

Report for 17-year-Old Drivers

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Helmut Schneider
Ourso Family Distinguished Professor of Information Systems
and Chairman of Information Systems and Decision Sciences at LSU
Ph.: 225-578-2516
Fax: 225-578-2511
Homepage: <http://isds.bus.lsu.edu>
LA Traffic Crash Reports <http://lhsc.lsu.edu>

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Summary

Although age is an important factor in crashes on Louisiana highways, an analysis of youth drivers (ages 15-24) involvement in crashes in Louisiana does not suggest that 17-year-old drivers pose a higher risk with respect to involvement in fatal crashes when compared to their peer group, i.e. drivers of ages 15 to 24. Overall, Louisiana crash statistics do not provide enough evidence that warrants restricting 17-year-old drivers' driving. This report concentrates on two main aspects of youth driving behavior, namely, nighttime driving and driving with other occupants in the vehicle. The analysis of how the number of occupants in a vehicle affect the risk of a fatal crash is hampered by the lack of knowledge of the underlying driving population. The number of occupants in the vehicle when a crash occurs does not in itself provide evidence that the driver was distracted. In order to evaluate whether there is an increased risk, the number of fatal crashes by number of occupants in the vehicle has to be normalized by the number of vehicles on the highway with respective numbers of occupants in the vehicle. In addition, the vehicle miles traveled should be taken into account as well. For instance, the average number of occupants in the vehicle in an injury crash steadily declines with the age of the driver from 1.84 occupants for 15-year-old drivers to 1.18 occupants for 80-year-old drivers. However, this may just reflect the varying number of occupants in vehicles on Louisiana highways for different ages. Unfortunately, the number of occupants in vehicles on Louisiana highways by age is not available.

Specifically, the crash analysis of 17-year-old drivers compared to their peers of youth drivers of ages 24 and younger shows that:

- 17-year-old drivers have a higher injury crash rate than their peers,
- 17-year-old drivers have a lower fatal crash rate than their peers,
- 17-year-old drivers have a lower percentage of nighttime fatal crashes than their peers,
- 17-year-old drivers have about the same number of occupants in the vehicle as their peers when they are in a fatal crash.

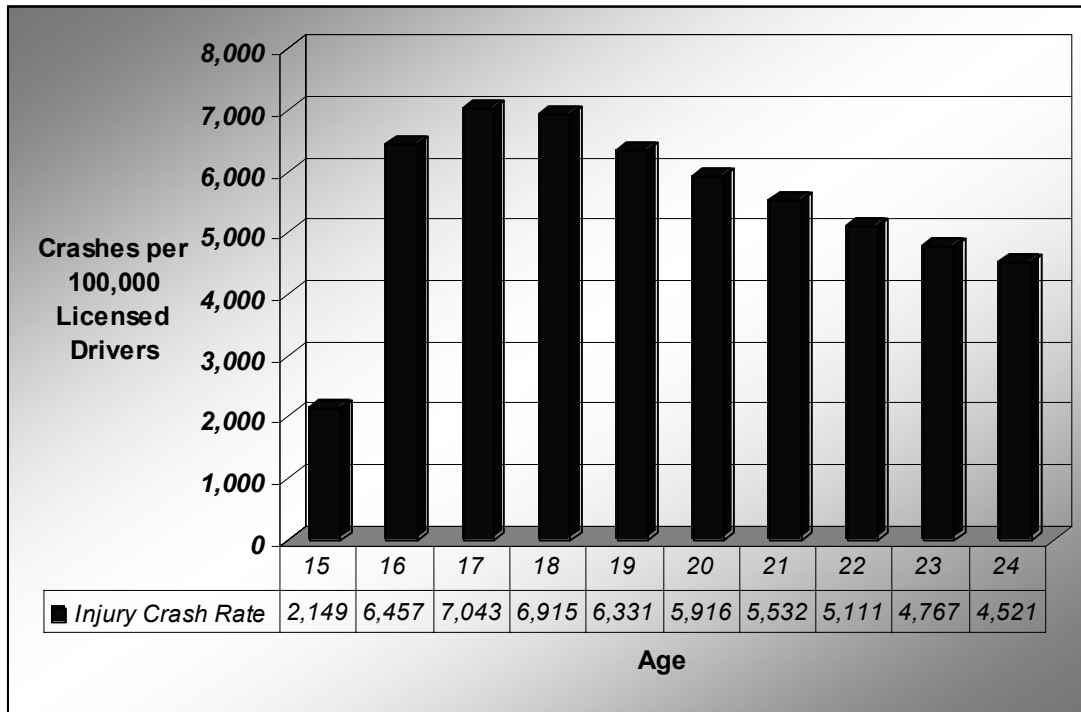
Based on the Louisiana crash statistics, there is not enough evidence to warrant new laws making restrictions for 17-year-old drivers. When restricting drivers of age 17 not to have peers in their car, the unintended consequences need to be taken into consideration. For instance, instead of having two occupants of age 17 in one vehicle, we may have two 17-year-old drivers in two vehicles. It is not clear at this time which scenario poses the larger risk for this age group. Just as in the test of all new medicines we have to not only look at the effect the medicine has on the ailment it tries to cure, but also at the side effects.

