Public Schools of North Carolina
State Board of Education
Department of Public Instruction

Report to the North Carolina General Assembly

DPI/DMV Knowledge Testing Review

SL2013-360, Section 34.20.(b)

Date Due: March 1, 2014
Report # 40
DPI Chronological Schedule, 2013-2014

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Introduction:
This study provides information and data compiled by the Department of Public Instruction (DPI) and the Division of Motor Vehicles (DMV) in collaboration to address the legislation in Session Law 2013-360 – Section 34.20.(b). This study includes findings and considerations that address the process that will enable DPI and DMV to revise the driver knowledge test currently administered, create a process to administer the knowledge test and certification of passage by public schools administering driver education programs.

In July 2011, a standard driver education curriculum was adopted by the State Board of Education (SBE). This curriculum was adopted to be used by all Local Education Agencies (LEAs) receiving state funding.

The February 2013 North Carolina Driver Education Strategic Plan contains a component that requires collaboration between DPI and DMV to measure the success of the driver education program by comparing the number of eligible students to the number of successful license applicants as reported by the Division of Motor Vehicles.

Currently, approximately 100,000 students annually who complete 30 hours of driver education classroom and 6 hours of behind the wheel instruction receive a driver education certificate from the Local Education Agency (LEA). Students taking the classroom phase are assessed throughout the 30 hours of classroom instruction and are given a final examination created by the LEA. Each LEA creates an individual test using the standard curriculum adopted in 2011. The objective of this curriculum is to prepare teen drivers to demonstrate safe and responsible driving habits and to prepare the teen for licensure at the DMV.

After students receive a driver education certificate and meet driver eligibility requirements, they take the test at DMV to obtain their graduated driver license. Students taking the knowledge test at DMV must reach 80% proficiency. Students that do not pass the knowledge test administered by DMV must retake the test. Findings from DMV show that the failure rates on the knowledge test for teens have varied from 59% to 33% between FY 07/08 and FY 12/13. See Table 1 under Additional Information. The failure rate reflected in Table (1) includes students who have taken the test multiple times before passing. Driver Educators have expressed concern that the amount of time that passes between the completion of the classroom and behind the wheel training and when the students go to DMV can amount to several months and may account for some of the high fail rate.

Revision of Current Knowledge Tests/Discussions and Findings:
Three LEA representatives and the Driver Education Professor from East Carolina University along with four DMV subject matter experts served as members of a knowledge revision test workgroup. This workgroup compared the contents of tests administered at LEAs and tests administered at DMV. The workgroup discussed measures that would improve the content of the knowledge tests administered in State Driver Education Program. This workgroup met during two half-day sessions to identify and categorize a pool of test questions that covered traffic safety standards, vehicle safety and regulatory safety that have been set by the American Association of Motor Vehicle Administrators (AAMVA) Test Maintenance Subcommittee and the Novice Teen Driver Education Training and Administrative Standards (NTDETAS). A

databank of over 700 questions were reviewed and categorized. The questions identified cover the major topics on highway safety, highway regulatory information and driving tasks that teen drivers need to safely navigate the highway transportation system. In order to complete the test revision process, the pool of questions selected should pass through additional reviews to ensure that all intended categories are represented. It is recommended that this process be completed by DMV, DPI, and a third party.

<u>The Administration of the Revised Knowledge Test/Online Delivery System Findings:</u>
The revised knowledge test should meet the objective of both agencies. The revised knowledge test that will be adopted based on this study will be administered by DMV to its customer base and will be applicable to all drivers. The LEAs will incorporate the same revised knowledge test into the State Driver Education Program.

DPI and DMV agree that the revised knowledge test should be administered by the LEA within the driver education program. Each LEA must tailor the driver education program to deliver consistent substantive instructions. The revised knowledge test will consist of questions that will ensure that teen drivers are provided knowledge on road safety, highway cautionary details and highway regulatory information. It is recommended that each LEA incorporate this revised knowledge test into the State Driver Education Program in order to create consistency in what is taught during the course. Including the revised knowledge test in the driver education program will improve the course structure and create uniformity in the test administration at LEAs. In addition, incorporating the revised knowledge test in driver education programs will afford teen drivers the means to improve test proficiency as well as provide teens knowledge that can be demonstrated during vehicle operation. It is also recommended that the proficiency level for a knowledge test taken in the driver education course be raised from 70% to 80%.

