DRIVING RECORDS OF PERSONS 65 YEARS OF AGE AND OLDER: ARE INSURANCE RATE REDUCTIONS WARRANTED?

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ABSTRACT

There are many elements that constitute the makeup of the automobile insurance premium, the major ones being age, sex, marital status, and the utilization of the automobile.

While the biological aging process places health limitations on drivers age 65 and older, which in turn affect their driving performance and safety, they nevertheless experience fewer accidents than other age groups of drivers.

Additionally, drivers 65 and above comprise the fewest number of motorists of any age category. These motorists, however, do not have the lowest rate for annual vehicle miles of travel, a factor which must be included in an analysis of driving performance.

The rates for total accidents per 10,000 driver miles and fatal accidents per 1,000,000 driver miles are greater for the 65 and above age groups than for many of the other age classifications. When the mileage accident rates for all age groups are computed, it is found that the 65 and above age categories have more accidents per mile than many of the other age groups.

In summary, it is concluded that lower insurance rates for older drivers are unwarranted when age, per se, is used as the evaluative criterion. Insurance companies should give more consideration to factors such as annual vehicle miles of travel, mileage accident rates, etc. in the rate setting mechanism than to mere chronological age.

SUMMARY OF FINDINGS

(1) Age, sex, marital status, and the utilization of the automobile are the major factors considered in composing automobile insurance rates.

(2) Biological aging affects the driving performance of motorists 65 years of age and older.

(3) Efforts should be directed toward including physical health items in license application and renewal forms and in licensing examinations. These items should be likewise considered in insurance rate determinations.

(4) Drivers in the 65 and above age categories are fewer in number and have fewer annual vehicle miles of travel and numbers of accidents when compared with other age groups.

(5) The rates for total accidents per 10,000 driver miles and fatal accidents per 1,000,000 driver miles are greater for the 65 and above age group than for many of the other age categories.

(6) The mileage accident rate for the 65 and above age groups is higher than the rates for many of the other age groups.

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BACKGROUND

The Virginia Highway Safety Commission was asked to request special "good driver" rates from the State Corporation Commission, Bureau of Insurance for older Virginia motorists due to the apparent better driving records of aged drivers. In light of insufficient data on the question, the Highway Safety Commission requested that the Safety Section of the Virginia Highway Research Council investigate available data and report its findings to the Director of the Highway Safety Division.

It is established that automobile insurance companies have premium rate differentials based on the apparent differences in driving records of persons in certain age groups. According to a recent survey of major insurance companies, "drivers under the age of 25 are paying higher insurance premiums than any other age groups."[1] Because drivers 65 years of age and older have fewer accidents, it has been suggested that older drivers are deserving of lower insurance rates.

A review of the literature has revealed that no recent survey has been conducted on the subject of reduced automobile insurance rates for drivers 65 years of age and older. Moreover there has been inadequate data upon which one may base a conclusion as to the feasibility of reduced insurance premiums for the driver 65 years of age and older.

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1. "New Problems in Auto Insurance," U. S. News and World Report, LXIX (July 6, 1970) p. 18.

PURPOSE AND SCOPE

It was the purpose of this study to compare and evaluate the driving records of persons age 65 and older with those of other age groups, to adjust the data for exposure rates (annual average vehicle miles of travel), and to determine if premium rate differences are justified.

The scope of the research was designed to encompass five subelements felt to be of importance in determining an answer to the subject question: (1) a written synopsis of the factors used in determining rates and rate structures by major auto insurance companies, (2) a written summary of known characteristics of the aging process that may affect driving safety and performance, (3) an analysis of data concerning the number of drivers in each age group, and the average annual vehicle miles of travel for each age group, (4) an analysis of available data on accident rates for drivers of different age groups, and (5) an examination, through the use of several tables and graphs, of the mileage accident rates for motorists in various age classifications.

COMPONENTS OF THE AUTOMOBILE INSURANCE PREMIUM

To the average motorists, automobile insurance premiums are an indispensable, but largely misunderstood evil. The driver's primary concern is with the pecuniary aggregate he pays for his particular automobile insurance policy. Precisely how much an individual motorist pays depends on a number of elements, as discussed in the following subsections of this report.

Where the Motorist Lives

Each state is divided into individual rating territories. The boundaries of these districts are designed so that population density and traffic congestion are uniform within each rating territory. The amount of the premiums paid by a car owner is affected by the frequency and cost of accidents caused by drivers who live in his rating territory. For example, if an insured driver from Chicago causes an accident in Miami, it can affect Chicago's insurance rates, but not Miami's. In a sense, rate making is somewhat of a community affair.

Age of Drivers

The age of a driver is the main factor an insurance company considers in issuing an individual insurance coverage for his automobile. Because drivers under the age of 25 cause a large percent of all automobile accidents, they are required to pay costly insurance rates. On the other hand, drivers that are 65 and above pay the minimum insurance rates due to their age and low accident involvement rate.

Sex of Drivers

Research by the National Safety Council shows that, "men have more accidents than women." [2] Since males have the most accidents, and the young have more accidents than older drivers, auto insurance rates for young males are the highest of all.

Marital Status

Among young drivers, those who are married have fewer accidents than those who are not. Therefore, auto insurance rates for young married men are lower than the rates for unmarried men of the same age.

Driver Education

Many young drivers who have completed prescribed driver education courses qualify for premium discounts for several years after they have finished high school.

Individual Safety Records

Statistics reveal that drivers who have been involved in accidents in the past are more likely to have accidents in the future than are drivers with impeccable safety records. As a result, automobile operators with unblemished records receive premium discounts, and those with recent records of accidents or traffic convictions pay higher premiums. Conviction information is placed on the motorist's file in the state's Department of Motor Vehicles. If an insurance agency desires to check up on one of their customer's accident record, they merely have to review the DMV files in the state in which their client has his automobile registered.

