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Who Are the Fatal Accident Drivers in Iowa?

By C. O. SWANSON and A. R. LAUER

Abstract. A study of accident drivers in Iowa for five years reveals that fatal-accident drivers are mostly men. The 20-24 year and the 60-64 year groups show an excess of accident drivers. Five per cent of drivers did not carry a license. Out-of-state drivers have twice as many accidents as expected.

Various estimates have been made on the percentage of Iowa drivers on the roads as compared with that of the out-of-state cars. This varies with the section of the state and with the particular road studied. Along the borders of the state a higher percentage of drivers are probably carrying out-of-state licenses. On the country roads in the center of the state practically all would be expected to be in-state drivers. On the main truck lines carrying national traffic one would find a higher percentage of out-of-state cars.

In 1957 there was a total of 114 out-of-state drivers involved in fatal accidents. About 95 per cent were male and 5 per cent female. There were 715 Iowa resident drivers involved in fatal accidents.

The percentages are about 86.3 per cent resident compared with 13.7 per cent nonresident. It was not expected that this percentage of nonresident fatal accident drivers in the state would be so high. At least the percentage of miles driven would probably be much less and some offhand estimates placed the out-of-state car mileage at something around one per cent or less.

In one study by the Iowa Highway Commission it was found that about 6.8 per cent of mileage generated in the State of Iowa is by foreign cars, that is, cars registered outside of the state. This is higher than our original estimate by informed persons, but is the most reliable data available. It may not be a true picture of the drivers generating the miles, however, over a period of time.

METHOD AND PROCEDURE

Since some students of traffic are inclined to blame accidents on certain age groups, out-of-state drivers, drunken drivers, etc., it was thought worthwhile to analyze data from the state files in Iowa to see whether out-of-state drivers have more than their share of accidents.

The method used was that of analyzing the data for 1952, 1953, 1954, 1956, and 1957, and breaking down the fatal-accident group into resident and nonresident drivers. These groups were tabulated

into five-year age groups ranging from 14 to 85 and over. The data were then tabulated and are shown in Tables 1, 2 and 3.

Table 1
Driving Records of *Male* Iowa Drivers Involved in Fatal Accidents During 1957¹

| Age Group | Drivers with no previous record of accidents and/or violations | Per Cent of all | Drivers with a previous record of accidents and/or violations | Per Cent of total | Total number of drivers involved in fatal accidents | Per Cent Iowa Drivers |
|---------------|--|-----------------|---|-------------------|---|-----------------------|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 14 & below | 3 | 0.46 | 1 | 0.15 | 4 | 0.61 |
| 15-19 | 39 | 5.95 | 46 | 7.02 | 85 | 12.98 |
| 20-24 | 27 | 4.12 | 83 | 12.67 | 110 | 16.79 |
| 25-29 | 37 | 5.65 | 51 | 7.79 | 88 | 13.44 |
| 30-34 | 15 | 2.29 | 47 | 7.18 | 62 | 9.47 |
| 35-39 | 33 | 5.04 | 18 | 2.75 | 51 | 7.79 |
| 40-44 | 24 | 3.66 | 22 | 3.36 | 46 | 7.02 |
| 45-49 | 20 | 3.05 | 23 | 3.51 | 43 | 6.56 |
| 50-54 | 18 | 2.75 | 16 | 2.44 | 34 | 5.19 |
| 55-59 | 15 | 2.29 | 16 | 2.44 | 31 | 4.73 |
| 60-64 | 17 | 2.60 | 8 | 1.22 | 25 | 3.82 |
| 65-69 | 21 | 3.21 | 15 | 2.29 | 36 | 5.50 |
| 70-74 | 10 | 1.53 | 9 | 1.37 | 19 | 2.90 |
| 75-79 | 6 | 0.92 | 7 | 1.07 | 13 | 1.98 |
| 80-84 | 1 | 0.15 | 3 | 0.46 | 4 | 0.61 |
| 85 & over | 1 | 0.15 | 3 | 0.46 | 4 | 0.61 |
| Totals | 287 | 43.82 | 368 | 56.18 | 655 | 100.00 |

¹A 1958 sample of all *male* licensees indicates that 30.6 per cent of all drivers have an accident and/or violation record in the files.

