

2009 HOUSE TRANSPORTATION

HB 1492

2009 HOUSE STANDING COMMITTEE MINUTES

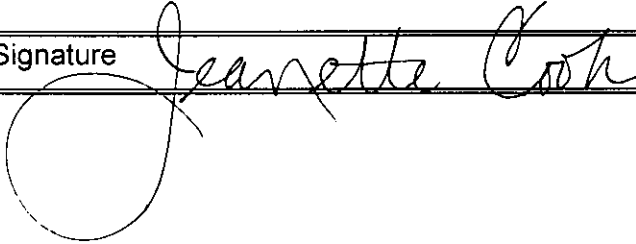
Bill/Resolution No. HB 1492

House Transportation Committee

☐ Check here for Conference Committee

Hearing Date: 01/29/09

Recorder Job Number: 8191

Committee Clerk Signature 

Minutes:

Representative Gruchalla introduced HB 1492 also known as the Graduated Driver's License Bill. This past summer Doctor Miller from Merit Care decided that he had seen enough carnage on the highways and decided to do something about it. Adam Hamm was also working on something independently. I have thought about trying to put a bill in since last session. Eventually we got together and had some meetings. What you will hear now is a result of those meetings.

Gene LaDoucer spoke on behalf of AAA of North Dakota in support of HB 1492. See written testimony, attachment #1. Attachment includes maps, graphs, and charts referred to in testimony. Attachment #2 is a diagram that shows the progression of the proposed North Dakota Graduated Drivers License.

Representative R. Kelsch: Do you have information to show an occurrence of more accidents by students that take private driving school for training versus school training?

Gene LaDoucer: No, I do not have any statistics to show the difference. According to the (inaudible) classroom training really doesn't have a significant impact on the safety of teen drivers.

Representative R. Kelsch: We have looked at making changes to this law several times over the last ten years since it was first enacted. One of the issues that has come up numerous times is having 40 hours of supervised behind the wheel driving (inaudible). What is the penalty for parents that perjure themselves by putting that they have 40 hours behind the wheel with their child, but actually don't?

Gene LaDoucer: That is something that I don't have an answer for. It would fall in a legal realm.

Representative Weiler: What about a sixteen year old driver that starts today? Would they have to start at the learner stage if we were to pass this?

Gene LaDoucer: Yes, they would start at the beginning with the learner's permit. This law will start in 2010.

Chairman Ruby: How will they get ten hours of night time driving if they are not allowed to drive at night?

Gene LaDoucer: They are not allowed to drive after 11:00 PM, but there will still be plenty of night time hours, especially in the winter months.

Representative Heller: How does the farm and ranch exception work? How can you tell that someone is just driving for a farm related activity?

Gene LaDoucer: This bill is not meant for active law enforcement. The provisions of this bill are meant to be enforced through the driver's license process. If they break the provisions they can lose their license for three to six months. Basically it is self-enforcing. (Difficult to hear.)

Representative Delmore: One of the things that we look at with this is the fact that we are a very rural state. In Washington, DC, there are a lot of kids that don't have a license, but they can ride the subways where ever they want to go. I see some of the provisions that may be difficult for a single parent. In the intermediate stage, it says that you can have no more than

one passenger under the age of eighteen. If I have two children under that age and my daughter is driving, do I have to get a babysitter to practice driving with my daughter?

Gene LaDoucer: In the case that you mentioned, the passenger restrictions do not apply to siblings within the family. You are right. There are some challenges. The rural nature of our state is no different than many other states that have adopted this system.

Representative Delmore: In the examples that you provided, not all of these states have ALL PARTS of these regulations. Is that correct?

Gene LaDoucer: That is correct. The GDL systems that are in place across the US range from very weak to very strong. We tried to find a satisfactory point between the marginal system that we currently have and one that is recommended by ____??_____. We want to come up with what we feel is the best system for North Dakota. There are many different systems. Most will have the most important components, such as night time restrictions, passenger restrictions, and limiting talking on cell phones.

Chuck Clairmont, the Executive Director of the North Dakota Safety Council, testified in support of HB 1492. His group is a member of the coalition that helped put this bill together. See attachment #3. He provided information from the National Safety Council entitled, "What You Should Know About... Graduated Driver Licensing" and other information about graduated licensing. See attachment #4.

Steve Boehm, a retail insurance agent in Bismarck, spoke in support of HB 1492. He believes anything that we can do to protect our children from harm is important legislation. From an insurance standpoint, this bill will probably not have immediate implications for the insurance rate structure or underwriting, since it generally takes some time to evaluate the effect the change will have on rates. Currently, most insurance companies have the same classifications for youthful drivers: age 14-16 or 17 have the same classifications and are

charged the same rate. Therefore HB 1492 would not have an immediate premium effect.

However, history may prove that a graduated structure may have a long term effect on premiums, and the severity of claims should be reduced.

Pat Ward, Association of North Dakota Insurers, also support HB 1492. He stated that this bill emphasizes the need for practice, especially the need for practice under the supervision of the parents. It also emphasizes the need for focus while they are learning how to drive. We need to take away the distractions. Sometimes parents need empowerment. Most parents will appreciate the assist in many respects.

Doctor Ron Miller, the Medical Director of MeritCare Children's Services, spoke in support of HB 1495. See attachment # 5. He strongly emphasized the evidence that supports that Graduated Driver Licensing can decrease teenage deaths. Other states have done this and had tremendous success with decreasing childhood death and childhood traumatic brain injury (up to age 18). This bill does have some farm provisions, but it targets safety for all children. To him this is a medical issue, it prevents childhood death and injury, like you can prevent measles or chicken pox. It is like an immunization for accidents. This bill has purpose and meaning for children in North Dakota. He stated, "If we don't pass this legislation, we will be back in two years with ten deaths that we know we could have prevented. If we don't pass this legislation we won't save every teen, but we can save half of them. That is what the data supports in every state that has even the weakest of Graduated Drivers Licensing. "

Chairman Ruby: Do you think that teens today are less prepared to drive than those twenty or thirty years ago?

Doctor Ron Miller: They are not any less prepared or more prepared. We just have to look at the times the accidents happen, and distractions that cause them.

