Minnesota Department of Public Safety

Driver & Vehicle Services Division

Report to the Legislature on Internet-Based Driver Education

February 2009

Saint Paul, Minnesota

MINNESOTA DEPARTMENT OF PUBLIC SAFETY

Office of the Commissioner

445 Minnesota Street • Suite 1000 • Saint Paul, Minnesota 55101
Phone: 651.201.7160 • Fax: 651.297.5728 • TTY: 651.282.6555
www.dps.state.mn.us

February 17, 2009

Alcohol and Gambling Enforcement

Bureau of Criminal Apprehension

Driver and Vehicle Services

Emergency Communication Networks

Homeland Security and Emergency Management

Minnesota State Patrol

Office of Communications

Office of Justice Programs

Office of Traffic Safety

State Fire Marshal

The Honorable Bernard Lieder
The Honorable Michael Beard
Minnesota House of Representatives
Transportation Finance and Policy Division

The Honorable Steve Murphy
The Honorable Michael Jungbauer
Minnesota Senate
Transportation Budget and Policy Division

The Honorable Frank Hornstein
The Honorable Dean Urdahl
Minnesota House of Representatives
Transportation and Transit Policy and Oversight Division

Dear Colleagues:

As directed by 2008 Minnesota Laws Chapter 287 Article 1, Section 121, the Commissioner of Public Safety shall submit a proposal to the chairs and ranking minority members of the Senate and House of Representatives Committees with jurisdiction over transportation finance on Internet-based driver education for the instruction permit component.

The report must review and analyze current findings and studies on the feasibility, effectiveness, and impacts of Internet-based driver education programs for the instruction permit component, including program effectiveness for persons under age 18.

The report is enclosed for your review.

If you need further information, please do not hesitate to contact me or Patricia McCormack, Director of the Driver and Vehicle Services Division at (651) 201-7580.

Sincerely,

Michael Campion, Commissioner

cc: Legislative Reference Library

EXECUTIVE SUMMARY

The commissioner of the Department of Public Safety (DPS) respectfully submits to the Legislature this report on internet-based driver education for persons under the age of 18. This report summarizes the department's research on internet-based driver education programs in other states, including all known information on the efficacy of these programs.

Staff from DPS' Driver and Vehicle Services division identified twelve states in which persons under the age of 18 may complete, or have in the past been allowed to complete, "classroom" driver education through internet-based programs. DPS gathered information on these programs through telephone and e-mail discussions with the individuals who administer or oversee them and by reviewing publicly available information on the programs.

Only two of the twelve states – California and, to a lesser extent, Texas – have formally evaluated the efficacy of internet-based instruction, and in the context of this report, the value of those studies is somewhat limited. California restricted its analysis to comparing post-instruction scores on a knowledge test and attitude assessment, as well as the pass rates on driver licensing knowledge tests. It did not examine the scores or pass rates of students on driver licensing road skills tests, and it did not compare the students' subsequent violation and crash rates. Although it analyzed data on licensing tests, violation records, and crash rates, the Texas study was focused on the broader topic of the effectiveness of parent-taught driver education, and the data were not segregated according to the method of instruction. In other words, the Texas study did not differentiate data subjects whose parents utilized internet-based curricula from those subjects whose parents utilized interactive CD-ROM, workbook, or textbook materials.

In DPS' discussion with representatives of the twelve states, some expressed concerns about the quality of instruction and security and fraud issues. If Minnesota validates internet-based instruction as a form of theoretical driver education, the state must implement safeguards to ensure that teens learn how to become safe drivers, regardless of what form of driver education they receive.

LEGISLATIVE CHARGE

During its 2008 session, the Legislature directed the commissioner of public safety to prepare this report on internet-based classroom driver education for persons under the age of 18. The Legislature's charge to the commissioner reads as follows:

> **REPORT ON INTERNET-BASED DRIVER EDUCATION.**
> The commissioner of public safety shall submit a report on Internet-based driver education for the instruction permit component by February 15, 2009, to the chairs and ranking minority members of the house of representatives and senate committees having jurisdiction over transportation finance and policy. The report must review and analyze current findings and studies on the feasibility, effectiveness, and impacts of Internet-based driver education programs for the instruction permit component, including program effectiveness for persons under age 18.

Act of May 8, 2008, ch. 287, art. 1, sec. 121, 2008 Minn. Laws 884, 954.

