urban intersection accidents were only 10.1% of the total.

Driveway intersection accidents were 681 while 10 of them were fatal.

Iowa had 314 railroad crossing accidents in 1940 with the percentage of fatal accidents running 10.8%. There were 34 fatal accidents of this type in 1940.

Accidents at bridges or overpasses were 279 with a total of 14 fatal accidents occurring.

Underpasses and alleys had two fatal accidents each.

There were 11,660 accidents of all other types, 307 being fatal.

A study of rural intersection accidents indicate that failure to signal intentions of turns. Improper turns were among the major causes of accidents. Proper compliance with state laws regarding signals would result in a much lower accident rate at rural road intersections and driveways.

Excessive speed, improper passing and operating on the wrong side of the road were responsible for a great number of rural accidents in 1940. A study of the 14 fatal accidents at bridges or overpasses show that excessive speed and bad roadway alignment were common causes of accidents.

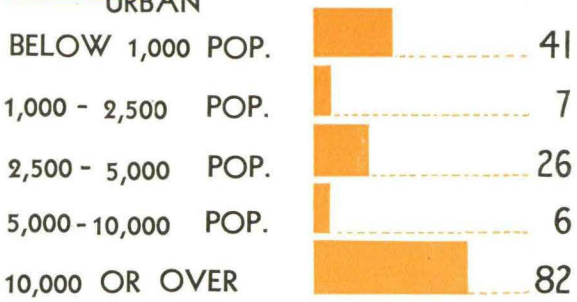
Speeds at which accidents occur are lower in urban areas than in the country because cars travel faster on rural roads. Evidence of this statement can be clearly seen in the percentage of fatal accidents in the city and those in rural districts.

There are about 35 non-fatal injuries for each death but this ratio is much higher at low speeds, and drops rapidly as speed increases, thus the higher percentage of fatal accidents in rural areas.

FATAL ACCIDENTS

LOCATIONS

URBAN



TOTAL URBAN ACCIDENTS 162

—URBAN—

There were 12,284 accidents in urban areas during 1940 with fatal accidents numbering 162. The greatest number of these occurred at street intersections. 45.9% of all accidents were at these intersections. There were 48 fatal accidents and a total of 5,649 of this type of accident.

As is shown by the chart, cities from 5,000 to 10,000 led with six fatal accidents but were closely followed by cities from 1,000 to 2,500. Eighty-two fatal accidents occurred in cities over 10,000 but towns below 1,000 had 41.

RURAL

TOTAL RURAL ACCIDENTS 317

—RURAL—

7,551 accidents of all types were charged to rural areas in 1940 and 317 of these were fatal. Thus the percentage of accidents which were fatal was far in the lead over the urban areas. For every 20.7 accidents, a fatal one resulted on country highways with 4.2% fatal.

FATAL ACCIDENTS—DAY OF WEEK

As attention is divided so accidents are multiplied. This is proven by the chart on the opposite page which shows that most of the fatal accidents took place on Saturday and Sunday. Thus, the drivers of cars who are "pleasure" riding have a greater chance of being involved in a fatal accident than those who are driving for business.

The total of accidents in Iowa in 1940 shown by day of week are:

Monday	**2,622**
Tuesday	**2,425**
Wednesday	**2,518**
Thursday	**2,581**
Friday	**2,567**
Saturday	**3,819**
Sunday	**3,300**
Not stated	**3**
TOTAL	**19,835**

Tuesday was the day least likely for a person to be involved in an accident. However, fatal accidents were higher on that day than on Thursday.

The greatest number of rural fatal accidents occur on Saturday and Sunday while in the cities, on those days are far less. Wednesday and Thursday is just the reverse with the greatest number occurring in the cities.

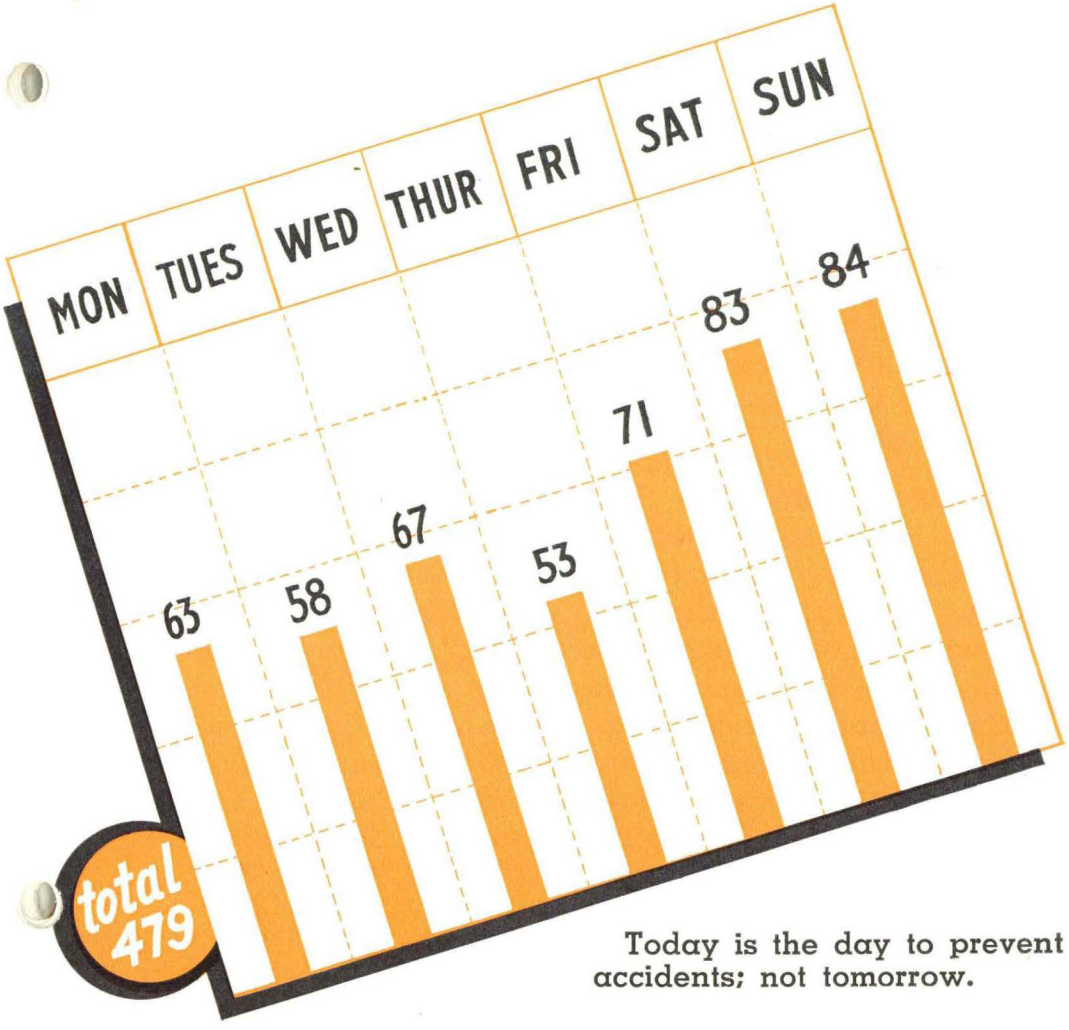
Of the 19,835 total accidents there were 11,924 accidents in which property damage resulted. Saturday led with 2,293 property damage accidents and Tuesday, with 1,500 property damage accidents, was in last place.