1. Introduction

Age is an important factor in crashes on Louisiana highways. Sections G and M of the Louisiana Traffic Records Crash Report provide an overview of the dependency of age of driver and the rate of motor vehicle crashes. It has long been known that the risk of motor vehicle crashes are highest for youth drivers ages 16-24. This report takes a closer look at 17-year-old drivers to provide input for possible legislation. For instance, the drivers of age 17 had the highest injury crash rate for all ages based on a three year Louisiana crash data analysis from 1999 to 2001.

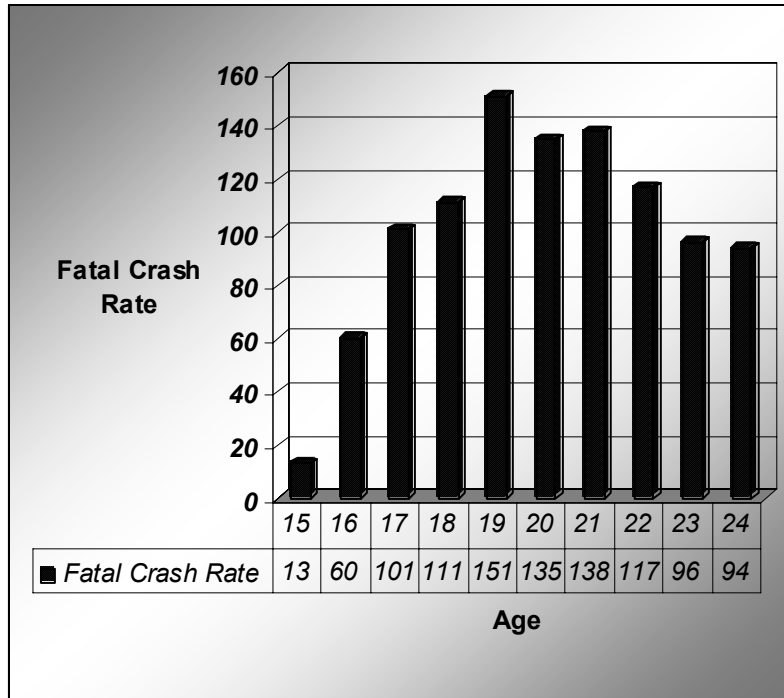
Figure 1 shows the injury crash rate per 100,000 licensed drivers by age. For the drivers age of 17, the number of crashes per 100,000 licensed drivers was 7,043 which is slightly higher than the crash rate of 18-year-old drivers.

