Internet Driver Education Study

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16. Abstract

Incorporating technology through online courses, including driver's education (DE), is the wave of the future for learning. While many states allow online DE as an accepted method of learning, Wisconsin currently only allows it on a limited basis. This two-phase study sought to provide information on the use/effectiveness of Internet DE as an alternative to traditional DE.

Secondary research was conducted to collect/analyze information from states that have gone through this process previously. Telephone interviews were then conducted to supplement where information was limited or unavailable. Specific respondent types included:

- DE program coordinators from other states offering online DE (7 interviewed)
- Online/Traditional DE instructors (34 interviewed)
- Previous Wisconsin DE students, both online and classroom (102 interviewed)

The perceived benefits, specifically convenience and flexibility, make this option very attractive to young drivers who are adept at using the computer as a learning tool. Security, material comprehension and motivation are seen as key barriers states need to overcome.

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EXECUTIVE SUMMARY

PROJECT SUMMARY

In October 2009, the Wisconsin Department of Transportation (WisDOT) requested that the Dieringer Research Group (DRG) conduct an evaluation of the costs, benefits and limitations of Internet-based driver's education. Through primary and secondary research, WisDOT Division of Motor Vehicles was interested in understanding the use and effectiveness of Internet driver's education (DE) programs as an alternative to the traditional classroom format. The purpose of the research was to lend guidance in decision-making regarding the expanded use of this format in Wisconsin.

RESEARCH APPROACH

The research plan included a two-fold process of secondary research followed by primary interviews performed starting in November 2009 – March 2010. The intent of the secondary research was to discover previous research conducted on the topic by other states that currently offer online DE, understand the effectiveness of online courses and assist in developing the telephone questionnaires for primary research.

The primary interviews were conducted via telephone. Initially three respondent groups were targeted for their feedback, including program coordinators of states that currently allow online DE as an accepted course option, instructors of both traditional classroom courses and online from these same states, and recent students of both online and classroom courses from Southwest Technical College (SWTC) and CESA #2 district in Wisconsin. To supplement the instructor perspective, in-depth interviews were conducted with course coordinators/online instructors from states with internally developed online programs where instructors have a true role in teaching students.

SUMMARY OF FINDINGS

The research findings below discuss key insights outlining the details of online DE programs available at the time of the research and some limited information on the overall effectiveness of online DE. In areas of crossover between the secondary research and the primary, the findings aligned.

Technology has allowed people to expand the possibilities and creativity of teaching, learning and doing many things. As a result of computers and the Internet, even DE instruction is transitioning online. The convenience and flexibility of online DE is very attractive to young, prospective drivers. Additionally, children growing up in today's society are born into the 'Technology Age' and are very adept at using the computer as a learning mechanism. Parents also recognize the benefits by not having to transport their child to class and, at times, are more involved in the driving process.

Although many benefits are realized, security, learning the materials and motivation are top barriers recognized by both program coordinators and instructors to overcome. It is a challenge for DE courses to ensure that the registered student is completing the course and that the student remains motivated and engaged in the class to walk away with the knowledge of course topics and instilled with safe-driving behaviors. Relying on the honor system, security

verification questions and proctored permit exams were mentioned as ways currently in place by other states to try and combat security concerns.

Developing an internal program, using a commercial DE vendor or using both is a decision that all states face when deciding how to institute their online DE program. Time, resources and required standards of teaching to follow all play a key role in the decision process. Commercial DE courses alleviate the time and resources required of states since they handle the development portion and they have a template that could simply be updated with state specifics since they are already servicing other states. A downfall of these courses is the limited instructor involvement which many mentioned is important to helping young drivers learn the materials. While internal programs take additional time in development, they allow the flexibility to incorporate instructor involvement, ability to follow national standards such as iNACOL and creativity in course development. Wisconsin currently offers internal programs through SWTC and CESA #2 which could be further leveraged.

Establishing instructor standards is another aspect of consideration for online DE programs. Internal online DE programs establish additional training requirements of online DE instructors. Some of the extra steps instructors must take include courses and workshops to better teach online. Since commercial DE programs have limited instructor involvement, those states did not have set instructor standards to follow.

Even some instructors of traditional classroom courses are incorporating online materials into their courses on a limited basis. They are using the Internet to supplement their course with additional information from their DOT's website, literature on the effects of alcohol and drugs, using YouTube to illustrate how weather conditions can effect driving and many more. In the future, more traditional instructors intend on incorporating online resources, but it will still be on a limited basis.

Online DE courses have many different approaches to how they determine course completion for students. Discussion board participation is required by most online classes with their work graded as either number of comments posted or quality of comments. Also in most cases, students must receive an 80% or greater on all tests and assignments as well as complete the required number of hours. In one case, it was 70% or greater to pass.

Since most states, like Wisconsin, have required number of hours for DE instruction, the ability to monitor class length online is important. Other states that have to follow similar time guidelines have incorporated timers into the program and also use time stamps from IP address to track hours students spend on the course.

Parental involvement is an important part of the learning process. However, conflicting research exists on the overall capabilities of parents in teaching driver's education to their children compared to a trained DE instructor. Despite reservations, home school DE is already accepted by many states interviewed. To help parents be better prepared to teach their child how to drive, states are being proactive by providing written and online materials or basic instruction courses.

Currently, there is an uncertainty of whether online students are learning the DE materials and exhibiting similar safe driving behaviors as well as traditional classroom students. Among the small sample of SWTC and CESA #2 students interviewed, no notable differences exist between online and classroom courses in the self-reported knowledge level of key topics. Additionally,

online and traditional students alike are equally likely to pass their permit test and road test on the first attempt. Once on the road, few online and classroom students have been involved in a crash or received a moving violation.

Students of both online and traditional courses share similar levels of satisfaction with their instructor overall and on most individual aspects despite the difference in interaction. Surprisingly, in areas one might expect to see differences such as responsiveness to questions, amount of interaction with the instructor and individual attention received, no differences exist between online and classroom students. The only significant difference is traditional students are more satisfied with the amount of information they receive from their instructor compared to online students. Looking at the attributes overall, students are more satisfied with their instructors' knowledge of the materials as well as their responsiveness to questions, and less satisfied the individual attention received and creativity in teaching.

While online and traditional students rated most of the aspects of their class the same, traditional classroom students are more satisfied overall with the course (92% classroom vs. 71% online). Additionally, if they had to take the class all over again, nearly 9 in 10 are likely to repeat the course in the same teaching method, in the classroom, compared to only half of online students would repeat the course online (87% classroom vs. 54% online). A few of the reasons online students stated for not being likely to take the course again online include: it was harder than anticipated, while others were looking for a greater learning challenge, specifically they believe they would learn more in the classroom or they didn't learn what they thought they should have online.

The secondary research currently available surrounding the effectiveness of online driver's education is limited. Only one study was discovered during the secondary research portion of the study that compared the effectiveness of different course types, conducted by California in 2003. Based on the overall objectives of the study to compare the knowledge, skills and attitude of students across the various course types, the study concluded that home school or online/computer-based course were equally effective in teaching DE material as traditional in-class courses.[3] In another effort to further analyze DE, states such as Georgia and Virginia have started to examine crash statistics data for the different school types, but many other states have yet to do so.

CONCLUSIONS

Incorporating technology through online courses is viewed as the wave of the future for learning, including for DE. Online DE can truly be centered on the learner. It can be created to emphasize the needs of the students and also provide methods for the student to control the learning process. Through the use of technology, it can incorporate many components including online discussions for students to demonstrate knowledge of course material and engage them like traditional courses. Communication and interaction with an instructor is not vital, but viewed by some as an area that could benefit students and potentially improve learning. Although online DE represents many positive aspects, the security challenges and ensuring students learn the required material are big concerns. Developing standards to overcome these barriers are key to guarantee novice drivers as well as other drivers stay safe on the road.

While information on the effectiveness of online DE is limited, the course type shows promise. Since the inception of online DE, only a few studies exist that evaluates the effectiveness of the program. Measures that have been used previously as proxy for evaluating course success or

effectiveness include knowledge of course materials and driver safety available through crash statistics and moving violations. A study conducted in California suggests through their research that the knowledge and safety of drivers was similar among classroom and computer-based learning deeming them equally effective. Similarly among the small sample of students surveyed from SWTC and CESA #2, the self-reported knowledge of key topics was comparable among students from online and traditional courses, as well as each class type being equally likely to pass both their permit test and their road test on their first attempt. Additionally, there were no significant differences in being involved in a crash and receiving a moving violation between online and traditional class types. In general, the findings of the research currently available suggest there is no compelling evidence for or against it.

SUGGESTED RESEARCH

While the research conducted in this study established a solid base of information about online DE, there are still some areas that WisDOT can follow up on as a result of this study.

- Analyze crash statistics and moving violations of novice drivers more in-depth; specifically, comparing the method of instruction like online through SWTC and CESA #2 to those students who took the course in the classroom. This will help better understand the overall effectiveness of each and see if true differences exist between course types.

- Conduct a more thorough analysis of Costech and Somastream to evaluate their program offerings. Of those online DE instructors using their courses, they mentioned being satisfied with the class teachings and the student progress reports received from the vendor. However, it was not in the scope of this research to do a program review of online DE vendors.

- If WisDOT allows commercial vendors to offer online DE, additional instructor interviews should be considered. The original line of questions was designed to understand the role of the instructor in teaching the DE course, however the findings suggest that these courses are web-based and do not rely on actual instructors to teach the course. If follow up is completed, questions should focus on the relationship between the vendor and the instructor to understand potential challenges in the working relationship and whether there is concern about the student's comprehension of course materials.

- Similarly, if WisDOT allows commercial DE vendors to offer online DE, additional students interviews from these online courses should be considered to see if their experiences are different since there is less involvement with an instructor for those courses.

PROJECT BACKGROUND

BACKGROUND

As advancements in technology continue to embed themselves in our lives and practices, it is necessary to continually evaluate the use of computers and the Internet to expand current options, including DE. Many states already allow online DE as an accepted method of learning. Currently, Wisconsin allows online DE only on a limited basis offered by SWTC and CESA District #2.

This research was conducted to evaluate the costs, benefits and limitations of using Internet-based DE. Through primary and secondary research, this study sought to provide information on the use and effectiveness of the Internet DE programs as an alternative to traditional classroom DE.

OBJECTIVES

To provide a more comprehensive look at DE in its current state, including online DE, WisDOT launched a research study. The principal objective of the research was to understand the perceptions and overall use of online DE in Wisconsin and other states currently allowing the method of teaching.

The goals for the research include understanding:

- Program details for online DE classes currently offered
- The benefits and challenges of current programs available by states offering an online option
- Security concerns surrounding online DE programs
- Approximate cost of online programs offered by other states
- Online course details including:
  - Audio/video materials
  - Grading of the program and discussion posts
- The quality standards other states follow when developing their online DE programs
- What qualifications are required for instructors to teach online DE for other states
- Programs for home school students
- The student perspective including:
  - Overall knowledge of course materials
  - Interaction/satisfaction with course instructor
  - Overall course assessment
- The level of parental involvement in DE
- Ideas for Wisconsin to consider when making decisions regarding online DE

INTENDED USE

The information from this research will aid in decision-making regarding the expanded use of Internet DE in Wisconsin as an alternative to classroom instruction.

RESEARCH APPROACH

METHODOLOGY

As part of the project plan, secondary and primary research was conducted. Secondary research was conducted to understand the information available on the topic by other states that have gone through this process previously. Primary research via the telephone was then used to supplement areas where information was limited or unavailable, as well as to collect feedback from several respondent types.

The groups of respondents spoken to during the primary interviews included:

- DE program coordinators from other states offering online DE
- Instructors of DE including teachers of both online and classroom methods
- Previous Wisconsin students of both online and classroom DE instruction

Due to the limited number of interviews from program coordinators and instructors, findings in these sections are qualitative and should be considered exploratory in nature. However, student findings can be evaluated quantitatively with 102 completes.

RESPONDENTS

Program coordinators consisted of the individuals responsible for their DE program in states that currently offer an online option.

- Of the 12 states currently offering online DE at the time of this research, state program coordinators were interviewed from:

  - California
  - Colorado
  - Idaho
  - Indiana

  - Kansas
  - Texas
  - Virginia

- Interviews were conducted from January 21st – March 5th, 2010, at an average length of 20 minutes.
- Also to learn about the online DE programs in Wisconsin, the DRG conducted in-depth interviews with Annette Biggin of SWTC and Kurt Schulz from CESA #2. Due to their unique background in the inception and creation of their online programs, in addition to their DE instructor background, the interviews were tailored to gain feedback similar to program coordinators and the instructors. Thus, their feedback will be incorporated into the program coordinators and also the DE instructor sections.
  - Each interview lasted approximately 45 minutes
  - Since Virginia also developed their own online DE program, an in-depth interview was conducted with Janet Raglund an online instructor to further understand their program
- Program Coordinator sample was supplied by David Huff of Montana's DE program and the Chairman of Driver Education and Training Administrators (DETA).

DE Instructor feedback was solicited from either traditional or online course teachers located in select states that offer online classes.

- 34 instructors were interviewed from the states listed to the right between January 21st – 27th, 2010
- Interviews were approximately 15 minutes in length
- Sample for Wisconsin DPI Instructors was provided by Randy Thiel and Brian Banach supplied commercial DE instructors
- Online DE instructors from Wisconsin were provided by Annette Biggin from SWTC and Kurt Schulz from CESA #2 for their respective programs
- Other states' instructors were found via web searches

Table 3-1: Instructor Interviews by State	
• Wisconsin	26
• Virginia	3
• Colorado	2
• Nevada	2
• Georgia	1

Recent Students completed DE in years 2006-2009 via the classroom or online through Southwest Technical College (SWTC) or in the CESA District #2, in Wisconsin. CESA #2 District includes the following high schools: Belleville, Cambridge, East Troy, McFarland, Middleton-Cross Plains, Milton, Monona Grove, River Valley, Verona and Waunakee.

- A total of 102 student interviews were completed; 51 from each SWTC or CESA #2
- Interviews were conducted between January 20th – March 4th, 2010
- Average interview length was 15 minutes
- Sample for SWTC students was provided by Annette Biggin, Driver's Education Coordinator for the college
- CESA #2 provided sample for Middleton-Cross Plains upon receiving approval from the school district. The remainder of the sample was purchased from a sample vendor of households with a 17 or 18 year old child in the zip codes of the previously mentioned school districts

Questionnaires were developed by The Dieringer Research Group for each of the respondent segments, the program coordinators, In-depth interview conversations with Annette and Kurt, DE instructors and students, with input from WisDOT. [See the questionnaires in the Appendix for the exact questions asked.]

STATISTICAL RELIABILITY AND LIMITATIONS

Qualitative research – Program Coordinators and DE Instructors

The research of program coordinators and DE instructors is exploratory in nature. It is used to define the important issues and attitude parameters in relation to a particular subject. It is a very useful tool in finding out not only how people feel, but also why they feel that way.

However, due to the small number of participants, the results of these primary interviews are not statistically projectable across the population as a whole. Therefore, the reader is cautioned not to project the findings of these groups to all program coordinators or DE instructors; instead, these findings are intended as directional in nature.

Quantitative research – Student Interviews

Reliability is the degree to which survey sample data reflects the actual population and the true parameters of that population. It is dependent primarily upon the survey sample size. The precise statistical interpretation of a randomly selected survey sample, such as this one, is based on other factors as well. These factors include sample selection, types of questions asked, answers received, interviewer proficiency, and respondent quality. However, only a general discussion of sample size is pertinent at this point.

As a generalization, a sample of 102 randomly selected DE students from SWTC and CESA District #2 will generate data reliable with 95% confidence and a plus or minus 9.7% sampling error. That is to say, if a similar survey were conducted repeatedly, results within plus or minus 9.7% would occur for any one question 95 out of 100 times. Looking at it another way, if a question received a "yes" answer by 60% of the 102 DE students, the chances are 95 out of 100 that between 50.3% and 69.7% of the total population would lodge a similar "yes" response, if asked. Sampling error such as this is applied to each cross-tabulation cell as well as the total survey sample.

It is also important to point out, first of all, that surveys should never be viewed as 100% reliable. A small difference between two statistics or findings cannot be considered necessarily meaningful; however, as the sample size increases, the margin of error (sampling error) decreases, thereby providing more conclusive and reliable data.

The following table shows the number of recruits, completed interviews and the corresponding sampling error for the key segments discussed in this report.

Table 3-2: Student Perspective on DE Breakout of Completed Interviews		
Segment	**Number of Completed Interviews**	**Margin of Error**
Total	102	± 9.7%
Class Type		
Online	37	± 16.1%
Classroom	65	± 12.2%
School Program		
Southwest Technical College	51	± 13.7%
CESA District #2	51	± 13.7%
Year of Class Completions		
2009	56	± 13.1%
2008	28	± 18.5%
2007 or before	18	± 23.1%

SECONDARY RESEARCH

BACKGROUND

The secondary research was conducted to provide background information on other states that currently allow online courses, understand the effectiveness of online courses and ultimately to assist in developing the telephone questionnaires for the primary research portion of this study. The topics covered during the secondary research phase were:

- Expansion of online classes for high school students
- Benefits of offering Internet DE
- Challenges surrounding online DE
- Methods for overcoming security concerns
- Approximate costs for online DE by state
- Program details
- Parental involvement in DE
- Quality standards for online programs/instructor qualifications
- Creation/evaluation of DE programs
- Effectiveness of online classes in DE

EXPANSION OF ONLINE CLASSES FOR HIGH SCHOOL STUDENTS

Over the years, technology has embedded itself into our lives and practices. We depend on the Internet to provide convenient access to endless amounts of information, social media, and entertainment. Younger members of our society are continually exposed to new technology and commonly embrace it with open arms. This generation has been born into the 'Technology Age,' and has grown up having access to the Internet, computers, mobile phones, etc. and is often fearless in experimenting with them. Technology and gadgets are a normal facet of their everyday lives.

The continued technology movement has also opened the door for new opportunities to teach and learn. In general, online classes have been on the rise over the past few years. In 2006, one million high school students nationwide were enrolled in online classes. Specifically in Idaho, 87% of high schools used the online courses to augment curriculum and offer remedial or advanced courses.[1] Offering online DE has been a natural extension of that for many states including:

- California
- Colorado
- Florida
- Idaho

- Indiana
- Kansas
- Minnesota
- Nevada

- Oklahoma
- Pennsylvania
- Texas
- Virginia

Online DE was first instituted in the early 2000s and continues to be considered by other states including Michigan and Wisconsin.

BENEFITS OF OFFERING INTERNET DE

For the states that currently allow online DE as an accepted instructional method, parents, students and instructors have realized many benefits. The following are benefits of delivering DE via the web:

Students
- Students can study at times that work best for them.
- Online courses can be paused and revisited any time.[2]
- Students can learn at their own pace.[2]
- Students can take breaks when needed to eliminate the fatigue factor, which can set in during a traditional classroom.
- Numerous practice tests are included in the class.
- Highest risk drivers may be best taught online, since classrooms may bore them. This learning style gives them more individual interaction with the class material.[3]
- Removes the classroom distractions.[3]
- More interactive and fun learning.[2]
- No attendance pressure.[2]
- Time effective since students can access and complete the course right from their home.[2]
- Traditional classroom lectures may not work as well for today's teens who want to be visually, mentally, and physically stimulated and challenged. Online classes rely on many factors that young adults respond well to, like computers and the Internet.[4]
- Updated technology allows instructors to include simulations that could increase the experience of the drivers and help them better understand how to approach hazardous situations.[5]

Parents
- Online courses are convenient since the parents do not need to rearrange their schedules to provide transportation to in-class lectures.
- Parents/Guardians do not need to drive through hectic traffic or bad weather to reach the traffic school.[2]
- Allows for more parental involvement in the training/education process since they can work with the child during the online classroom sections.
- The online courses tend to be cheaper, which are very beneficial during tough economic times.[6]

Instructors
- One teacher can handle more online students than in-class students.[7]
- Instructors can utilize technology like discussion boards, instant messaging and simulations to approach topics differently than in a classroom setting.