Paula Bartsch, a parent of a son who died in a traffic accident, spoke in support of HB 1492. See attachment # 6.

Larry Wayman, spoke in support of HB 1492. He would like to see Graduated Drivers Licensing. He related the story of his nephew who got a driver's license. In less than one hour the boy was driving, he was in an accident with three other kids in the pick-up. Three of them were killed, and the other was seriously injured. He felt that it was just because the nephew didn't have the training to drive safely, no experience. Mr. Wayman also told what happened to him and his son. They were in an accident. Another pick-up driven by a teen-age driver with three girl passengers hit his pick-up on the passenger side. His thirteen year old son was trapped in the pick-up and died. He feels it is because of one teen-age driver that had no training. Kids have to have training. The only way they learn is by experience. He gave information that in California teen deaths dropped 50% when they finally adopted GDL. He urged a Do Pass on HB 1492.

Adam Hamm, North Dakota Insurance Commissioner, spoke in support of HB 1492. See attached testimony #7.

Chairman Ruby stated that according to this bill the effective date would be January 2010.

Adam Hamm: What the coalition tried to do when putting this proposal together, is review what the other forty-seven states have employed. We tried to take the best of what those GDL laws encompassed and make it part of this proposal. We had the benefit of being able to look at what all the others had done to come up with the best possible proposal that would work in North Dakota. We believe that this (bill) does represent that.

There was no opposition to HB 1492.

Linda Butts, North Dakota DOT, spoke in neutral position on HB 1492. The DOT played the role of a resource to the development of the bill. She provided a graph to give some explanation of the timeline. See attachment # 8.

Representative R. Kelsch: How many of eligible fourteen year olds get their permit? How many eligible fourteen and one half year olds get their driver's license?

Cindy Worrel, DOT: I do not have those numbers readily available. But, what we did do, is run a program that determines the age that we are seeing kids coming in to get their first time learner's permit. The average age in the last two years was fifteen and one half for the instruction permit.

Representative R. Kelsch: Do you think that is because parents aren't willing to pay the \$100 to send their kids to a private driving school, then they have to wait until after their freshman year for behind the wheel training?

Cindy Worrel: That may be one reason, but I also know parents who are having their kids wait until they are sixteen, so they are not getting the permit right away.

Representative R. Kelsch: It would be interesting to see those numbers, if you will get them.

Representative Delmore: If anywhere along the way as a teen-ager I have a violation, do I have to go back to the very first step?

Cindy Worrel: Right now the law on the books is the Minor's Driver's License Law. If anyone under the age of eighteen, whether they are holding a permit or a license, if they commit an alcohol violation while operating a motor vehicle, or they accumulate six or more points, they get canceled. They go back to the very beginning of the process. They are treated as if they are a fourteen year old.

Representative Delmore: This doesn't say anything about alcohol or six points, it says "violation free". So, if I get a speeding ticket, then I lose all my privileges and go back to the beginning?

Cindy Worrel: That would be a two point violation, but there would also be a delay in getting to the next step. This does not eliminate the minors cancelation, so that is still part of this piece.

Chairman Ruby asked if someone would explain the fiscal note.

Glen Jackson, Director of the Motor Vehicle Division from North Dakota DOT: What we looked at with this fiscal note was the impact on our staff as far as time and resources to deliver this process. The graph that we passed out says that right now we touch people usually twice. They come in for their permit, and they come in for their license. With this new program we are going to touch them more than that, when they come in for their permit; when they come in for their intermediate; and when they come in for their license; and then possibly for a fourth time when they come in for their farm license. It is essentially the increase in the number of times that we have to "touch" people that drove the cost. That will have more people in line. It will require more paper work. It will require more processing and require more time. We looked at the number of licenses to come up with the revenue that we would generate through this process. The permits account for 10.46% of all those cards. So, we looked at 10.46 and the number of examiners that we have. If we have to increase the amount of work by 10.46 % because we are increasing the work through the additional processing, that is what drove the additional cost.

Representative R. Kelsch: Would we need one more card in between here also, to what we currently have, or would the intermediate license need to be a different license?

Glen Jackson: Yes, we would need an additional card generated.

Representative R. Kelsch: How many cards do we have now?

Glen Jackson: We start out with the initial permit, then the intermediate, and then the license. So, each person would get at least three. If you get your farm license there would be a separate license at fourteen and one half.

Representative R. Kelsch: Would it color coded differently?

Cindy Worrel: All licenses in North Dakota that are under the age of twenty-one are in a vertical format. This new scheme of documents would also follow that. Currently, under the age of eighteen there will be a yellow flag on the side of the photo that states the date that the owner turns eighteen and also another flag that gives the date that they turn twenty-one.

Chairman Ruby: There is quite a line item of changes like of remodeling of counters, training costs, additional equipment, card printing costs, and relocating new facilities. Would you need that in every location that you have?

Glen Jackson: We look at the overall impact of bringing on four more staff: having additional individuals in line, keeping people moving in line, possibly having additional machinery. We look at every aspect of what that would cost and try to include every cost that we believe this would impact by having that additional work force.

Chairman Ruby: Wouldn't there be an additional fee for each additional card to offset the extra cards? Isn't there a way to move the revenues up to meet the costs? I guess that would entail a slight fee in the license.

There were no further questions or testimony on HB 1492 and the hearing was closed.

2009 HOUSE STANDING COMMITTEE MINUTES

Bill/Resolution No. HB 1492

House Transportation Committee

☐ Check here for Conference Committee

Hearing Date: 02/05/09

Recorder Job Number: 8868

Committee Clerk Signature

Jeannette Cook

Minutes:

Chairman Ruby brought HB 1492 before the committee.

Representative R. Kelsch reviewed the amendments.

Representative R. Kelsch moved the amendments on HB 1492.

Representative Delmore seconded the motion.

Representative Thorpe: I resist the moving of the amendment on the account of the language about consuming food or beverage while operating a motor vehicle. I think we are getting a little stiff there.

Representative Gruchalla: I think that if we include that language, it will be a stronger bill. It is only for the six month intermediate period. I agree with Representative R. Kelsch that those are two major causes of accidents for any age group.

Chairman Ruby: When you first get your permit, could you have your cell phone because you have someone with you, or are you limited there too?

