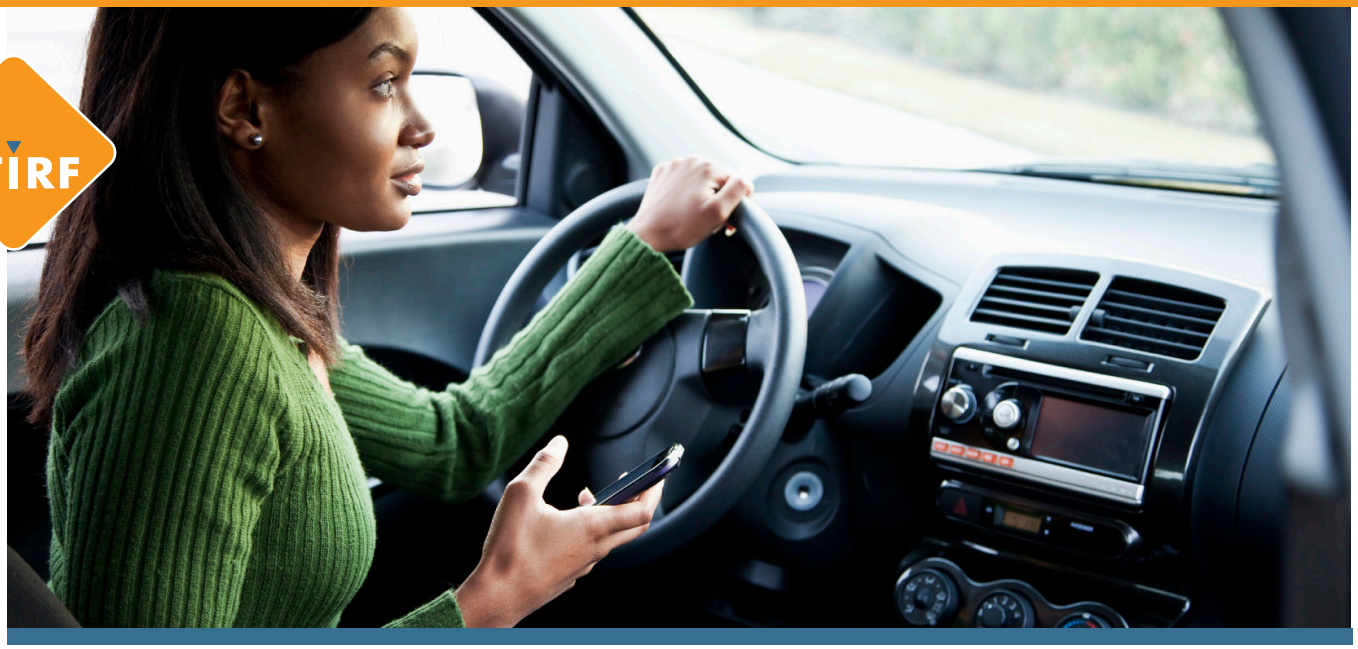


TEENS AND DISTRACTED DRIVING

Traffic Injury Research Foundation, October 2013

Introduction

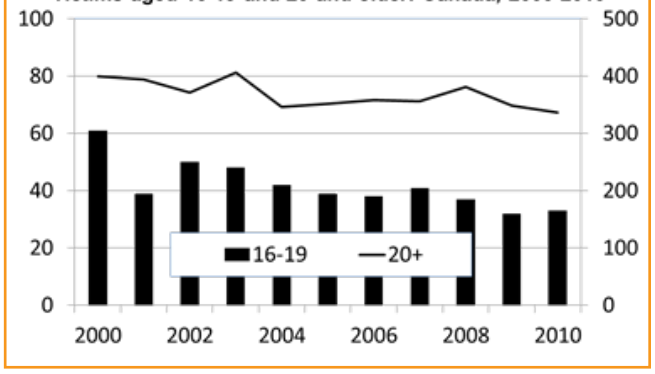
In recent years, there has been increased concern among governments, researchers and the general public about the problem of distracted driving. While several definitions of distracted driving exist, more generally this problem involves "a diversion of attention from driving, because the driver is temporarily focused on an object, person, task, or event not related to driving, which reduces the driver's awareness, decision-making, and/or performance, leading to an increased risk of corrective actions, near-crashes or crashes"(Hedlund et al. 2006, p.2). One form of distraction behind the wheel involves texting while driving. This practice has been identified as being particularly problematic for teen drivers in light of research showing that they are more receptive to using new communication technologies (Lee et al. 2011).
This fact sheet, sponsored by State Farm®, examines the role of distracted driving in fatalities among 16-19 year olds in Canada. It includes fatalities involving:

- fatally injured drivers who were distracted;
- fatally injured pedestrians who were distracted; or,
- fatally injured victims dying due to a distracted driver (fatally injured passengers and pedestrians dying in a collision where at least one driver was distracted or fatally injured non-distracted drivers who collided with a distracted driver).