FATAL ACCIDENTS

DAY OF WEEK

Saturday and Sunday, supposedly the days of pleasure and rest, are days of injury and death, as pointed out by this graph.

Attention: "divided" means death "multiplied"



Today is the day to prevent accidents; not tomorrow.

FATAL ACCIDENTS—MONTH OF YEAR

537 persons met violent death in motor vehicle accidents in 1940 on the highways of Iowa. October with 65 fatalities led the other months while May with 28 proved the least fatal to the users of Iowa's highways.

The chart on the next page gives a knowledge of what has happened in 1940 and also points out the approximate number of fatalities which we have to look forward to month by month of the current year.

This accurate knowledge of fatalities gives Iowa the opportunity to conduct a program for improved traffic control and so reduce these deaths from month to month.

It is very necessary to create public enthusiasm for this month by month reduction.

In order to create this enthusiasm three phases of traffic safety appeals should be used. The first is to arouse the instinct to protect one's own person and property. Then the humanitarian appeal, to create the desire to live up to the principle of the Golden Rule. Then the reasonable appeal to show that intelligent traffic control pays dividends in accident reduction and in increased efficiency.

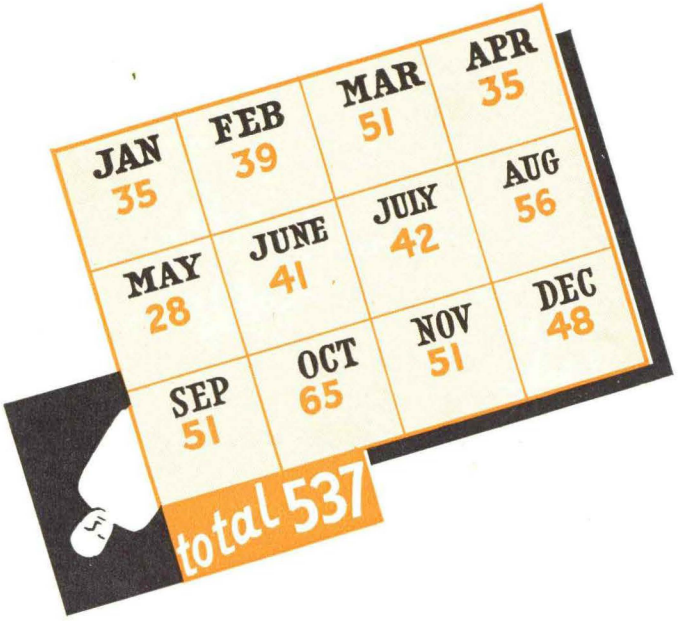
To fully utilize these appeals it is most necessary to set up an educational program. The question arises—What shall we teach in our educational program? First of all, we want the drivers of Iowa to have knowledge—knowledge of how menacing traffic accidents are to the general welfare; knowledge of what is being done in Iowa and in the communities of Iowa to remove this menace; knowledge of what each individual motorist and pedestrian can do to help. Then develop good, careful driving and safe and sane walking. Lastly, to create the correct attitude of mind, that attitude of mind which is for intelligent driving, intelligent walking, and for intelligent enforcement of our laws.

As each community of Iowa develops intelligent safety programs, so the month to month fatalities of Iowa's highways and byways will drop.

FATAL ACCIDENTS

MONTH OF YEAR

October, the most dangerous month of the year—65 fatalities. May, with 28 deaths, in last place.



Better to lose a minute and save a life than to gain a minute and lose a life

FATALITIES—TYPE OF ACCIDENT

"Collision with other motor vehicle" led all types of accidents in Iowa in 1940. 13,797 accidents of this type were reported and a total of 215 persons met death this way in Iowa in 1940. 9,851 of these accidents resulted in property damage.

123 pedestrians were killed in 1940 and there was a total of 1,311 pedestrian accidents reported.

2,172 motor vehicles ran off the roadway and caused the death of 86 persons. 849 property damage accidents were reported of this type.

Collisions with fixed objects caused 1,059 accidents, 849 of these property damage and 44 fatalities.

Accidents in which motor vehicles were involved with railroad trains totaled 303 and 42 of these were fatal. 13.9% of these accidents were fatal.

Bicycle and motor vehicle accidents totaled 416 with a total of 13 deaths.

Collisions with an animal and overturned in the roadway caused 3 deaths each although there were 329 accidents which involved animals and 86 motorists overturned in the roadway.

151 street car and motor vehicle accidents resulted in 2 fatalities.

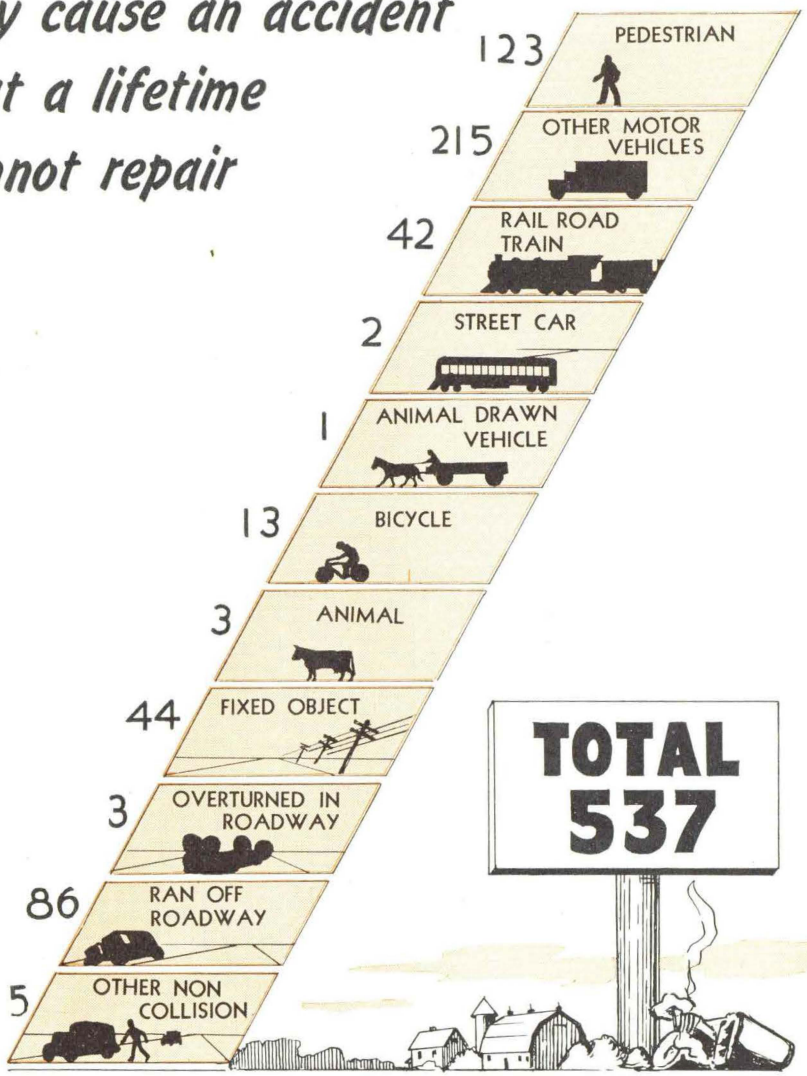
81 animal-drawn vehicles were involved in crashes with motor vehicles with 48 property damage accidents and 1 death.