Representative R. Kelsch: It is limited through the whole period of time until they are of sixteen years of age. You can't have them at all.

Representative R. Kelsch: If have people telling us that we need this law, so that parents can say no to their kids, then let's put some teeth in the law. Let's allow those parents to say, "No, this is the law."

Representative Griffin: I don't have a problem with the amendment against operating a cellular communications device or the additional amendment. I came in skeptical about the bill, but after listening to the testimony I do think that it is reasonable step forward. I think that if we put the consumption of food and beverage in the bill, it will be a point of contention on the floor and the bill will more likely be killed. Additionally, I don't know what good the affidavit would do in this circumstance.

Representative Weiler: I came in here today, not knowing how I would vote on this bill. If this amendment passes, with the consumption of food and beverage in there, then I cannot support the bill.

Representative Weisz: I find it is interesting that when the intent is to prohibit behaviors that increase risk, that we want to eliminate certain behaviors because they will cause a problem. I would agree that, for me, it is no more of a distraction if I am consuming food than if I am on a cell phone. If the point of this bill is to eliminate distractions, then why are we concerned about adding that language?

Representative R. Kelsch: As far as I'm concerned there should be every distraction eliminated. If I had my way, radios wouldn't have been allowed for kids to use while they are in a car or slipping in a CD. I would like to make a comment about the affidavit. I put that in the amendments, because I think that I would be pretty hard pressed to sign an affidavit saying that I had spent forty hours in the car with my kid, knowing that the kid has to take that with them and present it when they are getting their driver's license. It is just like proof of insurance; they have to present it. If a parent will falsify that document in front of their kid,

what kind of message are they sending to their kid? We have had this forty hours in on several times on bills, and we have never been able to put any teeth into it. I don't trust that all parents are going to spend with their kid. Some may spend hundreds of hours driving with their kids, but a lot of them aren't going to bother.

Representative Weiler: I don't remember the presenter of the testimony, but he said that the number one distraction of kids in vehicles is talking to other kids. So, unless you are willing to eliminate that one, we can't eliminate them all.

Representative R. Kelsch: We did. That is in here. The other kids won't be in the car.

Representative Weiler: They will get one passenger when they are fifteen and one half. It is just not talking to other kids. If the parent is in the passenger seat and there are two kids in the back that are seven and nine years old, they can't talk to them?

A roll call vote was taken. Aye 11 Nay 3 Absent 0

The motion passed to amend HB 1492.

Representative Griffin moved to further amend by striking out the provisions about consuming food and beverage.

Representative Weiler seconded the motion.

Representative R. Kelsch: I resist the motion. If food and beverage isn't in the bill, I will vote against the bill also.

Representative Gruchalla: This is a real compromised bill from what it started out. I would hate to lose the bill over I think it is a good idea to leave that in there, it would make it a better bill. But on the other hand, if we are going to lose the bill because of those two things, I will support the amendment.

A roll call vote was taken. Aye 8 Nay 6 Absent 0

The motion passed.

Chairman Ruby: That language is off. Does anyone have an issue with the points?

Representative R. Kelsch: I will make my two concerns known. Number one I don't like the fact that we are differentiating between farm kids and urban kids. That was a major issue the last time that we put in the Graduated Drivers Licensing bill. I think that, quite frankly, we could have reduced the fiscal note substantially, if we had just gone to getting your permit at fourteen and one half and hold it for a year and get your license at fifteen and one half and been done with it. When I looked at this and was struggling whether I was going to vote for it, the only way I would vote for it was if we toughened up on the distractions. If we are truly concerned about kids, then we should make sure that they don't have those distractions in their vehicle. Apparently, parents can't say not to their kids. So, if you are going to pass a law like this, put some teeth into it!

Representative Griffin moved a Do Pass as amended with re-referral to appropriations on HB 1492.

Representative Gruchalla seconded the motion.

Representative Weisz: I resist the motion. When I look at this bill, I don't think the problem is being the age as much as it is how we are training our kids. One of the things that I really like was the amendment that requires some specific type of driving. I think that kids are just unprepared at any age. We teach them when to turn the signal light on, the rules of the road, how to parallel park, but do we really teach them how to drive? I like the affidavit and some of that. We need to teach them differently. I don't think this law fixes it.

Representative Weiler: Maybe I misunderstood Representative Weisz, but the affidavit is still in there, and so is the driving on the different types of roads.

Representative Weisz: That was what I was pointing out, those were the only two things that I like about the bill. I think the DOT could just do this on their own.

Representative Heller: If this law goes into place, will kids still be able to forego the official driver's education class that the school offers and come down to Bismarck and go to a driving school? Is that still in place?

Representative R. Kelsch: Yes, as long as you pay the money.

A roll call vote was taken. **Aye 10 Nay 4 Absent 0**

The motion passed.

Representative Griffin will carry HB 1492.

FISCAL NOTE
Requested by Legislative Council
02/17/2009

Amendment to: Engrossed
 HB 1492

1A. State fiscal effect: *Identify the state fiscal effect and the fiscal effect on agency appropriations compared to funding levels and appropriations anticipated under current law.*

	2007-2009 Biennium		2009-2011 Biennium		2011-2013 Biennium	
	General Fund	Other Funds	General Fund	Other Funds	General Fund	Other Funds
Revenues				\$400,000		\$400,000
Expenditures				\$759,640		\$590,100
Appropriations				\$359,640		\$0

1B. County, city, and school district fiscal effect: *Identify the fiscal effect on the appropriate political subdivision.*

2007-2009 Biennium			2009-2011 Biennium			2011-2013 Biennium		
Counties	Cities	School Districts	Counties	Cities	School Districts	Counties	Cities	School Districts

2A. Bill and fiscal impact summary: *Provide a brief summary of the measure, including description of the provisions having fiscal impact (limited to 300 characters).*

This bill establishes a 3 stage graduated drivers license process. Drivers obtain an instruction permit, intermediate license, and finally an unrestricted license. It also creates a separate farm license.

B. Fiscal impact sections: *Identify and provide a brief description of the sections of the measure which have fiscal impact. Include any assumptions and comments relevant to the analysis.*

Section 1, paragraph 3 allows the director to issue an intermediate operator's license. This will increase current card issuing workloads by approximately 10.5%. It also requires significant software modifications.