2. "How Rates are Made," The Journal of Insurance Information, LX (August 1969) p. 10.

Use of Automobile

Vehicles that are driven to and from work are frequently exposed to accidents because they are in operation at times when traffic is extremely congested. Hence, high auto insurance premiums are imposed upon motorists who drive under these conditions.

Number of Cars in the Family

When a family has two or more cars, each car is usually driven less than an auto owned by a one-car family. For the multi-car family, therefore, the insurance premium for each car is lower than the premium would be for the same car if it were owned by a one-car family.

Type of Automobile

Reports from outside the auto insurance industry have listed the owners of high performance ("muscle cars") as poor driving risks. Various insurance companies have initiated "moves toward increasing coverage rates on muscle cars to reflect their disproportionate contribution to losses."[3] For example, "Nationwide Insurance announced a substantial rate increase on these cars during Congressional hearings last year and numerous other companies have followed suit."[4]

There are literally thousands of possible combinations of rating territories, driver characteristics, and other factors that affect the total cost of an insurance policy. Consequently, these elements create the extensive variances in premium rates for different motorists, and it becomes extraordinarily difficult to compare policy coverage and rates between companies and between individuals.

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3. "Hot Cars Cooling Off?", Insurance Institute for Highway Safety, V (March 3, 1970) p. 2.

4. Ibid., p. 3.

HEALTH CHARACTERISTICS OF THE AGED DRIVER

An examination of the auto insurance rates used for aged drivers necessitates a review of the general physical health characteristics which could possibly affect their driving ability.

Figures from the National Health Survey indicate that "as the population gets older, the number of persons with activity limitations increases."[5] Among those aged 65 and over, an average of 8 out of every 10 persons have one or more chronic conditions, such as arthritis and rheumatism, and 5 out of every 10 have limitations affecting their activities. "These types of illness and/or activity limitations lessen the individual's ability to react with optimal efficiency to novel stimuli and can be an important cause of single car accidents."[6]

The central nervous system depends greatly on the efficiency of arterial functioning. Arterial deficiencies, which occur with age, affect more than just specific "cortical and nervous system functions."[7] These malfunctions may critically impair a motorist's driving behavior. For example, a compression of the vertebrae arteries may be caused in the older driver by a sudden rotation of the head sideways, as is done when looking either into a side view mirror or around to see out the back window. This causes a pinching of these arteries followed by a loss of blood to the brain and results in dizziness and faintness.

Recent discussions have proposed that the use of medicinal drugs, such as sedatives, hypnotics and antihistamines, by the aged driver may impair driving ability. Based on a survey conducted by B. S. Finkle, data revealed that "of 3,857 drinking driver cases, 968 involved drugs reported by arrestee, 371 involved problem drugs (drugs which are unfit for self-medication and requiring a physician's prescription), and 76 involved drugs not reported by arrestee but found by medical analysis."[8] Of all the preceding cases involving drugs, "males in the age group 56-65 accounted for 98 cases, while males over age 65 accounted for 22 cases."[9] Although this would appear to indicate that drug use has not been found to be a major problem for aged drivers in terms of the total driving population, no firm conclusions about drugs and the aged driver can be drawn at this time.

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5. D. R. Davies, Human Aging and Behavior, (New York, 1968), pp. 217-218.

6. Ibid., p. 221.

7. P. Froggat, Annals of Occupational Hygiene, (New York, 1962), p. 54.

8. B S Finkle, Journal of Forensic Sciences, (Chicago, Illinois, 1968), p 241.

9. Ibid., p. 245.

One of the effects of biological aging upon human functioning is the reduction of visual efficiency. A report by Burg indicates that an individual's field of vision is constant to approximately the age of 35, after which it constricts gradually to age 60 and swiftly thereafter.[10] Various studies show that under both daylight and dark conditions, the amount of illumination reaching the retina, after exposure to glare, decreases as a function of age. According to a report by R. A. Weale, the amount of illumination available at age 65 is only approximately one-third of that available to the eye at age 20.[11] In addition, the functional testing of a driver's vision must take into account the ability of the driver to discriminate an object when there is a relative amount of movement between the observer and the object. In a study conducted by O. W. Richards, 141 individuals ranging from 60-90 years of age were checked for vision accuracy at varying levels of illumination. The results show an absolute loss of the ability to see without the usage of sharp background contrasts. "The 60 year olds required almost two and one-half times more contrast than the 20 year old group.[12]

Another effect of biological aging upon human functions is a decrease in hearing ability. In a study by Alexander, King, and Worskow it was found that "40 percent of those individuals over 65 years of age have impaired hearing, with an additional 0.1 percent being totally deaf."[13] This is commonly believed to be a loss in frequency response because of the differential loss in tones in the over 40 group.

Since much of a driver's movement is controlled by external stimuli, the measurement of reaction time becomes an important variable in assessing the capacity of an individual to drive an automobile. With respect to the age-associated characteristics of reaction time it has been shown that as an individual's age increases, his reaction speed decreases. Studies indicate "that both simple and complex reaction time, as measured by instruments that simulate driving conditions, give results consistent with a rise in reaction time as age increases."[14] "The reaction time for the 65 year old group was 14 percent longer than the 25 year old group."[15]

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10. A. Burg, Perceptual and Motor Skills, (Los Angeles, California, 1967), p. 24.

11. R. A. Weale, Transactions of the Illumination Engineering Society, (New York 1961), pp. 95-99.

12. O. W. Richards, American Journal of Optometry, (New York, 1966), pp. 316-17.

13. G. J. Alexander, G. F. King, and M. A. Worskow, Development of Information Requirements and Transmission Techniques for Highway Users, (Deer Park, New York, 1967) 2 volumes.

14. "Age and Complex Reaction," American Automobile Association, Research Report No. 41, (June 1967) p. 21.