CHALLENGES SURROUNDING INTERNET DE

While the benefits paint a positive picture, there are still some pitfalls with online DE classes. It is important to consider the roadblocks addressed by other states that recently approved or are currently considering allowing an online option as an alternative to the traditional classroom:

- Some students may be too distracted by things such as Instant Messaging, online games, MySpace, and Facebook to be dedicated enough to take the course online.[8]

- All students learn differently. Independent study such as online classes may not suit all students, causing them to not fully understand all the essential traffic laws.
- Students miss the chance to learn from the personal experience of not only the instructor, but their peers as well. Personal interaction has been proven to be an important part of the learning process.[9]
- DE is designed to not only teach traffic laws, but also to change the driver's behavior on the road (i.e., make them safer drivers). Since students can breeze through the online classes, critics are concerned that the lessons might not have the directed effect on changing their behavior.[10]
- Procrastination can be an issue for some students. The self-paced classes are designed to be completed in a few hours at the student's convenience, but it can take much longer if the student is not disciplined.[9]
- According to the Michigan Driver and Traffic Safety Education Association (MDTSEA), parent-taught driver's education is dangerous. Parents have a lack of formal training, knowledge, teaching skills, and the emergency decision-making skills that instructors are trained to handle.[11]
- For online classes, prospective buyers do not have any knowledge of who is running the course.[7] Many instructors for online DE classes come from a computer programming background, rather than an educational background.[10] These unknown factors often leave parents uncertain about whether the instructor is knowledgeable enough to teach their children.
- Uncertainty about the quality of the classes[8]
- Difficulty in determining if the student is the one actually completing the class.[7] For many states/programs, the only supervised test is the final test.

METHODS FOR OVERCOMING SECURITY CONCERNS

One of the leading challenges for states when considering online DE as a viable option is determining how to overcome the security concerns surrounding online delivery. Many of the other states have put some practices in place that they abide by to help alleviate some of the concerns regarding this topic. The policies in place vary drastically from simply using the honor system to jail time if found guilty of cheating. Below are some of the systems that are currently in place or being considered:

- Co-Founder of TrafficSchool.com, Eric Creditor, says he believes in the "inherent honesty" of students, but still requires them to sign a perjury statement.[10]
- Kansas sends out forms to the parents asking them to sign a statement saying their child and no one else was the one taking the course.[7] Based on the research found, it is uncertain whether the forms were sent out before or after the start of the class.
- For states such as Virginia and Colorado, the only safety net is requiring the student to take the test in person.[10]
- After online DE is complete, California students can go to one of more than 100 locations in the state and show an ID to take the test. A test proctor then logs the student into a computer which is where the final exam is administered. Each computer then has a timer that shows how quickly the student finishes the test.[10]
- Idrivesafely.com, based in California, uses biometric keystroke analysis which measures a student's typing speed and rhythm and checks whether those traits are consistent throughout the course.[10]

- In Texas, courses must use built-in timers and be able to prove students receive at least 300 minutes of required instruction time covering certain points, prior to receiving a certificate of completion.[10]
- Houston-based, defensivedriving.com, sets up a validation process to ensure the intended student is the one completing the course materials. The validation questions include one of the following: the year the student was born, the last school attended or the last check or credit card used. Then, it uses 3rd party databases such as credit bureaus to verify the answer matches that student. Students must agree to this validation process as part of the program. If the student violates the process, they could face perjury charges, a 10-year prison term and/or a $10,000 fine.[10]
- More advanced technology is also available that can verify identities over the Internet with a fingerprint or retina scan, but in 2002, no one was using these methods.[10] Research is unable to determine whether any movement is planned in this direction.

APPROXIMATE COSTS FOR ONLINE DE BY STATE

The cost for online DE classes varies drastically for each state and the website. When analyzing the cost, it is important to also pay attention to the fine print. Some costs provided are for all services needed to obtain one's permit, while other costs are for supplemental courses only. The table below provides the range of costs for each state for classes that only fulfill the necessary requirements to obtain one's permit:

Table 4-1: Approximate Cost for States Allowing Online DE Classes		
States	**Range of Cost for Classes**	**Midpoint Cost**
	Cost in dollars	*Cost in dollars*
California	$19.99 - $99	$59.50
Colorado	$39.95 - $99	$69.48
Florida	Free - $35	$17.50
Georgia	$69	$69
Indiana	$355	$355
Minnesota	$99	$99
Nevada	$55 - $99	$77
Oklahoma	$99	$99
Pennsylvania	$45 - $99	$72
Texas	$150 - $169	$158
Virginia	$99	$99
Idaho	**	**
Kansas	**	**
Average Cost***		**$106.86**

*The data included in this table provides cost information from the following websites; www.driverseducation.com, www.driversedonline.com, www.driverseddirct.com, www.driveredtogo.com. However, more websites are available online to choose from.
**No courses were available on the previously mentioned sites that satisfy the state requirements.
*** The average cost was calculated by taking the mean of the midpoints for all states that had an available price.

PROGRAM DETAILS

Many of the online DE classes offer similar programs, but the content differs slightly based on the individual state's learning guidelines. The general types of program offerings include:*

- Up-to-date safe-driving techniques
- Driving responsibilities
- Signs, signals, and road markings
- Sharing the road
- Tips for city and residential driving
- Tips for highway driving
- Safety tips for normal and hazardous conditions
- Licensing, registration, and vehicle codes
- Human physical and psychological issues
- The effects of natural forces (i.e., weather conditions and road conditions)
- Accident causes and prevention
- Effects of alcohol and drugs on driving

*The topics covered were found on the following websites; www.driverseducation.com, www.driversedonline.com, www.driverseddirct.com, www.driveredtogo.com. Although, more websites are available online to choose from.

The state of Pennsylvania has also created guidelines for online DE programs as to what they must provide students in the delivery of the class itself:[12]

- Site map
- Interactive and engaging class
- Calendar of events
- Course syllabus
- Clearly stated instructional objectives
- Course content and a glossary of terms
- Course material presented in a variety of mediums to accomplish the objectives (i.e., video, graphics web pages, links to resources, etc.)
- Online discussion boards
- Teacher/student email for communication purposes
- Chat rooms for teacher/student interaction
- Provide students instant feedback as to class progress and grading
- Assessment and progress tools such as assignments, self-tests, and quizzes
- Online practice quizzes and testing components
- Validation and security measures to ensure accuracy and privacy
- Testing for successful completion of the program should take place in-person at a designated testing center

PARENTAL INVOLVEMENT IN DE

Parental involvement in DE has always been a key component to the learning process. Increased parental involvement has been shown to be an important factor in the effectiveness of the graduated licensing laws.[3] Also, according to a study conducted in California, 47% of students indicated their parents were the most helpful resource when learning to drive, while the DE class itself only was most helpful to 25%. Their role in the process is not only to teach their teen the skills of how to drive, but also set expectations or rules like curfews, paying for gas/maintenance

of the car, maintaining a certain GPA, and being responsible for running family errands. Ultimately, parents provide boundaries for teens that allow them to safely develop skills and learn the responsibilities that come with the privilege of driving.[13]

With online DE courses, parents would assume even more responsibility with ensuring that the course work is completed and understood. However, most parents do not have all the background knowledge like an instructor to be the best resource for their teen. A study conducted in Montana indicates that parents need better information and instruction for adhering to the GDL requirements, conducting supervised practice driving and restricting independent teenage driving.[14] To ensure that parents do the best job they can, some states and/or programs have been creating educational driving materials tailored specifically for them.

- In Montana, parents prefer to have written material sent home, access over the Internet or in-person discussions with the instructor.[14]
- The Oregon Parent Involvement Resource Guide partnered with the Oregon Traffic and Safety Education Association to create a parent handbook to assist, promote, and provide guidance for behind-the-wheel training and safe-driving techniques.[15]
- Georgia offers a 2-hour course designed to help parents and teens learn what they need to do during supervised driving.[16]
- Driverseddirect.com provides a CD for parents that guide them through in-vehicle lessons from beginning-to-end, step-by-step, in an easy to understand format and provides all the answers to assessments and workbook tests.

QUALITY STANDARDS FOR ONLINE PROGRAMS/INSTRUCTOR QUALIFICATIONS

Secondary research conducted revealed little available information on ensuring the quality of online programs. Many states struggle with the issues of how the programs should be approved and who is responsible for making sure that the programs meet state requirements. Our research identified only one state, Texas, with quality standards for online programs which says all courses must be written by a licensed instructor.[10] Further research during the telephone interviews will be necessary to better understand state practices.

The general instructor qualifications are more established. The following are some examples of what states require for instructors to obtain their license and maintain teacher certifications:

- In Michigan, instructors can only be licensed after they take a college-level driver's education training course. The educators must follow a state-prescribed curriculum and have criminal background checks, clean driving records and positive medical reports.[17]
- For all new driver training instructors in Georgia, they must attend a four-hour training course offered by the Department of Drivers Services (DDS).[16]
- Instructors must pass qualifying examinations every three years or show proof of continuing education in traffic safety to maintain their teacher certifications in California.[18]

CREATION/EVALUATION OF DE PROGRAMS

When developing a comprehensive driver's education course and behind-the-wheel training, program developers should incorporate an understanding of not only the basic procedures and traffic safety, but also how teenagers learn. If one of the elements is absent, educators can lose the opportunity to effectively teach teenagers how to drive safely. Additionally, it is important to keep in mind that teenagers are very susceptible to peer pressure. Understanding this pressure and other cultural and societal pressures that affect their behavior could help educators design a course that takes into account and compensates for risks associated with this environment.[4]

Key objectives to include when designing a program are:

- Basic procedures including both vehicle control and maneuvering, and laws and regulations
- Dedicate instruction time to develop skills where inexperienced young drivers most commonly have difficulties, such as in visual searches, attention span, speed space, signals and hazard recognition
- Advanced skills which include skid control and collision avoidance[5]

If a state is evaluating a DE program developed by an outside vendor, including online, some suggested guidelines or standards include (traffic safety education):

- Course curriculum – Is the curriculum up-to-date based on national/state standards? Does the curriculum have the necessary objectives and learning materials to ensure course completion is successful?
- Teacher certification – Are the teachers following and complying with the standards established?
- Facilities and equipment – Is the course delivered in a manner that is accessible to students? Are there sufficient text books and supplies for successful delivery of instruction?
- Record keeping – Does the course meet the standards set for record keeping, both for the course itself and individual student records? Are students required to meet set minimum class times?

It is suggested that the overall development of DE courses take place in stages with constant evaluation of the progress while trying to avoid permanent curriculum.[19] During the review process of the program, some suggested questions to include are:

- Do certain types of driver's education programs lead to better educational and safety outcomes than others?
- Can we identify sections/programs that work and those that do not?
- Do programs meet the learning objectives?
- What can be improved to make young drivers safer?

States are also taking the review process one step further by evaluating the different delivery of classes for program objectives and its effectiveness in decreasing violations and crash statistics. In 2008, Georgia DDS implemented a new web-based functionality that analyzes the impact driver training delivery has on the driving behavior of teen drivers, particularly statistical information about the effect on convictions for moving violations. They are analyzing student demographics, course type, and graduation date and comparing that to the statistics to evaluate

the effectiveness of the class type they took. The information on the students is electronically transmitted from each of the 234 licensed driver training schools directly to DDS.[20] Our research has yet to uncover results of this data.

The state of Virginia is also analyzing crash statistics by the approved driving schools in the state. On an annual basis, Virginia calculates the crash statistic ratios for each driving school and an overall average by commercial driving schools, public schools, non-public schools and home school, which predominantly took the course online. As you can see in Table 2-2, the ratio of crashes to students taught in 2007-2008 school year tends to be higher for commercial schools and lower for instruction in the school system. The ratio for home schooled or online students falls in the middle.

Table 4-2: 2007-2008 School Year Crash Statistics in Virginia* Breakout of School Types			
School Type	Number of Students	Average Crashes	Ratio of Students Taught to Crashes
Commercial Schools	24,502	1,331	5.43
Public Schools	40,813	1,681	4.12
Non-Public Schools	1,356	55	4.06
Home School	706	32	4.53

*The following link is the location on the Virginia DE website to the annual crash statistics
http://www.doe.virginia.gov/instruction/driver_education/index.shtml[21]

EFFECTIVENESS COMPUTER (ONLINE) COURSES ARE HAVING ON NOVICE DRIVERS

Since the inception of online DE, few studies have been conducted to evaluate the use and effectiveness of this type of instruction. The research surrounding online DE does not provide any compelling evidence for or against online DE. Although computer-based training and simulations show promise, currently this promise is yet to be fully demonstrated through established research.

In 2003, California conducted a research study to understand the effectiveness of home school instruction through the computer to traditional classroom instruction in specifically the knowledge, skills and attitudes of students. Within the research, they discovered that the safe driving attitudes of students completing the course on the computer were similar to those in a classroom. Also, the knowledge level of students was not statistically different based on instruction type for the comprehensive exit exam (which is more thorough than the permit test) all participants were subject to. Based on the overall objectives of the research, which included knowledge, skills and attitude, the study concluded home school or online/computer-based courses were just as effective as classroom instruction for teaching the driver's education material. No follow-up was done as part of this research to evaluate crash statistics and moving violations of the students. [3]

Other research conducted on computer-based training (CBT) and testing and simulation indicate both hold a bright future in DE instruction. CBT has a proven track record of improving learning in other domains; studies conducted by the Institute of Defense suggest the CBT reduces costs by one-third as well as increases the effectiveness by one-third. However, current DE simulators do not have enough data supporting their use at this time.[5] Limited evaluation on CBT has been done by AAA Foundation for Traffic Safety, the Monash University Accident Research Centre, and Systems Technology.[22]

The lack of experience for recently licensed teens is currently a high contributor in the elevated level of crash rates for this group of drivers. Besides relying solely on behind-the-wheel instruction to practice driving techniques, CBT is another solution to increase practice. A study was conducted by UMASS to see if through the use of CBT and simulations students will be more aware of where to scan for information that will reduce their likelihood to crash. Through iterations of illustrating and explaining potentially hazardous situations over the computer and then working through simulated scenarios, those with the initial computer training were more frequently able to anticipate hazards and scan the environment than those without it.[22] The additional exposure to these situations allowed the students to sharpen their decision-making skills and better foresee potentially hazardous situations. Over time, the integration of CBT could potentially have a very big impact on DE by improving safe driving skills through added experience in the elements that play a big role in teen crash rates.

PROGRAM COORDINATORS

ONLINE PROGRAM DEVELOPMENT

After conducting the secondary research portion of the project, many questions were left unanswered regarding the specific process a state goes through and the factors to consider when deciding whether to offer an online DE option for students. The goal of the telephone interviews with program coordinators was focused on these areas to help fill in the knowledge gaps and glean information from other states that have previously gone through this same process.

Online DE Inception

At the onset of the interviews, program coordinators were asked about the inception of their online DE program starting with the year it was approved. Of the eight states spoken to, Colorado approved their program first in 1998, while Indiana's program was most recently approved in 2009. Of the two online options currently available in Wisconsin, CESA #2 had their program approved first by the Department of Public Instruction (DPI) in 2003, followed by SWTC in the fall of 2004.

Table 5-1: Year of DE Inception	
• Colorado	1998
• Kansas	2003
• Virginia	2003
• CESA #2 (Wisconsin)	2003
• SWTC (Wisconsin)	2004
• Idaho	2005
• Texas	2007
• Indiana	2009
• California	N/A

Decision Factors for Online DE

The original factors for offering an online alternative for DE are unique for each state. In general, at the center of the reasons were external pressures/interest in improving access to the program and incorporating new technology. The specific reasons mentioned are categorized in the table below by external pressures/improving access and technological advancements:

Table 5-2: Factors for Online DE	
External Pressures/Improve Access	**Technological Advancements**
• Pressures from the Home Lobby • Political pressures to improve access to DE and decrease class costs • Ensure the viability of driving schools • Expand the reach and access of DE to more students • Due to the elimination of DE programs within the schools, need to ensure young adults still have the opportunity to take the course • Fast paced young adults need more options to fit the class in; online classes provide more of that convenience needed	• Held by statue to offer a distance learning option and with technology advancements upgraded the program to online • 2020 state vision to offer all classes online including DE

Internally Developed vs. Commercial DE Courses

Development and overall set up of an online DE program is also an individual decision based on what works best for the given state. There are a few different options that are available for states:

- Develop an online DE program internally
- Approve commercial DE companies to offer their online program within the state such as www.driversedonline.com, www.driverseddirect.com, www.driveredtogo.com, etc.
- Combination of the two above

Idaho, Virginia, select schools in Texas, and SWTC and CESA #2 in Wisconsin currently have internally created programs. Virginia also approved commercial DE companies to offer their program to students, as did Colorado, California and Texas. Kansas and Indiana were unable to comment since other departments are responsible for their online DE programs.

Table 5-3: Online DE Programs Created/Offered		
State	**Internal**	**Commercial**
California		✔
Colorado		✔
Idaho	✔	
Indiana	N/A	N/A
Kansas	N/A	N/A
Texas		✔
Virginia	✔	
Southwest Technical College (Wisconsin)	✔	
CESA #2 (Wisconsin)	✔	

When program coordinators were asked why they developed a program internally, some cited mandatory compliance requirements for the course to specific state guidelines or international Association for K-12 Online Education (iNACOL) standards that a commercial online program does not always incorporate. Others were not impressed by the class offerings and lack of teaching offered by the commercial programs. Also, there is more flexibility in overall program development and controlling for the actual instructors of the program.

Of those who allow commercial companies to offer their programs, several reasons were mentioned. In Texas, those schools that do not feel comfortable or are not capable of creating their own program can use a commercial DE company. Due to a limited time frame to get the program started, some did not have time to develop their own. Lastly, a few program coordinators mentioned they did not have the option of whether to allow the programs or not; other departments or legislature made the decision for them.

Penetration of Online DE Per State

Table 5-4: Percent of Students Taking Online DE in 2009	
California	60%
CESA #2 (Wisconsin)	36%
Colorado	25%
SWTC (Wisconsin)	12%
Kansas	7%
Virginia	2%
Idaho	1%
Indiana	1%
Texas	1%

Now that the online DE programs are established, it is important to understand how widespread and popular the program is within each state. Program coordinators were asked to provide the estimated average percentage of students that took their DE class online in 2009. California leads all other states with an average of 60% of students taking the DE class online in 2009. Next, is the CESA #2 district within Wisconsin with approximately one-third (36%) and one-quarter (25%) of Colorado students receiving DE instruction via online.