CONTEXT

Motor vehicle crashes are the leading cause of death for 15- to 20-year-olds in the United States. In 2007, 3,174 15- to 20-year-old drivers were killed and 252,000 were injured in crashes. Though these drivers represented approximately 6.4 percent of all licensed drivers, they represented 12.5 percent of drivers involved in fatal crashes and 12.0 percent of drivers who were killed in crashes.[1]

Although the statistics are marginally better in Minnesota than the national averages, motor vehicle crashes continue to be the leading cause of death for young people in the state. In 2007, 15- to 20-year-olds represented 8.7 percent, or 338,959, of all Minnesota-licensed drivers. However, 11.0 percent of drivers involved in fatal crashes and 16.1 percent of drivers in all crashes fell into this age range. Put in starker terms, 22,709 of these young Minnesota drivers – about one in 15 – was involved in a crash in 2007, and 88 of those crashes resulted in fatalities.[2]

Some of the contributing factors in teen crashes include:

- Immaturity;
- Lack of driving experience;
- A higher propensity for risk-taking behaviors, such as speeding and alcohol use;
- Inexperience in recognizing hazards;
- An illusion of invulnerability;
- Deficient decision-making, because the areas of a teen's brain involved in rendering judgments typically are not fully developed until age 25.[3]

In DPS' view, the best way to prevent life-altering and life-ending crashes is to give prospective drivers a thorough understanding of the rules of the road and to prepare them as comprehensively as possible for the many hazards they will encounter. To that end, the department has made its oversight of and guidance to driver education programs a top priority.

Minnesota currently requires students between the ages of 15 and 18 to complete at least 30 hours of classroom instruction and to pass a written knowledge test before they may obtain an instruction permit. The theoretical instruction must be provided in a classroom

---

1 National Highway Traffic Safety Administration, Pub. No. DOT HS 811 001, Traffic Safety Facts, 2007 Data: Young Drivers 1-2 (2008) <http://www-nrd.nhtsa.dot.gov/Pubs/811001.pdf>.

2 *See* Minnesota Dep't of Public Safety, Minnesota Motor Vehicle Crash Facts 2007, at 13-14 (2008) <http://www.dps.state.mn.us/OTS/crashdata/2007CFacts/CF07-1-General.pdf>.

3 National Highway Traffic Safety Administration, Pub. No. DOT HS 811 005, Teen Driver Crashes: A Report to Congress 2-3 (2008) <http://www.nhtsa.dot.gov/staticfiles/DOT/NHTSA/Traffic%20Injury%20Control/Articles/Associated%20Files/811005.pdf>.

setting. At present, only those prospective drivers who are 18 years of age or older may complete the classroom portion of driver education through internet-based instruction.

To obtain a provisional driver's license, students under age 18:

- must have held an instruction permit for at least six months without being convicted of any moving, alcohol, or controlled substance violations;
- must have completed six or more hours of behind-the-wheel instruction;
- must have logged 30 hours of supervised driving practice time, including at least ten nighttime hours; and
- must pass a road skills test.

Students who are at least 17, who have held a provisional license for at least one year with one or no violations,[4] and who have logged at least ten additional hours of supervised driving time are eligible for an unrestricted driver's license.

Driver education in Minnesota is provided by instructors in public schools, private schools, and commercial driver training schools, all of which are regulated by DPS. DPS' Office of Driver Education reviews and approves curricula prior to use. DPS carefully screens proposed curricula for both classroom and behind-the-wheel phases to ensure compliance with the standards established in Minnesota statutes and rules.

[4] Applicants for an unrestricted license must have no crash-related moving violations or convictions for impaired driving, and they must have no more than one conviction for a non-crash-related moving violation.

STATE-BY-STATE REVIEW

Most states require teens to complete some formal classroom and/or behind-the-wheel driver education before they may obtain instruction permits or driver's licenses.[5] Although the delivery methods of classroom driver education instruction vary from state to state, methods include traditional instruction in a classroom, parent-facilitated instruction, internet-based self-instruction, and distance learning through the use of interactive video and audio.

Twelve states currently allow, or have in the recent past allowed, students under the age of 18 to fulfill their classroom driver education requirements through internet-based coursework.[6] Each state has different rules and laws regarding the number of required hours of classroom instruction, as well as eligibility requirements for students. Among states that allow parents to be "instructors" for the course, some require the parents to have a clean driving record for a specified period of time and no serious criminal convictions.

DPS sent the twelve states a list of questions regarding their internet-based classroom driver education programs. DPS also reviewed the web sites of the state agencies that oversee these internet-based programs. The results of this research are detailed below, state by state, followed by a table that summarizes the driver education requirements of the twelve states.

California

In order to receive a provisional instruction permit, California students between the ages of 15½ and 17½ must pass a written knowledge test and must have completed, or must be enrolled in, an approved driver education course.[7] Before they are eligible to take the road skills test that will qualify them for a provisional driver's license, they must:

- hold the permit for at least six months;
- successfully complete 30 hours of classroom education and six hours of behind-the-wheel training; and
- log at least 50 hours of driving practice, including at least ten nighttime hours.