Figure 1: Injury Crash Rate for Ages 15 to 24 (1999-2001)



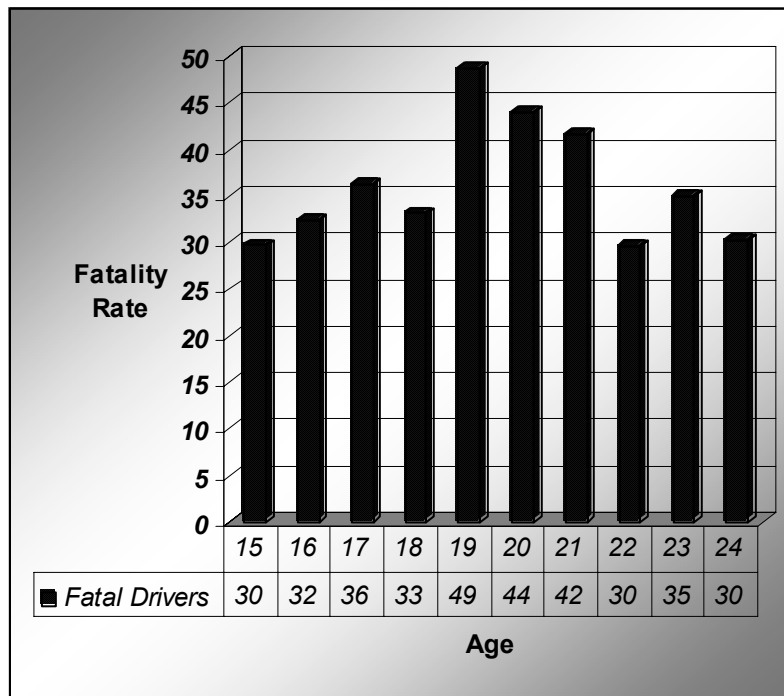
However, the fatal crash rate of 17-year-old drivers is considerably below the fatal crash rate of drivers ages 18 to 22. Figure 2 shows that 17-year-old drivers were on the average involved in 101 fatal crashes per 100,000 licensed drivers per year during the years 1999 to 2001, while 19 year-old drivers were involved on the average in 151 fatal crashes per 100,000 licensed drivers.

Figure 2: Fatal Crash Rate for Ages 15 to 24 (1999-2001)



The fatality rate of drivers by age also shows that 19-year-old drivers have the highest risk of being killed in a crash. Figure 3 shows that while 19-year-old drivers had a rate of 49 drivers killed per 100,000 licensed drivers, the 17-year-old drivers had a rate of 36 drivers killed per 100,000 licensed drivers.

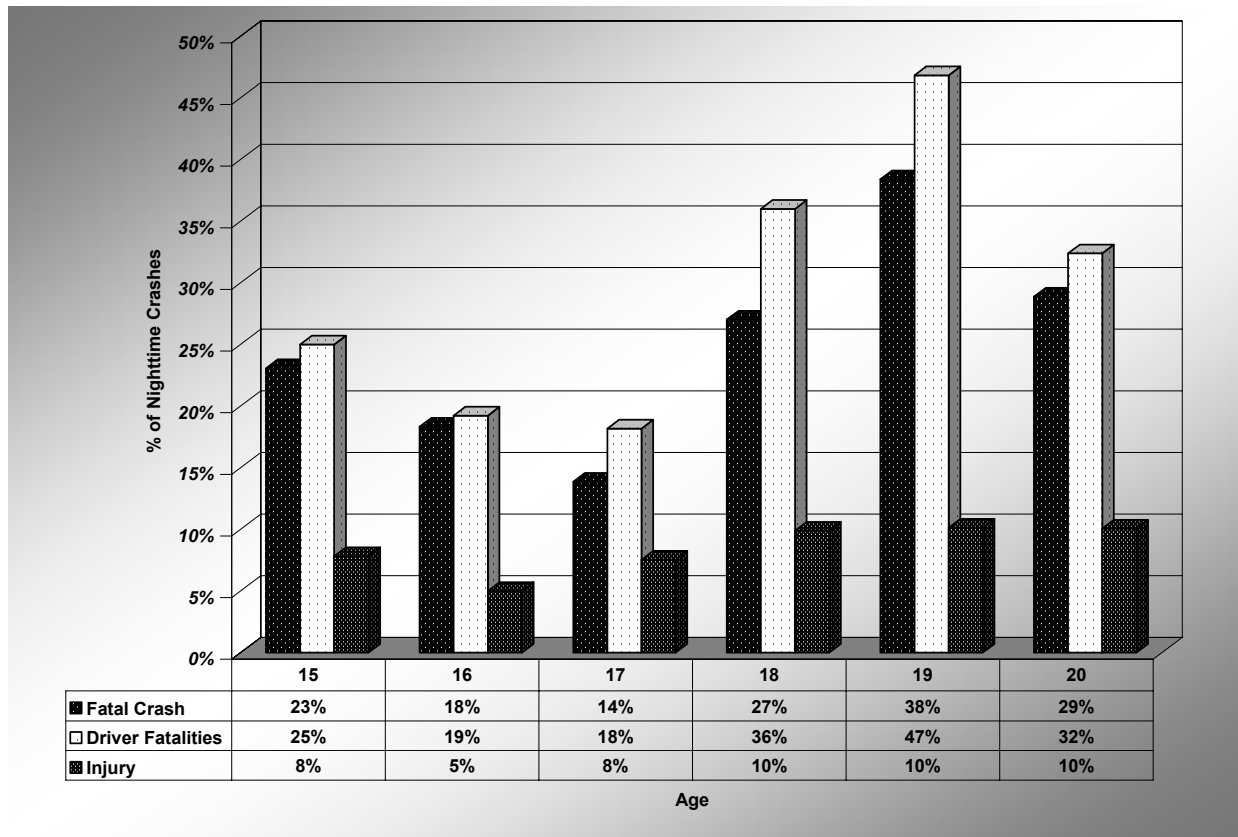
Figure 3: Fatality Rate for Ages 15 to 24 (1999-2001)