BENEFITS AND DRAWBACKS OF ONLINE DE

While the secondary research uncovered many potential benefits and challenges associated with online DE, it was still deemed important to openly ask program coordinators their opinions on the benefits and drawbacks of offering an online alternative to prospective drivers to see if the two align. Similar to other research studies, program coordinators reported that they see online DE programs as a double-edged sword. They indicated many positive and negative aspects of offering DE courses online. Extra convenience, more flexibility in working on the class and cheaper costs are frequently mentioned as benefits of online DE programs.

Although many benefits are realized through an online option, program coordinators are cautiously optimistic about them. Online DE classes are still in their infancy and limited research has been conducted on them. Because of this, program coordinators are still uncertain whether this teaching method is effective and if there are any differences in the overall safety of drivers. Security is also still an area of concern. The programs are not fool proof to ensure the person completing the course is the enrolled student.

Table 5-5: Benefits & Drawbacks of Online DE

Benefits
- Added convenience for the students
- More flexibility in completion
- Cheaper alternative
- Less travel to class
- Improved access to those in rural areas

Online Driver's Education

Drawbacks
- Uncertain if teaching style is effective
- Limited control/standards set by the state
- Security is questionable
- Nothing can replace the interaction instructors have with students
- Some students are not learning as much as they should

Potential Challenges Measured for Online DE

Even though program coordinators were asked openly about benefits and challenges of online DE, a follow-up question was included to quantify 'how challenging' certain aspects of developing/maintaining an online program are to states. Some of the potential challenges discovered during the secondary research, along with other areas of interest, defined our list of potential challenges. These potential challenges include:

- Security concerns, including ensuring the registered student is the person taking the course
- Developing state standards for the course to follow
- Staying up-to-date on technology
- Regulating online course content
- Regulating instructors including license renewal standards

To quantify areas that represent more of a concern for states, respondents were randomly asked to rate each of the potential challenges on a 1 to 5 scale where "5" meant "Very Challenging" and "1" meant "Not at all Challenging." Each state had different perceptions on what was more challenging for them. However not surprisingly, security concerns, particularly ensuring the registered student is the person taking the class, was perceived as challenging for most states with 71% rating it a "4" or "5" on the 5 point scale. Regulating course content was viewed as mildly challenging for states. When looking at the specific responses by each state, California gave a "very challenging" rating to all areas measured, while Kansas and Idaho perceived all aspects less challenging than others.

Chart 5-1: Online DE Challenges
% Challenging
(a rating of 4 or 5 on a 5 pt. scale)

Security concerns including ensuring registered student is person actually completing course	71%
Regulating online course content	33%
Regulating instructors including license renewal standards	29%
Staying up-to-date on technology	29%
Developing state standards for the courses to follow	17%

Q30: n=7

PROGRAM CREATION/REVIEW PROCESS

Another objective of this research was to understand practices other states evoke to ensure their online programs meet established standards and contain appropriate learning material. When each Program Coordinator was asked to discuss their guidelines in place to maintain similar quality standards as their traditional classroom course, each mentioned a creation/review process each class must pass through. The process differs slightly whether the program is created internally or if they offer commercial programs.

Internally Developed Program

Initial development of internal courses tends to be based on the text and curriculum of the classroom course. Additionally, many other resources were mentioned as being used to supplement this information during development, such as iNACOL, state-established knowledge and skill standards, AAA and American Driver and Traffic Safety Education Association (ADTSEA). The programs are then updated as frequently as necessary when new material is added to ensure compliance. For some, programs are also reviewed from a language perspective to make the course material and content relevant to younger generations. Keeping students involved and interested increases enthusiasm as well as improves their attention to the topics.

Commercial Program Review

Commercial programs are reviewed thoroughly by staff. Staff members actually take the course as if they are students to understand what the experience might be from their perspective. They also need to verify that all pertinent driving materials and state standards are included as well as assessed. In addition, they check that the student must complete all required class hours and cannot pass the course too quickly.

Program Review Process

After the initial review, states maintain their program in their own way. Some review materials on a regular basis to ensure compliance. California sends out new curriculum requirements once per year that need to be updated in the DE programs. The commercial programs in Indiana are reviewed on an annual basis to continue their contract as an approved online DE provider.

ONLINE DE INSTRUCTOR STANDARDS

After program coordinators were asked to discuss their general program guidelines regarding quality standards for their state, the next topic of interest was to take a closer look at how each state handles online instructors. Specifically whether there were any special training requirements and/or national standards online DE instructors should adhere to and the approach taken for soliciting feedback upon course completion. The table below provides an overall snapshot on the standards in place for each state. Idaho is the only state that has guidelines in place for all three aspects; additional training required for online teaching, follows national standards and collects feedback from students after course completion. The following paragraphs delve into each topic.

Table 5-6: Online DE Teaching Requirements			
State	**Training on How to Teach Online**	**Follow National Teaching Standards**	**Ask for Feedback on Course**
California			✔
Colorado		✔	
Idaho	✔	✔	✔
Indiana			
Kansas			
Texas	✔	✔	
Virginia		✔	
SWTC (WI)	✔	N/A	✔
CESA #2 (WI)	✔	N/A	

Online Instructor Requirements

Besides normal requirements to teach DE, respondents were asked whether any additional training preparation courses were required to be an online instructor and only half mentioned having any standards in place. SWTC and CESA #2 from Wisconsin, Texas and Idaho have special training that instructors must complete prior to teaching an online course. Kansas, California, Virginia, Indiana and Colorado did not mention any specific training requirements. The actual steps taken by each program are somewhat different, but all involve additional instruction on the best practices for teaching online (See table 5-7).

Table 5-7: Online Instructor Requirements			
SWTC (WI)	**CESA #2 (WI)**	**Idaho**	**Texas**
• Take a 16-week course online	• Receive instruction from an experienced online instructor and someone who has taken a course on online instruction	• Take several courses on online instruction • Workshop for online instruction	• Take at least one course provided by iNACOL

National Standard Requirements

In addition to special teaching preparation, it was important to understand whether states were following any of the national standards set for online instruction. Of the states that were asked if they followed any standards, 4 of 7 admitted they do align their programs to national principles. Idaho, Texas, Virginia and Colorado currently use national standards as a benchmark for their online classes. iNACOL and American Association for Motor Vehicle Administrators (AAMVA) were cited as standards used by states at this time. Kansas, California and Indiana did not bring up any standards during the interview.

Instructor Feedback

Lastly, as part of the instructor portion of the discussion, respondents were asked whether they require instructors to request feedback from students about the online DE course they took. Only 3 states, Idaho, California, and SWTC (WI) actually collected any feedback from past students on their experience with the online program. Some are interested in incorporating this feedback into their program, but have yet to do so.

MONITORING CLASS TIME REQUIREMENTS

Since most states, like Wisconsin, have a required number of hours for DE instruction as part of class completion, a component of this research is to understand how other states monitor the class time in online courses. Like many of the other aspects of the DE program, each state approaches how they monitor the time requirements differently. In most cases, timers are used to ensure students are obtaining the appropriate amount of hours.

- Idaho, Texas, SWTC and CESA #2 track timers in the program.
- Virginia tracks the time logged into the site by reviewing the data collected by IP addresses for public school students; while for home schooled students, parents verify the hours.
- Colorado students must actually use the cursor to show they are reading the material and have built in timers in the videos.
- Indiana sets a maximum number of hours per day.
- For California, they base it on the material. The material is covered as in-depth online as in the class and that course runs long. Since they cover the same material in both classes, they feel it will be long enough online as well.
- Kansas does not have minimum hours required for DE.

ONLINE DE SECURITY GUIDELINES

As previously mentioned, security is an area of uncertainty and at the forefront of challenges program coordinators face when managing their online DE courses. Understanding how this challenge is addressed by other states with online DE programs can help establish best practices in this area. Respondents were asked a few basic questions about their approach beginning with whether a certain level of security is required for each online DE program. If states have set standards for security, then they were asked about the specific procedures in place to ensure the registered student takes the class, and the overall frequency of review. The table below illustrates how each state approaches online security measures.

Table 5-8: Security Guidelines			
State	**Maintain a Level of Security**	**Security Procedures**	**Frequency of Review**
California	✓	Other-non specified	Review when new technology is available
Colorado	✓	Security question verification	Review when new technology is available
Idaho	✓	Security question verification; proctored exam	Other tech people associated with online school handle it
Indiana	✓	Security question verification	Annually
Kansas		N/A	N/A
Texas	✓	Honor system; register with guidance counselor	We have not yet reviewed our standards
Virginia	✓	Public school students must take proctored exam at school; parents supervise exam for home school students	Continuously

Overall, nearly all states spoken to maintain some security for their online course to make certain the registered student is actually completing the course. All states except Kansas cited they maintain a certain level of security in their programs.

Security Procedures

As learned through secondary research, there are many opportunities developed through technology to increase the probability that the registered student is the person completing the course. The level of sophistication actually used varies based on the state, with the honor system as the more basic approach used by Texas and Wisconsin, to security verification questions incorporated by Indiana, Idaho and Colorado. Having non-biased parties proctor the permit test, like Idaho and Virginia do, is a final check to verify the registered student either knows the material and passes or does not and fails. Although none of these methods are fool proof, long-time DE instructors like Annette and Kurt mentioned that it can be easy to spot cheaters in the class without technology. Through many years of DE instruction, it is easy to pick up on clues that someone is trying to cheat the system.

Security Review Process

With the way technology changes, it is not only important to set standards, but also to review them on a frequent basis. Most states recognize that technology changes regularly and set their review process to reflect that. Virginia has high expectations and is continuously evaluating their security approach. California and Colorado evaluate their security when new technology is introduced, while Texas has yet to review their security standards.

HOME SCHOOL PROGRAMS

In addition to understanding other state's approaches to their online DE program, another topic of interest for this research is learning from others what opportunities exist for home schooled students in regards to DE. Specifically in this portion of the research, program coordinators were first asked to identify challenges associated with parents teaching DE. Next they were asked if they allow DE to be taught in a home setting, if not, how likely they are to do so in the next three years, and lastly if they do offer home taught DE, what are they doing to help parents teach DE to their kids.

Challenges Surrounding Home School DE

When asked about the biggest challenges with parents being able to teach DE to their kids, program coordinators expressed concerns. As part of the challenges, they mentioned most frequently that parents lack formal training in the DE materials. Also mentioned include:

- Some parents lack general teaching skills
- Ill-prepared for split second decision making
- They do not always provide good oversight

While they recognize that overall most parents are very safe, capable drivers, they are hesitant that parents make good candidates to teach their children how to drive. As quoted by Virginia, *"They don't know what they don't know. Just because I know how to play tennis that doesn't mean I can teach someone else."*

States Allowing Home School DE

Of the states interviewed, most allow home school DE. Currently only Kansas and Idaho do not permit it. As a follow up, Kansas and Idaho were also asked how likely they were to allow home school DE in the next three years and both indicated they were very unlikely to do so. No follow up questions were asked of Kansas and Idaho to understand why they were unlikely to allow home school DE.

Table 5-9: DE in Home School Setting		
State	**Allows Home Schooling**	**Help Offered to Parents**
California	✓	• Created a handbook • Prepared written materials on key DE topics • Conducted an in-person class with parents • We have a provisional licensing program that parents must take
Colorado	✓	• Created a handbook • Developed behind-the-wheel curriculum for parents to follow
Idaho		
Indiana	✓	• Nothing
Kansas		
Texas	✓	• Do not regulate – Department of Public Safety regulates
Virginia	✓	• Created a handbook • Prepared written materials on key DE topics

Parent Learning Materials Offered

Among the states that allow home school DE, most are being proactive with helping parents learn the necessary skills and materials to better teach their children DE and how to drive. In general, they have prepared materials or resources to assist parents and be more prepared for what they should anticipate and look for during the instruction. Although the approach differs for each state (see table above), collaboratively they mentioned creating:

- Handbooks
- Written materials on key topics
- An in-person course
- Provisional licensing course parents must take prior to teaching their children
- Behind-the-wheel material to guide parents

ADVICE FOR WISCONSIN REGARDING OFFERING ONLINE DE

Concluding the interviews, each Program Coordinator was offered an opportunity to provide any final advice for Wisconsin to consider as they evaluate expanding their online DE program. The themes most commonly mentioned are to establish standards of learning prior to creating the program, align Wisconsin's online program with the iNACOL standards and schedule to receive reporting from commercial DE firms if they are allowed to offer their programs. Below are actual comments from states:

State	Advice
Table 5-10: Advice to Wisconsin	
Colorado	• The standard should be the same for online as it is in-class • Make sure you have the emergency stops in place • Require monthly reporting on who has taken the course • Allow Internet companies to contact the in-class DE instructors to become an affiliate so they are aware of where the kid goes for his behind-the-wheel
Idaho	• Follow the iNACOL standards • Make sure the program includes a live instructor, not just a program
Indiana	• To use the iNACOL standards that any provider must meet in order to sell courses online. • Create rules and regulations prior to starting the program
Kansas	• Consider the time that the state requires for the course
Virginia	• Have standards of learning • Analyze the assessment questions • Require that online DE companies send you the demographics on every student

*California felt their program was still in its infancy and felt they lacked the expertise to provide any comments. Additionally, Texas felt they did not know at this time how their own program was performing and thus could not provide any advice for Wisconsin.

RESPONDENT DEMOGRAPHICS

Below is a respondent profile for the program coordinator interviews. Besides Colorado, the program coordinators interviewed as part of the study have worked in or been involved with DE for many years. Additionally both genders are represented.

State	Years in DE	Gender
Table 5-11: Demographics		
California	30	Female
Colorado	2	Female
Idaho	15	Male
Indiana	33	Male
Kansas	34	Female
Texas	25	Female
Virginia	33	Female
SWTC (Wisconsin)	8	Female
CESA #2 (Wisconsin)	21	Male

DE INSTRUCTORS

BACKGROUND

In the original scope of the project, the DE instructor portion was intended to interview both instructors of traditional in-class and online DE teachers and compare results. The questionnaire was designed through skip patterns to ask respondents about their traditional program and then if they offer an online course to understand specifics about their program including cost, use of online discussion boards, grading system, best aspects of teaching online, special training required prior to online instruction, and security measures. Also, to see if differences exist between instructors and program coordinators' opinions, in many cases the questions asked of this audience mirrors the Program Coordinator questionnaire.

During the initial round of interviews from states that do not have an internal program, but allow commercial DE programs for online DE, the findings suggest that those courses do not have an 'instructor' per se. DE schools that have classroom instruction, as well as teach behind-the-wheel, can be affiliated with these online programs to offer the state accepted online DE courses as an extension of their offerings. However, the instructor from the DE schools does not have any responsibility in teaching the classes (thus the term 'instructor' is used loosely in the online DE section to include those who actually teach and those who do not). All learning and teaching is done through the web-based material. They are able to monitor the progress of students through scheduled updates from the commercial online program, however, they do not actually instruct them. Once they complete the online course, they come back to these schools to take the behind-the-wheel portion.

Since the states with commercial DE programs do not have actual instructors, the original line of questions surrounding the teacher's experience and approach to online instruction created did not make sense for this audience and interviews were ceased. The findings of these interviews will still be included in this research as applicable. However, to better understand the role of the instructor in online DE, interviews were then focused on states like Wisconsin and Virginia that had internal programs developed. The role of the instructor is an integral part of programs developed internally. These programs have instructors dedicated to each class and are active in the learning process with students through daily monitoring of course progress and answering questions students have concerning the material.

Before the instructor interviews were stopped, a total of 34 DE instructor interviews were completed. The majority were with classroom DE instructors, four who exclusively teach online DE and five with instructors that teach in the classroom as well as online.

Table 6-1: Completed Instructor Interviews	
• Traditional	24
• Online	4
• Both	5

TRADITIONAL CLASSROOM COURSES

Due to technology, many different varieties of classroom DE instruction exist. The Internet, simulations, and computer programs expand the possibilities to teach DE students in a more effective and relevant manner. Classroom instructors are realizing the benefit these learning opportunities represent and some are including these elements into their course. The questions included as part of the interview for traditional instructors seek to understand if instructors are supplementing any portion of their in-class course with online materials or homework

assignments. If they do supplement their course, what percent is conducted online and specifically what are instructors supplementing online. Additionally, what do classroom instructors anticipate the use of technology in their course to be in three years. Lastly for instructors who only teach in the classroom, what challenges do they see with online DE courses and how likely are they to build in an online program as part of their course offerings.

SUPPLEMENTING TRADITIONAL DE COURSES WITH ONLINE RESOURCES

The beginning portion of the interview for classroom instructors focused on whether they are incorporating online resources for any aspects of their course including lectures, learning materials or homework. The practice of supplementing the classroom course in any way with online materials is nearly split in half among instructors; with just over half (52%) using online resources as an additional learning technique. Of the few instructors spoken to, the migration to online learning was only happening among Virginia and Wisconsin instructors.

Chart 6-1: Supplementing Traditional DE Courses with Online Resources

No 48%
Yes 52%

Q2: n=29
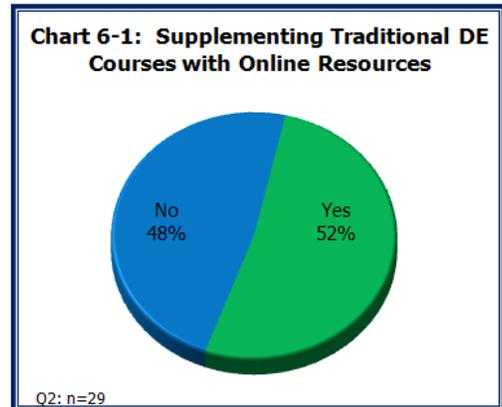
Percent of Traditional Class Supplemented Online

Table 6-2: Average Percent of Class Conducted Online

- Less than 10%   53%
- 10% to less than 20%   27%
- 20% to less than 30%   20%

To truly comprehend the impact computers and online resources are having on the approach to traditional classroom instruction, those teachers who cited using these supplemental resources were asked a follow up question to quantify what percent of their course is online. The immersion of online resources in traditional courses at this time is still minimal. Currently online resources comprise less than 20% of class time for most (80%) classroom instructors using these teaching alternatives.

Examples of Online Resources

Instructors are incorporating online resources into their classroom course in many ways. The following are the four key areas teachers have begun to use technology and the Internet as another opportunity to teach DE materials:

- Additional reading materials
- Practice tests
- Audio/video materials
- Driver's manual

In many cases, instructors also provided specific sites they have incorporated as part of their course as seen in Table 4-3. For example, they are sharing information from their DOT website, sites that discuss the effects alcohol/drugs can have on driving and directing underperforming students to an online improvement program.