There were 75 other non-collision type of accidents with a resultant fatality to 5 persons.

FATAL ACCIDENTS

TYPE OF ACCIDENT

A thoughtless moment may cause an accident that a lifetime cannot repair



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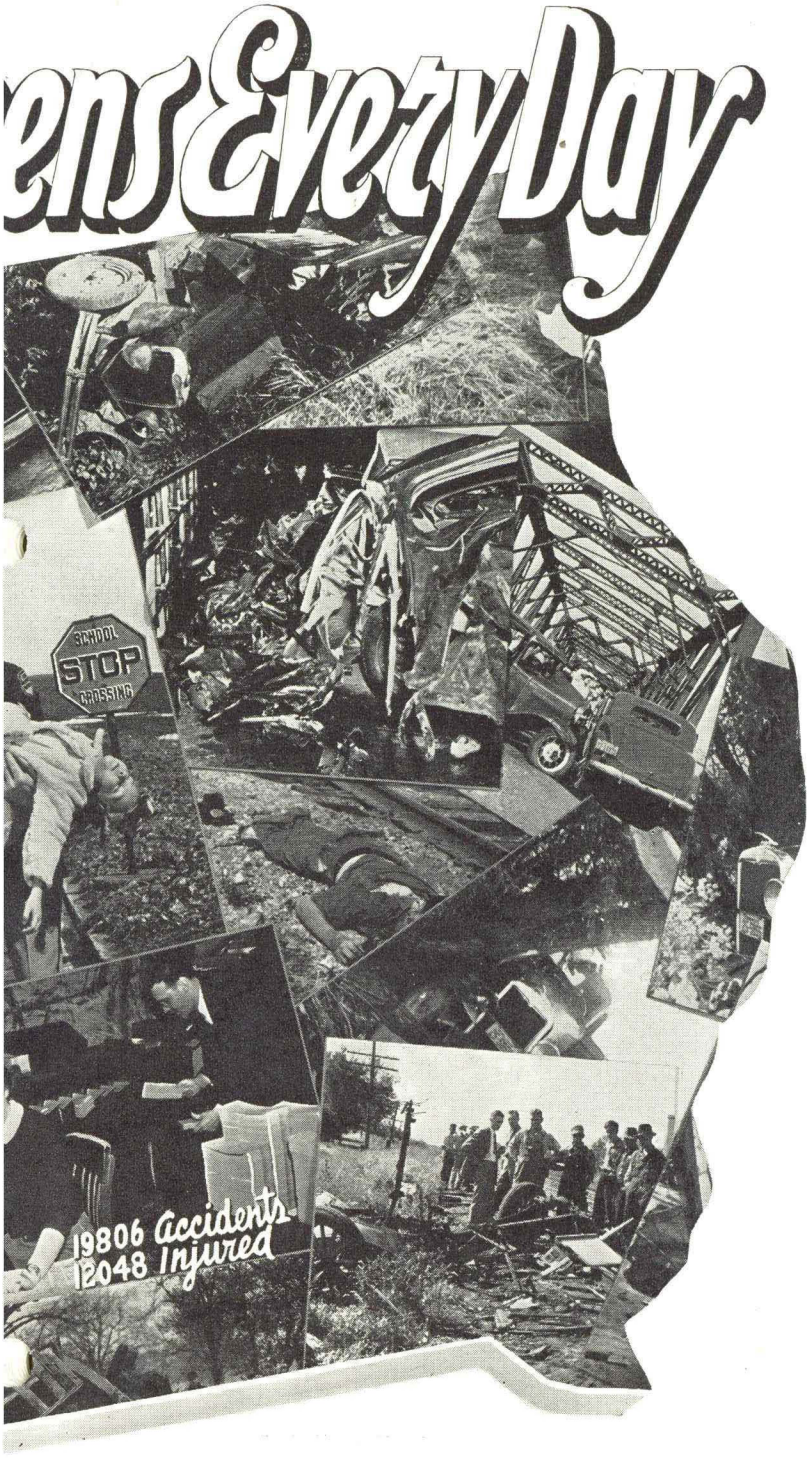

ens Every Day
SCHOOL
STOP
CROSSING
19806 Accidents
12048 Injured

FATALITIES—AGE GROUPS

2,996 persons between the ages of 15-24 were injured by motor vehicles and 106 of them were fatal. Although the injuries to this group were in the lead the percentage of fatalities were not so high as those of the next age group.

The age group from 25-44 suffered 145 fatalities with 2,911 injured. This is the age wherein most of the operators of motor vehicles fall. Thus a study of these two groups show that, although the fatalities were higher, there were far more operators between the age of 25-44 on the highway than any other age division.

The 20 years between 45-64 showed the second highest number of deaths with 126, a total of 1,758 injured. This means that for approximately every 14 injured one was killed and in the ages 25-44, one in 20 died.

The rate of fatalities continues mounting with the age of the person injured as is shown by the fact that 528 persons were injured and 83 of them died. Thus approximately one in six were fatally injured.

Those injured during the first 4 years of life totaled 314 with 18 fatal. One in 17 injuries was fatal.

The ages of grade school children; ages 5-14, showed 1,036 injuries with 35 deaths. One in 29 injury accidents was, thus, fatal.

Thus, the percentage of least fatal accidents occurred between the ages of 5-14, closely followed by the next age group—15-24.

Thus, as the age of the person involved in injury accidents advanced so the mortality rate increased.

The number of males involved in injury accidents was almost two to one over the females; 7,470 males being injured and 4,578 females. Although the number of injuries was only 2 to 1, the fatalities were more than 4 to 1 for the male motor vehicle operator with 436 males losing their lives as against 101 females.