3. State fiscal effect detail: *For information shown under state fiscal effect in 1A, please:*

A. Revenues: *Explain the revenue amounts. Provide detail, when appropriate, for each revenue type and fund affected and any amounts included in the executive budget.*

Under the current process, individuals who pass the road test exchange their permits for an unrestricted license. The new process would be to exchange their permit with an intermediate license after successfully completing a road test. When these individuals qualify for an unrestricted license, they would be required to purchase the new card for a fee of \$10.00. If fees remain unchanged, this could generate approximately \$200,000 annually (\$10 x 20,000 intermediate licenses). There were approximately 194,900 cards issued in 2008 for various fees.

Per Biennium Revenue (\$200,000 x 2) = \$400,000

B. Expenditures: *Explain the expenditure amounts. Provide detail, when appropriate, for each agency, line item, and fund affected and the number of FTE positions affected.*

Permits accounted for 10.46% of all cards issued in 2008. It is estimated that introducing the intermediate license could double this workload. There are currently 41 examiners statewide that conduct licensing. The additional FTE needs are calculated as follows:

41 Examiners currently on staff * 10.46% = 4.3 additional FTE examiners needed(one at each of the four major sites).

The addition of these new examiners to handle the anticipated increase in workload could not be done in the current locations throughout the state. The following expenses are as follows:

4 Additional FTEs @ \$45,000/yr(salary+benefits)= \$180,000

Remodeling of Counters (\$20,000 x 4 Ea.) = \$80,000
Additional Equipment (New terminals) = \$8,000
Card Printing Costs (Viisage, 20,000 x \$2.99) = \$59,800
Training Costs for new examiners = \$3,000
Relocating to new facilities = \$50,000
Additional Lease Expense = \$40,000
Additional Utility Expense = \$1,200
Expenses 1st Year: \$422,000

Note: Remodeling, additional equipment, training cost, and relocating are one-time expenses.

Software Modifications:

There are considerable validation, edit requirements and program logic changes to both the issuance and record maintenance programs. Programming estimates based on the following calculation factors:

ITD Programming

9 existing programs: 360 hrs = \$25,920
4 new programs: 320 hrs = \$23,040
Total ITD programming costs = \$48,960

DOT IT Staff hrs: 160 hrs = \$7,680
Total IT Costs = \$56,640

Per our contract with L1 Technologies, the two new card formats will be of no cost other than the DOT staff time in the design and testing.

2009-2011 Biennium expense

(1st year \$422,000 + IT Costs of \$56,640 + 2nd year \$281,000) = \$759,640

2011-2013 Biennium expense

(\$281,000 * 2 = \$562,000) + 5% inflation = \$590,100

C. Appropriations: *Explain the appropriation amounts. Provide detail, when appropriate, for each agency and fund affected. Explain the relationship between the amounts shown for expenditures and appropriations. Indicate whether the appropriation is also included in the executive budget or relates to a continuing appropriation.*

Appropriations needed for this bill are \$359,640 for 2009-2011 biennium.

Name:	Glenn Jackson	Agency:	NDDOT
Phone Number:	328-4792	Date Prepared:	02/17/2009

FISCAL NOTE
Requested by Legislative Council
01/20/2009

Bill/Resolution No.: HB 1492

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This bill establishes a 3 stage graduated driver's license process. Drivers obtain an instruction permit, intermediate license, and finally an unrestricted license. It also creates a separate farm license

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Under the current process, individuals who pass the road test exchange their permits for an unrestricted license. The new process would be to exchange their permit with an intermediate license after successfully completing a road test. When these individuals qualify for an unrestricted license, they would be required to purchase the new card for a fee of \$10.00. If fees remain unchanged, this could generate approximately \$200,000 annually (\$10 x 20,000 intermediate licenses). There were approximately 194,900 cards issued in 2008 for various fees.

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2011-2013 Biennium expense

(\$281,000 * 2 = \$562,000)+5% inflation=\$590,100

- C. Appropriations:** *Explain the appropriation amounts. Provide detail, when appropriate, for each agency and fund affected. Explain the relationship between the amounts shown for expenditures and appropriations. Indicate whether the appropriation is also included in the executive budget or relates to a continuing appropriation.*

Appropriations needed for this bill are \$759,640 for 2009-2011 biennium plus continuing appropriations of approximately \$590,100 per biennium thereafter.

Name:	Glenn Jackson	Agency:	NDDOT
Phone Number:	328-4792	Date Prepared:	01/25/2009

PROPOSED AMENDMENTS TO HOUSE BILL NO. 1492

Page 2, line 1, remove "nor"

Page 2, line 2, replace "Operate a wireless or cellular communications device" with "Manually operate an electronic device, which is not permanently affixed to the motor vehicle unless the device is designed for use in the motor vehicle by the manufacturer of the motor vehicle."

Page 2, line 5, after "danger" insert ";nor

d. Consume food or beverage while operating a motor vehicle"

Page 2, line 16, replace "Has presented certification" with "Submits an affidavit signed" and after "guardian" insert "and that individual which states"

Page 2, line 18, after the second "driving" insert "and of which at least four hours must consist of driving on a gravel, dirt, or aggregate surface road"

Page 2, line 24, remove "Operate a motor vehicle with more than one passenger under eighteen years"

Page 2, remove lines 25 through 27

Page 2, line 28, replace "b." and remove "nor"

Page 2, line 29, replace "c. Operate a wireless or cellular communications device" with "b. Manually operate an electronic device, which is not permanently affixed to the motor vehicle unless the device is designed for use in the motor vehicle by the manufacturer of the motor vehicle."