15. Ibid., p. 22.

The preceding synopsis of some significant health characteristics of the older driver was designed to show what effects the biological aging process has on the driving performance of the aged driver when considered in the aggregate. The number of persons age 65 and over has increased greatly since the turn of the century. Consequently, the number of drivers in this age category has also increased. As more aged drivers continue to use the highway, it can be assumed that due to the physical impairments of many of these motorists, their accident involvements will substantially increase, which in turn may necessitate a more intensive review of the insurance premiums for drivers age 65 and above.

ANALYSIS OF ACCIDENT RECORDS BY AGE GROUPS

Age and Number of Drivers

In 1969 there were above 107,500,000 drivers in the nation, and about 2,287,755 motorists in the state of Virginia. The approximate numbers of drivers in each age group for the United States and Virginia are presented in Table I.

Annual Average Vehicle Miles of Travel

"The most frequently used measure of overall exposure is annual mileage."[16] Figure 1 displays the median annual miles of travel according to age and sex of the driver. It is readily apparent from the graph that males drive more than females, and that for both sexes, drivers in age groups under 65 drive substantially more than motorists in age categories of 65 years and above. Table II reports in tabular form the median annual miles of travel for each sex and each age group and will be used for analytical purposes later in the report. The sample size used in determining the annual miles of travel for each group was not revealed in the report. This, in turn, could create a fluctuation in the confidence interval used in arriving at the annual miles traveled by each age group. However, since similar information could not be extracted from any other source; it was assumed that the figures are valid, and the drivers utilized in the study are representative of motorists in Virginia and at the national level.

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16. M. E. Condon, An Investigation of the Problems and Opinions of Aged Drivers, (Chicago, Illinois 1968), p. 67

TABLE I

AGE AND NUMBER OF DRIVERS IN THE UNITED STATES AND THE COMMONWEALTH OF VIRGINIA

	United States		Virginia	
Age Group	Number	Percent	Number	Percent
Total	107,500,000	100.0	2,287,755	100.0
Under 20	11,000,000	10.2	187,263	8.2
20-24	11,800,000	11.0	320,174	14.0
25-29	10,800,000	10.0	287,132	12.6
30-34	10,200,000	9.5	235,430	10.3
35-39	10,700,000	9.9	223,590	9.8
40-44	11,300,000	10.5	227,790	10.0
45-49	10,800,000	9.8	225,252	9.8
50-54	9,200,000	8.6	183,588	8.0
55-59	7,800,000	6.8	147,448	6.4
60-64	5,600,000	5.2	108,220	4.7
65-69	4,200,000	3.9	70,653	3.1
70-74	2,900,000	2.7	40,000	1.7
75 and over	2,000,000	1.9	31,212	1.4

Source — Accident Facts; National Safety Council, Chicago, Illinois; 1969, p. 54.

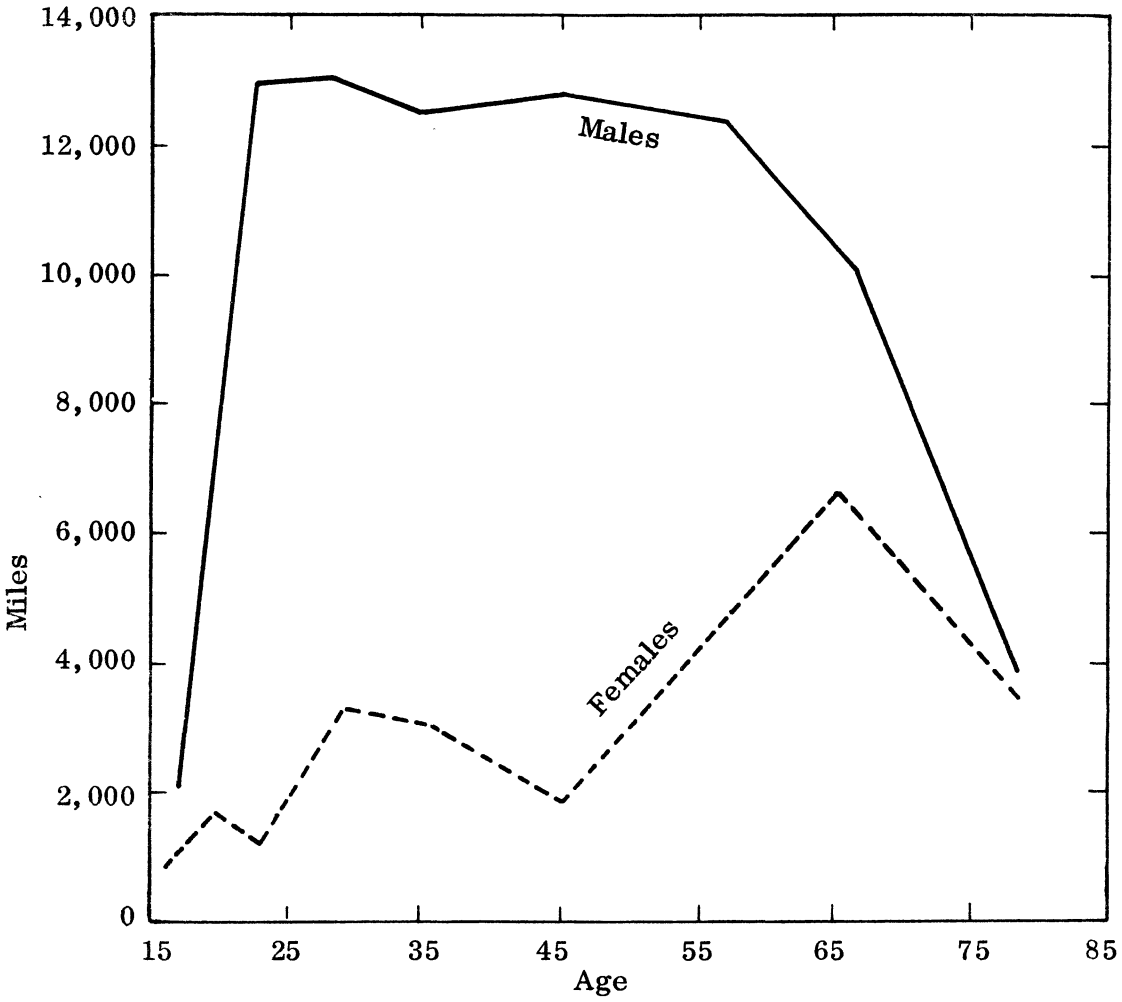

Figure 1. Median annual miles of travel according to age and sex of the driver.