In a further breakdown of facts, we find that 117 children under the age of five were injured while walking. 372 child-pedestrians in the ten year group of 5-14 were injured by motor vehicles. 91 injuries occurred to pedestrians during the next ten year age group.

Thus, 489 children under the age of 16 were injured by motor vehicles in Iowa in 1940. Almost 40% of the total pedestrian injuries happened to children of the school age.

These very obvious facts point out that the danger to Iowa's children is a definite problem and every community should be aware of this hazard.

FATAL ACCIDENTS

AGE GROUPS

	0-4	5-14	15-24	25-44	45-64	65 OR OVER	NOT STATED
PEDESTRIAN	9	13	7	14	35	42	3
OTHER MOTOR VEHICLES	4	6	46	72	49	23	15
RAIL ROAD TRAIN	2	2	12	8	11	5	2
STREET CAR				2			
ANIMAL DRAWN VEHICLE						1	
BICYCLE		8	3	1	1		
ANIMAL		1		1	1		
FIXED OBJECT	2	1	13	12	12	4	
OVERTURNED IN ROADWAY			1	1	1		
RAN OFF ROADWAY	1	2	24	32	15	8	4
OTHER NON COLLISION		2		2	1		
	18	35	106	145	126	83	24

MALE 436

FEMALE 101

total 537

The Price of Safety Is Eternal Vigilance

FATAL ACCIDENTS—EXPERIENCE OF DRIVERS

There was a total of 32,947 drivers involved in Iowa's 19,853 accidents. Of this total 13,564 had 11 or more years of driving experience. 8,678 of these accidents involved property damage.

Those learning, under instruction were involved in only 34 accidents with no fatalities and 21 property damage accidents resulted from this type of driver.

423 accidents were had by those with less than a year's experience. These accidents resulted in 3 fatalities.

Although the first essential of safe driving is common sense, the chart on the next page points out the fact that familiarity breeds neglect as the experience of the driver grows.

Drinking Drivers

According to accidents reported, 357 drivers were obviously drunk at the time of the accident. 326 were drinking and their ability was impaired. 597 were reported as drinking but with ability not impaired and 590 with the condition not known as to physical impairment. A total of 1,870 accidents were, thus, attributed to persons under alcoholic influence. 55 drivers that had been drinking were involved in 51 fatal accidents. One in twelve accidents was charged to a drinking driver while one in nine was fatal.

Of the 32,947 drivers involved in accidents 1,433 of the drivers were physically defective. Apparently asleep, attributed the greatest number of accidents with 213 being reported. Of these 8 were fatal. Blinded by headlights came next with 154 and 3 fatal.

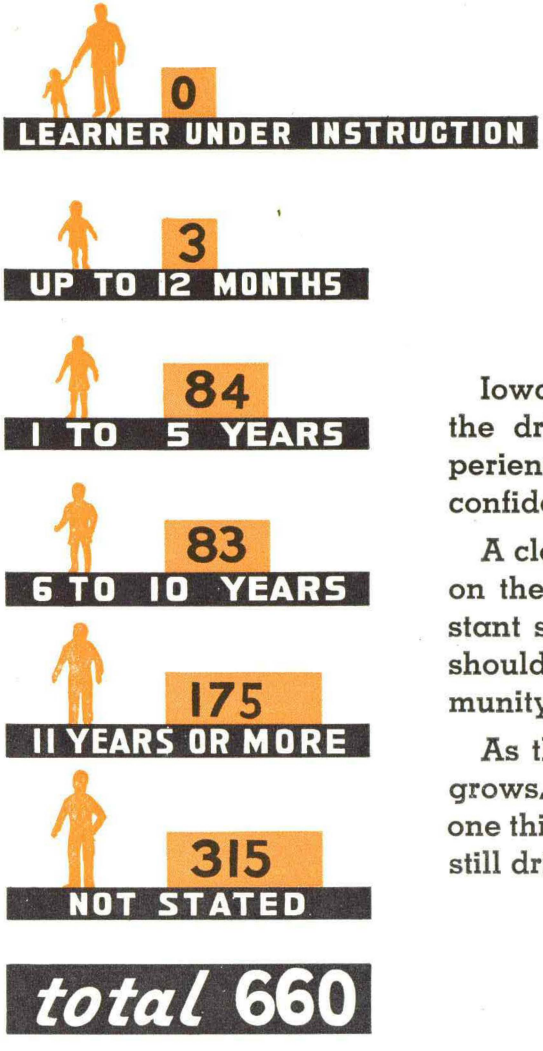
1,143 accidents were reported wherein there was vehicular vision obscurement, and 1,605 drivers involved in accidents reported vision obscurement. Of this total 1,417 drivers had the vision obscured by rain, snow, etc. on the windshield. 162 otherwise had their vision blurred, while 12 were reported as obscured by a load on the vehicle.

Accidents reported caused by highway vision obscurements were 961 with vision obscured by a hillcrest leading with 254. This was closely followed by vision hampered by trees, crops, bushes. etc., with 236. Next in line came parked cars with 137. 125 moving cars obscured vision and embankments followed with 111. Buildings came next with 86 and signboards, etc., came last with 6. All other causes attributed 6 accidents.

30 fatal accidents were caused by highway vision obscurement.

FATAL ACCIDENTS

EXPERIENCE OF DRIVER



Iowa's problem shows that the driver with considerable experience is apt to become overconfident and careless.

A close study of the facts shown on the chart, indicate that a constant safety educational program should be instituted in each community.

As the experience of the driver grows, seemingly he is thinking one thing and doing another while still driving.

FATAL ACCIDENTS—TYPE OF ROAD SURFACE

The better the road the more traffic accidents. In Iowa in 1940 almost one-half of the 19,835 accidents were on concrete roadways. 9,931 accidents were reported on this type of road surface. 5,852 of them caused property damage.

2,969 on unoiled gravel, 2,832 on brick and 2,671 on asphalt or bituminous closely followed each other in number of accidents. Property damage results were different, however, as unoiled gravel was in last place with 1,523 as against first place in number. Property damage on brick and asphalt or bituminous remained in the same order with 1,914 being charged to brick as against 1,830 on asphalt or bituminous.

A great drop in number of accidents then took place with sand or dirt—unoiled roadways resulting in 648 accidents with over 347 causing property damage.

A drop of almost 500 to sand or dirt roadways—oiled. 187 accidents happened on this type of roadway in 1940. 106 of these were property damage accidents.

Of all types of roadway showing no fatal accidents with only 29 accidents came "gravel-oiled."