The online test module for the revised knowledge test must meet North Carolina Information Technology security and application requirements. It is recommended that the system be designed with monitoring and auditing functionality.
- DMV's Current Testing System – DMV has a contract with a testing vendor, Solutions Thru Software (STS), who currently provides testing services in the DMV licensing offices across the state. Students must visit the DMV office to take the knowledge test after they receive their driver education certificate and driver eligibility certification and must pass with 80% proficiency. STS has created a databank of questions that meet DMV testing standards. DMV tests are provided in 8 different languages.
- LEAs Current Computerized Testing System– DPI has identified two LEAs that participated in the online pilot project who are continuing to contract with Costech Technologies to provide online driver education to their students. Costech is also providing a similar program for use in a few other LEAs and is currently being used to support a blended model of instruction for 30 hours in conjunction with a classroom teacher present for the entire class. This system currently provides a computerized course; quizzes, chapter tests and an online final driver education examination. The proficiency rate is 70%. Potential options available – DPI has completed a preliminary review of current testing options being used in other areas. Career and Technical Education (CTE) uses a software program called Elements, which currently

tests end of course tests in some of their courses in all 115 LEAs. DPI is also working toward making all end-of-course tests available on Home Base, a part of the PowerSchool system being implemented statewide. Also, with online driver education being a topic of discussion among stakeholders, any move in that direction should consider the ability of any approved online providers to be able to provide the final exam and meet the specifications needed to provide test scores to DMV and data as required by DPI/DMV.

The Certification of the Passage of the Revised Knowledge Test:
The revised knowledge test should meet the objective of both agencies. The revised knowledge test that will be adopted based on this study will be administered by DMV to its customer base and will be applicable to all drivers. The LEA's will incorporate the same revised knowledge test into the State Driver Education Program.

It is recommended that the revised knowledge test be administered during the driver education course. Currently a teen driver is required to take a knowledge test during the driver education course and again when receiving their first graduated driver license at DMV. Based on the past 6 years, the average fail rate for teens taking the knowledge test at DMV is 45%. To improve proficiency, the LEAs will need to structure the driver education courses so that the content of the revised knowledge test is taught during the driver education course. To align the test proficiency rate with DMV, it is recommended that the LEAs driver education end-of-course proficiency rate increase from 70% to 80%. Upon the completion of the driver education course and the issuance of a driving eligibility certificate, the passing score will be made available to DMV. DMV will use the passing score to issue the teens graduated driver license thus eliminating the need for teens to take an additional knowledge test at DMV.

Additionally, the implementation of a revised knowledge test will allow LEAs to provide a standardized driver education course acceptable to both DPI and DMV. The course will meet current traffic safety standards and provide consistent test data for comparison among all 115 LEAs. This newly revised knowledge test system along with the restructured driver education course will afford teen drivers information they need during vehicle operation.

DPI will pilot the administration of the revised knowledge test and the restructured driver education program only in selected areas to determine the impact the changes may have on teen driving statistics. Data will be collected during the pilot that will enable DPI to measure successes and determine a process to implement the changes statewide. DPI will determine a timeline for the pilot.

Prior to the implementation of the revised knowledge test and the restructured driver education program, it is recommended that DPI implement means to monitor the impact of the change.

Information Technology Discussions:
DPI and DMV held meetings with a focused on DOT/IT application requirements, security and system requirements, protection of student personal identification information, access protocols, system backup, connectivity issues, data storage and data access as well as agency auditing needs.

Costech currently provides contracted services to some LEAs and several of those LEAs have expressed an interest in piloting a knowledge test. Costech met with DPI and DMV to share thoughts on how their testing application could work and integrate with the DMV system.

Solutions Thru Software (STS), DMV's current test vendor indicated that its current test application could provide DPI an expanded revised knowledge testing solution that could be administered online and would meet DPI and DMV data and security requirements

Solutions Thru Software and Costech can provide online secure testing that can be administered in LEAs and the results can be made accessible to DMV. However; the current state standard is provided by STS.

DPI – Potential Positive Outcomes:
It is recommended that the revised knowledge test be administered online. The DPI Driver Education Consultant, will have access to the data and can provide technical assistance to LEAs as needed. Reports can be generated in "real-time", such as the number of students tested, number of students passing, pass/fail rates by LEA, etc. Online testing will provide increased oversight and test accountability and provide the ability for stronger evaluation of not only testing, but also any changes in curriculum that need to be addressed. With the LEAs utilizing this new testing system, they will now have an opportunity for more than 25 test questions to be on the examination which may help provide more empirically based measures of student success in meeting both the curriculum objectives contained within the DPI Driver Education Curriculum and traffic safety objectives required by DMV.