Trends in the Role of Distracted Driving Among All Fatally Injured Victims Aged 16-19

This section examines trends in the role of distraction in motor vehicle collisions in which 16-19 year olds were fatally injured in Canada.
Figure 1 shows the number of fatalities among 16-19 year olds attributable to distracted driving in Canada from 2000-2010 compared to the number of distraction-related fatalities among those aged 20 and older.

Figure 1
Number of distraction-related fatalities among collision victims aged 16-19 and 20 and older: Canada, 2000-2010

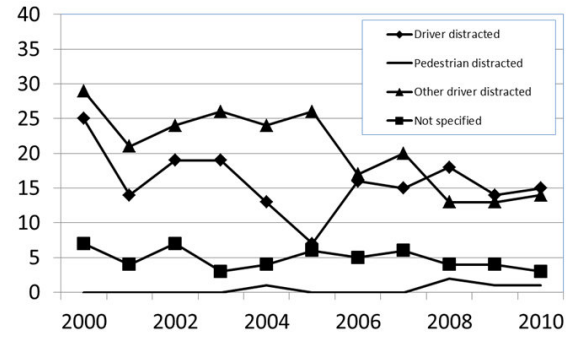


The number of victims aged 16-19 is plotted with black bars and measured on the axis on the left. The number of victims aged 20 and older is plotted with a line and measured on the axis on the right. Among fatally injured 16-19 year olds, there were 61 distraction-

related fatalities in 2000. The number of fatalities has been relatively stable since 2004. In 2010, there were 33 distraction-related fatalities among 16-19 year old victims. Among victims aged 20 and older, there were 400 distraction-related fatalities in 2000. There was a general decrease in distraction-related fatalities among this age group until 2004 when there were 346. The number of distraction-related fatalities among those aged 20 and older has been consistent in recent years, accounting for 336 deaths in 2010.

Figure 2 shows the number of distraction-related fatalities for fatally injured 16-19 year old victims according to three major types of distraction: the 16-19 year old victim was the distracted driver; the 16-19 year old victim was a distracted pedestrian; or the 16-19 year old victim was in a collision in which a driver was distracted. In addition, the 'not specified' line refers either to 16-19 year old victims dying in a collision where distraction was cited as a contributing factor but not attributed to a specific driver, or those collisions where distraction was cited as a contributing factor but where the driver was unknown.

Figure 2
Number of fatalities among 16-19 year old victims by distraction type: Canada, 2000-2010



In 2000, there were 25 fatally injured 16-19 year old drivers who were distracted. This number generally decreased until 2004 when it reached seven. Since then, the number of fatally injured 16-19 year old drivers who were distracted has been stable. In 2010, 15 fatally injured 16-19 year old drivers were distracted.

The number of fatally injured 16-19 year old pedestrians who were identified as being distracted has been very low during this 11-year period. In fact, only one fatality was identified in 2004, two in 2008, and only one each in 2009 and 2010. The number of fatally injured 16-19 year olds dying in a collision where the other driver was distracted generally decreased from 29 in 2000 to 17 in 2006. In more recent years, fewer 16-19 year olds have been fatally injured in collisions involving another distracted driver, from a low of 13 in 2008 and 2009 to 14 in 2010. Lastly, each year there has been a small number of cases where a 16-19 year old died in a distraction-related collision but where the specific driver who was distracted was not specified or identified. This distraction type accounted for as many as seven fatalities in 2000 and 2002, but only represented three such cases in 2010.

Characteristics of Fatally Injured 16-19 Year Old Distracted Drivers

In this section, demographic characteristics and collision-related factors among fatally injured 16-19 year old drivers are presented. This analysis is performed to see if these factors affect the number of fatally injured 16-19 year old distracted drivers. Given that the relative number of cases is small and the data are only for 2008, 2009 and 2010 combined, caution should be taken in interpreting these results.