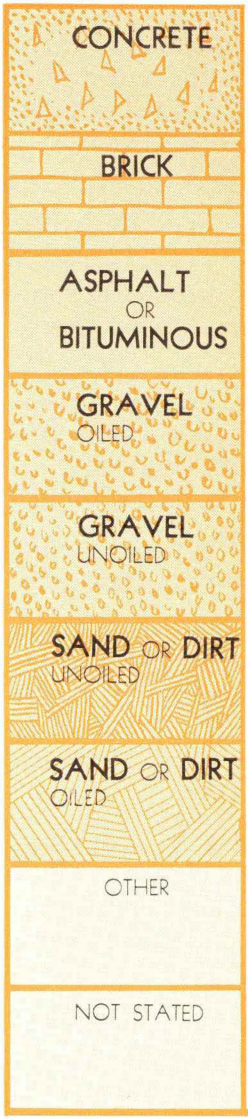
All other types of roadways and those not stated caused 568 accidents.

The number of accidents occurring on good highways and in spots not dangerous further points out the fact that when attention is divided the accidents multiply.

To point out one direct cause of so many accidents on Iowa's concrete highways, it is desirable to look at the picture as a whole and realize that a program to eliminate inadequate sight distances, inadequate width, better shoulders for our concrete highways, improvement of curves, elimination of narrow bridges, improved traffic signs, and countless other improvements are to be made to help reduce this ever mounting toll of accidents occurring on the highways of Iowa.

FATAL ACCIDENTS

TYPE OF ROAD SURFACE



265	12,763 accidents occurred on Iowa's 5,209 miles of paved highway in 1940. 290 fatal accidents resulted.
25	2.4 accidents per mile of paved roadway and a fatal accident for approximately every 20 miles of pavement fell to the lot of Iowa in 1940.
25	Accidents on the 671 miles of asphalt or bituminous highways totaled 2,671 with 25 of them fatal.
0	Approximately four to the mile and a fatal accident for every 26.8 miles of this type of road surface.
118	118 fatal accidents on the 2,592 miles of graveled roads means that for each stretch of 22 miles one fatal accident occurred.
24	
2	A clear picture of road surface accidents may be summed up in this manner: As we sense danger so the accidents decrease.
1	
19	

total 479

FATAL ACCIDENTS—HOUR

Of the total of 19,835 accidents in Iowa in 1940, 8,305 happened between the hours of 6:00 p. m. and 6:00 a. m. while 10,836 occurred between the hours of 6:00 a. m. and 6:00 p. m. 694, time not stated.

Fatal accidents during the night hours, however, were in the lead, 245 to 223. Eleven not stated.

Property damage resulted in 6,770 accidents during the daylight hours while 5,154 were property damage accidents during the night hours.

Although the number of accidents were more numerous during the daylight hours, the percentage of fatal ones were far less than those in the night. The percent of fatal accidents was 2.9 at night against 2.07 during the daylight hours.

During the hours of darkness every thirty-first accident proved fatal while the hours of daylight had a fatal accident for every 49th crash.

The hour between 5:00 and 6:00 p. m. was the most fatal to motor vehicle operators with 1,505 accidents of which 44 were fatal.

The hours 4:00 to 5:00 a. m. and 6:00 to 7:00 a. m. were tied for the lowest number of fatal accidents with three each although 6:00 to 7:00 a. m. had a total of 232 accidents and 4:00 to 5:00 a. m. had 150. 148 between 5:00 and 6:00 a. m. had the least.

4:00 to 8:00 p. m. were the most dangerous hours to the operators of motor vehicles. 146 fatal accidents occured during these hours.

The hour just before midnight was the most fatal of all as to the percentage of fatal accidents. 3.4% of all accidents were fatal which happened in that hour. This was just 1% above the day's average which was 2.4% fatal for the total number of accidents.

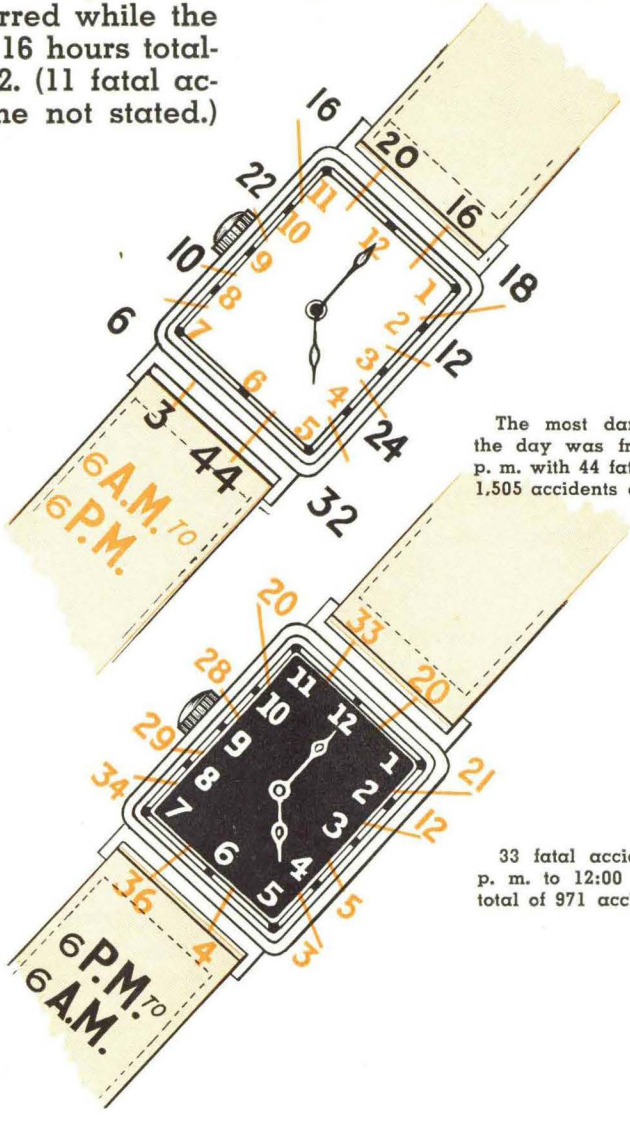
Slightly more than 60% of all accidents resulted in property damage with the highest percentage of property damage between the hours of noon and 1:00 p. m. The property damage during this hour was more than 6% above the average with 67.67% of all accidents resulting in property damage.

The hour resulting in the least percentage of property damage was from 4:00 to 5:00 a. m. with a percentage more than 6% below average. The difference between the high and low was thus more than 13%, 67.67% the high—54% the low.

FATAL ACCIDENTS

Slow down at Sundown... HOUR

As is pointed out by the faces of the two watches, the traffic hazard mounts as darkness approaches. By a check on the hours from 4:00 p. m. to midnight, we find that 256 fatal accidents occurred while the remaining 16 hours totaled only 212. (11 fatal accidents, time not stated.)



The most dangerous hour of the day was from 5:00 to 6:00 p. m. with 44 fatal accidents and 1,505 accidents of all types.

33 fatal accidents from 11:00 p. m. to 12:00 midnight with a total of 971 accidents.