From M. E. Condon, R. C. Fowler, and T. W. Planek, An Investigation of the Problems and Opinions of Aged Drivers, (Chicago, Illinois 1968), p. 6.

TABLE II

MEDIAN ANNUAL MILES OF TRAVEL FOR ALL AGE GROUPS

Age Group	Miles		Median
	Males	Females	
Under 20	3,250	1,250	2,250
20-24	12,750	1,400	7,075
25-29	13,000	2,750	7,875
30-34	12,500	3,000	7,750
35-39	12,350	2,850	7,600
40-44	12,600	2,150	7,375
45-49	12,625	2,250	7,438
50-54	12,250	3,750	8,000
55-59	12,150	4,750	8,450
60-64	11,000	5,900	8,450
65-69	9,750	6,150	7,950
70-74	7,250	5,000	6,125
75 and over	4,150	3,850	4,000

Table II derived from Figure 1.

ANALYSIS OF ACCIDENTS AND ACCIDENT RATES

Tables III and IV depict the number of drivers in each age group, and the accident experience for each group during 1969 for the United States and Virginia. The figures in the last two columns at the right of Table III indicate the frequency of accident involvement for the United States; the higher the number, the higher the involvement.

TABLE III

AGE OF DRIVERS — TOTAL NUMBER AND NUMBER IN ACCIDENTS, 1969

Age Group	All Drivers		Drivers in Accidents					
			Fatal		All		Per No. of Drivers	
	Number	%	Number	%	Number	%	Fatal*	All**
Total	107,500,000	100.0%	70,700	100.0%	26,800,000	100.0%	66	25
Under 20	11,000,000	10.2	10,400	14.7	4,450,000	16.6	95	40
20 - 24	11,800,000	11.0	13,600	19.3	4,800,000	17.9	115	41
25 - 29	10,800,000	10.0	8,400	11.9	3,150,000	11.7	78	29
30 - 34	10,200,000	9.5	7,300	10.3	2,550,000	9.5	72	25
35 - 39	10,700,000	9.9	5,450	7.7	2,300,000	8.6	51	21
40 - 44	11,300,000	10.5	5,450	7.7	2,000,000	7.5	48	18
45 - 49	10,500,000	9.8	5,000	7.1	2,000,000	7.5	48	19
50 - 54	9,200,000	8.6	3,900	5.5	1,550,000	5.8	42	17
55 - 59	7,300,000	6.8	3,200	4.5	1,400,000	5.2	44	19
60 - 64	5,600,000	5.2	2,700	3.8	1,000,000	3.7	48	18
65 - 69	4,200,000	3.9	2,050	2.9	850,000	3.2	49	20
70 - 74	2,900,000	2.7	1,550	2.2	350,000	1.3	53	12
75 and over	2,000,000	1.9	1,700	2.4	400,000	1.5	85	20

* Drivers in Fatal Accidents per 100,000 drivers in each age group.
** Drivers in All Accidents per 100 drivers in each age group.

Source: Accident Facts; National Safety Council, Chicago, Illinois; 1969, p. 54.

TABLE IV

AGE OF DRIVERS — NUMBER OF ACCIDENTS IN VIRGINIA, 1969

Age Group	Number of drivers	Accidents	
		Number of Total	Number of Fatal
Under 20	187,263	14,519	330
20 - 24	320,174	9,348	244
25 - 29	287,132	4,300	97
30 - 34	235,430	4,000	84
35 - 39	223,590	2,850	78
40 - 44	227,790	2,783	75
45 - 49	225,252	2,600	77
50 - 54	183,588	2,004	63
55 - 59	147,488	1,500	58
60 - 64	108,220	1,193	42
65 - 69	70,653	750	45
70 - 74	40,000	516	38
75 and over	31,212	459	64

Source: Virginia Traffic Crash Facts 1969.

Mileage Accident Rates

The preceding tables and graph provide informative data concerning the proposal in question. Table V and Figures 2 - 5 apply this data to its fullest extent by compiling the mileage accident rates for drivers in all age groups who are involved in fatal and nonfatal accidents in both the United States and Virginia. The formula used in obtaining these rates involves the division of the number of accidents for each age group by the median annual miles of travel for each age category, times the number of drivers in each age division. The formula can be pictured in the following manner:

$$\frac{\text{number of accidents for each age group}}{\text{median annual miles of travel for each age category X number of drivers in each age division}}$$

The figures for the fatal and nonfatal accidents for each age group in the United States can be found in Table III. The figures for Virginia were taken from the 1969 edition of Virginia Traffic Crash Facts, and were displayed in Table IV. The median annual miles of travel figures were obtained from Table III and the number of drivers in each group from Table I.

In an attempt to simplify the components of the preceding equation, the figures were reduced to decimal proportions of their original value by dividing through by 1,000. Consequently, each answer is actually equal to its initial value multiplied by $10.^{-4}$. For example, the mileage accident rate for the under 20 age group for fatal accidents in the United States would be equal to $.0021 \times 10^{-4}$ or .00000021, which is equivalent to 2.1 fatal accidents per 1,000,000 driver miles.