A comparison is made between fatally injured male and female 16-19 year old drivers in **Figure 3** to show the number and percent of fatally injured 16-19 year old male and female drivers who were distracted. As can be seen, there are more fatally injured 16-19 year old male drivers than females (34 versus 13). In terms of percentage, however, 19.4% of all fatally injured female drivers were distracted as opposed to 15.0% of all fatally injured male drivers. The difference between the absolute numbers and percentages is a function of the total number of all fatalities in each category and the fact that this total is higher among males compared to females.

Figure 3
Number and percent of fatally injured distracted 16-19 year old drivers by gender: Canada, 2008-2010

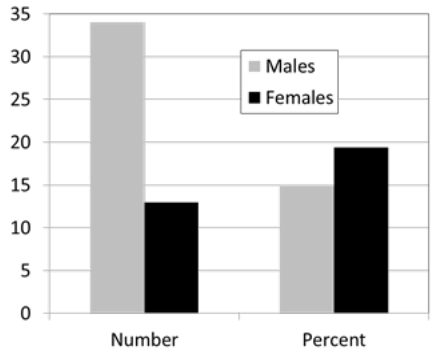
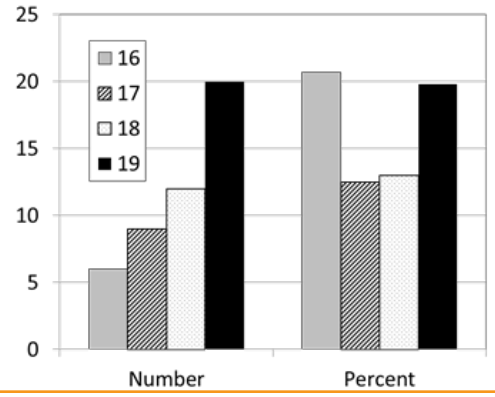


Figure 4 shows the number and percent of fatally injured 16-19 year old drivers who were distracted according to individual years of age. It reveals that the number of fatally injured distracted drivers increases with age as there were just six fatalities among 16 year olds compared to 20 that were 19 years of age.

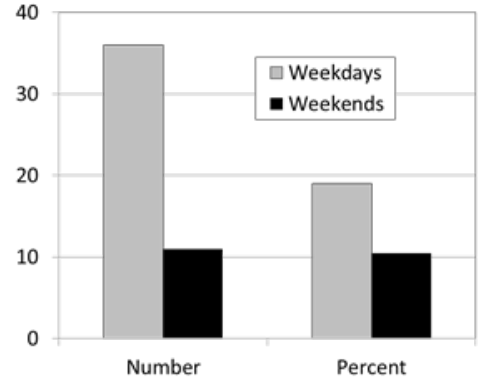
The age group with the highest percentage of fatally injured drivers who were distracted was 16 year olds at 20.7%. Among fatally injured 19 year old drivers, 19.8% were distracted. A smaller percentage of 18 and 17 year old fatally injured drivers were distracted (13.0% and 12.5%, respectively).

Figure 4
Number and percent of fatally injured distracted 16-19 year old drivers by age: Canada, 2008-2010



The role that distraction plays among 16-19 year old drivers who die in weekend collisions (from 6 p.m. Friday to 5:59 pm on Sunday) versus weekday collisions (from 6 p.m. Sunday to 5:59 p.m. on Friday) was also examined. A comparison in the number and percentage of 16-19 year old fatally injured drivers who were distracted is illustrated in **Figure 5**.

Figure 5
Number and percent of fatally injured distracted 16-19 year old drivers by weekdays versus weekends: Canada, 2008-2010

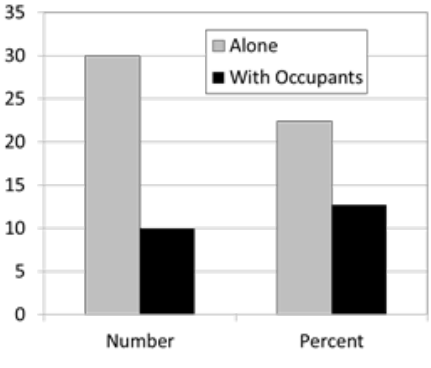


Of the 47 fatally distracted 16-19 year old drivers, 36 crashed on a weekday as opposed to only 11 who died on a weekend. Among those 16-19 year old drivers who died in a weekday collision, 19.0% were distracted as opposed to only 10.5% who died on a weekend.

