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Graduated driver licensing research in 2004 and 2005

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Abstract

This is the second update of research on graduated driver licensing (GDL) and teenage drivers. It briefly summarizes research in progress and research published since the January 2004 update (Hedlund, J. & Compton, R. (2004). Graduated driver licensing research in 2003 and beyond. *Journal of Safety Research 35* (1), 5–11). Research has been very active, especially on teenage driver risk factors, GDL program evaluations, the role of parents in managing and training their teenage drivers, and driver education. Results have strengthened the case for GDL, for nighttime and passenger restrictions, and for extended supervised driving practice.

Keywords: Graduated driver licensing; Beginning drivers; Teenage drivers; Driver education

1. Introduction

The January 2003 special issue of the *Journal of Safety Research* (JSR) was devoted entirely to graduated driver licensing (GDL). The first 12 papers, which were written for and presented at a GDL Symposium in November 2002, provided a comprehensive review of research on teenage driver issues in general and GDL in particular. The final paper (Hedlund, Shults, & Compton, 2003) used information from these papers to summarize GDL knowledge, information gaps, and research needs as of the time of the symposium. All papers are available on the National Safety Council's website www.nsc.org/gdlsym/index.htm.

Research on GDL and teenage driver issues has been very active since the symposium and the JSR special issue. Hedlund and Compton (2004) summarized research published since the symposium and work in progress. This paper provides a further update. It summarizes 50 recent published papers and studies and reports on over 30 ongoing and planned studies. It references only studies published in 2003 or 2004 and not cited in any of the January 2003 JSR papers or the 2004 update. It provides contact information for ongoing and planned studies.

The JSR plans to publish similar updates for the next few years, as long as there are substantial new research results to report. Readers are invited to send information on new studies and recent studies not included in this paper, the 2004 update, or any of the January 2003 JSR papers to Jim Hedlund at jhedlund@sprynet.com.

In this review, GDL refers to a three-stage licensing system for beginning drivers consisting of a learner's permit, a provisional license, and a full license. A learner's permit allows driving only while supervised by a fully licensed driver, a provisional license allows unsupervised driving under certain restrictions, and both the learner's permit and the provisional license must be held for a specified minimum period of time. Other restrictions may apply during both the learner's permit and provisional license periods.

2. Syntheses and overviews

Senserrick and Haworth (2004) summarize the research literature and the research gaps in several key areas: driving, crash, and injury risk during the learner's permit and

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provisional periods; driver education and training; GDL systems; and unlicensed driving. They provide 95 references. A more comprehensive summary is in progress. For information, contact Narelle Haworth at Narelle.Haworth@general.monash.edu.au.

Engström, Gregerson, Hernetkoski, Keskinen, and Nyberg (2003) summarize the research literature on driving and crash behavior during the first years of licensure; methods used to influence young drivers' attitudes and behavior, with special attention to alcohol, safety belt use, and speeding; high school driver education; and licensing systems. They provide 325 references.

The Organization for Economic Co-operation and Development (OECD) has established a working group on Young Driver Risks and Effective Counter-Measures. The working group will assess the factors that contribute to young driver's crash risk; review countermeasures, including driver education, driver training, and GDL; and document current practices in the OECD countries. The group intends to complete its work in 2005 and publish a final report in 2006. For information, contact Colin Stacey at Colin.STACEY@oecd.org.

The Highway Safety Research Center (HSRC) of the University of North Carolina is drafting a guide for states to use in reducing crashes involving young drivers. The guide is part of the series of state guides for implementation of the American Association of State Highway and Transportation Officials (AASHTO) strategic plan. Each guide is a volume in the National Cooperative Highway Research Program (NCHRP) Report 500. The young driver guide should be completed in 2006. For information, contact Rob Foss at rob_foss@unc.edu.

3. The need for GDL: teenage driver risk factors

Risk factor studies include literature surveys, cohort studies, focus groups, telephone surveys, questionnaires, crash data analyses, and theoretical models. They provide additional detail on the influences of general lifestyle and of specific factors such as alcohol on teenage driver crash risk.

3.1. General risk factors

Masten (2004) reviewed and summarized the research on teenage driver risk factors and the countermeasures directed at reducing their high crash risk, with special attention to California. Risk factors include risk perception, overall risky behavior, personality characteristics, gender, immaturity and inexperience, alcohol and drug use, passengers, and nighttime and weekend driving. Countermeasures include driver education and training, provisional licensing, GDL, nighttime restrictions, alcohol limits, and driver improvement programs. He cites over 225 references.

Begg and Langley (2004) investigated factors observed in teenagers (ages 15 and 18) that predicted subsequent persistent risky driving behavior at ages 21 and 26, using data from a longitudinal study of 933 New Zealand youth. Very few females were persistent risky drivers. For males, low constraint (self-control, harm avoidance, and traditionalism), aggressive behavior, and cannabis use predicted risky driving.

Møller (2004) explored the relationships between lifestyle and driving behavior in focus group interviews with 29 young drivers in Denmark. The results suggest that teenagers see driving as a way to attract attention, achieve status, and control a powerful machine as well as provide mobility, and that these factors influence their driving behavior.

Bellavance and colleagues at the Université de Montréal are conducting a literature review of the psychological factors underlying teenage risk-taking, the factors that predict risky behavior, and the methods to evaluate the attitudes and driving behaviors of beginning drivers. They then will survey licensing practices for beginning drivers worldwide, with particular attention to jurisdictions that require a second road test or a hazard perception test for full licensure. They also will explore the use of new technology to monitor the driving performance of new drivers. A report is scheduled for late 2005. For information, contact Francois Bellavance at francois.bellavance@hec.ca.

3.2. Teenage driver crash risks and attitudes

Mayhew, Singhal, Simpson, and Beirness (2004) examined crashes involving young people aged 15–19 and 20–24 in Canada. Traffic crash fatalities among persons aged 15–19 dropped 68% from 1980 to 2002. However, most of this progress occurred before 1992. In 2001, traffic crashes continued to be the leading cause of death among young people, accounting for 35% of the deaths of persons aged 15–19 and 30% of the deaths of persons aged 20–24.

Beirness, Mayhew, Simpson, and Desmond (2004) summarized results from a telephone survey of 1,221 Canadian drivers. Drivers aged 16–19 reported substantially more risky driving behaviors than drivers aged 45–54: 38% take driving risks just for fun, compared to 12% of older drivers; 90% exceed the speed limit compared to 78%; and 72% speed up to get through a traffic light before it turns red compared to 66%. Drivers aged 16–19 drive less (300 km monthly) than drivers aged 45–54 (1000 km) but receive more traffic tickets: 21% were ticketed in the previous year compared to 10% of the older drivers.

The Liberty Mutual Group and SADD (Students Against Destructive Decisions) surveyed 3,574 teenagers in 41 schools across the United States in May and June 2004 (Liberty Mutual Group and SADD, 2004). Many teenagers reported unsafe actions while driving: 67% speeding, 62% talking on a cell phone, and 33% failing to wear safety belts. High school age teens reported similar unsafe actions by their parents: 48% speeding, 62% talking on a cell phone, and 31% unbelted. Not surprisingly, 59% of teen drivers said that their parents have the most influence on their