Table 2
Drivers by Age and Place of Residence Involved in Fatal Accidents in Iowa During 1957

| Age Group | Iowa Drivers | | Non resident Drivers | | Licensed All Drivers | | U.S. |
|---------------|--------------|-------------------|----------------------|-------------------|----------------------|-------------------|-------------------------|
| | Number | Per cent of total | Number | Per cent of total | Number | Per cent of total | Per cent of all drivers |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| 14 & under | 4 | 0.48 | 0 | 0.00 | 4 | 0.48 | 0.02 |
| 15-19 | 90 | 10.86 | 7 | 0.84 | 97 | 11.70 | 8.07 |
| 20-24 | 114 | 13.75 | 21 | 2.53 | 135 | 16.28 | 11.64 |
| 25-29 | 97 | 11.70 | 13 | 1.57 | 110 | 13.27 | 13.16 |
| 30-34 | 69 | 8.32 | 11 | 1.33 | 80 | 9.65 | 11.97 |
| 35-39 | 57 | 6.88 | 16 | 1.93 | 73 | 8.81 | 10.80 |
| 40-44 | 54 | 6.51 | 14 | 1.69 | 68 | 8.20 | 9.24 |
| 45-49 | 46 | 5.55 | 4 | 0.48 | 50 | 6.03 | 8.54 |
| 50-54 | 40 | 4.83 | 4 | 0.48 | 44 | 5.31 | 7.66 |
| 55-59 | 35 | 4.22 | 9 | 1.09 | 44 | 5.31 | 6.26 |
| 60-64 | 30 | 3.62 | 5 | 0.61 | 35 | 4.22 | 4.94 |
| 65-69 | 38 | 4.58 | 5 | 0.61 | 43 | 5.19 | 3.59 |
| 70-74 | 20 | 2.41 | 3 | 0.36 | 23 | 2.77 | 2.18 |
| 75-79 | 13 | 1.57 | 1 | 0.12 | 14 | 1.69 | 1.36 |
| 80-84 | 4 | 0.48 | 0 | 0.00 | 4 | 0.48 | 0.61 |
| 85 & over | 4 | 0.48 | 1 | 0.12 | 5 | 0.60 | 0.26 |
| Totals | 715 | 86.24 | 114 | 13.76 | 829 | 100.00 | 100.30 |

By reference to Table 2 a comparison is made between the Iowa resident and the nonresident fatal accident drivers. Only the totals can be compared because of the small number of female drivers involved in fatal accidents. With reference to the percentage column of Table 2 at the extreme right, it is shown that of all drivers the 20-24 year individuals have considerably more fatal accidents. The order of magnitude is approximately the same for the resident and nonresident drivers so far as ages are concerned with the exception of the 60-75 year olds. This may be due to the number of retired persons driving through the state.

Table 3
Comparison by Years of Percentages of Iowa and Nonresident Drivers
Involved in Fatal Accidents

| Year | Iowa Drivers | Nonresident Drivers | No License | Not Stated | Total |
|----------|--------------|---------------------------|------------|------------|--------|
| (1) | (2) | (3) | (4) | (5) | (6) |
| 1952 | 79.78 | 14.46 | 5.29 | 0.47 | 100.00 |
| 1953 | 78.74 | 14.96 | 5.77 | 0.53 | 100.00 |
| 1954 | 81.31 | 13.99 | 4.44 | 0.26 | 100.00 |
| 1955 | | (N O T A V A I L A B L E) | | | |
| 1956 | 80.10 | 15.02 | 4.17 | 0.71 | 100.00 |
| Averages | 79.98 | 14.61 | 4.92 | 0.49 | 100.00 |
| 1957 | 82.63 | 12.15 | 4.31 | 0.91 | 100.00 |

Table 3 makes a comparison of five years of the percentages of Iowa and nonresident drivers involved in fatal accidents. This varies from about 80 per cent for 1952, to nearly 83 per cent in 1957. The figure remained fairly constant from 1952 through 1956 and averaged about 80 per cent. It is not entirely clear what these figures indicate but they were fairly consistent. There were a certain number that were not identified as to state or had no license. These percentages remain fairly constant however throughout the period.

Various interpretations may be made from these data but the only valid one seems to be that there has been practically no variation in the percentages of accidents of nonresident fatal accident drivers compared to resident drivers for a five-year period from 1952-1957. It is interesting to note, however, that close to 5 per cent of the drivers did not have a license. Most of them doubtless reside in Iowa. This seems to be a high percentage.

CONCLUSIONS

In an attempt to answer the question as to what per cent of drivers in fatal accidents in Iowa are resident and what percentage are nonresident, a study was made from available sources and the data incorporated into the present paper. Within the limits of the investigation and considering the methods used, only the following interpretations can be given with a reasonable margin of error.

1. Approximately 86 per cent of the fatal accidents in Iowa are due to drivers licensed within the state. Approximately 14 per cent of the fatal accidents in Iowa are occasioned by drivers licensed in other states. Ninety-five per cent of these out-of-state drivers are males.

2. Approximately 93.2 per cent of the mileage generated in the state is done by resident cars; whereas 6.8 per cent is generated by out-of-state cars.

3. This would show slightly over 50 per cent more fatal accidents for out-of-state drivers than would be expected.

4. Approximately five per cent of drivers involved in fatal accidents in Iowa do not have a license. This seems quite high considering the fact all drivers are supposed to have a license.

Literature Cited

Iowa Department of Public Safety, 1958, Accident Records.

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