Presence of Additional Vehicle Occupants and Their Role in Driver Distraction

It has been speculated that the number of occupants in the vehicle with a teen driver serves to be a potential distraction (Williams et al. 2012). In fact, many jurisdictions limit the number of occupants who may accompany a novice driver in his or her vehicle. **Figure 6** examines the number and percent of fatally injured 16-19 year old drivers who were distracted by comparing those drivers who were the sole occupants of their vehicle as opposed to those who were accompanied by passengers. In 2008-2010, 30 fatally injured 16-19 year old distracted drivers were driving alone while 10 drivers were accompanied. And among those drivers who were driving alone, a larger percentage were distracted (22.4%) compared to those drivers who were accompanied by one or more passengers (12.7%). While caution is warranted when interpreting these results due to low numbers, the higher percentage of distracted drivers who were driving alone does not wholly reflect what one would expect based on the research about the distracting impact of passengers on teen drivers. However, this could also reflect the fact that more teens are driving alone because their jurisdiction limits the number of occupants.

Figure 6
Number and percent of fatally injured distracted 16-19 year old drivers alone versus those with additional occupants: Canada, 2008-2010



Conclusions

Among fatally injured victims aged 16-19 and 20 and older there were significant decreases in the number of distraction-related fatalities between 2000 and 2004. Since then, the trends have been stable for both age groups. It should be noted that there is a possibility that the number of fatally injured 16-19 year old drivers has been underrepresented, due to reporting practices in some jurisdictions that allow police officers to list only one human condition as a contributing factor in the collision. Given that 'inexperience' is one of those conditions, an inexperienced, distracted 16-19 year old driver may be identified as being merely inexperienced but not necessarily distracted.

For most of the years, the most common type of distraction in collisions in which 16-19 year olds are fatally injured has been where another driver was the person that was distracted. In more recent years, a similar number of 16-19 year olds are dying in crashes where the fatally injured young driver was the person that was distracted.

As expected, there are more fatally injured 16-19 year old distracted drivers that are male than female. This reflects the distribution of driver fatalities in all collisions and all age groups. However, among 16-19 year old fatally injured drivers, a larger percentage of females are distracted than males. And within the 16-19 year old age category, more fatally injured distracted drivers are found among the older ages.

More fatally injured 16-19 year old drivers are distracted in weekday crashes than weekend crashes. One possible explanation is that if only one human condition is listed as a contributing factor in some jurisdictions, alcohol or drug use may be more prevalent in weekend crashes and, in turn, this may result in distraction in weekend crashes being underreported. Therefore, it is not entirely clear if fewer drivers are indeed distracted during the weekend compared to the week.

Finally, more fatally injured 16-19 year old drivers who are distracted die in crashes where they are the sole occupant. Furthermore, a larger percentage of those who are sole occupants die in distraction-related collisions than those drivers who are accompanied by additional occupants. Given the small sample size, these findings should be treated with caution.

While more research on this topic is needed, on a positive note it should be underscored that young drivers also are equally concerned about distracted driving.

The results from the 2010 Road Safety Monitor on Youth Drinking and Driving revealed that a majority of young drivers aged 16-24 are concerned about this issue and agree that distracted driving (69.2%) and texting while driving (83%) are serious problems (Marcoux et al, 2010).

References

Hedlund, J., Simpson, H., and Mayhew, D. (2006). International Conference on Distracted Driving: Summary of Proceedings and Recommendations, Toronto, October 2-5, 2005. Ottawa, Ontario: Traffic Injury Research Foundation, and Canadian Automobile Association.

Lee, S.E., Simons-Morton, B.G., Klauer, S.G., Ouimet, M.C., and Dingus, T.A. (2011). Naturalistic assessment of novice teenage crash experience. Accident Analysis & Prevention 43(4), 1472-1479.

Marcoux, K.D., Robertson, R.D., and Vanlaar, W.G.M. (2011). The Road Safety Monitor 2010: Youth Drinking and Driving. Traffic Injury Research Foundation. Ottawa, Canada.

Mayhew, D., Robertson, R., Brown, S., and Vanlaar, W. (2013). Driver Distraction and Hands-Free Texting While Driving. Ottawa, Ontario: Traffic Injury Research Foundation.

Williams, A.F., Tefft, B.C. and Grabowski, J.G. (2012). Graduated Driver Licensing Research, 2010-Present. Journal of Safety Research: 43 (195-203).

Traffic Injury Research Foundation

The mission of the Traffic Injury Research Foundation (TIRF) is to reduce traffic-related deaths and injuries. TIRF is a national, independent, charitable road safety institute. Since its inception in 1964, TIRF has become internationally recognized for its accomplishments in a wide range of subject areas related to identifying the causes of road crashes and developing programs and policies to address them effectively.

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