Page 3, line 2, after "danger" insert ";nor

c. Consume food or beverage while operating a motor vehicle"

Renumber accordingly

Date: 2-5-09

Roll Call Vote #: 1

2009 HOUSE STANDING COMMITTEE ROLL CALL VOTES

BILL/RESOLUTION NO. 1492

House TRANSPORTATION

Committee

☐ Check here for Conference Committee

Legislative Council Amendment Number

Amendment

Action Taken ☒ Do pass ☐ Don't Pass ☒ Amended

Motion Made By

Kelsch

Seconded By

Delmore

Representatives	Yes	No	Representatives	Yes	No
Representative Ruby - Chairman	✓		Representative Delmore	✓	
Rep. Weiler - Vice Chairman		✓	Representative Griffin	✓	
Representative Frantsvog	✓		Representative Gruchalla	✓	
Representative Heller	✓		Representative Potter	✓	
Representative R. Kelsch	✓		Representative Schmidt	✓	
Representative Sukut	✓		Representative Thorpe		✓
Representative Vigasaa		✓			
Representative Weisz	✓				

Total Yes 11 No 3

Absent 0

Bill Carrier _____

If the vote is on an amendment, briefly indicate intent:

VK
2/6/09

PROPOSED AMENDMENTS TO HOUSE BILL NO. 1492

Page 2, line 2, replace "Operate a wireless or cellular communications device" with "Manually operate an electronic device, which is not permanently affixed to the motor vehicle unless the device is designed for use in the motor vehicle by the manufacturer of the motor vehicle."

Page 2, line 5, replace "a person's" with "an individual's"

Page 2, line 16, replace "Has presented certification" with "Submits an affidavit signed by that individual and" and after "guardian" insert "which states"

Page 2, line 18, after the second "driving" insert "and of which at least four hours must consist of driving on a gravel, dirt, or aggregate surface road"

Page 2, line 25, replace "passenger is a sibling" with "passengers are siblings"

Page 2, line 29, replace "Operate a wireless or cellular communications device" with "Manually operate an electronic device, which is not permanently affixed to the motor vehicle unless the device is designed for use in the motor vehicle by the manufacturer of the motor vehicle."

Renumber accordingly

Date: 2-5-09

Roll Call Vote #: 2

*Further
Amendment*

2009 HOUSE STANDING COMMITTEE ROLL CALL VOTES

BILL/RESOLUTION NO. 1492

House TRANSPORTATION Committee

☐ Check here for Conference Committee

Legislative Council Amendment Number _____

Action Taken ☒ Do pass ☐ Don't Pass ☒ Amended

Motion Made By Griffin Seconded By Weiler

Representatives	Yes	No	Representatives	Yes	No
Representative Ruby - Chairman	✓		Representative Delmore		✓
Rep. Weiler - Vice Chairman	✓		Representative Griffin	✓	
Representative Frantsvog	✓		Representative Gruchalla	✓	
Representative Heller	✓		Representative Potter		✓
Representative R. Kelsch		✓	Representative Schmidt		✓
Representative Sukut		✓	Representative Thorpe	✓	
Representative Vigasaa	✓				
Representative Weisz		✓			

Total Yes 8 No 6

Absent 0

Bill Carrier _____

If the vote is on an amendment, briefly indicate intent:

Date: 2-5-09

Roll Call Vote #: 3

2009 HOUSE STANDING COMMITTEE ROLL CALL VOTES

BILL/RESOLUTION NO. 1492

Re-referred to appropriations

House TRANSPORTATION Committee

☐ Check here for Conference Committee

Legislative Council Amendment Number _____

Action Taken ☒ Do pass ☐ Don't Pass ☒ Amended

Motion Made By Griffin Seconded By Gruchalla

Representatives	Yes	No	Representatives	Yes	No
Representative Ruby - Chairman	✓		Representative Delmore	✓	
Rep. Weiler - Vice Chairman		✓	Representative Griffin	✓	
Representative Frantsvog	✓		Representative Gruchalla	✓	
Representative Heller	✓		Representative Potter	✓	
Representative R. Kelsch		✓	Representative Schmidt	✓	
Representative Sukut	✓		Representative Thorpe	✓	
Representative Vigasaa		✓			
Representative Weisz		✓			

Total Yes 8 10 No 4

Absent 0

Bill Carrier Griffin

If the vote is on an amendment, briefly indicate intent:

REPORT OF STANDING COMMITTEE

HB 1492: Transportation Committee (Rep. Ruby, Chairman) recommends AMENDMENTS AS FOLLOWS and when so amended, recommends **DO PASS** and **BE REREFERRED** to the **Appropriations Committee** (10 YEAS, 4 NAYS, 0 ABSENT AND NOT VOTING). HB 1492 was placed on the Sixth order on the calendar.

Page 2, line 2, replace "Operate a wireless or cellular communications device" with "Manually operate an electronic device, which is not permanently affixed to the motor vehicle unless the device is designed for use in the motor vehicle by the manufacturer of the motor vehicle,"

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Renumber accordingly

2009 HOUSE APPROPRIATIONS

HB 1492

2009 HOUSE STANDING COMMITTEE MINUTES

HB 1492

House Appropriations Committee

☐ Check here for Conference Committee

Hearing Date: February 13, 2009

Recorder Job Number: 9487

Committee Clerk Signature

Minutes:

Chm. Svedjan turned the discussion to HB 1492 and asked if the Fiscal Note dated January 20 was the most current and Rep. Ruby said that it was.

Rep. Dan Ruby approached the podium to explain HB 1492 which is the graduated driver's license bill. He said you either love or hate this bill. The reason for the extra increase on the fiscal note is the extra administrative costs for the intermediate license.

Chm. Svedjan: It's basically subsection 3 that generates the fiscal note which is \$400,000 in Other Revenue, Expenditures of \$759,640. The bill itself has no appropriation in it.

Rep. Ruby: That's correct. It's basically the cost that their department would incur. It doesn't appropriate anything for that.

Chm. Svedjan: What is your expectation of us? Are you expecting that we put an appropriation in it? Or are you expecting that we pass the bill on and they'll find the money in their budget? Or are you expecting that this will be worked out with the DOT budget?

Rep. Ruby: On the fiscal note the appropriation that's required would be \$759,640 in this biennium, \$590,100 in the second biennium. I'm sure they would request that to be in their budget to cover the costs minus the \$400,000 in revenues.

Chm. Svedjan: DOT is in the Senate. (3:56)

Rep. Skarphol: I was wondering the same thing. Maybe you want us to give our opinion if that use of the dollars is an appropriate use of the dollars, is that what you're after? If we don't spend it there we'll have it available elsewhere. (4:05)

Rep. Ruby: I'm kind of new to this appropriation process and bringing these bills to the Committee from our committee. It had the fiscal note and I was asked to come explain it.