Figures 2 - 5 present the mileage accident rates for drivers involved in fatal and nonfatal accidents in the United States and Virginia. The graphs indicate that the mileage accident rate is highest for the 25 and under age groups. For the age groups above 25 and below 65 each rate is relatively low and shows little fluctuation. The rates for the age groups 65 and above are substantially higher than the rates for some of the other age groups. It might also be noted that drivers age 65 and older have a higher mileage accident rate for fatal accidents than for all types of automobile accidents.

TABLE V

THE WEIGHTED MEAN FOR MILEAGE ACCIDENT RATES

Formula: $\frac{\text{Number of Accidents For Each Group}}{\text{Median Annual Miles of Travel X Number of Drivers in Age Group}}$

For All Accidents in U. S. in 1969

Age Groups		Mileage Accident Rate per 10,000 Driver Miles
Under 20	$\frac{4.5}{2.5 \times 10^{-4}} =$	17.9
20 - 24	$\frac{4.8}{8.4 \times 10^{-4}} =$	5.7
25 - 29	$\frac{3.2}{8.5 \times 10^{-4}} =$	3.7
30 - 34	$\frac{2.6}{7.9 \times 10^{-4}} =$	3.2
35 - 39	$\frac{2.3}{8.1 \times 10^{-4}} =$	2.8
40 - 44	$\frac{2.0}{8.3 \times 10^{-4}} =$	2.4
45 - 49	$\frac{2.0}{7.8 \times 10^{-4}} =$	2.6
50 - 54	$\frac{1.6}{7.4 \times 10^{-4}} =$	2.1
55 - 59	$\frac{1.4}{6.2 \times 10^{-4}} =$	2.3
60 - 64	$\frac{1.0}{4.7 \times 10^{-4}} =$	2.1
65 - 69	$\frac{.9}{3.3 \times 10^{-4}} =$	2.6
70 - 74	$\frac{.4}{1.8 \times 10^{-4}} =$	1.9
75 and over	$\frac{.4}{.8 \times 10^{-4}} =$	5.0

TABLE V (continued)

For All Accidents in Virginia In 1969

Age Groups		Mileage Accident Rate per 10,000 Driver Miles
Under 20	$\frac{14.5}{42.1 \times 10^{-4}} =$	3.5
20 - 24	$\frac{9.3}{226.5 \times 10^{-4}} =$	.4
25 - 29	$\frac{4.3}{226.1 \times 10^{-4}} =$	.19
30 - 34	$\frac{4.0}{182.5 \times 10^{-4}} =$	.22
35 - 39	$\frac{2.9}{169.9 \times 10^{-4}} =$	.17
40 - 44	$\frac{2.8}{167.9 \times 10^{-4}} =$	.17
45 - 49	$\frac{2.6}{167.5 \times 10^{-4}} =$	.16
50 - 54	$\frac{2.0}{146.9 \times 10^{-4}} =$	.14
55 - 59	$\frac{1.5}{124.6 \times 10^{-4}} =$	.12
60 - 64	$\frac{1.2}{91.5 \times 10^{-4}} =$	.13
65 - 69	$\frac{.8}{56.2 \times 10^{-4}} =$	.13
70 - 74	$\frac{.5}{24.5 \times 10^{-4}} =$	.21
75 and over	$\frac{.5}{12.5 \times 10^{-4}} =$	.37

TABLE V (continued)

For Fatal Accidents in U. S. in 1969

Age Groups		Mileage Accident Rate per 1,000,000 Driver Miles
Under 20	$\frac{.0104}{2.48 \times 10^{-4}} =$	4.2
20 - 24	$\frac{.0136}{8.35 \times 10^{-4}} =$	1.6
25 - 29	$\frac{.0084}{8.51 \times 10^{-4}} =$	.9
30 - 34	$\frac{.0073}{7.91 \times 10^{-4}} =$	.9
35 - 39	$\frac{.0055}{8.13 \times 10^{-4}} =$	.6
40 - 44	$\frac{.0055}{8.33 \times 10^{-4}} =$	.6
45 - 49	$\frac{.0050}{7.81 \times 10^{-4}} =$	.6
50 - 54	$\frac{.0039}{7.36 \times 10^{-4}} =$	.5
55 - 59	$\frac{.0032}{6.17 \times 10^{-4}} =$	.5
60 - 64	$\frac{.0027}{4.73 \times 10^{-4}} =$	.5
65 - 69	$\frac{.0021}{3.34 \times 10^{-4}} =$	.6
70 - 74	$\frac{.0016}{1.78 \times 10^{-4}} =$	.9
75 and over	$\frac{.0017}{.8 \times 10^{-4}} =$	2.1

TABLE V (continued)

For Fatal Accidents in Virginia in 1969

Age Groups		Mileage Accident Rate per 1,000,000 Driver Miles
Under 20	$\frac{.33}{42.13 \times 10^{-4}} =$	7.8
20 - 24	$\frac{.24}{226.52 \times 10^{-4}} =$	1.0
25 - 29	$\frac{.10}{226.12 \times 10^{-4}} =$	.4
30 - 34	$\frac{.08}{182.46 \times 10^{-4}} =$	.4
35 - 39	$\frac{.08}{169.93 \times 10^{-4}} =$	.4
40 - 44	$\frac{.08}{167.99 \times 10^{-4}} =$	.4
45 - 49	$\frac{.08}{167.53 \times 10^{-4}} =$	.4
50 - 54	$\frac{.06}{146.87 \times 10^{-4}} =$	.4
55 - 59	$\frac{.06}{124.63 \times 10^{-4}} =$	.4
60 - 64	$\frac{.04}{91.45 \times 10^{-4}} =$	.5
65 - 69	$\frac{.05}{56.17 \times 10^{-4}} =$	.8
70 - 74	$\frac{.04}{24.5 \times 10^{-4}} =$	1.5
75 and over	$\frac{.06}{12.49 \times 10^{-4}} =$	5.1