Additional Materials

Table 6-3: Supplemental Online Resources

- DOT website for crash statistics/information
- Alcohol/drug related information
- Kelly Blue Book information
- Research based reports
- Driving Skills For Life sponsored by Ford Motor Company
- An online improvement program (no credits received)
- Weather condition driving on YouTube
- Thomas Learning to Drive booklet

Outlook for Online Resources

Next, all classroom instructors were asked to look to the future of their classroom course. Whether instructors were currently using online resources or not as part of their course curriculum, they were asked to anticipate how the use of these online resources will change in the next three years; specifically will it increase, decrease or stay the same. Overall, the use of online resources will continue to moderately increase. For those not currently supplementing their course with online materials, half anticipate they will increase their usage. Another 2 in 5

(42%) indicate their usage will remain the same and not supplement their course. Among those already incorporating these supplemental resources, one-third anticipates their usage to continue to increase over the next three years. However, just over half (52%) of classroom instructors think it will stay the same in three years time.
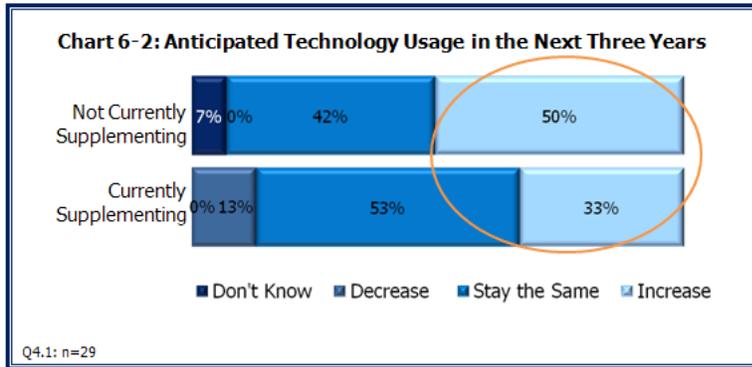
PERCEIVED CHALLENGES FOR INSTRUCTORS SURROUNDING ONLINE DE

Similar to the Program Coordinator section, traditional classroom instructors only were asked their opinions on perceived challenges encountered in online DE Instruction. As part of the research, it was important to have different respondent types weigh in on challenges from their perspective to properly evaluate the expanded use of this teaching alternative.

Like program coordinators, classroom instructors were first asked openly what perceived challenges exist with online DE courses based on what they have seen, read or heard. Many of the challenges were comparable to the comments made by program coordinators; particularly ensuring the registered student is actually completing the course, the uncertainty whether the learning style is effective and the elimination of the personal interaction students experience through an in-class course. However, classroom instructors also mention many inner city youth do not have access to the Internet making online an unviable option. Additionally, at times students lack the discipline to complete the online course independently and students can not receive immediate feedback from a teacher if questions arise.

Table 6-4: Perceived Challenges
Challenges
• Being able to confirm that the person taking the class is actually the student registered
• Some inner city youth who do not have access to the Internet
• The ability to receive direct help right away
• Personal responses from a qualified instructor
• Discipline of the students
• Time requirements
• Quality of learning in terms of keeping the student's attention and being valid in the process
• If the program is not strict enough, the kids will not be prepared for dangers and hazards on the road
• They needed to fill in the class time with "busy work" that was not useful or helpful
• Overall conversation and dialogue with the student. I do not think a student gets enough discussion from online, in the classroom I can have a guest speaker come in and it is just more personal

Potential Challenges Measured for Online DE

After the classroom instructors indicated their 'top of mind' concerns, a follow-up question was asked to better quantify the areas that are more challenging for online DE. The potential challenges for this section of the research included a few attributes similar to the program coordinators, but primarily focused on aspects most relevant to a DE instructor (Similar topics are noted below in parentheses after the attribute). The topics include:

- Security concerns, including ensuring the registered student is taking the course (Similar to program coordinators)
- Ensuring students understand the content and course objectives
- Communicating with students
- Understanding state standards for online courses
- Becoming a certified online DE instructor
- Staying up-to-date on technology (Similar to program coordinators)

Chart 6-3: Online DE Challenges
% Challenging
(a rating of 4 or 5 on a 5 pt. scale)

Attribute	%
Security concerns including ensuring registered student is person actually completing course	88%
Ensuring your students understand the content and objectives of course	58%
Communicating with your students	42%
Understanding the state standards for online courses	29%
Becoming certified to teach online driver's education	29%
Staying up-to-date on technology	25%

Q5.3: n=24
Bold numbers are significant over underlined numbers

Instructors were asked to rate the attributes on a 1 to 5 scale with "5" being "Very Challenging" and "1" being "Not at all Challenging" in random order. Ensuring the registered student is taking the course was also viewed as the top challenge by classroom DE Instructors which was comparable to program coordinators. Moderate challenges included making sure students understand course content and objectives as well as communicating with students. Staying up-to-date on technology was not viewed as challenging by either program coordinators or classroom DE instructors.

LIKELIHOOD OF DEVELOPING AN ONLINE OPTION

Besides understanding if the classroom instructors are currently incorporating online resources in their course, they were also asked their likelihood of developing an online option of their own in the next year. Instructors were asked their likelihood on a 1 to 5 scale with "5" being "Very likely" and "1" being "Not at all likely." Roughly 7 in 10 (71%) were "very unlikely" to create their own online DE program in the next year. Only 12% of classroom instructors were likely to develop an online option (a rating of "4" or "5" on a 5 point scale).

Chart 6-4: Likelihood to Develop Online DE
% Likely

| 71% | 13% | 4% | 4% | 8% |

■ 1- Very Unlikely ■ 2 ■ 3 ■ 4 ⊡ 5 - Very Likely

Q5: Online n=24
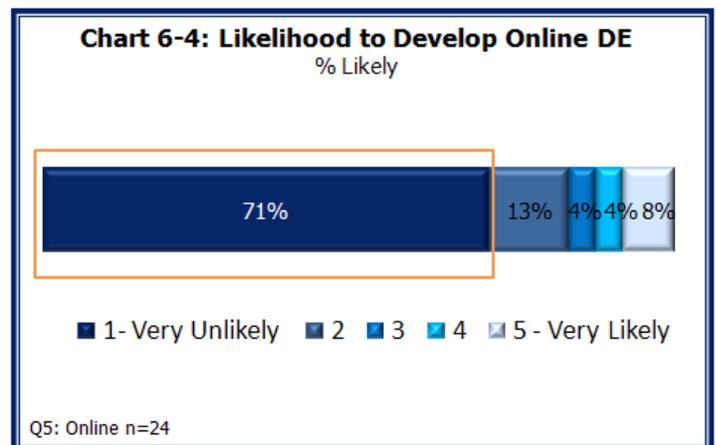
Those classroom instructors who were unlikely (a rating of "1", "2" or "3") to create their own program were asked to provide reasons as to why they are unlikely to do so. Several reasons were provided as to why they do not anticipate developing an online option. Many of the reasons align with the challenges they previously cited regarding online DE. Most frequently mentioned reasons include:

- Students and instructors alike prefer face-to-face interaction and learning
- Can leverage programs already developed by others
- No guarantee the students are learning the material
- Uncertain if online instruction is an effective learning option
- Limited time to create the program
- Lack of resources due to budget cuts
- Do not have the computer background to create a program
- Do not see a need with classroom courses available
- In Wisconsin, the state law does not allow it

CONTRACTING WITH SCHOOLS

Working in area high schools to teach DE is a way many instructors teach their course to prospective drivers. As part of the interview for all instructors, they were asked if they contract with schools to offer DE. More important though, was to try and understand the penetration of other online courses in schools these teachers work in. It was a theory that once schools offer online courses in general, having DE as on online option was a natural extension of that.

Chart 6-5: Contract with Schools to Offer DE/Schools Offering Other Online Courses
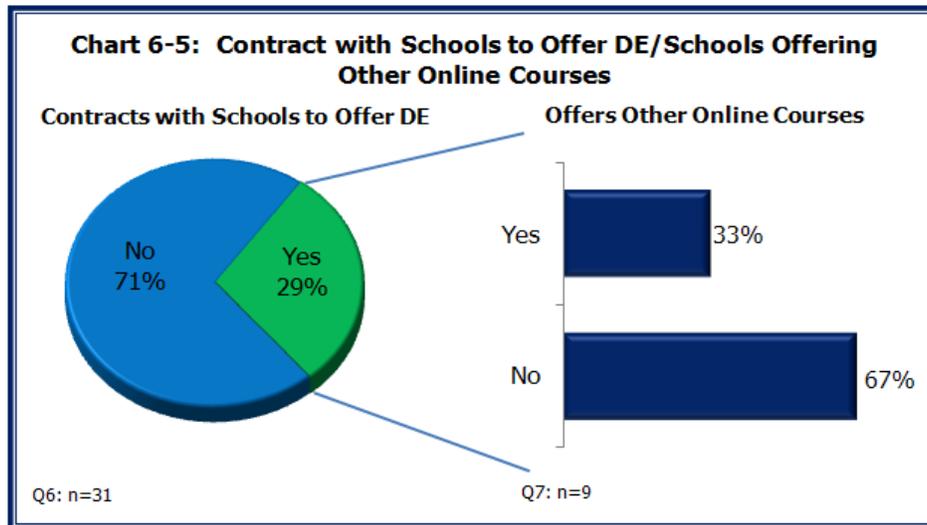
Of the instructors spoken to for this research, only 3 in 10 (29%) teach in area high schools. For the few that contract to schools, only about a third (33%) of those schools actually offered other online courses. However, the link between offering other online courses and online DE was not clear cut. There were schools offering online DE and not online courses and vice versa.

ONLINE DE INSTRUCTORS

To help aid Wisconsin in decision-making regarding the expanded use of online DE, it is not only important to understand the process and decision factors that play into approving the program at the state level, but also the inner workings of the class and the role of the instructor. The interviews with online DE instructors are focused on course specifics including role in development, average cost of the class, use of audio/video materials and understanding copyright issues, class requirements for overall grading and of group discussion participation, and lastly whether students can take the permit test during class and online. Also, like the Program Coordinator interviews, online DE instructors were asked about special teaching requirements prior to being allowed to teach online and security measures in place for their online program.

ROLE IN SET UP OR ONLINE DE DEVELOPMENT

To begin the interviews with online DE instructors, they were initially asked about their role in the development of the online course they use. The purpose of this question is to gauge their understanding of the background of the course. Of those interviewed, two-thirds (67%) admit to being involved in the set up or development of their program.

Chart 6-6: Involved in Set Up or Development of Online DE

No 33%

Yes 67%

Q1B: n=9
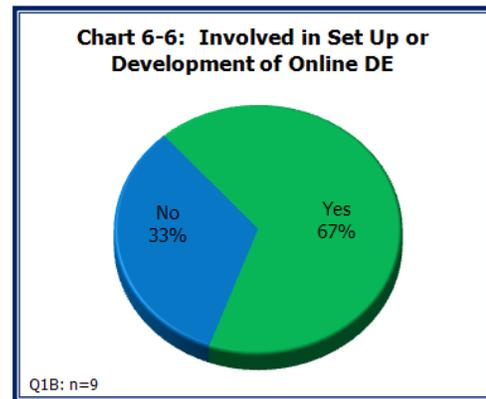
ONLINE COURSE DETAILS

Table 6-5: Average Cost of Online Course (in dollars)	
• Colorado	92
• Georgia	99
• Nevada	100
• Wisconsin	139

Next, the interview went through a series of questions about specific aspects of their online course to understand the overall set up and grading of the class, beginning with the cost of the class. Even though some analysis was done in the secondary research portion of the project on the cost of different online programs, it was still included in the primary interviews since many other programs exist besides those researched previously and to see if costs align. Of the few interviewed, the average cost of online courses range from $92 in Colorado to approximately $139 in Wisconsin. When comparing the overall average cost of online courses from the secondary research and primary interviews, the average cost is similar with $106 in the secondary to $109 in the primary.

Audio/Video Materials

Online courses allow the ability to get creative in teaching by having the opportunity to include many different options to learn. Those options range from incorporating audio/video material to streaming online. Audio/video is a popular learning tool for online DE instructors with 7 in 10 (71%) utilizing it in their course.
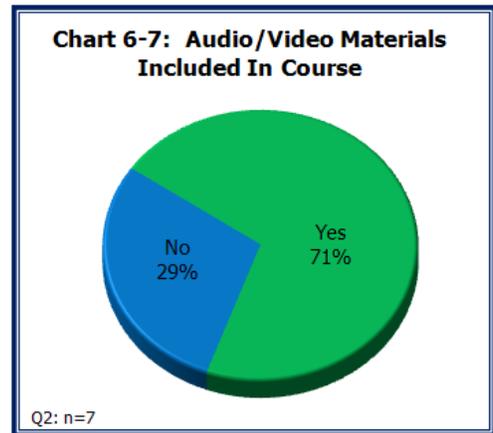
Besides understanding if instructors are incorporating audio/video material, an objective of this research was to learn how instructors were dealing with copyright issues when using these materials. Among the online DE instructors that incorporate audio/video, most do not personally address copyright issues. As part of using a commercial DE program being offered by companies specifically mentioned such as Costech and Somastream, these companies take on the responsibility of dealing with potential copyright infringement issues as part of the program development. An online DE instructor from Wisconsin stated that they do not copy any audio or video materials in order to avoid copyright concerns.

Chart 6-7: Audio/Video Materials Included In Course

- No 29%
- Yes 71%

Q2: n=7

Course Grading

Like many other aspects of online DE courses, there is not a single approach for grading that all courses follow. Course grading for discussion board participation, class work and overall course grading differs depending on the course.

Of those who require discussion board participation as part of the course, the grading style used was either teachers record the number of posts made by students or others read posts for quality and only give credit for comments that provide value to the discussion topic. However, one online DE instructor admits they do not track discussion board participation.

Table: 6-6 Online DE Course Grading	
Tasks	**Grading Used**
Discussion Board Participation	• Number of comments posted • Quality of comments posted • Do not keep track
Class work/Tests	• Pass/Fail • Must obtain a passing grade (70% or 80%)
Overall course grading	• Complete required number of classroom hours • Receive a passing grade (70% or 80%) on class work

The grading for class work and tests is done in two different ways. The first approach was either a student passed the assignment or failed. More commonly used by instructors though was for each assignment or test the student needed to obtain a certain grade (70% in one case, but more frequently 80% or higher) to pass the given test or class work.

In order to pass the course, it's a two-fold process for most students. They must complete the set number of hours for online DE and they also must receive a passing grade (70% or 80%) to receive a completion certificate.

Driver's Permit Test

The timing of when students can take their permit test and whether it is allowed to be taken online were the next topics of discussion. Online DE instructors were asked if students are able to take their permit test before the course has been completed and the ability to do so is split among those interviewed. Just over half (57%) cited that students could take their permit test prior to course completion, while others stated students must wait until they successfully complete the course.

While the ability to take the permit test during the class or making students wait was split, it was unanimous that students are unable to take the permit test online. Program coordinators mentioned during their interviews that they prefer students take the permit test proctored by an unbiased party including the DMV and their school as a failsafe practice. This way, the registered Student proves they know the material and are able to pass the test.

Chart 6-8: Ability to Take Permit Test During the Online Course

No 43%

Yes 57%

Q2: n=7
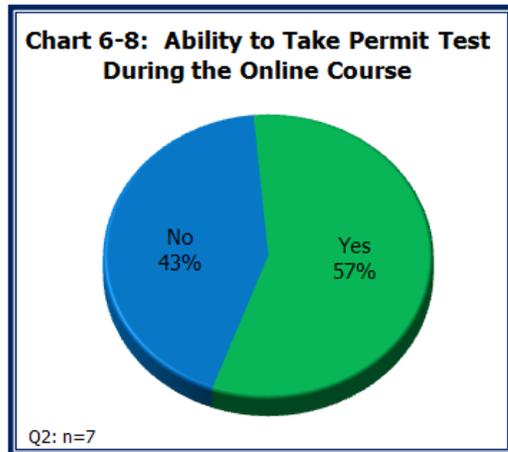
BEST ASPECTS AND CHALLENGES OF TEACHING ONLINE

From the instructor perspective, there are several pros and cons to teaching online DE. The online DE instructors mentioned many of the overall benefits of offering courses online as the best aspects of teaching online. Particularly they mentioned increased access of the course to students, and the flexibility/convenience for when teaching and grading can take place. Likewise, the challenges of teaching online DE are similar to those heard from program coordinators and classroom instructors as well as in the secondary research section of the report. Top of mind, security is cited most frequently as a challenge of online DE. They also said it is more difficult to determine whether the Student truly comprehends the required material and hard to maintain motivation by both instructors and students to stay current on course work and grading.

Table 6-7: Best Aspects and Challenges of Teaching Online	
Best Aspects	**Challenges of Teaching Online**
• Increase access to the online course	• Uncertain whether the registered student is actually taking the course
• Students and instructors can work when it is most convenient to them	• Ensuring the student reads and actually learns the required material
• Online DE instructors have more freedom since they do not have class time restrictions	• Do not have that one-on-one interaction with the student
	• Students and instructors alike fall behind in completing and grading course work
	• Keeping students motivated throughout the duration of the course
	• No challenges since Costech provides all the tools needed to monitor student progress

ONLINE DE INSTRUCTOR STANDARDS

As mentioned in the background to the instructor section of this research, the findings suggest that those who work with commercial DE companies do not actually instruct the course. Due to this, some of the questions in this section do not apply to this audience. However, the supplemental in-depth interviews conducted with Wisconsin and Virginia help understand instructor standards for those who actually teach and play a role in their online course. Most of this information and the next section of online DE security procedures were included in the Program Coordinator section and will be briefly discussed in this section as well. This section will cover special training online DE instructors are required to take as part of teaching online, national standards their online programs should adhere to, ways the states provide learning material to develop and maintain an online course and whether instructors collect feedback from students about the course.

Online Instructor and National Standards Program

For those who offer the commercial online programs, they do not need to take any special courses to offer these online courses nor do they follow any national standards. Among states with an online DE program, Virginia does not require further classes to teach online, but instructors do have to take a workshop to show how the class works so they can gain a thorough understanding of everything. From the Program Coordinator section, it was mentioned that in both SWTC and CESA #2 additional online training is required prior to instruction. SWTC requires a 16-week online course and CESA #2 instructors learn tips and techniques from an experienced instructor who has taken the course about online teaching. Asking whether these areas follow national standards was not included in the in-depth discussions with this audience.

Course Material from the State

States monitor online course material and work with those who manage them to ensure the classes have the most up-to-date information. Online DE instructors mention that the state most frequently reviews the material prior to being able to start the online class. This is similar to the findings from the Program Coordinator research in that they do a thorough review prior to new online classes starting. Some states also mail new information to online program managers to guarantee classes have the latest course material.

Instructor Feedback

While we learned in the Program Coordinator portion of the research that few states require instructors to solicit student feedback after course completion, most online DE instructors currently do. When online DE instructors were asked if they requested feedback from their students after they completed the course, three-quarters do obtain information regarding their student's experience in the course. Those who currently do not solicit this information are interested in collecting their feedback in the future.

MONITORING CLASS TIME REQUIREMENTS

Another objective of this research is to understand how online DE instructors monitor and enforce the set number of classroom hours required for DE. As was discovered in the Program Coordinator section of the report, there were many different ways to approach implementing these requirements. Most online DE instructors that use commercial programs stated that the

responsibility of tracking hours is in the hands of the online course provider themselves. Through monthly reports, they can see the progress of each student otherwise they have no other involvement. An instructor from Nevada mentioned that each page and question is timed so that they can monitor length online. Embedding timers in the course program was also cited by DE instructors.

ONLINE DE SECURITY GUIDELINES

Previous online DE instructor findings suggest that security and ensuring the student is actually completing the course were top concerns of theirs. In response to this, in most cases steps are put in place by the online course provider to help minimize their concerns. From the online DE instructors interviewed, 5 in 7 (71%) stated their online course has security procedures in place to ensure the registered student is taking the course. Current procedures in place vary from the honor system, to agreements signed by both the parent and the student, as well as security verification questions set up by the Student. Instructors stated the responsibility of ensuring their course stays in tune with the latest security technology is handled by the program creator or coordinator such as Costech, Somastream and SWTC. As learned in the Program Coordinator section, Virginia continuously reviews security procedures for their internally created programs to maintain compliance.