Rep. Berg: The purpose is that there is no General Fund impact. There is no appropriation. There's the net difference of \$350,000. We need to look at that in the scope of Special Funds that are coming in and coming out and if we think there is an impact, it probably raises a flag. This isn't a direct General Fund impact, but clearly there's an impact. (4:51)

Rep. Ruby: I don't believe this is out of the highway dollars, so this doesn't come out of the Special Funds. This would come out of their budget.

Rep. Berg: There are licensing fees and that type of thing, I'm assuming.

Chm. Svedjan: Everything is Other Funds, the revenue and the expenditure.

Rep. Berg: I'm not sure if our rules would require that it come here because it's not General Fund impact.

Chm. Svedjan: It does. The rule doesn't specify whether the impact is on General Funds only. That's why we have it. The options would be to take no action, on the assumption that this be built into the budget when it comes to the House. The other option would be to provide an appropriation by amending the bill. The third option would be to do nothing and have the department find it in their budget.

Rep. Nelson: I would question whether there was not a direct cost because they are providing 4.3 FTEs. That's a state responsibility and in their analysis of the Fiscal Note there are training costs. Wouldn't we have to have an appropriation? (6:52)

Rep. Wald: What was the committee vote on this?

Rep. Ruby: Ten to four, Do Pass.

Rep. Wald: Is the Insurance Department supporting this?

Rep. Ruby: Yes. This was his (the Insurance Commissioner) idea as well and Rep. Gruchalla.

If we're going to do this I don't know if they could absorb it in their budget. And I'm sure as you get that budget after crossover, you'd go over that with detail. I think it would be prudent to put the money in for the appropriation and pass it or not pass it based on the cost.

Chm. Svedjan: The bill is here because of the fiscal impact.

Rep. Ruby: The FTEs and they will have to do work to their different locations so that will definitely cost money.

Chm. Svedjan: For us to put a Do Not Pass, the way the bill has come to us, we would be putting a Do Not Pass on the policy recommendation that you've given us which probably is an inappropriate action. It's unfortunate that this bill has to be in the House when the budget is in the Senate. It's unfortunate that it wasn't included in the budget but I understand why it wasn't because this has to be passed before it can be budgeted for. My personal preference would be for us not to act on this bill and note that we will take it up when we get the budget.

Rep. Skarphol: I'm not sure that I won't disagree with you on that. It will have a financial implication on the budget. I think we need to state our opinion about whether or not we agree with that implication. Even though it's a policy issue, if we don't agree with the fact that the entity, even though we don't have the budget, should not receive four FTEs or be authorized four additional FTEs to do this job, we ought to say that. Otherwise when we do get the budget, if we let this go through as policy, we do not have the ability to say you can't have the FTEs in some way. (10:00)

Chm. Svedjan: I can accept that.

Rep. Ruby: When you get that budget, and if you decide not to put them in and don't fund it, whatever happens with this bill, you'd either force them to find that in their existing appropriation or you could put it in because if it did pass on the floor. I expect that when people vote on the floor they are giving their opinion about it as well.

Rep. Metcalf: My name is on this bill and I helped develop it. I feel that the fiscal note is probably incorrect because it does not take into account that, if after all the process is done, and it's going to take two, or three or four years before we are going to realize it, the lives that can be saved, the accidents that will not happen because of this training will more than pay for what money we put in. (11:30)

Rep. Berg: This is a good discussion. I think when this comes to appropriations we should determine if the fiscal note is valid. If we determine that the net impact to an agency is a certain amount, then as the Appropriations Committee we may add a section that puts that amount of money on the bill. Then the body knows that this is how we've evaluated that impact. The chamber is looking to see if the impact is \$360,000 or not. If it is an impact of \$360,000 how does it shake out with the other General Fund spending? We could say that this gap of \$360,000 is because it's a \$10 fee. Maybe the policy committee should have made this a \$20 fee if we want these self-sustaining. There are two options. One option is that the policy committee take this back and make this self-sustaining so there's not a fiscal impact. Or if we're going to take it up, we ought to determine what that impact is and maybe put that amount as General Fund spending. (12:20)

Rep. Skarphol: I think this is an appropriate for the policy committee to have an opinion about the bill and for the Appropriations Committee to have an opinion. I don't think it would hurt the members on the floor to know that the policy committee thinks it's a good policy. We think the

fiscal implications are such that we did not agree with going forward with it. The people on the floor can decide what's important, the policy or the money. (14:18)

Rep. Ruby: I could agree with that if the Committee puts the appropriation in there. There's still the effect and if the Committee chooses to make that recommendation whether they think it's the policy that you're going to work on to get the dollars brought into their budget to assist with it, because you will probably be combining a lot of other things that will be affecting it. To answer the revenue neutral side of it, if we're going to enhance the license price up to where this wouldn't be an effect we could do that but we really should probably do that for all renewals of licenses because right now it costs more to get them out every four years, make them, than they are being charged right now because it's \$10 to renew every four years. That hasn't been accepted among the body in the last few sessions and they've had to come up with that difference in their budgets as well. If we didn't fund this and put these dollars in there and we tap into that budget even more, I think it could be detrimental.

Rep. Metcalf: How can we separate policy from fiscal? What is a life worth? Rep. Metcalf gave examples of accident involving young people who have been killed in accidents. It has been proven that most people who are killed or injured are in that 16 to 25 years of age range.

States that have enacted policies like this have reduced that at least 25 percent. A life is worth more than the \$400,000 or whatever money we want to put in this bill. I can understand where our dilemma is. I'd like to see an answer before we do anything that would be a detriment to this bill. (16:31)

Rep. Wald moved to further amend by adding an appropriation of \$359,640 from the General Fund to the Department of Transportation. Rep. Ekstrom seconded the motion. (18:00)

Rep. Berg: Maybe this is a way that we should approach this, that we zero out the Fiscal Notes that come before the Committee and we determine exactly what the impact is and that shows up on the bill as an appropriation.

Chm. Svedjan: I'm not quite sure I'm following what you said.