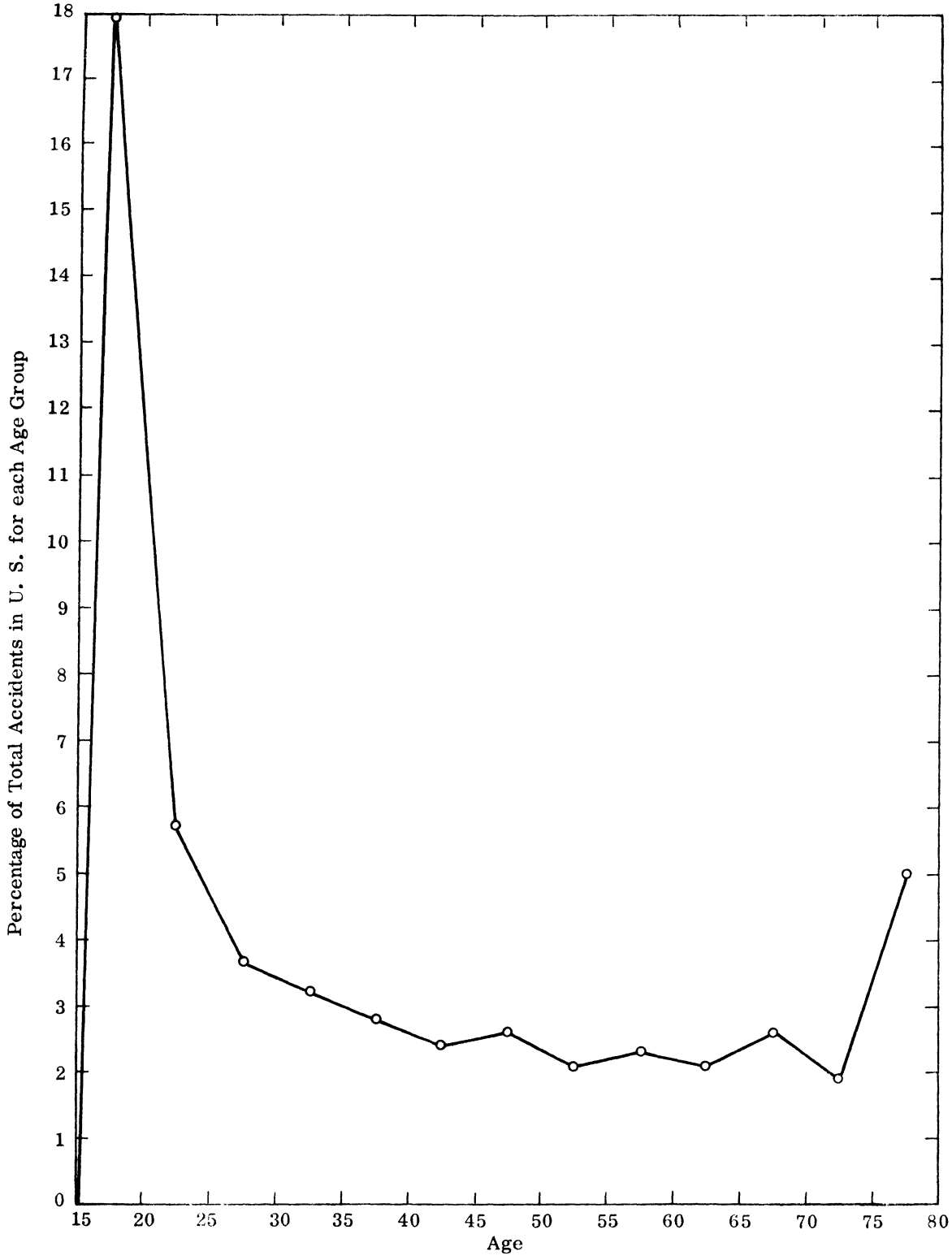

Figure 2. Mileage accident rate for total accidents in the United States.