FATAL ACCIDENTS—ROAD SURFACE CONDITIONS

11,789 of Iowa's total of 19,835 accidents happened on dry roads. Fatal accidents resulted. 6,528 property damage accidents were charged to dry roads and resulted in 334 fatal accidents.

2,523 accidents with 1,556 property damage accidents and 63 fatal accidents were the result of wet road surfaces.

Muddy road surface conditions were attributed with causing 3,593 accidents of which 47 were fatal. 2,552 of these accidents resulted in property damage.

1,440 accidents on snowy roads led to 1,009 property damage accidents with 22 of them fatal.

Condition of the road surface was not stated on 337 accidents and 8 fatal accidents had no report of the road condition.

19,248 accidents occurred in Iowa in 1940 where there were no road defects. These resulted in 466 fatal accidents, thus leaving 12 with road defects as the cause. One reported fatal accident did not give the road condition.

Loose surface material—gravel, etc.—was charged with 10 of these fatal accidents and the remaining two were charged to holes, ruts, etc.

3.09% of all accidents attributed to loose surface material were fatal and this was considerably higher than the total average of the state, which was 2.41%.

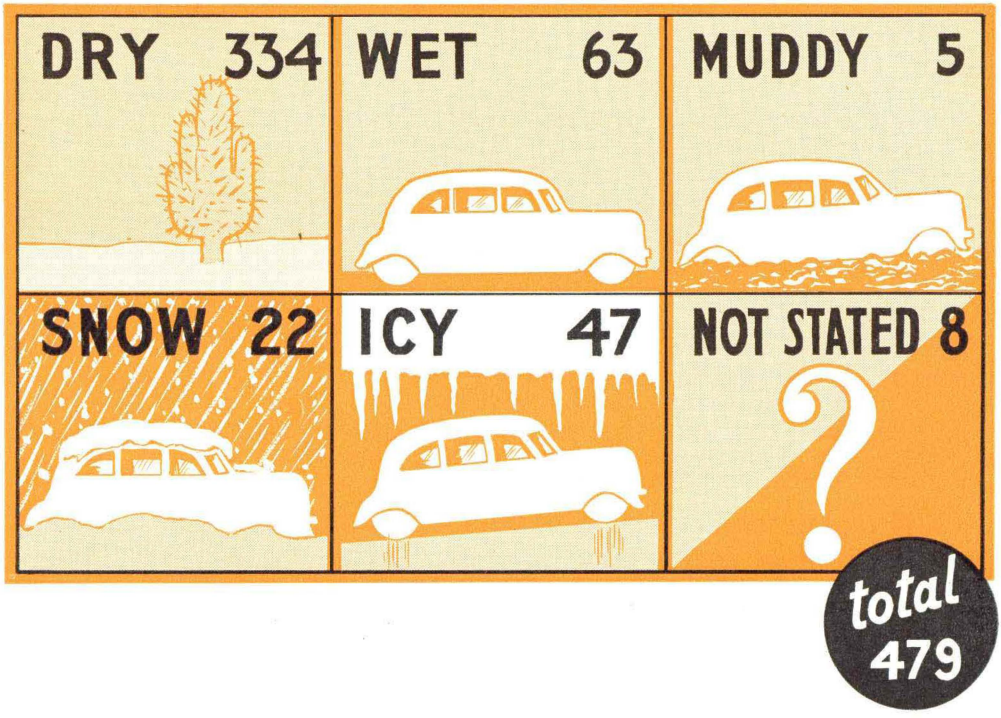
582 accidents were attributed to road defects during 1940.

The chart on the opposite page thoroughly points out that the lure of the open highway plus good roads, ideal driving conditions, added to the human element of carelessness, means greater danger.

FATAL ACCIDENTS

ROAD SURFACE CONDITIONS

That the sense of danger reduces accidents is clearly pictured in the chart below:



A definite need of increasing application of the three E's of traffic safety is shown by the above.

334 of Iowa's total of 479 fatal accidents occurring under road surface conditions that showed roads dry and only 12 fatal accidents occurring wherein a road defect was shown, places the problem of education and enforcement squarely before all interested in traffic safety.

FATAL ACCIDENTS—CHARACTER OF ROADWAY

16,983 accidents occurred on straight roads in Iowa in 1940. Of these 384 were fatal and 10,379 resulted in property damage.

26 fatal accidents happened at a sharp curve or turn out of 927 accidents. 468 of these caused property damage.

On other curves, not sharp, 878 accidents and 32 fatalities resulted, 446 being with property damage.

Level roads were responsible for 13,816 accidents, of which 294 were fatal.

Hillcrests accounted for 604 accidents and of these 19 were fatal.

3,560 happened on a grade and 106 were fatal.

60 fatal accidents did not have the character of roadway reported.

The percentage of fatal accidents of all types, in the state of Iowa in 1940, was 2.41. Curves, not sharp, with 3.64 fatal accidents was the highest and those occurring on a level road with 2.13 was the lowest.

Straight roads, with the greatest number of accidents, resulted in a percentage of 2.26 fatal.

Hillcrest percentage of fatal accidents came to 3.15 and closely followed those which happened on curves.

1,047 accidents failed to have the character of roadway on the report.

We find that the greatest number of fatal accidents occurred in the open country, 329 being thus charged.

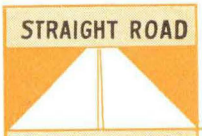
With 4.09% of these accidents fatal it was far higher than the state average of 2.41, being almost 2% greater.

No fatal accidents were reported as occurring in school and playground districts.

The percentage of fatal accidents climbed gradually from a low of 1.2% in manufacturing and industrial districts to the open country high.

FATAL ACCIDENTS

CHARACTER OF ROADWAY

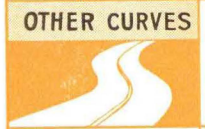


384

The straighter the road, the better the driving conditions, the greater the number of accidents.

26

Need of educating the driver of motor vehicles to the danger of relaxing, excessive speed, driving fatigue, etc. is called to the front by the number of accidents occurring on straight roads.



32

37

Improvement of highway curves and better markings is indicated by the number of fatal accidents occurring on them.

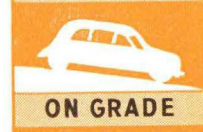
total 479

294

The hazard of the level road, plus the temptation of excessive speed, is shown by the number of fatal accidents on this type of road.

19

Education of the dangers of passing at hillcrest should be brought to the front.



106

60

Passing on grades, disregard of signals, were a direct cause of a great number of fatalities as is shown by the chart.

total 479

FATAL ACCIDENTS—APPROXIMATE SPEED

Day by day, week by week, month by month, little orange cards go through the tabulating machine at the Iowa State Capitol, showing the many and various types of Iowa accidents. Each card with its code means one accident. Speed, that almost unknown factor in every accident, lurks in the background.

Iowa's statistics point out that, with the increase of speed, the far greater chance of death.