---

[5] Twelve states and the District of Columbia do not require teenagers to complete any formal driver education before they apply for instruction permits or driver's licenses.

[6] The twelve states are California, Colorado, Florida, Georgia, Idaho, Indiana, Nevada, Oklahoma, Pennsylvania, Texas, Virginia, and Wisconsin. As is explained in greater detail below, Indiana no longer recognizes internet-based instruction as a means of fulfilling its classroom driver education requirement.

[7] Students between the ages of 17½ and 18 are not required to complete driver education, but they cannot apply for a driver's license until they are at least 18 years old.

California began allowing commercial driving schools to offer the internet-based classroom course in 2001. From 1999 to 2003, students in the public schools were able to complete the classroom course at home, but not via the internet. Since 2004, however, public school students have been able to use internet-based curricula. California has no data showing how many students have completed internet-based driver education.

In 2003, the California Department of Motor Vehicles (CDMV) conducted a study of volunteer subjects who completed classroom coursework through a commercial driving school. The purpose of the study was to measure the relative effectiveness of home-based and classroom-based driver education. Nearly 1,500 students volunteered to take part, and data were gathered from the 1,321 who completed their coursework. The driving schools randomly assigned students to receive classroom instruction, a workbook-based home study course, a CD-ROM-based home study course, or a home study course that combined internet and workbook materials. The content of all four courses was based upon the same standardized curriculum.[8]

The researchers compared students' performance on an exit knowledge exam, on an instrument designed to measure the students' attitudes about driving, and on their first attempts to pass the CDMV written driver's test. Although the classroom students scored significantly better on the latter test, the home-study students performed as well or better on the exit knowledge exam and the attitude measurement. According to the study's authors, "the exit exam [was] a much more content-valid measure of the material that is supposed to be taught in a driver education course than [was] the [C]DMV written test," because it measured their knowledge of a much larger base of information.[9]

CDMV could not determine whether the different methods of instruction had an impact on the student's ability to pass CDMV road skills tests, because test outcomes were available for only 4.6 percent of the study's subjects.[10] The study also did not collect or analyze data on students' convictions for traffic violations or on their involvement in crashes.

In discussions with DPS, CDMV staff identified a serious administrative problem associated with the state's acceptance of internet-based driver education. Under California law, a "private school" must have students enrolled in a full-time day school, and it can issue driver education completion certificates only to its full-time students. However, some businesses offering internet-based driver education (and no other forms of education) have attempted to circumvent California's commercial driving school licensure process by registering with CDMV as private secondary schools. This situation has created an enforcement quagmire for CDMV.

---

8 *See* Scott V. Masten & Eric A. Chapman, The Effectiveness of Home-Study Driver Education Compared to Classroom Instruction: The Impact on Student Knowledge, Skills, and Attitudes 8, 12, 18 (2003) <http://www.dmv.ca.gov/about/profile/rd/r_d_report/Section%201/203-HomeStudyRpt.pdf>.

9 *Id.* at 22, 25-28, 30.

10 *Id.* at 19.

Colorado

Students under the age of 18 may follow one of three tracks to driver licensure in Colorado. Between the ages of 15 and 15½, students may apply for a driver education permit. From 15½ to 16, students may apply for a driver awareness permit. From ages 16 to 21, students may apply for a minor instruction permit.

To obtain one of the first two permits, students must first successfully complete classroom training provided by approved instructors; the third permit requires no classroom or behind-the-wheel instruction. To be eligible for the driver education permit, a student must have completed 30 hours of classroom instruction within the preceding six months. The student must also complete six hours of behind-the-wheel instruction with an approved instructor before applying for a restricted driver's license.[11] For the driver awareness permit, a student must merely complete a four-hour driver awareness program; no behind-the-wheel instruction is required.

Regardless which of the three permits a student holds, s/he must have the permit for at least one year and complete 50 hours of practice driving – ten of them at night – before applying for a restricted driver's license. Behind-the-wheel instruction with an approved instructor counts toward the 50-hour requirement.

Since 2003, students who are seeking driver education permits have been able to fulfill the classroom instruction requirement by completing an internet-based driver education course. The state has not maintained statistics on how many students have completed the internet-based course. Colorado has not compared the test scores, crash statistics, or driving violations of students who completed the coursework in traditional classrooms to those who completed the internet-based course.

In discussions with DPS staff, a manager in the driver education compliance section of the Colorado Department of Revenue reported that the state has encountered challenges in auditing the internet-based courses – specifically, in ensuring that the companies offering the internet instruction are upholding curriculum standards and are taking adequate measures to prevent students from committing fraud. Of the internet programs she had audited, she found most deficient and described only one as "good." Moreover, according to this manager, students have skirted security measures and have finished what were meant to be 30-hour internet-based courses in four to nine hours.