DPI Responsibilities & Challenges:
- Instructor Training – DPI will set standards for all teachers who will be administering the test within the LEAs. DPI will establish a training program and protocols to insure test accountability. LEAs will identify those teachers who will be responsible for administering the test. All teachers will be trained on the testing system.
- Testing sites – DPI will set standards for testing room and computer lab protocols. LEAs will be responsible for meeting the expectations of the testing room. LEAs will be responsible for providing test accountability and monitoring of all knowledge tests given. LEAs with private driver education contractors will need to provide computer access to the teachers who work for the contractor. All students, including public, private, charter, federal and home school, must have computer access during driver education class testing. Provisions will need to be made ahead of testing time to ensure test validity.
- Retesting – Protocols are needed for students who need retesting. DPI should insist on a second test day being available for students that fail a knowledge test within a few days of initial test, no more than a week. Retest data should be closely monitored during the pilot phase to determine passing rates and any potential costs involved in providing additional days of testing.

DMV Potential Positive Outcomes:
Teen drivers who have successfully completed a State Driver Education Program that includes the newly revised knowledge testing system, have met driver eligibility requirements, and have

met all other DMV requirements will no longer be required to take the knowledge test administered by DMV to obtain their graduated driver license. DMV administered 126,217 knowledge tests to teen drivers FY 12/13. It takes an average of 24 minutes to complete the DMV knowledge test. The elimination of the DMV knowledge test will result in shorter wait and service times at DMV.

DMV Responsibilities & Challenges:
System Changes – DMV will work with DOT/IT, DOT security and infrastructure as well as the current test vendor to make the appropriate system updates that will allow DMV access to the student's passing knowledge test score taken at LEAs. The passing score will be used to issue the student's graduated driver license.

Some Cost Considerations:
Immediate cost considerations should include the DPI vender cost to revise or expand the knowledge test questions, online test modules, DMV access to student test results, DOT/IT cost to update the driver license issuance application, hardware cost associated with adding additional computer workstations in LEAs and costs of instructor training sessions for teachers in LEAs who will be administering the test.

<u>Additional Information:</u>
The table below is a reflection of the failure rate for DMV test results for teen drivers. Although the failure rate has declined over the years, it must be noted that the number of teens taking the test at DMV has also declined. A contributing factor in the decline in the number of teens participating in the State Driver Education Program could be associated with the imposed fee for that program in July 2011 and an increase in that fee July 2013.

Table 1 – DMV Knowledge Testing (2007 – 2013)

Testing Period	Administered	Passed	Failed	Failure Rate
FY 07/08	137,506	56,257	81,249	59%
FY 08/09	169,589	86,834	82,755	48%
FY 09/10	186,193	104,044	82,149	44%
FY 10/11	190,544	107,020	83,524	43%
FY 11/12	190,929	107,362	83,567	43%
FY 12/13	126,217	83,975	42,242	33%

Decline in number of teen drivers: Economic conditions such as higher gas prices, the cost of insurance, a parent's loss of employment or a student that is unable to find a part-time employment may have an impact on when a teen is able to drive. Increased reliance on social media to connect with friends, as well as parents continuing to take responsibility to transport students to school, practices and other activities may contribute to lack of interest in obtaining a license by some teens. Finally, we believe the driver education fee is having some negative impact on the numbers signing up for driver education classes in those counties choosing to charge a fee.

Driver education no longer included in the regular curriculum: Since 1992 driver education has been moved "outside" the regular school day as an extracurricular subject that does not count toward requirements for graduation. Driver Education can be taught either before or after school, on weekends, during the summer and during school breaks. We do have a state driver education curriculum, which should be used by all school systems receiving state funding for driver education.

How a student participates in the driver education program: All school systems are required to offer a driver education program to all public, private, charter, federal and home school students. Students register for a class and follow procedures set by the local school system. Students also have the option to contact a private driver education commercial school, who does not have the local school system contract, and pay them to take the classroom and behind the wheel instruction.

Cost of driver education: Currently the state of NC provides each LEA an allocation of $191.09 based on the number of 9th grade average daily membership of students enrolled, including public, private and charter schools. Local school systems do have the ability to charge students up to $55 to offset the cost of operating their driver education program and approximately 2/3 of the LEAs charge some amount of fee. Also, some parents opt to pay a private contractor $350+ for their teenagers to take the classroom and BTW training.

Summary:
The intent of this study is to determine how to revise the driver knowledge test currently administered, create a process to administer the knowledge test and certification of passage by public schools administering driver education programs.

It is feasible to create an online knowledge test that addresses all aspects of highway safety that can be administered at LEAs. It is also feasible to structure driver education courses so that teen drivers are provided the education that is required to improve the proficiency rate of knowledge tests.