ADVICE FOR WISCONSIN REGARDING OFFERING ONLINE DE

The discussion with instructors concluded with asking for any further thoughts that Wisconsin should consider when deciding whether to expand their online DE program. Instructors had a lot of great insights including ideas to consider when creating an online DE program as well as many concerns to keep in mind. If Wisconsin is to move forward with online DE, some mentioned they should mirror SWTC and CESA #2's programs and have the access to and interaction with an instructor. Of those that work with commercial DE companies, it was highly recommended to work with Costech and Somastream. According to the instructors interviewed, students of these courses enjoyed their experience. Other instructors were very hesitant towards online DE. They feel that there are many flaws in the program themselves since there is no way to ensure the registered student takes the course; in addition, they do not feel a young student learns well online. In general, they do not feel a computer can teach the child like they can in a classroom.

Table 6-8: Advice to Wisconsin
Advice
• Mirror programs like SWTC and CESA #2 that have certified DPI instructors readily available
• Incorporate security measures to make certain the registered student takes the course
• Create a program that has the majority online, but incorporates a portion of in-class work
• Create their own program since each state has very specific requirements
• Create a program with an actual instructor to help the students learn
• Students feel like they are all on their own to teach themselves the material and need an instructor to help in the process
• Look into Costech and Somastream, students enjoy their experience with the course
• Review commercial DE companies thoroughly to ensure they are reputable and provide a quality course
• Gather feedback from the students regarding their learning experience during the course to monitor progress
• Understand that online courses are the wave of the future, but still a huge proponent of face-to-face instruction
• Highly recommend not instituting online courses since there is no way to guarantee the students learn the material

RESPONDENT DEMOGRAPHICS

The following table is a respondent profile of the instructors interviewed in this research. Greater than half of all instructor types have 20 years or more tenure in DE. Instructors were a mix of males and females.

Table 6-9: Demographics			
	Traditional	**Online**	**Both**
Total	24	4	5
Average Years in DE			
1 to less than 5	8%	-	-
5 to less than 10	8%	50%	40%
11 to less than 20	21%	-	-
20 or more	63%	50%	60%
Gender			
Male	79%	50%	100%
Female	21%	50%	-

RECENT DE STUDENTS OF SWTC AND CESA #2

BACKGROUND

As mentioned previously, the sample of traditional and online students who had participated in DE through the Southwest Technical College (SWTC) was provided by Annette Biggin, Driver's Education Coordinator for the college. Due to confidentiality regulations regarding student records, The DRG was required to obtain approval of each school district within the CESA #2. Kurt Schultz of CESA #2 provided a permission form that The DRG e-mailed along with a description of the research project to district administrators within the CESA #2 district (samples of both the e-mail and permission form are included in the appendix). Only Middleton-Cross Plains provided their approval which allowed their Student contact information to be provided to The DRG. In order to provide a more random coverage within the district, The DRG purchased the remainder of the sample from a sample vendor by targeting households with a 17 or 18 year old child in the zip codes of the CESA #2 school districts.

DRIVERS EDUCATION EXPERIENCE

Drivers Education Class Method

The first step in understanding the students' overall driver's education class experience was to determine whether the student's DE was conducted mainly over the Internet or in a traditional classroom setting. Over one-third of students (36%) reported that their DE class took place online through the Internet. Three out of four students who took the course in the traditional classroom setting indicated they did have the option to take online DE.

Chart 7-1: DE Class Method

64%

36%

Online   Classroom

Q1: n=102
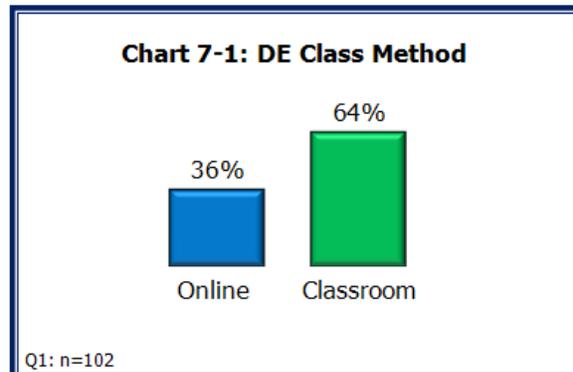
Roughly half of the students who took online DE indicated they did so because the availability of the classroom course did not work well for their schedule. Convenience was another key reason why students opted for an online course, students mentioned that they can learn when it was convenient for their schedule (35%) and that it was convenient to take the course from home (35%). Among those who selected the traditional classroom setting, nearly one-quarter (23%) reported that they did so simply because they preferred that method. Other reasons included the perception that they would learn more in an in-person setting (17%) or that they would procrastinate if allowed to study on their own schedule (15%). Interestingly, convenience was also mentioned as a reason for the traditional setting, as 15% of students mentioned it was more convenient to take the class during school since they were already there.

EXPERIENCE WITH DE INSTRUCTORS

Background Information on Instructor

While students in the traditional classroom setting are able to interact with their teachers, those who enroll in online courses may not be as familiar with their instructors. In order to better understand the level of information students of online DE have about their teachers, students were asked whether they were provided any background information on their course instructor. The majority of students (70%) reported that they did not receive this information.

Chart 7-2: Instructor Background Information Provided
(Online Only)

No
70%

Yes
27%

Don't know
3%

Q6: n=37
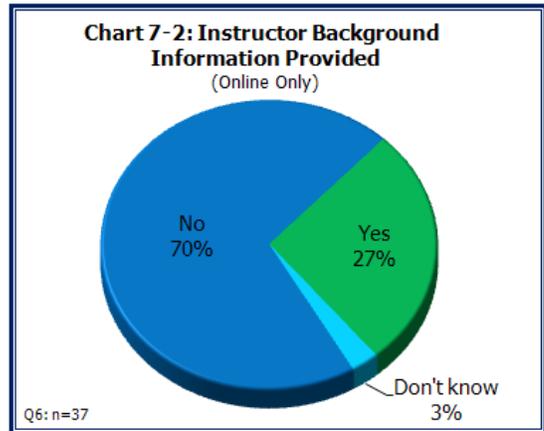
Modes of Communication with an Online DE Instructor

While they may not have received much about the instructor prior to the class, students of online classes do report that they have personal interaction with their instructors, as over 8 in 10 communicate with their instructor via the phone (84%). Not surprisingly, however, e-mail is a more prevalent method of student/instructor interaction. Of all the methods students used to communicate with their teachers, e-mail was reported as the method that works best for getting their questions answered.

Chart 7-3: Communication Methods with Instructor
(Online Only)

100%

84%

84% thought email was the best method for getting questions answered

19%

3%

3%

Email   Phone   Discussion Board   Instant Messaging   In-Person

Q6.1: n=37
Q7: n=37
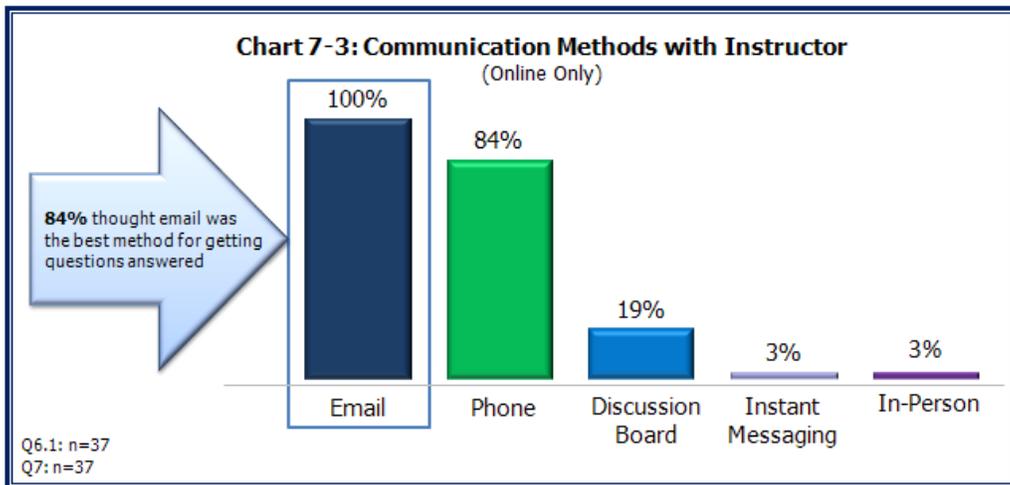
Satisfaction with Instructor

It was also important to comprehend how satisfied students were with various aspects related to their DE instructor. Students, both online and traditional classroom, were read a list of attributes and asked to rate their level of satisfaction using a 5-point scale, where "5" meant "Very Satisfied" and "1" meant "Very Dissatisfied." Overall, satisfaction levels were similar, with a majority of students indicating they were satisfied with their instructor (giving a rating of "4" or "5" on the 5-point scale). Those in a classroom setting were slightly more likely to be satisfied (92% vs. 81%); however, this difference was not statistically significant.

With regard to the specific attributes they were asked to rate, students appear more satisfied with the instructor's level of knowledge about the materials (92% online vs. 95% classroom) and responsiveness to questions (89% online vs. 92% classroom). They were less likely to be satisfied with the level of creativity the instructor used in teaching the topics (60% online vs. 65% classroom). Interestingly, there were no differences between online or classroom students' ratings for areas such as responsiveness, amount of interaction with instructor or individual attention received, as one might expect. The only area where differences were seen was for the amount of information provided. Online students were much less likely to be satisfied than those who took the course in a classroom setting.

Chart 7-4: Satisfaction with Instructor
% Satisfied
(a rating of 4 or 5 on a 5 pt. scale)

	Very Satisfied	Satisfied	Total
Overall Satisfaction (Online)	35%	46%	81%
Overall Satisfaction (Classroom)	32%	60%	92%
Knowledge level of materials (Online)	25%	69%	92%
Knowledge level of materials (Classroom)	12%	83%	95%
Responsiveness to your questions (Online)	30%	60%	89%
Responsiveness to your questions (Classroom)	25%	68%	92%
Amount of information provided (Online)	24%	46%	70%
Amount of information provided (Classroom)	29%	65%	94%
Amount of interaction with instructor (Online)	41%	24%	65%
Amount of interaction with instructor (Classroom)	32%	42%	74%
Individual attention you received (Online)	41%	24%	65%
Individual attention you received (Classroom)	34%	37%	71%
Creativity in teaching topics (Online)	31%	31%	60%
Creativity in teaching topics (Classroom)	29%	35%	65%

Q8: Online n=37; Classroom n=65
Bold numbers are significant over underlined numbers

OVERALL EXPERIENCE WITH DE CLASS

Likes/Dislikes of Class Instruction

The overall experience was explored further as students were then asked what they like liked best and liked least about the class instruction portion of their DE class. The most common response among those who participated in online DE was that they were able to complete the course at their own pace (46%). Other responses were that they liked the video materials (14%) and the convenience of doing it at home/online (11%). Among those who had traditional classroom DE, responses were more varied. Two in ten students mentioned that they liked the information or materials that were covered in class (22%) or that the instructor had creative teaching techniques (20%).

Table 7-1: Best Liked Aspects of Instruction Portion			
Online Course		**Classroom Course**	
• Complete at my own pace	**46%**	• Good topics/information/material covered	22%
• Video materials	14%	• Creative teaching techniques	20%
• Convenience of doing it at home/online	11%	• Easy to understand/explained well	14%
• Easy access to information	8%	• Video materials	9%
• Good topics/information/material covered	5%	• Teacher was helpful/answered questions	9%
• Easy to understand/explained well	5%	• Class was fun	8%
• Class was fun	5%	• Group discussions	5%
• Information was interesting	5%	• Learned laws/regulations	5%
• Textbook to refer to	5%	• Being able to drive	5%
• Easy to use	5%		
• Ability to email	5%		
Q11 Online: n=37 Bold numbers are significant over underlined numbers Note: Only responses >5% shown		Q11 Classroom: n=65	

The least liked aspects varied for both online and classroom students. Among those taking the course online, approximately two in ten (19%) cited that the difficulty of getting answers or having dedicated one-on-one time with their instructor were drawbacks. Those who took the course in a classroom setting were equally likely to mention the length of the classes, the amount of reading or homework that was assigned or they found the classes to be boring (12% each). Traditional classroom students were slightly more likely than their online counterparts to report that there was nothing that they disliked about the instruction portion of their course (22% vs. 14%).

Table 7-2: Least Liked Aspects of Instruction Portion			
Online Course		**Classroom Course**	
• Hard to get answers/no one-on-one	19%	• Classes were too long/time consuming	12%
• Lack of topics/information	8%	• A lot of reading/home work	12%
• Material is out of date	5%	• Class was boring	12%
• Test on materials not covered	5%	• Material is out of date	9%
• Needed more time to complete the course	5%	• Classes are too early	8%
• Get distracted/procrastinate	5%	• A lot of repetition	6%
• Impersonal	5%	• Lectures from instructors	5%
• Nothing/satisfied	14%	• Nothing/satisfied	22%
Q12 Online: n=37 Note: Only responses >5% shown		Q12 Classroom: n=65	

Knowledge of Course Topics

While nearly all students reported being satisfied with their instructor's level of knowledge with the course topics, what is of greater importance is whether the students believed that they, themselves, were knowledgeable of the topic as a result of what they learned from the lectures, discussions and materials covered during their DE course. To measure this, students were read a list of key course topics and asked to rate their level of knowledge, again using a 5-point scale where "5" meant "Very Knowledgeable" and "1" meant "Not at all Knowledgeable." Regardless of the method of education, online or traditional, students were confident in their comprehension, with over 9 in 10 reporting they are knowledgeable overall (giving a rating of "4" or "5" on the 5-point scale). Nearly all students believe they have a solid understanding of the elementary topics, such as the meaning of road signs, basic traffic laws and the effects of alcohol and drugs on driving capabilities. Online students were slightly more comfortable with their understanding of additional items, such as how to drive safely in inclement weather conditions (97% online vs. 89% classroom) and organ/tissue donation (70% online vs. 62% classroom); however, these differences are only directional in nature.

Chart 7-5: Knowledge of Course Topics
% Knowledgeable
(a rating of 4 or 5 on a 5 pt. scale)

Topic	Very Knowledgeable	Knowledgeable	Total
Overall Knowledge — Online	51%	41%	92%
Overall Knowledge — Classroom	46%	48%	94%
Meaning of road signs — Online	16%	84%	100%
Meaning of road signs — Classroom	22%	75%	97%
Basic traffic laws — Online	41%	57%	97%
Basic traffic laws — Classroom	45%	54%	99%
Effects of alcohol & drugs on driving capabilities — Online	11%	87%	97%
Effects of alcohol & drugs on driving capabilities — Classroom	6%	91%	97%
Safe driving techniques for weather conditions — Online	46%	51%	97%
Safe driving techniques for weather conditions — Classroom	37%	52%	89%
Move over statute for emergency vehicles — Online	32%	54%	87%
Move over statute for emergency vehicles — Classroom	42%	44%	85%
Organ & tissue donation — Online	17%	56%	70%
Organ & tissue donation — Classroom	28%	34%	62%

Q5: Online n=37; Classroom n=65

Students' comprehension was further investigated by asking them to rate, on a similar 5-point scale, how well they believed their DE course prepared them for starting to drive and operate a vehicle. While the responses were statistically similat, students from a classroom setting were slightly more likely to feel prepared than those learning online.

Table 7-3: Improvement Suggestions for Safe Driving Habits			
Online Course		**Classroom Course**	
• More detailed/better information	14%	• More interaction/student involvement	12%
• More on weather conditions and hazards	8%	• More behind the wheel	11%
• Central location for information	8%	• Simulate/talk about life situations	8%
• More communication with teacher	5%	• More on safety issues/regulations	6%
• More interaction/student involvement	5%	• Have a simulator	6%
• Simulate/talk about life situations	3%	• More on weather conditions and hazards	5%
• Discuss the actual vehicle and controls	3%	• Update material	5%
• Deadline expectations	3%	• Smaller classes	5%
• Keep it the same	3%	• Longer class time	3%
		• Provide two teachers	3%
		• More communication with teacher	3%
Q14 Online: n=37 Note: Only responses >3% shown		Q14 Classroom: n=65	

In an effort to understand what students believe should be done to help develop safe driving habits in new drivers, students were asked for suggested course improvements. Again, responses varied greatly. An emphasis on information was a theme among online students, with several of the most commonly mentioned suggestions including more detailed or better information (14%), more on weather conditions or hazards (8%), or developing a central location for information (8%). Traditional students believe more student interaction (12%) or more time spent actually driving (11%) would help to provide new students with a stronger education.

Overall Satisfaction

Two key ways were used to measure students' reactions to their DE course, they were overall satisfaction and the students' willingness, should they need to take the course over again, to select the same method of course instruction. Students were first asked to consider all aspects of their DE class and to rate their level of satisfaction using another 5-point scale. Interestingly, there was a notable difference in satisfaction ratings, with those having taken a traditional course more satisfied than those who took an online course (92% vs. 73%, respectively).

Chart 7-6: Overall Satisfaction with Class
% Satisfied
(a rating of 4 or 5 on a 5 pt. scale)

Online 27% 46% 73%
Classroom 42% 51% 92%

Q15: Online n=37; Classroom n=65
Bold numbers are significant over underlined numbers

Chart 7-7: Likelihood of Completing Same Class Type

Online 54% 46%
Classroom 88% 11%

Q16: Online n=37; Classroom n=65
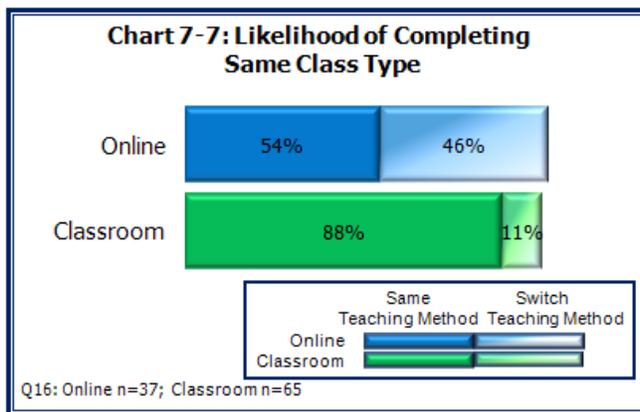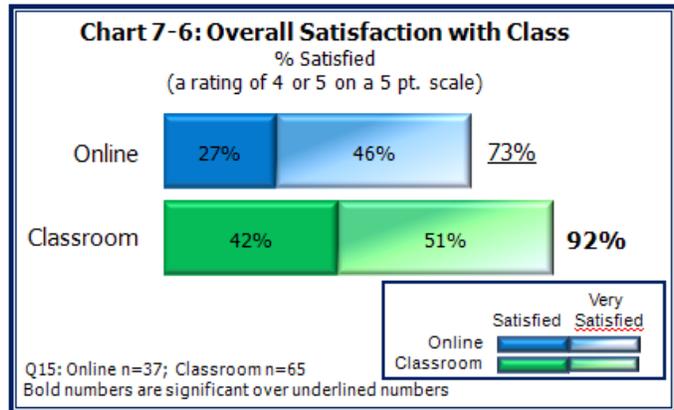
A similar difference is seen with respect to students' likelihood of completing the course in the same method. Nearly nine in ten (88%) of those who took the course in a traditional setting would be likely to do so again, if they needed to, while only half (54%) of those who took an online course would repeat it.