Florida

In Florida, students under age 18 are not required to complete any driver education classroom instruction or behind-the-wheel instruction to obtain a learner's driver license.[12] However, they must complete a four-hour traffic law and substance abuse

---

[11] If the student does not live within 30 miles of an approved instructor who offers behind-the-wheel training at least 20 hours per week, s/he may substitute twelve hours of behind-the-wheel instruction with a parent or other designated adult.

[12] In Florida, young drivers progress directly from a learner's license to an operator's license. However, they must hold the learner's license for at least one year, and the operator's license has certain

course to obtain a learner's license. This course may be completed in a classroom or over the internet and is available from various providers. Many public schools offer internet-based instruction, and many of them use a program provided by Florida Virtual School.

Florida has not conducted any studies regarding the test scores, crash statistics or driving violations of students who completed their coursework in the traditional classroom versus those who completed an internet-based course. It does not have records of how many students have completed internet-based instruction.

Georgia

In Georgia, students 15 years and older who pass a knowledge exam will receive a learner's permit. To qualify for an intermediate license, they must:

- have held the learner's permit for at least one year and a day;
- have completed 30 hours of state-approved classroom or internet-based instruction;
- have completed six hours of behind-the-wheel instruction with an approved instructor, or completed the Parent-Teen Driving Guide; and
- have logged 40 hours of practice driving while supervised by a licensed driver, at least six hours of which must be at night; and
- pass a road skills test.

If a student does not meet any one of these criteria, s/he is not eligible for an intermediate license until the age of 17.

Georgia began allowing students to complete the classroom portion of driver education through internet-based coursework in November 2006. Currently, 36 schools offer the internet-based course, and approximately 24,000 students complete the course each year. Georgia has not studied the test scores, crash statistics, or driving violations of students who have completed the internet-based course.

Idaho

In Idaho, no one under the age of 17 can obtain a driver's license unless s/he first completes an approved driver education program and a supervised instruction period. Students who are 15 or older first apply for a driver training and supervised instruction permit. When they successfully complete driver education, the six-month supervised instruction period begins. If they log at least 50 hours of supervised driving time (including ten hours at night) and remain violation-free for the six months, they will receive a restricted driver's license after passing a written knowledge exam and road skills test.

---

restrictions on it until the licensee reaches the age of 18. Thus, despite differences in terminology, Florida also has a graduated driver's license system.

Approved driver education programs consist of at least 30 hours of classroom instruction, six hours of driving observation time, and six hours of behind-the-wheel training. In 2005, Idaho began allowing students to complete the classroom portion of the program through internet-based coursework. The course is administered through a state-funded and -approved online high school, Idaho Digital Learning Academy (IDLA). Individual school districts contract with IDLA to offer the course to their students. This course is neither parent-taught nor a self-taught program. An instructor is in constant contact with students and parents and monitors the progress of each student. Each student must take the final exam at a school with a teacher or counselor present. The exam is completed online, but only the teacher or the counselor can supply the log-in password for the student.

About 150 students have completed the internet-based course since it began. Idaho has not compared the test scores, violations records, or crash rates of these students to those of students who completed instruction in a classroom setting.

Indiana

Students under age 18 in Indiana choose one of two paths to driver's licensure: the driver education learner's permit or the learner's permit. Students who are 15 or older may apply for the former permit if they are enrolled in an approved public or private driver education course. Students who are 16 or older may apply for the latter permit without enrolling in or completing a driver education course; however, they must pass a written knowledge exam.

Students who hold a driver education learner's permit may subsequently apply for a probationary driver's license if:

- they have held the permit for 60 days;
- they are at least 16 years, one month old; and
- they have successfully completed the driver education course, which consists of 30 hours of classroom instruction and six hours of behind-the-wheel instruction.

They must pass a written test and, in some cases, a road skills test, to receive the probationary license. Students who hold a learner's permit may subsequently obtain a probationary license at the age of 16 years, six months, without completing any classroom or behind-the-wheel instruction, provided they have held the permit for 60 days and they pass a road skills test.

In May 2008, Indiana began allowing driver education learner's permit holders to fulfill the 30-hour classroom requirement by completing approved, internet-based courses. When DPS contacted driver education personnel in Indiana during the summer of 2008, only one school was offering internet-based instruction, and three students had completed the course. When DPS contacted staff again in December 2008, a manager with the Indiana Department of Education stated that the internet-based program had been terminated. The commissioner of the Bureau of Motor Vehicles reportedly ended the

program after receiving a complaint from commercial driving schools, which were not allowed to offer internet-based courses.

Thus, as of this date, Indiana students under age 18 may no longer fulfill the classroom requirement by completing an internet-based course. Indiana has not studied the effectiveness of the internet-based instruction over the brief period it was implemented.