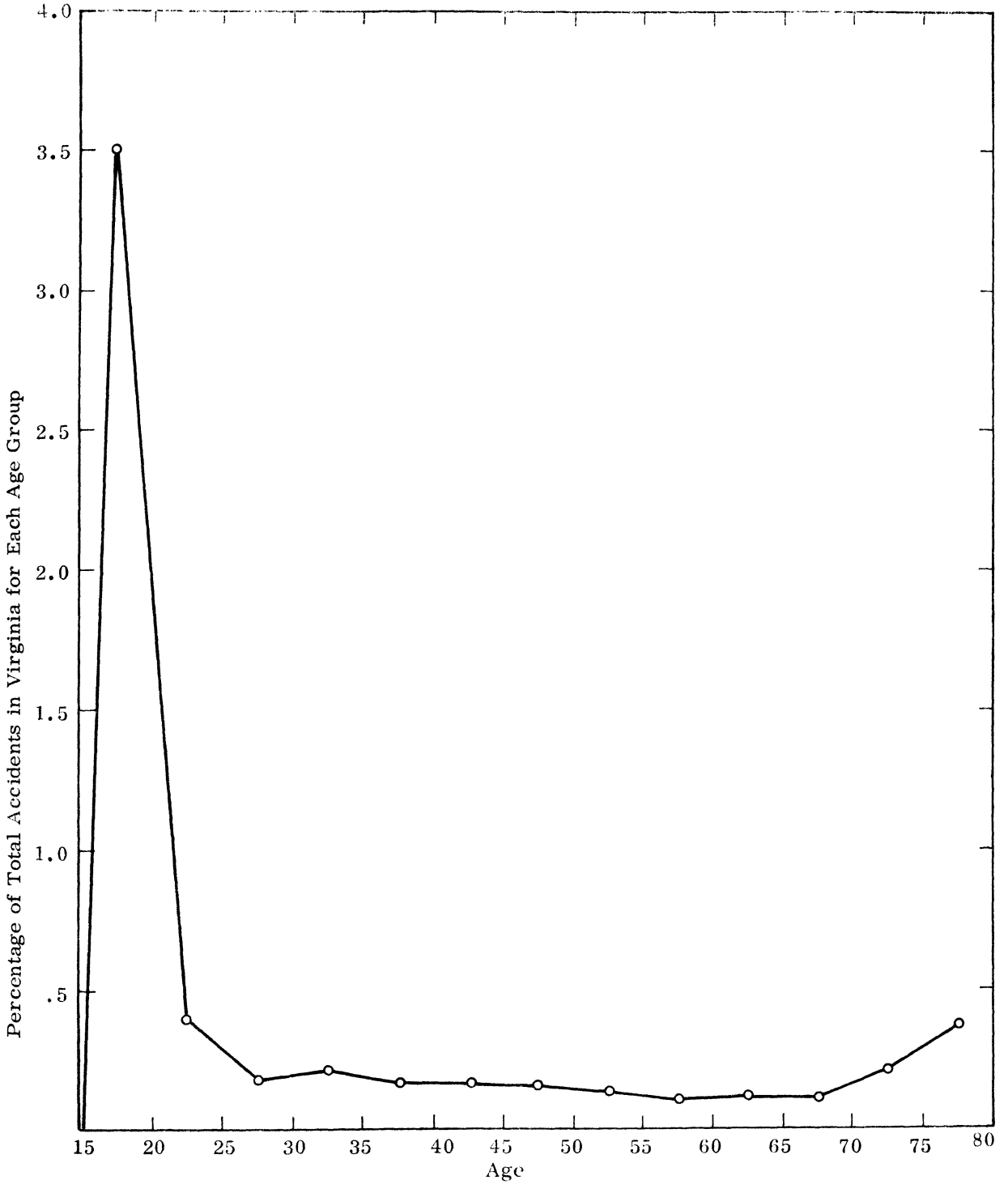

Figure 3. Mileage accident rate for total accidents in Virginia.

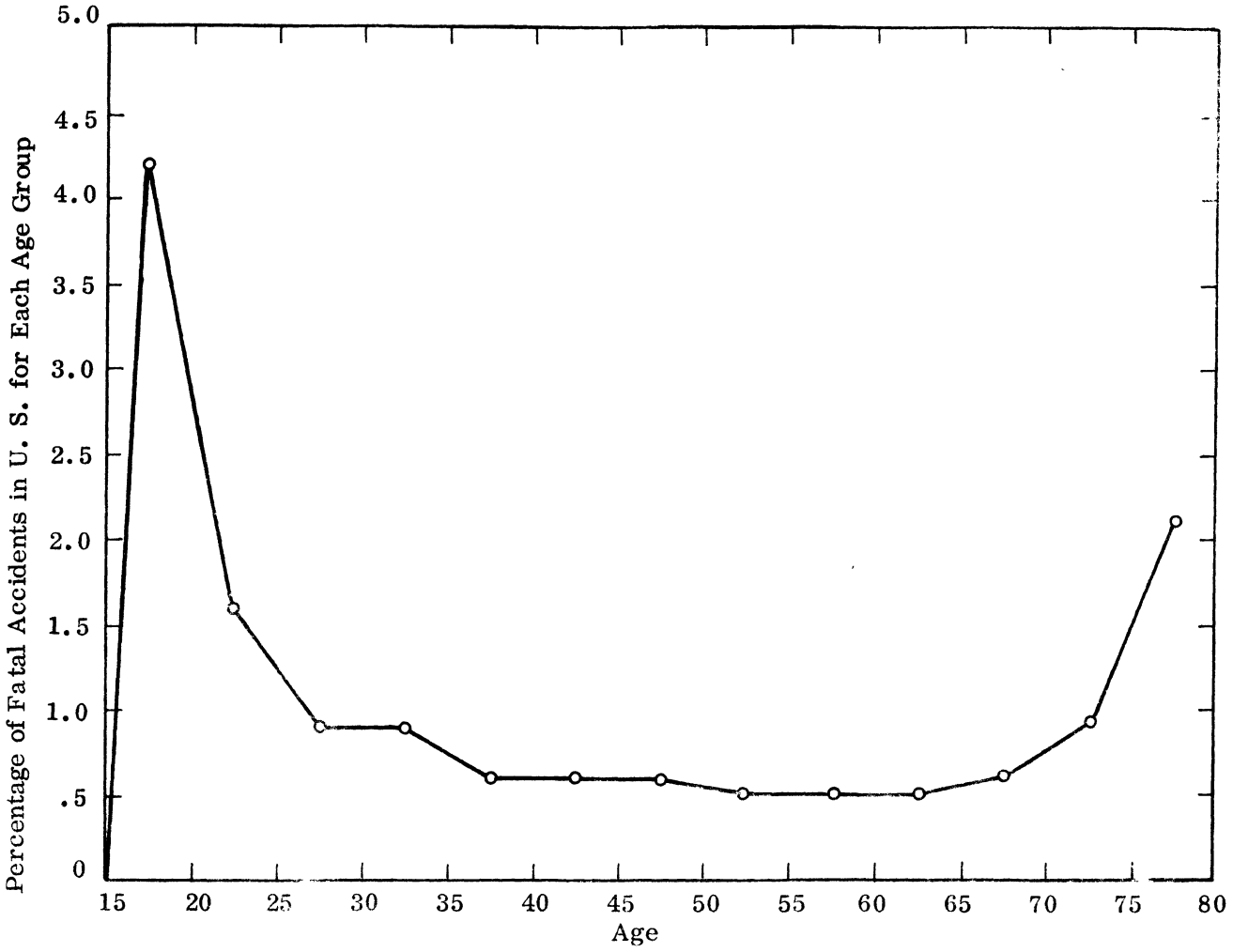

Figure 4. Mileage accident rate for fatal accidents in the United States.