Those students who indicated that they might be likely to opt for the other course type, if they were to take the class again, were asked their reason for the switch. While caution should be taken when analyzing the results due to small sample sizes, those who would now opt for an online course cited the ability to learn at their own pace (43%). For others, the perceived ease or novelty of online classes appeared to hold an appeal. Those who would prefer to take the course in a traditional setting reported that the online course was harder than originally anticipated (29%), while others were looking for a greater challenge to help them learn, specifically they believed they would learn more in a classroom (24%) or that they did not learn what they thought they should have (18%).

Table 7-4: Reasons for Switching to Other Class Type			
Online Course		**Classroom Course**	
• Learn at my own pace	43%	• Online was harder than I thought it would be	29%
• Prefer online classes to the classroom if the option is available	14%	• Learn more in a classroom	24%
• Easier coursework	14%	• Did not learn what I thought I should have	18%
• Seems more fun/less boring than sitting in a classroom	14%	• Too much hassle to communicate with the teacher	18%
• Did not learn what I thought I should have	14%	• Finish faster	185
		• Able to interact with teacher	12%
		• Do not learn well online	6%
Q17 Online: n=7		Q14 Classroom: n=17	

PARENTAL INVOLVEMENT

As noted earlier, the secondary research revealed that parental involvement is a critical element in helping students to become safe drivers. Students were asked to rate their parent's level of involvement in helping them with their DE class and then whether they would have preferred that their parents be more or less involved. It appears that parents of those students taking the course online were slightly more involved than those of students taking the traditional class (81% vs. 65%). Online students also appear to be satisfied with the level of parental involvement, as 95% would prefer the same level of involvement. Traditional students, however, would appreciate additional involvement from their parents.

Chart 7-8: Preferred Level of Parental Involvement

Online: 3%, 3%, 95%
Classroom: 12%, 2%, 86%

Same Less More

Q10: Online n=37; Classroom n=65
Bold numbers are significant over underlined numbers
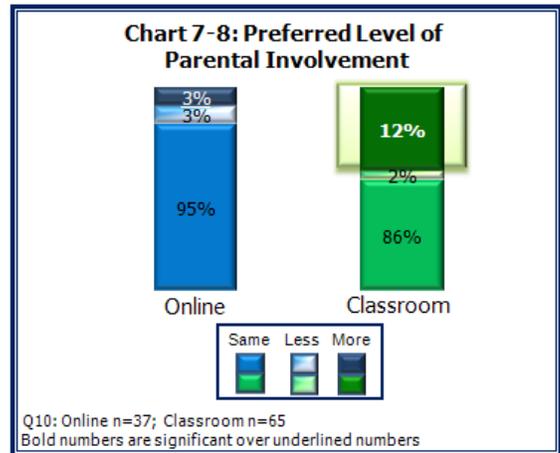
CRASH/TRAFFIC VIOLATIONS

Based on the assumption that students who successfully completed a DE course would be safer drivers, students in this study were asked a series of questions to better understand their driving record since completing their course. To start, students were asked how many times it took them to pass their written driver's permit test as well as their road test. As shown in this chart, a majority of both online and classroom students, successfully passed their written permit test on the first attempt.

They were slightly less likely to pass their road test on the first attempt (71% online, 70% classroom).

Chart 7-9: Passed Test on First Attempt

Online: 81%, 71%
Classroom: 86%, 70%

Permit Test
Road Test

Q21: Online n=37; Classroom n=65
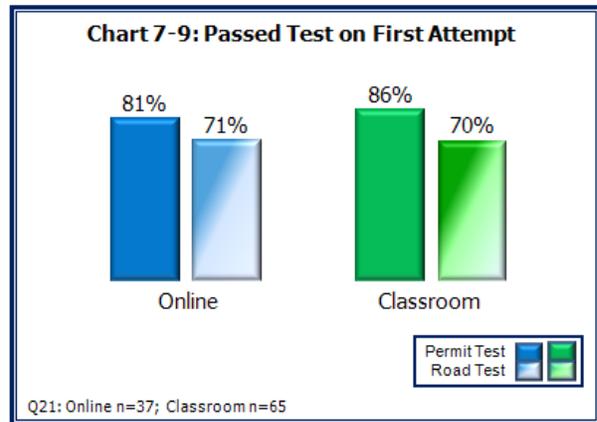
Reported Crashes by Students

Chart 7-10: Number of Crashes
% Yes

Online 22% 3% 24%
Classroom 9% 2% 11%

One Accident   More than One Accident
Online
Classroom

Q22: Online n=37; Classroom n=65
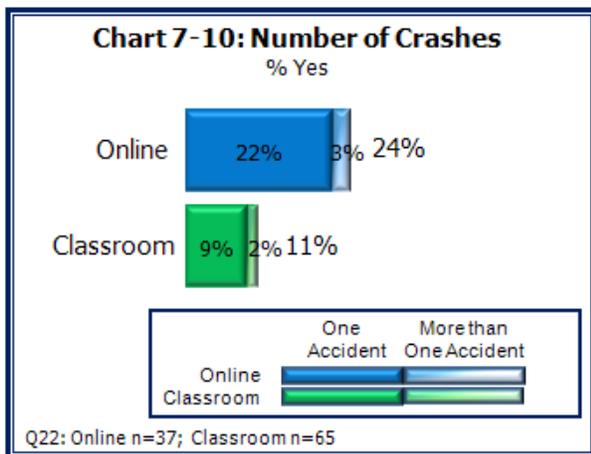
Another measure of driver safety is to understand whether they have been involved in a crash and, if so, how many. The majority of students (84% overall) reported they have not had a crash. Those who took the course in a classroom setting were slightly less likely to have done so; however, the difference is directional in nature only (89% classroom vs. 76% online). Of those who had had a crash, most have only had a single crash.

The majority of students admitted that they were at fault in causing the crash, with those taking a classroom course slightly more likely to have been at fault than online students (86% vs. 78%, respectively). As might be expected among novice drivers, inattentive driving is one of the more commonly mentioned causes of crashes overall (31%), with weather conditions the next main cause (43%).   Table 7-5 shows a breakout of crash causes by course type; however, care should be taken when analyzing this data due to the small sample sizes.   Students were asked what could have been taught during DE that would have helped to avoid the crash, but few were able to provide tangible suggestions, and over half (54%) said there was nothing that would have helped.

Table 7-5: Cause of Accident			
Online Course		**Classroom Course**	
• Weather conditions	43%	• Inattentiveness (i.e. playing with cell phone or radio)	50%
• Speeding	29%	• Weather conditions	17%
• Going too fast for conditions	29%	• Other	33%
• Inattentiveness (i.e. playing with cell phone or radio)	14%		
• Failure to stop at a stop sign	14%		
• Other	29%		
Q24 Online: n=7		Q24 Classroom: n=6	

Reported Moving Violations by Students

As with the desire to understand students' crash statistics, determining how frequently novice drivers receive warnings or tickets for moving violations is another measure of driver safety and, therefore, a proxy for course success. And similar to the crash statistics, the majority (87%) of students report never having a moving violation. Although online students were slightly more likely to have received either a ticket or warning than classroom students (19% vs. 11%, respectively), with online students nearly three times as likely to have received a ticket as a warning (14% vs. 5%). Among those with a ticket or warning, speeding was the most common violation received.

Chart 7-11: Received Warning or Ticket
% Yes

Online: 19% (14% Ticket, 5% Warning); Classroom: 11% (3% Ticket, 8% Warning)

Q26: Online n=37; Classroom n=65
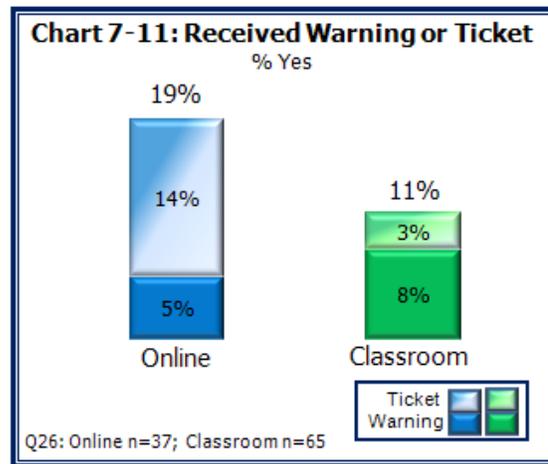
DEMOGRAPHICS

By design, students who participated in this study were recent graduates of their DE course in order to ensure course details were still fresh in their minds. Over half of both online and traditional classroom students reported that they had completed the course in 2009, with three-quarters of the students age 16 or 17.

Chart 7-12: Year DE Course Completed
% Yes

QA: Online n=37; Classroom n=65

Chart 7-13: Taken Online Course (excluding DE)
% Yes

Q20: Online n=37; Classroom n=65
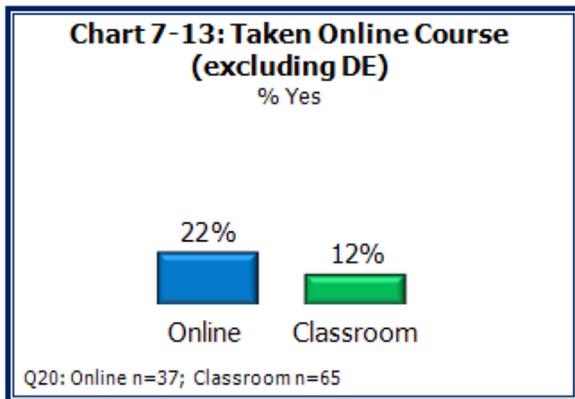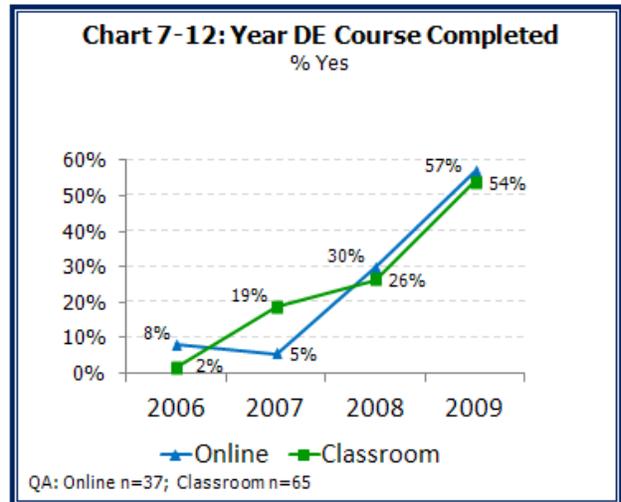
In an effort to understand how common online education is and whether those who had previous experience with learning in an online format would be more likely to take DE online, students were asked whether they had taken any other courses online. While not a statistically significant difference, those students who participated in online DE were slightly more likely to have taken other online courses (22% vs. 12%).

Appendix A – Program Coordinator Questionnaire

<div style="background-color:#1F3864; color:white; text-align:center">Introduction</div>

S1.   Hello, may I please speak with [**Name on list**]?

Introduction:

S3.   Hello, my name is _____ and I'm calling on behalf of the Wisconsin Department of Transportation. I'm calling today/tonight to learn more about your state's driver's education program. For anyone who qualifies and participates in this study, we will provide you the report findings after the research project has been completed.

Would you have a few moments to speak with us?

READ IF ASKED:
- Re-emphasize this is a survey, not a sales call.
- Responses are completely confidential.
- Depending on their responses, the survey will take about 10 to 15 minutes to complete.
- We are a professional research organization that surveys the attitudes and opinions of people on various issues.
- You may contact the manager for this study, Deanna Ring, of The Dieringer Research Group, at 1-888-432-5220 or visit us on the Internet at www.thedrg.com.
- If respondent requests verification of study, please refer them to Brian Banach at Wisconsin Department of Transportation, at (608) 264-7495.

Qualifiers

I'd like to start by asking a few background questions.

QA   What state are you located in?
        [Do not read list. Enter one response.]

        1 California
        2 Colorado
        3 Florida
        4 Georgia
        5 Indiana
        6 Minnesota
        7 Nevada
        8 Oklahoma
        9 Pennsylvania
        10 Texas
        11 Virginia
        12 Idaho
        13 Kansas
        14 Wisconsin
        97 Other (Thank and Term
        99 Don't know / refused (Proceed to refusal text)

QD.   Please briefly describe your role and responsibilities in regards to driver's education for [PULL IN STATE FROM QA]?
        _____
        _____

Online Program Basics

The next few questions are regarding online driver's education programs for your state.

Q22.   In what year did [PULL IN STATE FROM QA] approve online driver's education as an accepted class option? Your best estimate is fine.
        _____ Year
        9999 = Don't know

        Q22a. Would you say it was... (Read list. Enter one response)

        1   In the last 2 years
        2   2-5 years ago
        3   6-9 years ago
        4   10 or more years ago
        99   Don't know

Q23.   For [PULL IN STATE FROM QA] in 2009, on average, what percent of prospective drivers took driver's education online?

_____%

199 = Don't know

Q23.1   Would you say its...

1   Less than 10%
2   10% to less than 20%
3   20% to less than 30%
4   30% to less than 40%
5   40% to less than 50%
6   50% to less than 60%
7   60% to less than 70%
8   70% to less than 80%
9   80% to less than 90%
10   90% or greater
99   Not sure

Q24.   Why did [PULL IN STATE FROM QA] decide to allow online driver's education as an accepted class option? (Probe and clarify)

_____
_____

Q24a.   What do you see as the benefits of offering online driver's education for [INSERT STATE]? (Probe and clarify)

_____
_____

Q24b.   What do you see as drawbacks of offering online driver's education for [INSERT STATE]? (Probe and clarify)

_____
_____

Q24c.   Was your online driver's education program developed... [READ LIST. ENTER All THAT APPLY.]

1   Internally
2   Subcontracted to a firm that specializes in online driver's education
97   Other (Specify)_____
99   Not sure

[IF Q24C=1 ASK Q24D, ELSE SKIP TO Q24E]
Q24d. Why did you decide to develop the online program internally? (Probe and clarify)
_____
_____

[IF Q24C=2 ASK Q24e, ELSE SKIP TO Q24f]
Q24e. Why did you decide to subcontract the development of your online program to another
firm? (Probe and clarify)
_____
_____

[IF Q24C=97 ASK Q24f, ELSE SKIP TO Q24g]
Q24f.   Why did you decide to develop the program the way you did? (Probe and clarify)
_____
_____

[IF Q24c=2, ASK Q24g, ELSE SKIP TO Q26]
Q24g. What challenges are involved when with working with these vendors for your online
driver's education program? (Probe and clarify)
[PROBE: What is your level of involvement with these vendors?]
_____
_____

Q26.   What types of guidelines do you have in place to ensure all online driver's education
courses maintain the same quality standards as traditional in-class courses? (Probe and
clarify)

Probe: Do they have a review process as well? What is involved in the review process?
How frequently do they review individual programs?
_____
_____

Q26.1 How do you communicate these guidelines with driver's education schools? (Do not read
list. Enter all that apply.)

1   Newsletter
2   DMV Website
3   Mail
4   Phone
5   In-Person Review
6   The state reviews all materials prior to being able to starting
7   Workshops
8   The state does not provide any guidelines/requirements
97   Other (Specify)_____
99   Don't know

Q26.2 The next few questions are specifically about the standards regarding online driver's education instructors. Are you familiar with [INSERT STATE]'S online instructor regulations?

      1   Yes
      2   No
      99   Don't know/refused

[IF Q26.2 = 2 OR 99 SKIP TO Q30, ELSE PROCEED TO Q27]
Q27.   Prior to teaching online driver's education, do you require instructors to have additional training or take preparation courses on how to teach online?

      1   Yes
      2   No

     [IF Q27=1 ASK Q27.1 ELSE SKIP TO Q28]
     Q27.1 What special training or courses are required?

     [Interviewer Note: Probe on types of courses or special training required and number of hours and/or credits required]
     _____
     _____
     _____

Q28.   As part of instructors being able to teach driver's education as an online course, do you require them to follow any National Teaching Standards as a guide for instruction?

      1   Yes (Specify what standards you follow_____)
      2   No

Q29.   Upon course completion, do you require your instructors to ask for feedback on the courses they teach?

      1   Yes
      2   No

Q30.   Using a 5 point scale, where 5 is "Very Challenging" and 1 is "Not at all Challenging" how much of a challenge are each of the following for your state in regards to online driver's education? (Do not read list. Enter all that apply)

[READ LIST AND SHUFFLE ATTRIBUTES.]	Not at all Challenging	2	3	4	Very Challenging	(DO NOT READ) Don't know/ Refused/Not Applicable
a. Regulating instructors including license renewal standards	1	2	3	4	5	99
b. Regulating online course content	1	2	3	4	5	99
c. Staying up-to-date on technology	1	2	3	4	5	99
d. Developing state standards for the courses to follow	1	2	3	4	5	99
e. Security concerns including ensuring the registered student is the person actually completing the course	1	2	3	4	5	99

Security Guidelines

Next, I would like to ask you a few questions about the security procedures you have in place for online courses.

Q31.   Do you require a certain level of security for online courses to ensure the registered student is the person taking the course?

    1   Yes
    2   No

[IF Q 31=2 SKIP TO Q34, ELSE PROCEED TO Q32]

Q32.   What types of processes or procedures does [INSERT STATE] allow to ensure the registered student is the person actually taking the class? (Do not read list. Enter all that apply.)

    1   Honor system
    2   Forms requiring parent/student signature
    3   Biometric keystroke analysis to measure typing speed and rhythm and verify consistency
    4   Fingerprint scan
    5   Retina scan
    6   Security question verification
    97   Other (Specify)_____

Q33.   How often do you review your security standards? (Read list if necessary. Enter one response.)

    1   Every 6 months
    2   Annually
    3   Every other year
    4   Every 5 years
    5   We review when new technology is available
    6   We have not yet reviewed our standards
    97   Other (Specify)_____

Q34.   For online courses, what do you do to ensure students receive the required number of hours for driver's education instruction? (Probe and clarify)

Probe: Do they time each lesson or task?
_____
_____

Home School

The following questions are about home school driver's education.

Q35.   Currently, does [PULL IN STATE FROM QA] allow for driver's education to be taught in a home school setting?

    1   Yes
    2   No

[IF Q35=2 ASK Q36 ELSE SKIP TO Q37]
Q36.   On a 5 point scale, where 5 is "Very Likely" and 1 is "Not at all Likely", how likely is your state to allow home school driver's education in the next 3 years?

    1   Very Unlikely
    2
    3
    4
    5   Very Likely

Q37.   What do you feel are the biggest challenges with parents being allowed to teach the driver's education course? (Do not read list. Enter all that apply.)

    1   Lack of formal training in driver's education materials
    2   Ill-prepared for split-second decision-making
    3   No access to vehicles with special equipment
    4   Some lack general teaching skills
    5   Insurance rates may rise
    6   Eliminates peer observation
    97   Other (Specify)_____

[IF Q35=2 SKIP TO Q39, ELSE PROCEED]
Q38.   What has [PULL IN STATE FROM QA] done to help parents teach driver's education? (Do Not Read List. Enter all that apply.)