Nevada

In the state of Nevada, students under the age of 18 need not complete a classroom driver education course before they may obtain an instruction permit. However, if a classroom course is offered within 30 miles of a student's home, or if an internet-based course is available to the student, s/he must complete that coursework before s/he may obtain a provisional driver's license. Ordinarily, 30 hours of classroom instruction is required; however, when the instruction is provided by an approved commercial driving school, Nevada will accept a combination of 15 hours of classroom and five hours of behind-the-wheel instruction. Before they may qualify for a full driver's license, students must also complete 50 hours of supervised driving, at least ten hours of which must take place in darkness. If a student has not taken the classroom course, s/he must complete 100 hours of supervised driving, rather than 50.

Nevada began allowing students to complete the internet-based portion of the driver education curriculum in 2001, but it has no statistics on how many students have completed the internet-based classroom course. Nevada has not analyzed the test scores, crash statistics, or driving violations of students who completed the internet-based course versus the records of those who completed their coursework in a traditional classroom.

Oklahoma

In Oklahoma, students under age 18 have several options for obtaining their driver's licenses. Driver education is not required, although the path to full licensure is longer for those who opt not to take it.[13] For students who do choose driver education, the amount of instruction required depends upon whether the student enrolls in a high school program, a commercial driving school, or a parent-taught course, which includes internet-based curriculum options.

A student who enrolls in a high school driver education course must complete 30 hours of classroom instruction, six hours of behind-the-wheel instruction, and 40 hours of driving practice time (including ten at night) before s/he may obtain an intermediate driver's license. If the student enrolls in a commercial driving school, s/he must log ten hours of

---

[13] Students who opt to take driver education may apply for a learner's permit at the age of 15½ – as long as they have completed or are enrolled in a driver education course – and they must hold their intermediate licenses for just six months before they may apply for an unrestricted license. In contrast, those who choose not to take driver education may not obtain a learner's permit until the age of 16, and they must hold an intermediate license for at least one year before becoming eligible for an unrestricted license. Regardless of whether they take driver education, students must hold a learner's permit for at least six months before they become eligible for an intermediate license.

classroom instruction, six hours of behind-the-wheel instruction, and 40 hours of driving practice time (including ten at night) to obtain an intermediate driver's license. If the student enrolls in a parent-taught classroom course (including internet-based courses), s/he must complete 30 hours of classroom instruction to obtain an instruction permit and 55 hours of behind-the-wheel training with a parent or a driver education instructor to obtain an intermediate driver's license.

Beginning in late 2001, Oklahoma began allowing parents to teach driver education to their children within certain parameters set by the Oklahoma Department of Public Safety. In order to teach driver education to their children, parents must meet the following eligibility requirements:

- No suspensions, revocations, cancellations, or denials of their driving privileges in the past twelve months;
- No convictions for the use or possession of alcohol or drugs within the past twelve months;
- Not more than five point violations on their driving record; and
- No pending administrative actions by the Department of Public Safety relating to driving while impaired or under the influence.

Since November 2004, parents have been able to use internet-based curricula to instruct their children, so long as those curricula have been approved by the department. Seven organizations currently have approval to offer internet-based courses. Oklahoma has neither compiled statistics on how many students have completed the internet-based instruction, nor has it studied the test scores, crash statistics, or violation records of students who have completed internet-based coursework.

Pennsylvania

Pennsylvania has a three-stage graduated driving licensing program. Students between the ages of 16 and 18 may qualify for a learner's permit by taking a knowledge test. They must hold the permit for at least six months, during which time they must log at least 50 hours of adult-supervised driving time. After those requirements are met, students may take a road skills test which, if passed, will entitle them to a "junior driver's license."

Pennsylvania does not require students under the age of 18 to take driver education. However, students cannot obtain an unrestricted license before the age of 18 unless they have completed a state-approved driver training program, have been violation- and crash-free for at least one year, have held a junior driver's license for at least one year, and have a parent's consent. (In practical terms, this means that a student who takes driver education can obtain an unrestricted license at age 17½.) The approved courses consist of at least 30 hours of classroom and six hours of behind-the-wheel instruction. The six behind-the-wheel hours can count toward the 50-hour practice prerequisite for the junior driver's license.

In 2006, Pennsylvania began allowing students to complete the classroom portion of the driver education curriculum using internet-based instruction, though no programs were actually operating until June 2008. Six commercial driving schools and four high schools currently offer internet-based courses. Pennsylvania has no statistics on how many students have completed internet-based courses, and it has not analyzed the test scores, crash statistics, or violation records of students who completed internet-based courses versus those who completed their work in traditional classrooms.