Rep. Berg: My point is that we have a bill here with a fiscal impact net effect of \$359,000 and it's tucked back in the Fiscal Note and you're not really sure if it's going to have that impact or not have that impact. What Rep. Wald's amendment does is say that the Appropriation Committee has reviewed that and we agree that that impact is going to be \$369,000. So, rather than leaving it tucked back in the Fiscal Note, we'll be adding a section that puts \$359,000 as an appropriation on the bill. It provides more clarity to the bill when it is on the floor. (18:43)

Chm. Svedjan: The question I have is that the Fiscal Note shows that the appropriation needs to be from Other Funds, but those Other Funds really aren't available. So the only way we could do this would be to appropriate General Funds to that funding category. Am I reading that correctly? (19:53)

Rep. Wald: Looking at the Fiscal Note, the revenue from the additional cost of this staggered licensing is \$400,000 but the cost is \$359,000. So, obviously the program is short the \$359,640. It's simple arithmetic. (20:19)

Chm. Svedjan: I was questioning the fund this would go to.

The motion to adopt the verbal amendment whereby \$359,640 in General Funds be appropriated to the appropriate fund in DOT carried by a voice vote.

Rep. Wald moved a Do Pass as Amended. Rep. Metcalf seconded the motion.

Rep. Berg: We may want the person who prepared the Fiscal Note come and explain the amount. (21:33)

Chm. Svedjan: It raises a lot of questions, or other questions, that maybe legislative management ought to deal with. We could simplify processes like this a lot if there was some requirement that these kinds of bills would go into the chamber where the budget is.

The motion for a Do Pass as Amended to HB 1492 failed by a roll call vote of 7 yeas, 16 nays and 2 absent and not voting.

Rep. Kempenich moved a Do Not Pass as Amended. The motion carried by a roll call vote of 15 yeas, 7 nays and 3 absent and not voting. Rep. Kempenich will carry the bill.

VR
2/13/09

PROPOSED AMENDMENTS TO ENGROSSED HOUSE BILL NO. 1492

Page 1, line 8, after the second semicolon insert "to provide an appropriation;"

Page 11, after line 7, insert:

"SECTION 12. APPROPRIATION. There is appropriated out of any moneys in the general fund in the state treasury, not otherwise appropriated, the sum of \$359,640, or so much of the sum as may be necessary, to the department of transportation for the purpose of implementing the provisions of this Act, for the biennium beginning July 1, 2009, and ending June 30, 2011."

Renumber accordingly

Date: 2/13/09
Roll Call Vote #: 1

2009 HOUSE STANDING COMMITTEE ROLL CALL VOTES
BILL/RESOLUTION NO. 1492

Full House Appropriations Committee

☐ Check here for Conference Committee

Legislative Council Amendment Number _____

Action Taken Further amend

Motion Made By Wald Seconded By Ekstrom

Representatives	Yes	No	Representatives	Yes	No
Chairman Svedjan					
Vice Chairman Kempenich					
Rep. Skarphol			Rep. Kroeber		
Rep. Wald			Rep. Onstad		
Rep. Hawken			Rep. Williams		
Rep. Klein					
Rep. Martinson					
Rep. Delzer			Rep. Glassheim		
Rep. Thoreson			Rep. Kaldor		
Rep. Berg			Rep. Meyer		
Rep. Dosch					
Rep. Pollert			Rep. Ekstrom		
Rep. Bellew			Rep. Kerzman		
Rep. Kreidt			Rep. Metcalf		
Rep. Nelson					
Rep. Wieland					

Total (Yes) _____ No _____

Absent _____

Floor Assignment _____

If the vote is on an amendment, briefly indicate intent:

App. \$359,640 s.f. to DOT

Voice Vote - Carries

Date: 2/13/09
Roll Call Vote #: 2

2009 HOUSE STANDING COMMITTEE ROLL CALL VOTES
BILL/RESOLUTION NO. 1492

Full House Appropriations Committee

☐ Check here for Conference Committee

Legislative Council Amendment Number _____

Failed Action Taken

No Pass as Amended

Motion Made By

Wald

Seconded By

Metcalf

Representatives	Yes	No	Representatives	Yes	No
Chairman Svedjan		✓			
Vice Chairman Kempenich		✓			
Rep. Skarphol		✓	Rep. Kroeber	✓	
Rep. Wald	✓		Rep. Onstad		✓
Rep. Hawken		✓	Rep. Williams		✓
Rep. Klein	✓				
Rep. Martinson					
Rep. Delzer		✓	Rep. Glassheim	✓	
Rep. Thoreson		✓	Rep. Kaldor	✓	
Rep. Berg		✓	Rep. Meyer		✓
Rep. Dosch		✓			
Rep. Pollert		✓	Rep. Ekstrom	✓	
Rep. Bellew		✓	Rep. Kerzman		
Rep. Kreidt		✓	Rep. Metcalf	✓	
Rep. Nelson		✓			
Rep. Wieland		✓			

Total (Yes) 7 No 16

Absent 2

Floor Assignment _____

If the vote is on an amendment, briefly indicate intent:

Date: 2/13/09
Roll Call Vote #: 3

2009 HOUSE STANDING COMMITTEE ROLL CALL VOTES
BILL/RESOLUTION NO. 1492

Full House Appropriations Committee

☐ Check here for Conference Committee

Legislative Council Amendment Number _____

Action Taken Do Not Pass or Amended

Motion Made By Kempnich Seconded By Thoreson

Representatives	Yes	No	Representatives	Yes	No
Chairman Svedjan	✓				
Vice Chairman Kempnich	✓				
Rep. Skarphol	✓		Rep. Kroeber		✓
Rep. Wald		✓	Rep. Onstad	✓	
Rep. Hawken	✓		Rep. Williams	✓	
Rep. Klein		✓			
Rep. Martinson	✓				
Rep. Delzer	✓		Rep. Glassheim		✓
Rep. Thoreson	✓		Rep. Kaldor		✓
Rep. Berg	✓		Rep. Meyer	✓	
Rep. Dosch	✓				
Rep. Pollert	✓		Rep. Ekstrom		✓
Rep. Bellew	✓		Rep. Kerzman		✓
Rep. Kreidt	✓		Rep. Metcalf		✓
Rep. Nelson	✓				
Rep. Wieland	✓				

Total (Yes) 15 No 7

Absent 3

Floor Assignment Rep. Kempnich

If the vote is on an amendment, briefly indicate intent:

REPORT OF STANDING COMMITTEE

HB 1492, as engrossed: Appropriations Committee (Rep. Svedjan, Chairman) recommends **AMENDMENTS AS FOLLOWS** and when so amended, recommends **DO NOT PASS** (15 YEAS, 7 NAYS, 3 ABSENT AND NOT VOTING). Engrossed HB 1492 was placed on the Sixth order on the calendar.