    1   Prepared written materials on key driver's education topics
    2   Dedicated online resource to key driver's education topics
    3   Created a handbook
    4   Conducted an in-person class with parents
    5   Created a CD with step-by-step instructions
    6   Ability to meet one-on-one with driver's education instructors
    97   Other (Specify)_____

Follow up research available

Q39. Has [PULL IN STATE FROM QA] conducted any research to compare citation and/or crash data for students based on whether they take their driver's education course online, in a class room or from another accepted method? (Enter all that apply.)

   1   Yes – citation comparison
   2   Yes – crash statistics
   3   No
   99   Don't know

Q40. Has [PULL IN STATE FROM QA] conducted any other research on your driver's education program?

   1   Yes (Please describe)_____
   2   No

[IF Q39 =1 or 2 OR Q40=1 ASK Q41, ELSE SKIP TO Q43]
Q41. Would you be willing to share this research with the Wisconsin Department of Transportation?

   1   Yes
   2   No

[IF Q41=1, ASK Q42, ELSE SKIP TO 43]
Q42. May we follow up this call with an email to collect the available research?
   1   Yes
   2   No

[IF Q42=1, ASK Q42.1, ELSE SKIP TO 43]
Q42.1 May I please collect your contact information in order to follow up with you regarding this research:

   Name:_____
   Title:_____
   Email:_____

ALL RESPONDENTS
Q43. What type of advice would you have for Wisconsin or other states to consider as they decide whether to approve online driver's education statewide? (Probe and Clarify)
   _____
   _____

Demographics

We have just a few more questions for you to help us classify your responses.

D1.   How many years have you worked in or been involved with driver's education?
        _____Years
        199= Don't know

        [IF = 199, ASK QD2, ELSE SKIP TO QD3]
        D2.   Would you say its...

                1   Less than 1 year
                2   2 to less than 5 years
                3   5 to less than 10 years
                4   11 to less than 20 years
                5   Greater than 20 years
                99   Don't know

D3.   Which of the following best describes your age?
        1   18-25
        2   26-34
        3   35-44
        4   45-54
        5   55-64
        6   65 or greater

D4.   Gender (by observation)
        1   Male
        2   Female

<div style="background:#2e5090;color:#fff;text-align:center;">Qualified closing if Q42=1</div>

Thank you for your time and discussing your opinions with us today. The information you have provided has been extremely helpful. The report of driver's education practices will be sent via e-mail, likely in June or July.

D4.1 Would you like us to email this to the email address we previously collected?

> 1   Yes
> 2   No

[IF D4.1=1 SKIP TO CLOSING, ELSE PROCEED TO D5]

(READ IF NECESSARY): As a company, we do not sell or redistribute e-mail addresses. Your e-mail will be used only for correspondence related to this study.

> D5.   Can I please get your email address for the report?
>
> **(VERIFY   SPELLING.   EXAMPLE: <u>deanna.ring@thedrg.com</u>   )
> [PROGRAMMER NOTE: PULL IN EMAIL FROM 42.1]**

Thank you! Have a great day.

Qualified closing for everyone else

Thank you for your time and discussing your opinions with us today. The information you have provided has been extremely helpful. The report of driver's education practices will be sent via e-mail, likely in June or July. In order to provide the report may I please have your e-mail address?

(READ IF NECESSARY): As a company, we do not sell or redistribute e-mail addresses. Your e-mail will be used only for correspondence related to this study.

D6.   What is your email address?

(VERIFY   SPELLING.   EXAMPLE: <u>deanna.ring@thedrg.com</u>) [PROGRAMMER NOTE: PULL IN RESPONDENT NAME AND COMPANY NAME FOR REFERENCE]

Can you give me the correct spelling of your name? Capture First and Last Name

[PROGRAMMER NOTE: PULL IN RESPONDENT NAME FOR REFERENCE]

Thank you! Have a great day.

Appendix B – In-depth Interview Guide

Q1.   In what year did [SWTC or CESA#2] start offering an online option for driver's education?
_____ Year
9999 = Don't know

Q22a. Would you say it was... (Read list. Enter one response)

1   In the last 2 years
2   2-5 years ago
3   6-9 years ago
4   10 or more years ago
99   Don't know

Q2.   Why did [SWTC or CESA#2] decide to offer online driver's education as an accepted class option?

_____

_____

Q3.   What do you see as the benefits of offering online driver's education for [SWTC or CESA#2]

_____

_____

Q4.   What do you see as drawbacks of offering online driver's education for [SWTC or CESA#2]

_____

_____

       PROBE: Have instructors noticed a difference in the knowledge level of students who take the course in person versus online?

Q4b.   What do you see as some of the biggest challenges surrounding online driver's education?

_____

_____

       PROBE FOR: Regulating instructors, Regulating online course content, staying up-to-date on technology, security concerns particularly ensuring the registered student is the one taking the course

Q5.   Was your online driver's education program developed... [READ LIST. ENTER All THAT APPLY.]

1   Internally
2   Subcontracted to a firm that specializes in online driver's education

[IF Q5=1 ASK Q5a, ELSE SKIP TO Q5b]
Q5a.   Why did you decide to develop the online program internally?

_____

_____

PROBE: What advantages are their for developing the program internally?
PROBE: Did you consider hiring an outside company to help with the development?

Q5b.   Why did you decide to subcontract the development of your online program to another firm? (Probe and clarify)

_____

_____

[IF Q5=2, ASK Q5c, ELSE SKIP TO Q6]
Q5c.   What challenges are involved when with working with these vendors for your online driver's education program? (Probe and clarify)

_____

_____

PROBE: What is your level of involvement with these vendors?

Q6.   What types of guidelines do you have in place to ensure your online driver's education course maintains the same quality standards as traditional in-class courses? (Probe and clarify)

_____

_____

PROBE: Do you have a review process as well? What is involved in the review process? How frequently do you review the individual programs?

Q7.   How does the state of Wisconsin communicate driver's education guidelines with you?

1   Newsletter
2   DMV Website
3   Mail
4   Phone
5   In-Person Review
6   The state reviews all materials prior to being able to starting
7   Workshops
8   The state does not provide any guidelines/requirements
97   Other (Specify)_____
99   Don't know

The next topic is regarding the instructors for your online classes.

Q8.   Prior to teaching online driver's education, are their requirements for the instructors to have additional training or take preparation courses on how to teach online?

        1   Yes
        2   No

        [IF Q8=1 ASK Q8.1 ELSE SKIP TO Q9]
        Q8.1   What special training or courses are required?

        _____

        _____

        PROBE ON: Types of courses or special training required and number of hours and/or credits required

Q9.   As part of instructors being able to teach driver's education as an online course, do you require them to follow any National Teaching Standards as a guide for instruction?

        1   Yes (Specify what standards you follow_____)
        2   No

Q10.   How much interaction does the instructor have with the student?

        _____

        _____

Q11.   Upon course completion, do you require your instructors to ask for feedback on the courses they teach?

        1   Yes
        2   No

Security Guidelines

Next, I would like to ask you a few questions about the security procedures you have in place for online courses.

Q12.   Do you have to maintain a certain level of security for online courses to ensure the registered student is the person taking the course?

   1   Yes
   2   No

[IF Q 12=2 SKIP TO Q15, ELSE PROCEED TO Q13]
Q13.   What types of processes or procedures do you have in place to ensure the registered student is the person actually taking the class? (Do not read list. Enter all that apply.)

   1   Honor system
   2   Forms requiring parent/student signature
   3   Biometric keystroke analysis to measure typing speed and rhythm and verify consistency
   4   Fingerprint scan
   5   Retina scan
   6   Security question verification
   97   Other (Specify)_____

Q14.   How often do you review your security standards? (Read list if necessary. Enter one response.)

   1   Every 6 months
   2   Annually
   3   Every other year
   4   Every 5 years
   5   We review when new technology is available
   6   We have not yet reviewed our standards
   97   Other (Specify)_____

Q15.   For online courses, what do you do to ensure students receive the required number of hours for driver's education instruction? (Probe and clarify)

   _____
   _____

   PROBE: Do they time each lesson or task?

Appendix C – DE Instructor Questionnaire

Introduction

S1.   Hello, may I please speak with [**Name on list**]?

Introduction:

S3.   Hello, my name is _____ and I'm calling on behalf of the Wisconsin Department of Transportation. I'm calling today/tonight to learn more about [your driver's education program. For anyone who qualifies and participates in this study, we will provide you the report findings after the research project has been completed.

Would you have a few moments to speak with us?

READ IF ASKED:
- Re-emphasize this is a survey, not a sales call.
- Responses are completely confidential.
- Depending on their responses, the survey will take about 10 to 15 minutes to complete.
- We are a professional research organization that surveys the attitudes and opinions of people on various issues.
- You may contact the manager for this study, Deanna Ring, of The Dieringer Research Group, at 1-888-432-5220 or visit us on the Internet at www.thedrg.com.
- If respondent requests verification of study, please refer them to Brian Banach at Wisconsin Department of Transportation, at (608) 264-7495.

Qualifiers

I'd like to start by asking a few background questions.

QA   What state are you located in?
        [Do not read list. Enter one response.]

        1   California
        2   Colorado
        3   Florida
        4   Georgia
        5   Indiana
        6   Minnesota
        7   Nevada
        8   Oklahoma
        9   Pennsylvania
        10 Texas
        11 Virginia
        12 Idaho
        13 Kansas
        14 Wisconsin
        97 Other (Thank and Term
        98 Don't know / refused (Proceed to refusal text)

[IF SAMPLE = DPI INSTRUCTORS OR INSTRUCTORS PROCEED TO QB, ELSE SKIP TO QD]

DPI/Instructor Only Questions

QB   Have you ever taught…(Enter all that apply)

        1   Traditional in-class driver's education
        2   Online driver's education courses through the Internet
        3   None of the above

[IF QB=3 ASK QC, ELSE SKIP TO Q1A]
QC   May I please speak with someone from your [DPI sample = district / All other sample = organization] that has taught driver's education in the past year?

        1   Yes, I will transfer you now
        2   Yes, not available at this time [Set up callback]
        3   No, refused

Q1A.   Does your [DPI sample = district / All other sample = organization] offer any other delivery methods for driver's education? (ONLY SHOW ANSWER CODES NOT MENTIONED AT QB) (Read if necessary)

    1   Traditional in-class courses
    2   Online courses through the Internet
    3   CD-Rom
    4   Podcasts
    5   No other methods offered
    97   Other (Specify)_____

[IF QB= 2 OR Q1A = EQUAL 2, ASK Q1B, ELSE SKIP TO QUOTA PUNCH]
Q1B.   Were you involved in the set up or development of your online driver's education class?

    1   Yes
    2   No

Respondent Types		
Respondent #	Respondent Name	Logic
1	Traditional ONLY Instructors:	QB ONLY =1
2	Internet ONLY Instructors:	QB ONLY = 2
3	Teach Traditional/Knowledgeable about Internet:	QB=ONLY 1 AND Q1A=2 AND Q1B=1
4	Teach Both:	QB=1 AND 2

[IF RESPONDENT TYPE = 1, 3, OR 4 ASK Q2, ELSE SKIP TO Q6]
Q2.   For your traditional in-class courses, do you supplement any of your classroom lectures, learning materials, or homework with any online resources?

    1   Yes
    2   No

[IF Q2=1 ASK Q3, ELSE SKIP TO Q4.1]
Q3   What percent of your class is conducted online?

    _____%
    199 = Don't know

[IF Q3=199 ASK Q3.1, ELSE SKIP TO Q4]
     Q3.1   Would you say its...

                1   Less than 10%
                2   10% to less than 20%
                3   20% to less than 30%
                4   30% to less than 40%
                5   40% to less than 50%
                6   50% to less than 60%
                7   60% to less than 70%
                8   70% to less than 80%
                9   80% to less than 90%
                10   90% or greater
                99   Not sure

Q4.   What are some examples of the types of lectures, learning materials or homework that you supplement your class with online resources? (Do not read list. Enter all that apply.)

                1   Practice tests
                2   Additional reading materials
                3   Required discussion board participation
                4   Audio/Videos
                5   Driver's manual
                97   Other (Specify)_____
                99   Don't know

Q4.1   In the next 3 years, do you anticipate the amount of technology used for your in-class course including using online applications to... (Read list. Enter one response.)

                1   Increase
                2   Decrease or
                3   Stay the same
                99   Don't know/Not sure

[IF RESPONDENT TYPE = 1 AND Q1A DOES NOT EQUAL 2 ASK Q5 ELSE SKIP TO Q6]
Q5.   In the next year, how likely are you to develop an online option for your driver's education course? Please use a 1 to 5 scale where 5 is "Very Likely" and 1 is "Very Unlikely.

                1   Very Unlikely
                2
                3
                4
                5   Very Likely
                99   Don't know/Not sure

[IF Q5=1,2 OR 3 ASK Q5.1 ELSE SKIP TO Q5.2]
Q5.1 Why are you unlikely to develop an online version of your driver's education class? (Probe and Clarify)

_____
_____

Q5.2 Based on what you have seen, read or heard what perceived challenges do you see with online driver's education courses? (Probe and Clarify)

_____
_____

Q5.3 On a 1 to 5 scale where 5 is a very challenging and 1 is not at all a challenging, please rate the following challenges based on what you have seen, read or heard about online drivers education.

[READ LIST AND SHUFFLE ATTRIBUTES.]	Not at all Challenging	2	3	4	Very Challenging	(DO NOT READ) Don't know/ Refused/Not Applicable
a. Staying up-to-date on technology	1	2	3	4	5	99
b. Understanding the state standards for online courses..........	1	2	3	4	5	99
c. Security concerns including ensuring the registered student is the person actually completing the course	1	2	3	4	5	99
d. Ensuring your students understand the content objectives of the course	1	2	3	4	5	99
e. Communicating with your students	1	2	3	4	5	99
f. Becoming certified to teach online driver's education	1	2	3	4	5	99

[ALL INSTRUCTORS]
Q6.   Do you contract with schools to offer driver's education?

        1   Yes
        2   No

[IF Q6 =1 ASK Q7, ELSE SKIP TO Q8]
Q7.   Does the school offer any other online courses that you are aware of?

        1   Yes
        2   No
        99   Don't know/Not sure

Online Course Questions

[IF RESPONDENT TYPE = 2, 3, OR 4 PROCEED, ELSE SKIP TO Q43]

Next I would like to ask you a few questions about your online course.

Q8.   What is the total cost of the class per student?

        _____dollars
        999=Don't know

        Q8a. Would you say its...(Read list. Enter one response)

                1   Less than $50
                2       $50-$100
                3       $101 to $150
                4       $151 to $200
                5       $201 to $250
                6       $251 to $300
                7   Greater than $300
                99   Don't know I

Q9.   Do you incorporate audio/video materials as part of your course curriculum?

        1   Yes
        2   No

[IF Q9=1 ASK Q10, ELSE SKIP TO Q11]
Q10.   What copyright issues are involved with using audio/video materials on the internet?
        [Probe: On how they handle each copyright issue mentioned]
        _____
        _____

Q11.   As part of your course, do you require students to participate in online discussions about driver's education topics?

   1   Yes
   2   No

[IF 11=1 ASK Q12, ELSE SKIP TO Q13]
Q12.   How do you evaluate the participation of students in these discussions? (Do not read list. Enter one response.)

   1   Number of comments posted
   2   Quality of comments posted
   3   Do not keep track of participation
   97   Other (Specify)_____

Q13.   Which of the following best describes the grading system you use for class work and/or tests?   Class work and tests are graded using: (Read List. Enter one response)

   1   A standard letter grade
   2   Pass/Fail
   97   Another approach (Specify)_____

Q13.1 What specific criteria is used to determine when a student successfully completes the classroom portion. (Read list, enter all that apply)

   1   The student completes required number of class room hours
   2   Received a passing letter grade
   97   Other (Specify)_____

Q14.   Are students able to receive their driver's permit while they are still in class or only after they have completed the online course? (Do not read list. Enter one response.)

   1   Yes – can receive while still taking the course
   2   No – must wait until completion
   99   Not sure

Q15.   Are students allowed to take their driver's permit test online?

   1   Yes
   2   No
   99   Not sure

Q16.   Upon course completion, do you ask your students to provide feedback on the course?
   1   Yes
   2   No
   99   Not sure

[IF RESPONDENT TYPE = 3 SKIP TO Q31, ELSE PROCEED]

Now I would like to learn more about your overall impressions of teaching online driver's education.

Q17.   What do you like best about teaching online courses (compared to traditional in-class driver's education courses = If QB =1 and 2)?
_____
_____

Q18.   Prior to teaching online driver's education, did you have to take additional training preparation courses on how to teach online?

   1   Yes
   2   No
   99   Not sure

[IF Q18=1 ASK Q18.1 ELSE SKIP TO Q19]
       Q18.1 What special training is required?

       [Interviewer Note: Probe on types of courses required, Number of hours and/or credits required, Degrees/Certifications, Any continuing education]
_____
_____

Q19.   As part of being able to teach driver's education as an online course, do you follow any National Teaching Standards as a guide for your instruction?

   1   Yes (Specify what standards you follow_____)
   2   No
   99   Not sure

Q20.   How does the state provide you with resources and information to use when developing or maintaining your online course? (Do not read list. Enter all that apply.)

   1   Newsletter
   2   DMV Website
   3   Mail
   4   Phone
   5   In-Person Review
   6   The state reviews all materials prior to being able to start
   7   Workshops
   8   The state does not provide any guidelines/requirements
   99   Don't know

Q21.   What are the biggest challenges you face when teaching online driver's education?
_____
_____

[SKIP TO SECURITY QUESTIONS AT Q31]

Security Guidelines

Next, I would like to ask you a few questions about the security procedures you have in place for online courses.

Q31.   Do you have to maintain a certain level of security for online courses to ensure the registered student is the person taking the course?

    1   Yes
    2   No

[IF Q 31=2 SKIP TO Q34, ELSE PROCEED TO Q32]
Q32.   What types of processes or procedures do you have in place to ensure the registered student is the person actually taking the class? (Do not read list. Enter all that apply.)

    1   Honor system
    2   Forms requiring parent/student signature
    3   Biometric keystroke analysis to measure typing speed and rhythm and verify consistency
    4   Fingerprint scan
    5   Retina scan
    6   Security question verification
    97   Other (Specify)_____

Q33.   How often do you review your security standards? (Read list if necessary. Enter one response.)

    1   Every 6 months
    2   Annually
    3   Every other year
    4   Every 5 years
    5   We review when new technology is available
    6   We have not yet reviewed our standards
    97   Other (Specify)_____

Q34.   For online courses, what do you do to ensure students receive the required number of hours for driver's education instruction? (Probe and clarify)

Probe: Do they time each lesson or task?
    _____
    _____

ALL RESPONDENTS
Q43.   What type of advice would you have for Wisconsin or other states to consider as they decide whether to approve online driver's education statewide? (Probe and Clarify)
    _____
    _____

Demographics

We have just a few more questions for you to help us classify your responses.

D1.   How many years have you worked in or been involved with driver's education?
_____Years
199= Don't know

[IF = 199, ASK QD2, ELSE SKIP TO QD3]
D2.   Would you say its...

1   Less than 1 year
2   2 to less than 5 years
3   5 to less than 10 years
4   11 to less than 20 years
5   Greater than 20 years
99   Don't know

D3.   Which of the following best describes your age?