2. Nighttime Crashes

Nighttime crashes are considered to be one of the possible causes for an increased crash rate of youth. Since 16-year-old drivers are restricted to driving before 11pm and after 6am, nighttime driving in this report is defined as driving during these hours. Among the 16-to-20-year-old drivers, the 19-year-old drivers had the highest percentage of nighttime (11pm to 6am) fatal crashes and fatalities of all drivers ages 20 and younger. Figure 4 shows that 17-year-old drivers, compared to drivers of a peer group ages 20 and younger, had the lowest percentage of nighttime fatal crashes, namely 18%. They also had the lowest percentage of driver fatalities at night, namely 14%. 17-year-old drivers also had lower nighttime injury crashes than 18-to-20-year-old drivers.

Figure 4: Percent of Nighttime Crashes for Ages 15 to 20 (1999-2001)



3. Number of Occupants

The average number of occupants in fatal crashes was highest for 16 and 21-year-old drivers for youths ages 15 to 24. 17-year-old drivers had the second highest number of occupants followed by the 18 and 19 year-old drivers. However, Figure 6 shows that the average number of occupants in fatal crashes is above 2 occupants for several other age groups as well.

Figure 5: Average number of Occupants in Fatal Crashes by Drivers' Age (Ages 15 to 20)

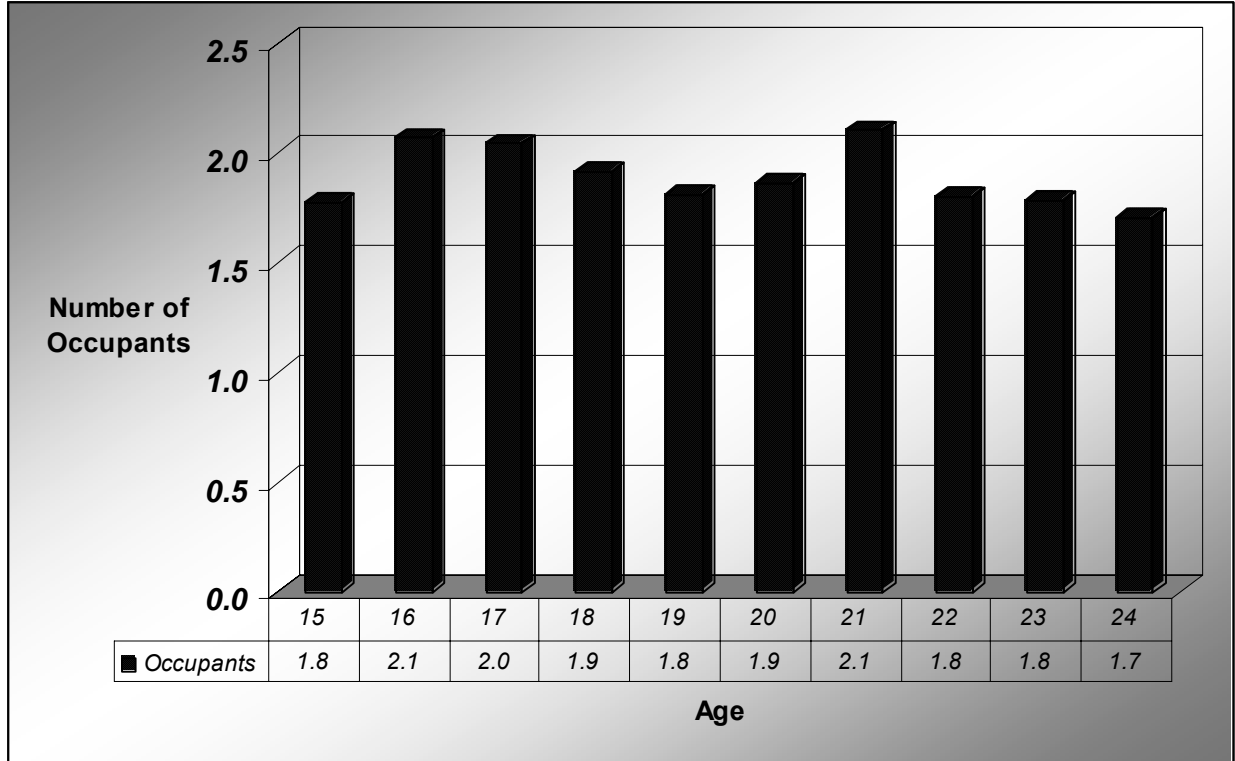


Figure 6: Average number of Occupants in Fatal Crashes by Drivers' Age (ages 15-80)