1,451 drivers of motor vehicles involved in accidents, were reported to have been at a stand-still. Eleven were involved in fatalities.

The greatest number of drivers reported their speed from 6-10 miles per hour when involved in an accident. 5,877 were so reported.

115 drivers admitted they were driving at a speed in the excess of 60 miles per hour when they met with an accident. Eleven were involved in fatal accidents.

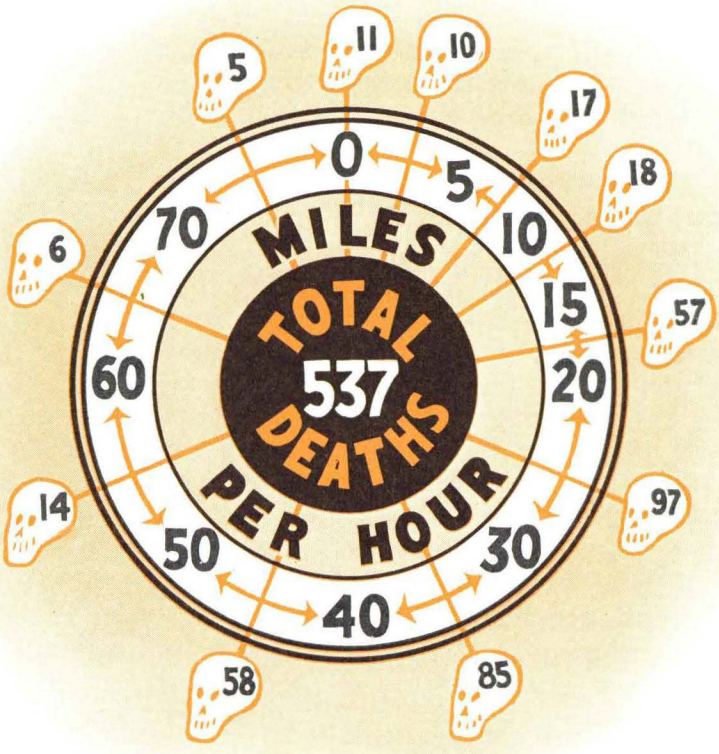
The danger of speed is shown by the following:

	Drivers' Fatal Accidents	Per cent by Speed
1. Standing still (excl. proper park'g location)	11	1.6
2. 0- 5 miles per hour	10	1.5
3. 6-10 miles per hour	17	2.6
4. 11-15 miles per hour	18	2.7
5. 16-20 miles per hour	57	8.6
6. 21-30 miles per hour	97	14.7
7. 31-40 miles per hour	85	12.9
8. 41-50 miles per hour	58	8.9
9. 51-60 miles per hour	14	2.1
10. 61-70 miles per hour	6	.9
11. 71 miles and over	5	.8
12. Not stated	282	42.7
Total	660	100

The above clearly points out that the **chance** of the driver decreases with the speed of the motor vehicle at the time of the accident.

FATAL ACCIDENTS

APPROXIMATE SPEED



Speed, too often, is fatal.

Speed "too fast for conditions" is nearly always a contributing factor in almost every motor vehicle accident.

660 drivers of motor vehicles in Iowa were involved in 537 deaths on the highways during 1940. Although the greatest number of fatal accidents were reported to have occurred between the speed of 20-40 miles per hour. The above figures were given by drivers as to their speed just prior to impact, but the human element of speed judgment must be taken into consideration and still that "vital" element of speed is comparatively impossible to determine.

The speed of accidents in the cities is less than that in the country because cars travel faster on the open highways.

282 drivers of motor vehicles involved in fatal accidents did not report their estimated speed.

FATAL ACCIDENTS—LIGHT CONDITIONS

11,179 of Iowa's 19,835 accidents happened in daylight. These resulted in 212 fatal accidents and 7,012 of them were property damage.

22 fatal accidents from 743 at the hour of dusk and 445 of these were property damage.

7,751 accidents during the hours of darkness which resulted in 243 fatal ones.

61 accidents and one fatal accident did not have the light stated.

78 of the 193 hit and run drivers were apprehended while, out of the five fatal accidents caused by hit and run drivers only one was apprehended, according to the annual statistical report.

Of the 25 active radio calls to the Highway Patrol, 20 hit and run drivers were apprehended.

National statistics show that darkness is a cause of accidents as the fatal accident rate per mile of travel is three times as high during the night as during the day. In Iowa there was almost three times the percentage of fatal accidents during the night as there was during the day. Fatal night accidents have been steadily increasing during the past decade while fatal accidents during the day time have been slowly decreasing. A great number of pedestrian fatalities occur between the hours of 6:00 p. m. and midnight.

It must be pointed out that, in Iowa, during the four months from October to January, inclusive, there are about three and one-half hours less daylight than during the other months. Most of this extra darkness comes during the hours when traffic is heaviest. Thus, it is possible to trace the increased fatalities from the hours 5 p. m. to 6 p. m., wherein 44 fatalities occurred, to the hours of darkness or dusk.

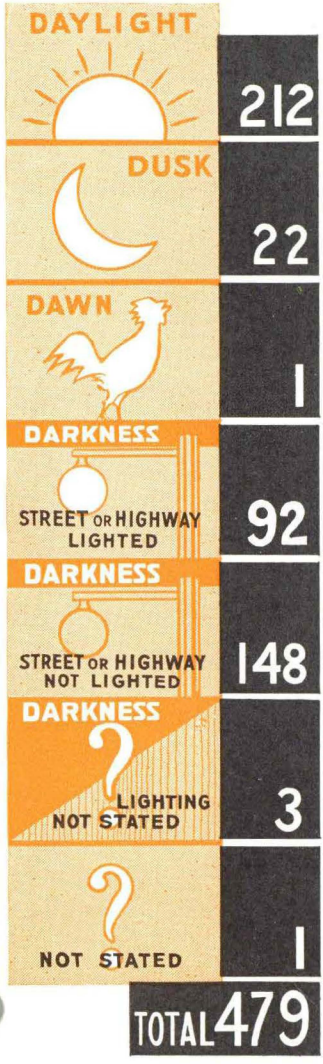
Although the number of accidents were more numerous during the day the percentage of fatal ones was 1.9 as against 3.2 fatal during the hours of darkness.

In a study of the different violations causing fatal accidents, the violation "not under control" led with 118 fatal accidents. Next on the list came, on the wrong side of the road with 79 fatal ones charged to this kind of violation. This was closely followed by 73 who did not have the right-of-way and exceeding safe speed with 42.

In the Miscellaneous actions causing fatalities "where the vehicle skidded" led with 57 fatal accidents being thus charged.

FATAL ACCIDENTS

LIGHT CONDITIONS



Driving today requires skill, alertness, steady nerves and constant attention.

During the daylight hours 212 of the 479 fatal accidents occurred. Many contributing factors entered into these accidents such as driver fatigue, excessive speed, and countless other factors.