Texas

Since it adopted a graduated driver's license structure in 2002, Texas has required students under age 18 to complete 32 hours of classroom instruction before they may obtain an instruction permit. They must hold that permit for at least six months and complete seven hours of behind-the-wheel instruction before becoming eligible for a provisional driver's license. Until April 1997, students had to complete the classroom instruction through a public school or through an approved commercial driving school. In April 1997, however, Texas began to allow parents to teach driver education to their children. Since then, nearly 70,000 students per year, on average, have completed a parent-taught driver education program.[14]

Parents who wish to teach the classroom course must meet the following requirements:

- The parent must have possessed a valid Texas driver's license for the past three years;
- The parent's driver's license must not have been suspended, revoked, or forfeited in the past three years for traffic-related violations;
- The parent must have no convictions (including probated sentences) for criminally negligent homicide or driving while intoxicated; and
- The parent may not be disabled by mental illness.[15]

Parents teach the courses using an approved curriculum from one of the nine organizations designated by the Texas Department of Public Safety. Three of these curricula are internet-based.

Combining data from focus groups, a mail survey, and driving records, the National Highway Traffic Safety Administration conducted an extensive study comparing the test scores, crash rates, and violation records of students completing a parent-taught course (including internet-based courses) and those of students completing their work in public schools or commercial driving schools. NHTSA did not analyze these data according to the particular curricula used in the parent-taught instruction, and the study does not

---

[14] National Highway Transportation Safety Administration, Pub. No. DOT HS 810 760, Parent-Taught Driver Education in Texas: A Comparative Evaluation 2, 4 (2007) <http://www.nhtsa.dot.gov/portal/nhtsa_static_file_downloader.jsp?file=/staticfiles/DOT/NHTSA/Communication%20&%20Consumer%20Information/Articles/Associated%20Files/parent-taught_driver_ed.pdf>.

[15] *See id.* at 14-15, app. at 5.

indicate how many parents utilize internet-based curricula. Thus, one can draw no firm conclusions from this study about the efficacy of internet-based instruction in particular.

Although the parent-taught students rated their own driving knowledge and skills on a par with their school-taught counterparts, the results of state-administered tests revealed a different story.[16] Parent-taught students demonstrated a lower level of driving knowledge early in the driver education process, and they demonstrated poorer driving skills at the end. Parent-taught students were more likely to require multiple attempts to pass the "rules and signs" knowledge test required to obtain an instructional permit: 82 percent reported passing on the first try, versus 97 and 93 percent of the commercial driving and public school students. Likewise, the parent-taught students who took road skills tests were less likely to pass them on the first try.[17]

With respect to traffic violations, driving records revealed that parent-taught students were less likely to be convicted of traffic offenses during the first six months of driving (the instruction permit phase). However, there were few significant differences between the parent-taught and school-taught students thereafter.[18]

As for crashes, parent-taught students were significantly less likely than school-taught students to be involved in crashes during the instruction permit phase – but during the second six months of driving, the parent-taught students were:

- twelve percent more likely to be involved in a crash (regardless of severity);
- 25 percent more likely to be involved in a non-incapacitating injury crash; and
- 57 percent more likely to be involved in an incapacitating injury crash than their school-taught peers.

During the third six-month period, the disparities between the two groups of students largely disappeared, except that school-taught teens were 14% more likely to be involved in possible injury crashes and parent-taught teens were nearly three times as likely to be involved in fatal crashes.[19]

---

16 NHTSA analyzed data over a period that preceded and followed Texas' adoption of a graduated driver's license (GDL) program. In some cases, the study data varied considerably between the pre-GDL and post-GDL periods and, in general, the earlier data cast parent-taught driver education in a less favorable light. *See, e.g., id.* at 146-47 (finding that parent-taught novice drivers were far more likely than school-taught drivers to be convicted of traffic violations during the pre-GDL era, but that the conviction rates fell after the GDL program was implemented). With respect to such conflicting data, this report restricts its discussion to the post-GDL data, since those data are more current and are arguably more germane to Minnesota, which also has a GDL structure.

17 *See id.* at 144. In Texas, students who successfully complete an approved driver education course do not have to take a road skills test to obtain a provisional license; however, their parents may request that such a test be administered. The parent-taught students were less likely to take the optional road skills test, and those who did were more likely to fail it on their first attempt. Only 71 percent of the parent-taught students passed on their first attempt, versus 96 and 86 percent of the commercial and public school-taught students, respectively. *See id.*

18 *Id.* at 147.

19 *See id.* at 117-18.