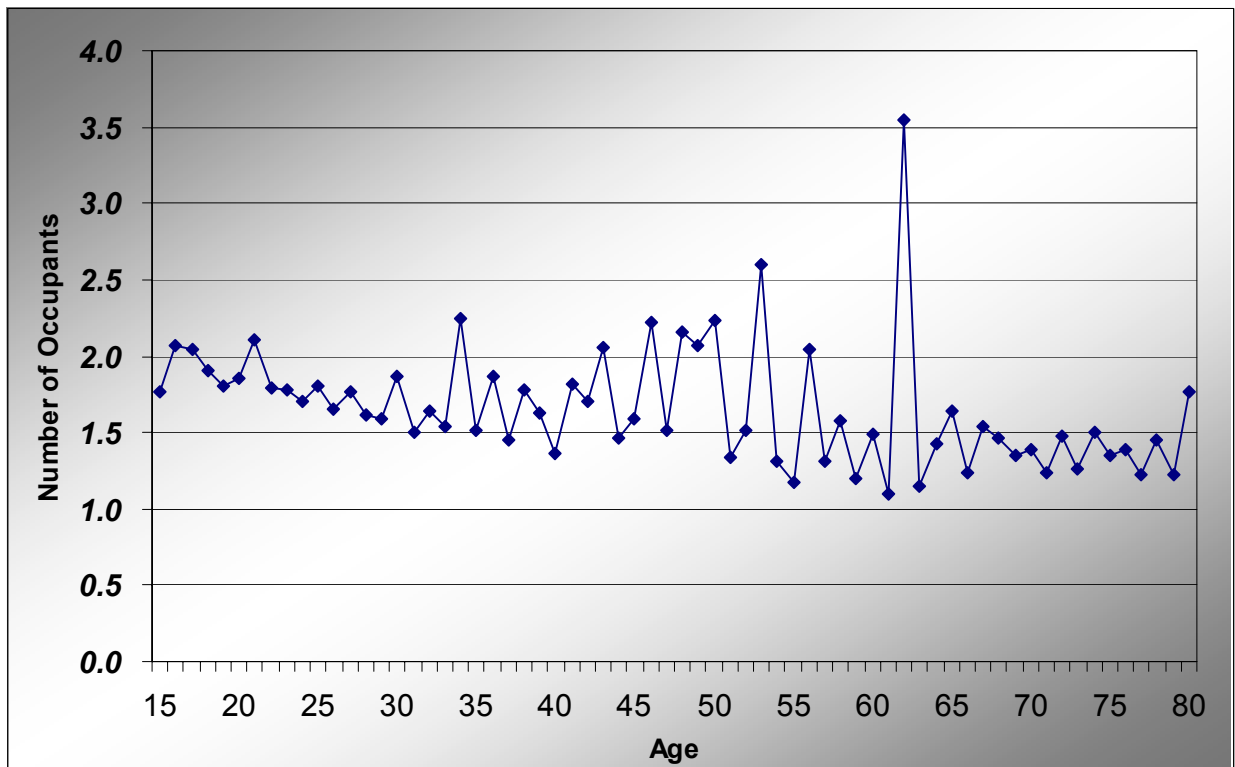