The remainder of Iowa's 479 fatal accidents can be charged to the hours of darkness or dusk and so call to the attention of all the need of stricter enforcement so as to increase safe driving during the hours of night.

FATAL ACCIDENTS—WEATHER

Accidents which happened on clear days were almost ten times those which occurred on rainy or snowy days. They were four times more numerous than on cloudy days.

12,283 accidents occurred in clear weather, 3,451 in cloudy weather, 1,378 when raining and 1,342 when snowing. 432 accidents happened during foggy weather.

We also find that out of the 660 persons driving motor vehicles which were involved in fatal accidents 596 of them were residents of urban areas, 48 of rural areas, and 16 not stated.

398 lived within 25 miles of the location of the accident. 168 lived elsewhere in the state, while 83 were non-residents. The residence of 11 was not stated.

607 males were drivers of motor vehicles involved in fatal accidents, 43 were females and 10 were not stated.

These accident facts have, thus, pointed out the need for long term planning. That traffic control as a permanent activity is of overwhelming importance. This has been pointed out by the facts contained in this book. A general outline of each community program should be planned for a year ahead with the purpose of eliminating causes and reducing accidents from month to month. Real traffic control is not to be obtained in a short time and neither can we be educated to it over night.

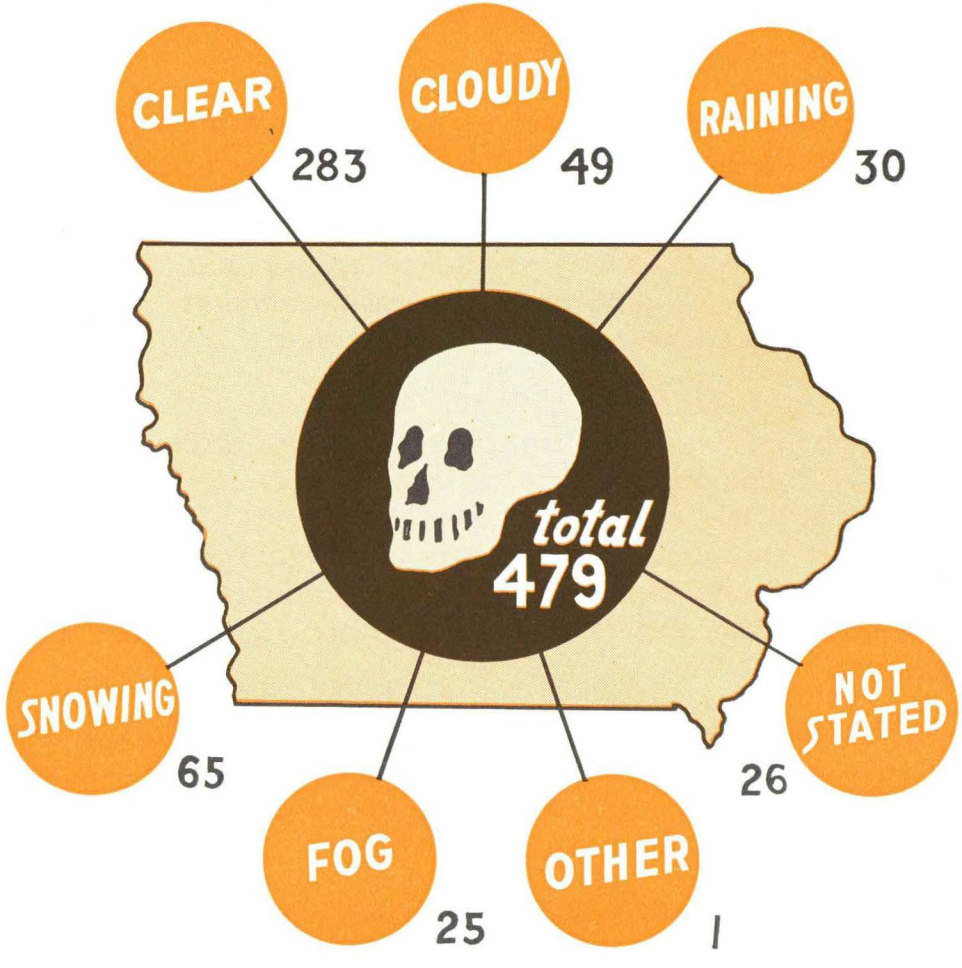
Accidents in Iowa can be reduced by a forthright policy of law enforcement, safety education, and engineering carried out with intelligence which bears in mind that as the causes are reduced so fall the rate of accidents. A study of the charts and diagrams of this book points out what has happened and gives a picture of the obstacles that traffic enforcement agencies have to overcome.

FATAL ACCIDENTS

Driving any day has its hazards

WEATHER

479 fatal accidents in Iowa in 1940 are divided as to the type of days in the chart below. Clear days were by far in the lead with 304 followed by days which were snowy with 65.



SAFETY EDUCATION

PAUL F. HILL
Director of Safety Education

Iowa has a well balanced, coordinated safety program with the Iowa State Safety Council, The Governor's Traffic Safety Commission and the Iowa Department of Public Safety, each taking a definite responsibility in the state wide accident reduction program.

The Iowa State Safety Council's three point program for the year is namely: (a) A study of the safety needs of each county and the application of the best county program to assure the greatest results. (b) More strict enforcement with all violators treated alike. (c) More stress be placed on Safety Education in the schools.

The program is well under way and results are sure to be visible before many months.

The Governor's Traffic Safety Commission, composed of eight leaders in the field of safety, renders without charge to the state, a very valuable guiding and supervisory service to state and local agencies operating in the field of safety.

The Iowa Department of Public Safety through its Safety Education Division makes possible the field and office personnel of 10. With this personnel, Iowa has, besides the director four well trained field supervisors, a women's club representative, a publicity man, and an office personnel qualified to meet the many requests made from the public and private schools, service clubs, peace officers, and many other organizations over the state.

In the field of education many of the larger universities and colleges conduct courses in traffic safety. In recent years a growing number of public schools have offered courses in Highway Safety to their students.

Of the three E's of motor vehicle traffic safety education—public enlightenment—is the forerunner of any successful safety

movement. A complete program of safety education reaches the individual driver and informs the public of the causes of accidents. It creates a demand for traffic engineering improvements. It creates acceptance of a better law enforcement program. It points out that many of the accidents are needless, that they result from carelessness, that many of the traffic accidents are directly the result of the individual driver, and that with properly developed public support, local governments will be enabled to do a much more intelligent job about motor vehicle traffic safety.

Engineering, Enforcement, and Education are controllable factors but the driver is not so readily controlled. Unless the driver cooperates to his utmost, assumes his individual responsibility in a problem that is his, unless the pedestrian cooperates to his utmost, assumes his individual responsibility in a problem that is his, both are placing a question mark upon his own future and, not only his own life but upon the life of his fellow man.

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