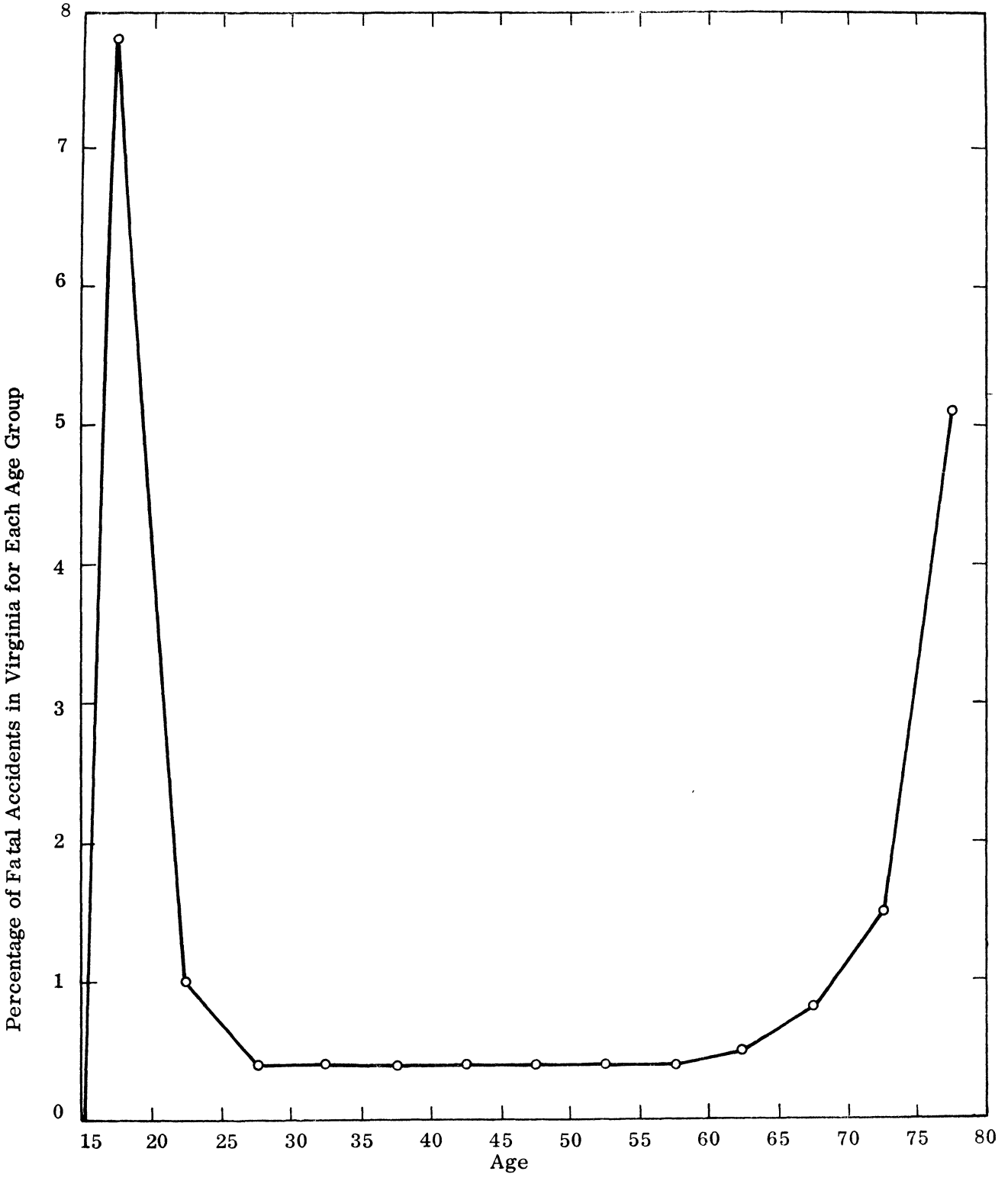

Figure 5. Mileage accident rate for fatal accidents in Virginia.

CONCLUSIONS

Several sources have proposed that, because of their low number of automobile crashes, drivers aged 65 and older ought to be granted insurance rate reductions. This study has disclosed that many insurance companies already grant lower rates to aged drivers because of their current rate making structures, which consider age of driver and usage of the vehicle in fixing premiums.

Drivers in the 65 and above age categories are fewer in number and have fewer annual vehicle miles of travel and numbers of accidents when compared with other age groups. However, when age and number of motor vehicle crashes are weighted by annual vehicle miles of travel, or exposure, it can be ascertained that aged drivers do not have better accident rates than many other categories of drivers in the United States or Virginia. Moreover, from the data collected for this report it can be seen that many physiological factors seriously impair the driving ability of aged drivers. Hence, while in the aggregate drivers 65 years of age and older are rated as safe drivers because of the relative infrequency of accidents and light driving exposure, individually these persons are more likely to have accidents than most others when driving experience is equal.

When all age categories are considered in the aggregate, the fluctuation of the mileage accident rate for the total number of accidents in the United States and Virginia is slight. The rate for drivers 65 years of age and older is in certain instances greater than the rate for some of the other age groups and in most age group comparisons the older drivers' rate is not superior to those of other age classifications. Furthermore, the mileage accident rate of motorists 65 years of age and older for fatal accidents in the United States and Virginia is higher than most of the other age categories. It would therefore seem proper to conclude that drivers 65 years of age and above do not warrant automobile insurance rate reductions. In addition, any precipitous rate reduction would further imbalance the current insurance rating system. More appropriate would be a further review of the rating system in an attempt to base rates on individual factors such as age, accident experience, and annual vehicle miles of travel rather than the collective and highly indiscriminate procedure currently in use.