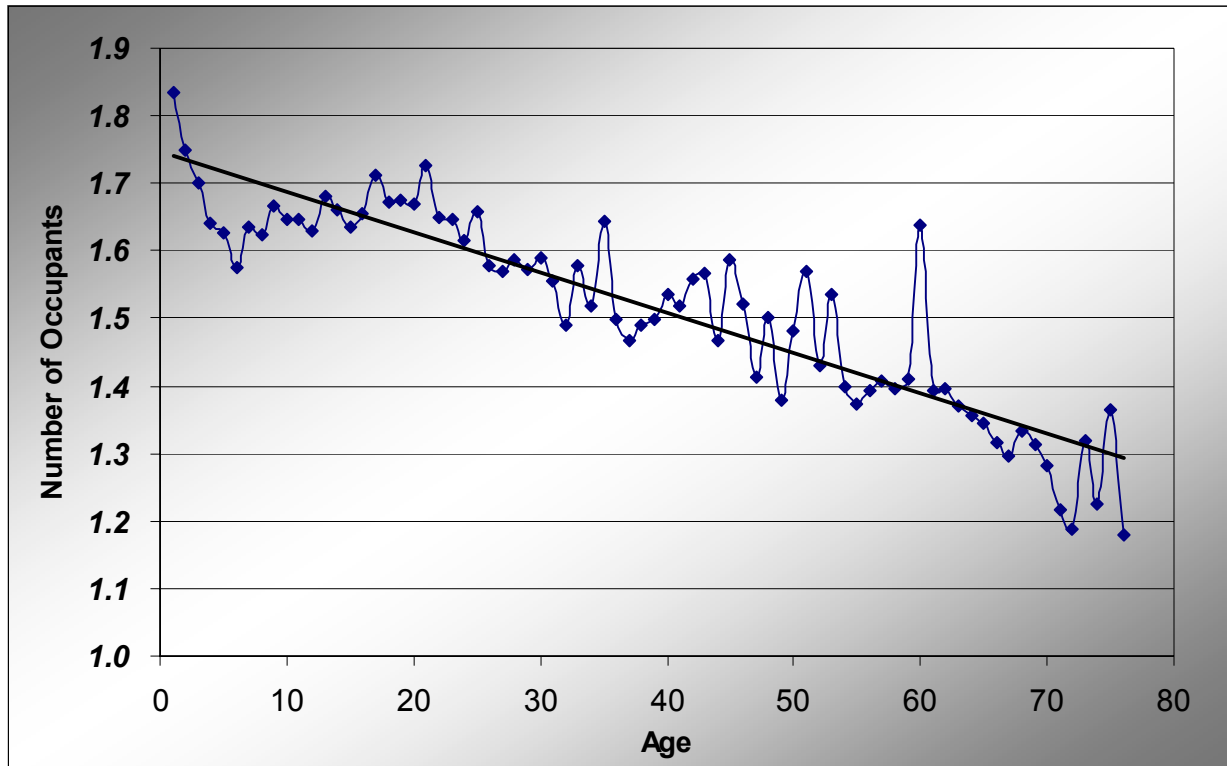