The authors of the NHTSA study recommended that Texas strengthen the minimum criteria for parents who wish to teach driver education to their children, and they suggested that parents be trained and/or tested as a prerequisite to teaching. They urged the Texas Department of Public Safety to heighten its monitoring of parent-taught driver education. Finally, the authors recommended that parent-taught students be required to pass a road skills test before being granted provisional driver's licenses.[20]

Virginia

In Virginia, students who have reached the age of 15½ and who pass a knowledge exam may obtain a learner's permit. Anyone under the age of 19 must hold a learner's permit for at least nine months, complete an approved course of driver education, and log at least 45 hours of practice driving before s/he may qualify for a full driver's license. Driver education consists of 30 hours of classroom instruction, seven hours of behind-the-wheel instruction, and seven hours of driving observation time.

In 2003, Virginia began allowing students to meet the classroom education requirement by completing internet-based coursework. In general, only students who have been designated by the Virginia Department of Education as home-schooled students may meet their driver education requirements with internet-based coursework. However, parents of students who attend public or private high schools may request permission from the school's principal for a student to complete internet-based instruction if the student meets one of the specified exemption criteria.

Fewer than 1,500 students complete internet-based driver education each year. Virginia has not conducted any studies comparing the test scores, crash statistics, or driving violations of students who have received instruction in a traditional classroom setting to the records of those who completed internet-based coursework.

Wisconsin

Students under the age of 18 in Wisconsin must be enrolled in an approved driver education program to obtain an instruction permit. Before they may obtain a "probationary" driver's license, they must satisfactorily complete the program, which consists of at least 30 hours of classroom instruction, six hours of behind-the-wheel instruction, and six hours of observation time.

Any student in Wisconsin may fulfill the classroom requirement by completing an internet-based course. The internet-based course is offered through one college, Southwest Technical College. In addition, 34 high schools offer the course to their students through the Cooperative Educational Service Agencies (CESA), which is part of the Wisconsin Department of Public Instruction. Commercial driving schools may not offer internet-based courses.

---

20 *See id.* at 150-51.

Wisconsin began allowing students to complete the internet-based portion of the driver education curriculum in May 2005. Each year, approximately 600 students complete the internet-based course through CESA and another 220 students complete it through Southwest Technical College.

Wisconsin has not studied the relative test scores, crash statistics, or driving violations of those who met the classroom requirement through internet-based study and those who received instruction in traditional classroom settings. The Wisconsin Department of Transportation will begin a study early in 2009 that will include a review and analysis of crash statistics and test scores for students completing internet-based courses.

Summary

The following table summarizes the driver education requirements of all twelve states and outlines the general form of their internet-based instruction:

STATE	Classroom requirement (in hours)	Behind-the-wheel requirement (in hours)	Test scores analyzed	Crash/ violation rates analyzed	Students completing course	Type of Instruction
California	30	6	Yes	No	Unknown	Self-guided
Colorado	30 (optional)	6 (optional)	No	No	Unknown	Self-guided
Florida	4	None	No	No	Unknown	Self-guided
Georgia	30	6	No	No	24,000 annually	Self-guided
Idaho	30	6	No	No	150 since 2005	Instructor-taught
Indiana	30 (optional)	6 (optional)	No	No	3	Self-guided
Nevada	30	None	No	No	Unknown	Self-guided
Oklahoma	30	6	No	No	Unknown	Parent-taught
Pennsylvania	30 (optional)	6 (optional)	No	No	Unknown	Self-guided
Texas	32	7	Yes	Yes	69,000 annually – 31%	Parent-taught
Virginia	30	7	No	No	< 1,500 annually	Self-guided
Wisconsin	30	6	No	No	820 annually	Self-guided

One of the twelve states, Indiana, no longer sanctions internet-based driver education. Two of the states have, to varying degrees, studied the effectiveness of internet-based programs. The highlights of these studies can be summarized as follows:

- The state of California found that students who completed internet-based driver education did as well or better than classroom-taught students on an end-of-course exam and on an attitude assessment; however, the classroom-taught students were more likely to pass the driver's licensing knowledge test on their first attempt. California did not compare violations records or crash rates to see if any

differences existed between students receiving driver education in the classroom versus over the internet.

- The National Highway Traffic Safety Administration (NHTSA) analyzed the effectiveness of parent-taught driver education in the state of Texas. Although the study did not differentiate among the various curricula used, two of the eight parent-taught curriculum options involve internet-based instruction. (Internet-based instruction is not part of any of the school-taught curricula.) After studying students' test scores and their crash and violations rates, NHTSA concluded that compared to their school-taught counterparts, the parent-taught students demonstrated poorer driving knowledge and poorer driving skills, as evidenced by their performance on state-administered tests. The parent-taught students were more likely to fail their written tests for instructional permits and their road skills tests. There were few differences between the two groups of students with respect to traffic violations, except that the parent-taught students were less likely to be convicted of violations during their first six months of driving. The parent-taught students were less likely to be involved in crashes during the first six months, but during the seventh through twelfth months of driving, they were more likely to be in crashes – especially injury-producing crashes – than the school-taught students.