1   18-25
2   26-34
3   35-44
4   45-54
5   55-64
6   65 or greater

D4.   Gender (by observation)

1   Male
2   Female

Qualified closing

Thank you for your time and discussing your opinions with us today. The information you have provided has been extremely helpful. The report of driver's education practices will be sent via e-mail, likely in June or July. In order to provide the report may I please have your e-mail address?

(READ IF NECESSARY): As a company, we do not sell or redistribute e-mail addresses. Your e-mail will be used only for correspondence related to this study.

D6. What is your email address?

(VERIFY SPELLING. EXAMPLE: <u>deanna.ring@thedrg.com</u>) [PROGRAMMER NOTE: PULL IN RESPONDENT NAME AND COMPANY NAME FOR REFERENCE]

Can you give me the correct spelling of your name? Capture First and Last Name

[PROGRAMMER NOTE: PULL IN RESPONDENT NAME FOR REFERENCE]

Thank you! Have a great day.

Appendix D – Student Questionnaire

<div style="background: #2e4a7a; color: white; text-align: center;">Introduction – Provided Sample</div>

S1.   Hello, is this the [**LAST NAME ON LIST**] residence?

    1   Yes
    2   No

[IF S1=1, PROCEED; IF S1=2, THANK AND TERM WITH WRONG NUMBER DISPO (D14)]

S2.   May I please speak to the parent or guardian of **[INSERT MINOR'S NAME]**?

    1   Yes - on the phone continue
    2   No, not available at this time (schedule a callback)
    3   No, refused (Thank and Term, Disp 27)

Parent Introduction:

S3.   Hello, my name is _____ and I'm calling on behalf of the Wisconsin Department of Transportation. I'm calling today/tonight to learn more about [INSERT MINOR'S NAME] experience with the driver's education program they completed. For this study, we would like to speak with [INSERT NAME] directly but wanted to get permission from you prior to doing so.

With your permission, would it be possible to speak briefly with [INSERT FIRST NAME] about their driver's education experience?
    1   Yes – speak with them now
    2   No, not available at this time (schedule a callback)
    3   No, refused (Thank and Term, Disp 28)
    4   My child never took driver's education (Thank and Term, Disp 29)

READ IF ASKED:
- Re-emphasize this is a survey, not a sales call.
- Responses are completely confidential.
- Depending on their responses, the survey will take about 10 to 15 minutes to complete.
- We are a professional research organization that surveys the attitudes and opinions of people on various issues.
- You may contact the manager for this study, Deanna Ring, of The Dieringer Research Group, at 1-888-432-5220 or visit us on the Internet at www.thedrg.com.
- If respondent requests verification of study, please refer them to Brian Banach at Wisconsin Department of Transportation, at (608) 264-7495.

Introduction – Purchased Sample

S1.   Hello, is this the [**LAST NAME ON LIST**] residence?

       1   Yes
       2   No

[IF S1=1, PROCEED; IF S1=2, THANK AND TERM WITH WRONG NUMBER DISPO (D14)]

S2a.   May I please speak with a head of the household?
       1   Yes - on the phone continue
       2   No, not available at this time (schedule a callback)
       3   No, refused (Thank and Term, Disp 27)

Parent Introduction:

S3a.   Hello, my name is _____and I'm calling on behalf of the Wisconsin Department of Transportation. I'm calling today/tonight to learn more about your child's experience with the driver's education program they completed. For this study, we would like to speak with your child who took a driver's education course in the past few years directly, but wanted to get permission from you prior to doing so.

With your permission, would it be possible to speak briefly with your child about their driver's education experience?
       1   Yes – speak with them now
       2   No, not available at this time (schedule a callback)
       3   No, refused (Thank and Term, Disp 28)
       4   My child never took driver's education (Thank and Term, Disp 29)
       5   No children

READ IF ASKED:
- Re-emphasize this is a survey, not a sales call.
- Responses are completely confidential.
- Depending on their responses, the survey will take about 10 to 15 minutes to complete.
- We are a professional research organization that surveys the attitudes and opinions of people on various issues.
- You may contact the manager for this study, Deanna Ring, of The Dieringer Research Group, at 1-888-432-5220 or visit us on the Internet at www.thedrg.com.
- If respondent requests verification of study, please refer them to Brian Banach at Wisconsin Department of Transportation, at (608) 264-7495.

Student Introduction:

S4.   Hello, my name is _____ and I'm calling on behalf of the Wisconsin Department of Transportation. As we mentioned to your parent or guardian we are interested in understanding more about your experience with the driver's education program you completed. This is a confidential survey and none of the information you provide will ever be associated with you personally.

        1   On phone – continue

READ IF ASKED:
- Re-emphasize this is a survey, not a sales call.
- Responses are completely confidential.
- Depending on your responses, the survey will take about 10 to 15 minutes to complete.
- We are a professional research organization that surveys the attitudes and opinions of people on various issues.
- You may contact the manager for this study, Deanna Ring, of The Dieringer Research Group, at 1-888-432-5220 or visit us on the Internet at www.thedrg.com.
- If respondent requests verification of study, please refer them to Brian Banach at Wisconsin Department of Transportation, at (608) 264-7495.

[ONLY ASK S5 AND S6 IF PURCHASED SAMPLE, ELSE SKIP TO QA]

S5.   What is your zip code?
        1   53210
        2   53508
        3   53523
        4   53558
        5   53563
        6   53588
        7   53593
        8   53597
        9   53716
        10   53784
        97   Other (Specify)_____

[IF S5=97 THANK AND TERM, ELSE PROCEED]

S6.   What high school do you or did you previously attend?

1   Belleville High School
2   Cambridge High School
3   East Troy High School
4   McFarland High School
5   Middleton – Cross Plains High School
6   Milton High School
7   Monona Grove High School
8   River Valley High School
9   Verona High School
10   Waunakee High School
97   Other (Specify)_____

I'd like to start by asking a few background questions about your driver's education course.

QA   In what year did you complete your driver's education course?
        [Do not read list. Enter one response.]

1   2009
2   2008
3   2007
4   2006
5   Other (Thank and Terminate, Disp 30)
6   Did not complete driver's education (Thank and term, Disp 29)
98   Don't know / refused (Proceed to refusal text)

Driver's Education Class Experience

Q1.   Was the driver's education class you took **mainly** conducted...**[Read list]**

      1   Online through the Internet or
      2   In a classroom setting
      99   Don't know / refused

[IF Q1=1, ASK Q2 ELSE SKIP TO Q3]
Q2.   Why did you decide to take the course online as opposed to taking in a classroom setting? (Do not read list. Enter all that apply.)

      1   Convenient to take the class from home
      2   Prefer online classes to in the classroom if the option is available
      3   Less expensive
      4   My parent wanted to play a bigger role in teaching me how to drive
      5   Can learn at my own pace
      6   Can learn when it's convenient for my schedule
      7   Parents didn't have the time/capability to take me to a classroom course
      8   More fun/less boring than sitting in a classroom
      9   Easier coursework
      10   I didn't know/have a classroom option available
      97   Other (Specify)_____
      99   Don't know

[IF Q1=2, ASK Q3 ELSE SKIP TO Q5]
Q3.   Did you have the option to take the driver's education course online?

      1   Yes
      2   No

[IF Q3 = 1 ASK Q=4, ELSE SKIP TO Q5]
Q4.   Why did you decide to take the driver's education course in a traditional classroom setting as opposed to taking it online? (Do not read list. Enter all that apply.)

      1   Friends were taking the course in class
      2   Easy school credits
      3   More convenient to take it during school since already there
      4   Don't like online courses/prefer to take the class in-person
      5   Procrastinate too much with online courses
      6   Siblings took it in-class and my parents wanted me to do it the same ~~way~~
      7   Taking it in class worked best for my parents schedule
      8   Less expensive
      9   Parents skeptical of online courses
      97   Other (Specify)_____
      99   Don't know

Q5.   Considering what you **learned** from the lectures, discussions and materials covered during your driver's education course; rate your knowledge level on the following driver's education course topics. Please use a 1 to 5 scale where 5 means "Very Knowledgeable" and 1 means "Not at all Knowledgeable".

How knowledgeable are you on…

[READ LIST AND SHUFFLE A-G ATTRIBUTES. E ALWAYS LAST]	Not at all Knowledgeable	2	3	4	Very Knowledgeable	(DO NOT READ) Don't know/ Refused/Not Applicable
a. Basic traffic laws …..	1	2	3	4	5	99
b. Safe driving techniques for weather conditions..	1	2	3	4	5	99
c. The meaning of road signs…………	1	2	3	4	5	99
d. The effects of alcohol and drugs on one's driving capabilities ……..	1	2	3	4	5	99
e. Organ and tissue donation	1	2	3	4	5	99
f. The move over statute for emergency vehicles	1	2	3	4	5	99
g. Overall how knowledgeable are you on the topics covered during your driver's education course	1	2	3	4	5	99

Communication/Instructor Review

Next I would like to learn more about your course instructor (Show Q1=1 only and the types of communications you had available during the class.)

[Only ask Q6, Q6.1, and Q7 if Q1=1, ELSE SKIP TO Q8]

Q6.   During your online class, were you ever provided any background information on your course instructor?

    1   Yes
    2   No
    99   Don't know

Q6.1   What are all the different ways you were able to communicate with the instructor during your course? (Do not read list. Enter all that apply.)

    1   Instant messaging
    2   Email
    3   Discussion Board
    4   Telephone
    5   In-person
    97   Other (Specify)_____
    99   Don't know

[ONLY SHOW RESPONSES MENTIONED AT Q6.1]
Q7.   What method worked best for getting your questions answered?
        (Do not read list. Enter one response.)

    1   Instant messaging
    2   Email
    3   Discussion Board
    4   Telephone
    5   In-person
    97   Other (Specify)_____
    99   Don't know

Q8.   Using a 5-point scale where 5 means "Very Satisfied" and 1 means "Very Dissatisfied," please rate your level of satisfaction on the following aspects of your driver's education instructor.

How satisfied were you with....

[READ LIST AND SHUFFLE ATTRIBUTES.]	Very Dissatisfied	2	3	4	Very Satisfied	(DO NOT READ) Don't know/ Refused/Not Applicable
a. The knowledge level of the instructor on the driver's education materials	1	2	3	4	5	99
b. Creativity in teaching topics	1	2	3	4	5	99
c. The individual attention you received from the instructor........................	1	2	3	4	5	99
d. The responsiveness of the instructor to your questions	1	2	3	4	5	99
e. The amount of information your instructor provided you	1	2	3	4	5	99
f. The amount of interaction you had with your instructor	1	2	3	4	5	99
g. Overall satisfaction with your driver's education class instructor	1	2	3	4	5	99

Parental Involvement

The following questions are about your parent's or guardian's involvement in your driver's education.

Q9.   How involved would you say your parents or guardian were in helping you with your driver's education class on a 1 to 5 scale where 5 means "Very Involved" and 1 means "Not at all Involved."
       1   Not at all involved
       2
       3
       4
       5   Very involved
      99 Don't know

Q10.   Would you prefer that your parents had ~~been~~ more involvement, less involvement or the same?
       1   More involvement
       2   Less involvement
       3   The same involvement
      99 Don't know / refused

Overall experience

The next few questions are to understand your overall experience with your driver's education course.

Q11.   Thinking about all the different aspects of the class, what are a few of the things you liked best about the class instruction portion of driver's education?(Probe and clarify)
_____
_____

Q12.   What are a few of the things you liked least about the class? (Probe and clarify)
_____
_____

Q13.   How well would you say your driver's education course prepared you for starting to drive and operating a vehicle? Please use a 1 to 5 scale where 5 means "Very Prepared" and 1 means "Not at all Prepared".

     1   Not at all prepared
     2
     3
     4
     5   Very prepared
     99 Don't know

Q14.   What do you think we can do to improve future [online (Q1=1)/classroom (Q1=2)] driver's education classes to help develop safe driving habits in new drivers like yourself? (Probe and clarify)
_____
_____

Q15.   Considering all aspects of your driver's education class, please rate your overall satisfaction with the class on a scale of 1 to 5 where 5 means "Very Satisfied" and 1 means "Very Dissatisfied."

     1   Very dissatisfied
     2
     3
     4
     5   Very satisfied
     99 Don't know

Q16.   Again, considering all aspects of your driver's education class experience, if you had to take the class over again, would you be more likely to take the class online or in a traditional classroom setting?

    1 Online
    2 In a classroom setting
    3 One is not preferred over another
    99 Don't know / refused

[IF Q1=2 AND Q16=1, ASK Q17, ELSE SKIP TO Q18.]
Q17.   Why would you take the course online instead of through the classroom again? (Do not read list. Enter all that apply.)

    1 Easier coursework
    2 Prefer online classes to in the classroom if the option is available
    3 Learn at my own pace
    4 Learn when it's convenient for my schedule
    5 Seems more fun/less boring than sitting in a classroom
    6 Didn't learn what I thought I should have
    97 Other (Specify)_____
    99 Don't know

[IF Q1=1 AND Q16=2, ASK Q18, ELSE SKIP TO Q19.]
Q18.   Why would you take the course in the classroom instead of online? (Do not read list. Enter all that apply.)

    1 Didn't learn what I thought I should have
    2 Too much of a hassle to communicate with the teacher
    3 Don't learn well online
    4 My parents were involved too much and this way they wouldn't be
    5 Prefer to take the class with my friends
    6 Online was harder than I thought it would be
    97 Other (Specify)_____
    99 Don't know

Demographics

We have just a few more questions for you to help us classify your responses.

Q19.   What is your current age?

_____ Age
98 = Refused

Q20.   Have you ever taken an online course (excluding online driver's education only show if Q1=1)?

1   Yes
2   No

Q21.   How many times did it take for you to pass your written driver's permit test?

_____ Time
99 = Don't know

Q21.   How many times did it take for you to pass your road test to get your license?

_____ Time
99 = Don't know

Q22.   Since getting your learners permit, have you ever been in a crash while you were driving? This includes both crashes that you have reported to the police and those you did not.

1   Yes, one accident
2   Yes, more than one accident
3   No

[IF Q22=1 OR 2 ASK Q23, ELSE SKIP TO Q26]
Q23.   Were you at fault or was someone else? (Do not read list. Enter all that apply.)

1   Yes, I was at fault
2   No, someone else was

[IF Q23=1, ASK Q24, ELSE SKIP TO Q26.]

Q24.   What was the cause of your crash(es)? (Do not read list. Enter all that apply.)

    1   Speeding
    2   Failure to stop at a stop sign
    3   Running a red light
    4   Passing in a no passing zone
    5   Following too closely
    6   Inattentiveness (i.e. playing with cell phone or radio)
    7   Distractions within the car (i.e. other people causing distractions)
    8   Weather conditions
    9   Going too fast for conditions
    10 DUI/OUI
    11 Making an illegal turn
    12 Changing lanes without properly signaling
    97 Other (Specify)_____
    99 Don't know

Q25.   What type of things could have been taught to you during driver's education to help prevent this crash? (Probe and Clarify)
        _____
        _____

Q26.   Have you ever received a ticket or warning for a **moving** traffic violation? (Enter all that apply)

[**Read if necessary**: A moving traffic violation includes speeding, failure to stop at a stop sign, running a red light, etc.]

    1   Yes, a warning
    2   Yes, a ticket
    3   No

[IF Q26 = 1 ASK Q = 27a, ELSE SKIP TO Q27b]

Q27a. What types of moving traffic violations have you received a warning for? **(Do not read list. Enter all that apply.)**

    1   Speeding
    2   Failure to stop at a stop sign
    3   Running a red light
    4   Passing in a no passing zone
    5   Following too closely
    6   Taillight / Headlight out
    7   Loud radio
    8   Cruising
    9   Going too fast for conditions
   10 DUI/OUI
   11 Making an illegal turn
   12 Changing lanes without properly signaling
   97 Other (Specify)_____
   99 Don't know

[IF Q26 = 2 ASK Q = 27b, ELSE SKIP TO closing]
Q27a. What types of moving traffic violations have you received a ticket for? **(Do not read list. Enter all that apply.)**

    1   Speeding
    2   Failure to stop at a stop sign
    3   Running a red light
    4   Passing in a no passing zone
    5   Following too closely
    6   Taillight / Headlight out
    7   Loud radio
    8   Cruising
    9   Going too fast for conditions
   10 DUI/OUI
   11 Making an illegal turn
   12 Changing lanes without properly signaling
   97 Other (Specify)_____
   99 Don't know

For supervisor validation purposes, may I have your first name?
_____

Closing: Those are all the questions that I have for you. Thanks for your time and have a great.

Appendix E – CESA #2 EMAIL/PERMISSION FORM

Dear [INSERT NAME],

As you may or may not be aware, the Wisconsin Department of Transportation (WisDOT) is partnering with The Dieringer Research Group to conduct a research study to evaluate the costs, benefits, and limitations of Internet-based driver education. This study will compare Internet-based drivers education programs to traditional classroom education among several respondent types including recent students of driver's education.

We are hoping that you would be able to help us in this research study by allowing CESA #2 to release the contact information of your students who have taken either online or traditional classroom driver's education through your school in the 2007-2009 school years. We will be using this contact information to interview recent students to understand their experience with both types of programs. The information received during these interviews will ONLY be used to aid WisDOT in decision-making regarding online driver's education classes.

We have been working with Kurt Schulz, Driver Education Director/Coordinator from CESA #2 and he is willing to speak with you if you have any questions or concerns about this research effort. I have included him on this email and have also included his contact information below if you have questions directly for him about the validity and purpose of this research.

Kurt Schultz
CESA #2
Driver Education Director/Coordinator
P.O. Box 400
Spring Green, WI 53588
Phone: 608-290-4663
E-Mail: kschultz@cesa2.k12.wi.us

Prior to us contacting you directly, we did reach out to CESA #2 to grant us access to this information. However, they were hesitant to release this information without your permission. To allow CESA #2 to release your student's information to The Dieringer Research Group for this effort, please fill out the attached sheet and email it back to me by January 28th, 2010. On behalf of the WisDOT, we thank you in advance for considering this research effort. Please contact me via phone or email to discuss any questions that you may have about this project. My contact information is provided below.

Deanna Ring
Research Analyst
The Dieringer Research Group, Inc.
Direct: 262-432-5233
Main: 262-432-5200 \ 888-432-5220
Visit us at: www.TheDRG.com

In today's economy, every customer is critical.
The DRG can help you build and maintain a strong Loyalty Program.
Contact us to find out how Best Practices can help your organization.

WisDOT Internet Driver Education Research Study
Conducted by: The Dieringer Research Group, Inc.

The _____ School District authorizes CESA #2, 448 E. High Street, Milton, WI 53563 to provide names, phone numbers, addresses, and all pertinent student/parent information to The Dieringer Research Group, Inc., 200 Bishops Way, Brookfield, WI 53005.
The provided information is to be used solely for the research study being conducted by the Wisconsin Department of Transportation along with The Dieringer Research Group, Inc., relating to Driver Education and its effectiveness of different forms of classroom offering. The research is being conducted to evaluate classroom driver education and Internet/online classroom driver education.
At no time will the information be used for any other purposes by The Dieringer Research Group, Inc.

Administration   **Date**

_____

_____

(Signature)

_____

(Printed Name)

Appendix F – End Notes

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