Figure 7 shows the average number of occupants in injury crashes by age. It is apparent from this chart that the number of occupants in injury crashes declines with age. However, this may be simply a reflection of the driver population on Louisiana highways.

Figure 7: Average number of Occupants in Injury Crashes by Drivers' Age (ages 15-80)



4. Gender

Figures 8 and 9 show the gender gap in fatal crashes. Males are twice as likely to be involved in fatal crashes as females. For instance, the number of crashes per 100,000 licensed 17-year-old male drivers was 114 compared to 51 for female drivers of age 17. Moreover, alcohol plays far more of a role for males than for females in fatal crashes. Again, 17-year-old male drivers were involved in 31 fatal crashes with alcohol per 100,000 licensed drivers versus 12 for female drivers of age 17.

Figure 8: Crash Rate by Gender

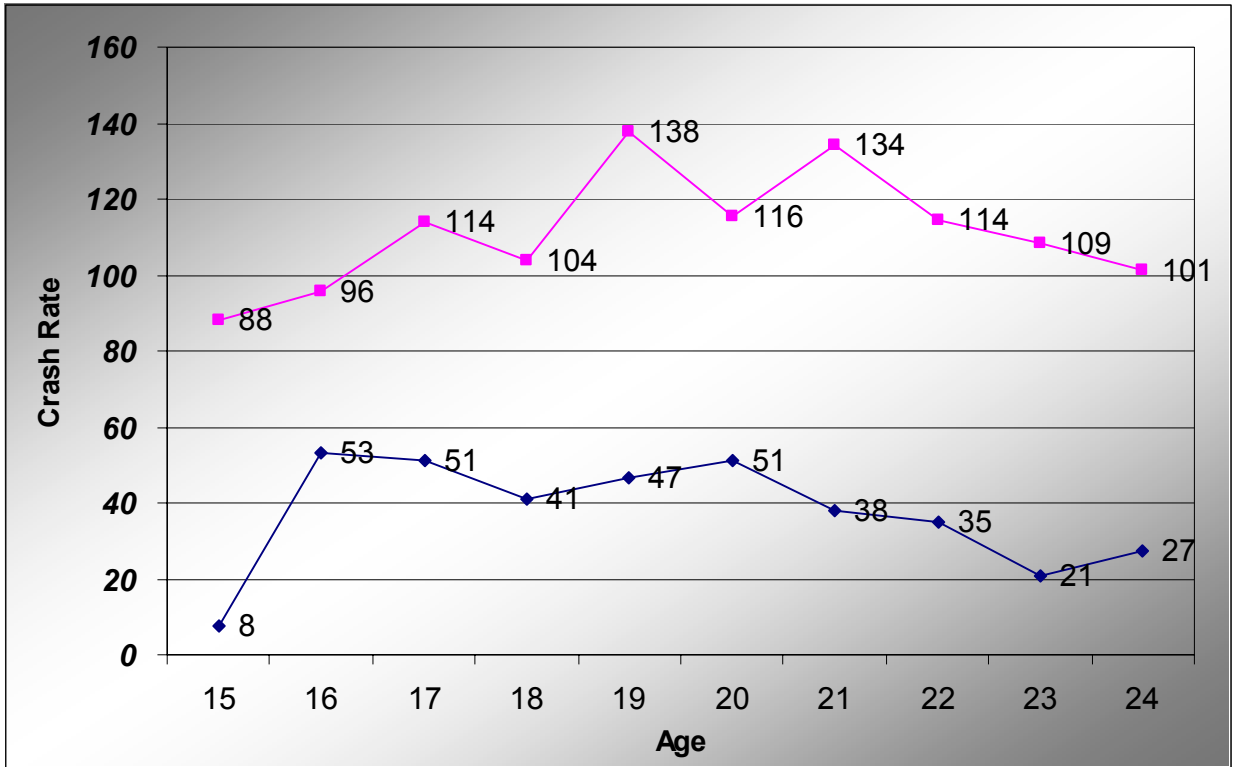
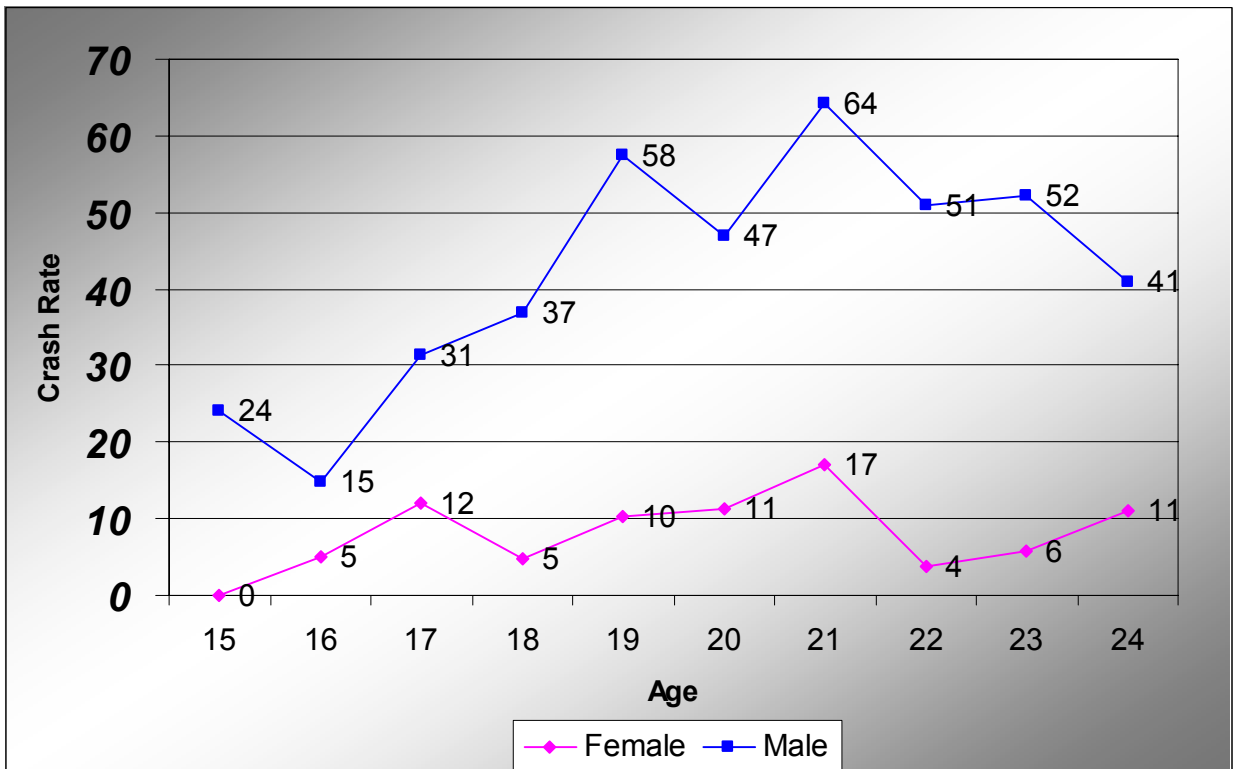


Figure 9: Alcohol-Related Fatal Crash Rate by Gender



In conclusion, we need to ask the question, what scenario poses the higher risk: a 18 year-old male driver driving his 17-year-old female date to a prom, or a 17-year-old female driver driving her 18-year-old male date to the prom? The latter one would make more sense based on the crash data presented. Thus, restricting driving for 17-year-old drivers may have some unintended consequences which could actually increase the number of fatal crashes on Louisiana highways.