DISCUSSION

There are several ways to measure the impact and effectiveness of driver education. Programs that increase students' access to driver education are certainly one positive impact. With the geographic, economic, and social constraints faced by some students today, the availability of internet-based instruction might help make driver education more accessible.

As for the efficacy of driver education, the scores and passing rates of students on written knowledge exams may reflect to some extent what they have gleaned from their instruction. However, students' abilities to recall facts do not necessarily reflect their mastery of the subject matter or their skill in applying those facts to a real-life situation.

In DPS' view, the more reliable measure of success is whether students practice safe driving techniques in the months and years that follow the written exams. DPS proceeds from the assumption that the more knowledgeable and prepared the driver, the less likely it is that she or he will be involved in traffic violations and crashes. The primary goal of driver education, after all, is public safety.

Although twelve states allow (or have allowed) students to fulfill the classroom component of driver education through internet-based coursework, little is known about the internet-based programs' effectiveness. California examined online students' scores on written knowledge tests and attitude assessments, but has no data on their crash rates or violations. A study of young drivers in Texas measured test passing rates, violation records, and crash rates, but did so in the broader context of parent-taught driver education, of which internet-based instruction is an undefined subset.

In some ways, this dearth of information is not surprising. First, internet-based driver education is a relatively new phenomenon. It simply has not been around long enough or been implemented extensively enough for data to have been collected and analyzed. Second, there is relatively little research on the efficacy of driver education in general, even with respect to traditional methods of instruction delivery. What research does exist tends to challenge the assumption that driver education has a positive effect on the safety of young drivers.[21] That begs the question of whether implementation of internet-based driver education should be delayed until more data are available.

DPS does not necessarily view the lack of research as a barrier to the implementation of internet-based driver education in this state. Minnesotans are accustomed to breaking new ground. However, DPS believes that to the greatest extent possible, it would need to

---

[21] *See, e.g.*, D.R. Mayhew & H.M. Simpson, Effectiveness and Role of Driver Education and Training in a Graduated Licensing System §§ 2.1–.2.5 (Traffic Injury Research Foundation, 1996) (reviewing literature) <http://www.drivers.com/article/305/>.

ensure internet-based driver education is at least as effective as classroom instruction in preparing young people to drive thoughtfully and safely on Minnesota roads.

The potential pitfalls that are unique to internet-based instruction require a deliberate approach. For example, good classroom instructors often can detect when students are not engaged, and they can adjust their delivery and try to reach students in other ways. In contrast, it would be difficult – perhaps impossible – for an internet "instructor" to detect when students have dozed off or left the room. While a teacher in a classroom can easily see when a student is sitting at the wrong desk, it would be difficult to tell when someone other than the enrolled student were seated at a computer.

Solutions to these challenges are not easy. But if internet-based driver education were to be implemented, DPS might consider requiring:

- strict security measures to ensure that the student who enrolled is the same person who takes the course;
- internet-based curricula designed so as to allow parents/guardians to serve as in-home instructors, thereby preserving the opportunities for interaction and shared problem-solving that are inherent in traditional classroom instruction;
- a level of interactivity that keeps the student focused on the material and discourages multi-tasking; and
- built-in timing safeguards, to ensure that students cannot race through the material so quickly that they do not absorb it.

Such precautions would require DPS to exercise a greater level of control over the content and delivery of driver education than it does at present. Rulemaking may be necessary to carry out the administration of this program.

If the Legislature determines that internet-based instruction should be accepted as satisfaction of the classroom driver education prerequisite to an instruction permit, DPS respectfully suggests that it consider imposing one or more parameters. First, the Legislature might wish to reflect upon whether students who complete instruction online – particularly if the instruction is self-guided – should be required to log more hours of instruction time or, as Nevada does, more hours of supervised driving time. Second, the Legislature might require a study of students' test scores, violation records, and crash rates to provide analysis of the internet-based instruction. Funding would be necessary to implement such a study.

CONCLUSION

Internet-based classroom driver education is relatively new, and the efficacy of this form of instruction still is largely undetermined. Upon examining internet-based programs in twelve states, DPS found no evidence to date indicating whether teens who receive internet-based instruction are more or less likely to commit traffic violations or to be involved in crashes. Concerns linger about how states can best ensure that students receive the same level and quality of information from internet-based instruction as they do from traditional classroom study. If Minnesota accepts internet-based driver education instruction in lieu of traditional classroom delivery methods, DPS will need to exercise greater control over the content and delivery of this new instruction, so that our state's youngest drivers are adequately prepared to face the challenges of driving in a way that keeps them and all other citizens safe.