Page 1, line 8, after the second semicolon insert "to provide an appropriation;"

Page 11, after line 7, insert:

"SECTION 12. APPROPRIATION. There is appropriated out of any moneys in the general fund in the state treasury, not otherwise appropriated, the sum of \$359,640, or so much of the sum as may be necessary, to the department of transportation for the purpose of implementing the provisions of this Act, for the biennium beginning July 1, 2009, and ending June 30, 2011."

Renumber accordingly

2009 TESTIMONY

HB 1492

1. Attachment #1

**Testimony in Support of HB 1492
House Transportation Committee – Jan. 29, 2009
Gene LaDoucer, AAA North Dakota**

Good morning, Chairman Ruby and members of the committee. My name is Gene LaDoucer, and I represent AAA North Dakota, the local motor club that serves 60,000 members across the state.

As you have undoubtedly heard, traffic crashes are the No. 1 killer of U.S. teenagers. On average, the National Highway Traffic Safety Administration reports more than 300,000 teens are injured and about 8,000 are involved in fatal crashes each year. Data further shows that, per mile driven, 16-year-olds are involved in more than 5 times as many fatal crashes as adults in their thirties, forties, or fifties. And when compared to elderly drivers, 16-year-olds have crash rates twice that of 85-year-old drivers.

In North Dakota, the statistics are also sobering. A teen driver is involved in a crash every 2.45 hours and the societal cost of the crashes exceeds \$117 million per year, according to a recent AAA study. Furthermore, drivers 14-17 years of age account for only 3.5 percent of all drivers in the state, yet:

- They were drivers in 10 percent of fatal crashes from 2004 to 2007.
- They were involved in an average of 2,360 crashes annually between 2001 and 2007.
- They are three times more likely to crash than drivers 25-34 years of age.
- They are twice as likely to crash as drivers over the age of 85.

As a point of comparison, drivers 75 years of age and older make up 8.0 percent of licensed drivers in North Dakota yet are involved in only 4.3 percent of all crashes in the state. It must also be clear that it's not just the teen driver at risk. About 50 percent of people killed in teen driver crashes in North Dakota from 1995-2004 were someone other than the teen driver.

The provisions of House Bill 1492 would create a safer environment for teens and those sharing the roads with them by providing needed driving experience under a Graduated Driver Licensing (GDL) system. Currently, 47 states and the District of Columbia have enacted similar legislation in an effort to develop young drivers without putting them at greater risk. Only North Dakota, Arkansas and Kansas have yet to implement a three-phased GDL system.

A GDL system is aimed at addressing a number of issues shown to be related to teen driver safety – age, experience, night driving, passengers and distractions.

Age: Age as a factor is evident when examining trends by age. In North Dakota, 14-year-old drivers are 3.1 times more likely than a 17-year-old driver to be killed or seriously injured. Drivers in the 16-year-old age group have a 1.5 times greater chance of death or serious injury than drivers just one year older.

Experience: The initial few years of driving are very high risk. The risk declines fairly sharply over the first two years of driving as teens learn a tremendous amount and incorporate that into their driving. The 12-month permit phase and 6-month intermediate licensing phase are designed to address the issue of experience.

Night Driving: Nationally, the nighttime fatal crash rate for 16-year-olds is about twice as high as during the day. Over 30 percent of fatal crashes involving 16- or 17-year-old drivers occur between 9 p.m. and 6 a.m. In North Dakota, 55 percent of nighttime crashes involving 16-year-old drivers occur between the hours of 9 p.m. and 11 p.m.

Passengers: One of the biggest influences on whether teenage drivers are likely to be involved in a crash is if they have passengers in the car. The likelihood of a crash increases as the number of teen passengers increase. Research has shown the risk of a teen driver getting into a fatal crash is two times more likely to occur with one teenage passenger in the vehicle. The risk is four to five times higher when two or more teen passengers ride along.

Distraction: Research has shown that the cognitive effects of conducting a conversation on a wireless telephone can decrease situational awareness and slow reaction time. Furthermore, the significant cognitive, visual and physical distractions involved in text messaging while operating a vehicle makes it an inherently dangerous activity. I'm sure you'll agree that learning how to drive and becoming comfortable in traffic requires all the concentration a novice driver can muster.

It should be remembered that the protective restrictions of the intermediate (provisional) stage are temporary--lasting just six months. GDL systems are designed to teach novice drivers how to drive incrementally by controlling their progression toward full unrestricted driving. The system ensures that new drivers accumulate behind-the-wheel experience in a lower-risk setting. Analysis shows that adopting GDL laws lead to substantial decreases of crashes for new teen drivers – anywhere between 20 and 50 percent.

Finally, it should be noted there is overwhelming support for the GDL provisions included in the proposed legislation. As was previously noted, all but three states already have an intermediate licensing stage for teen drivers and, according to recent studies, parents strongly favor the system. And in North Dakota, a recent survey of AAA members found that:

- 82 percent support limiting passengers to one non-family member
- 89 percent support imposing nighttime driving restrictions
- 97 percent support restricting cell phone use while driving, and
- 88 percent supporting moving the driving age to 16 years or later.

A survey conducted last year by the Rural Transportation and Security Center and North Dakota State University also found there is strong support from parents of teen drivers. Among changes recommended by parents are raising the permit age; lengthening the permit age to 12 months; and requiring 50 hours of supervised driving. Furthermore, in states with GDL systems, parental approval generally runs between 85 and 90 percent as parents view it as the state helping them do what they want to anyway in the interest of their child's well-being. It is also important to note that no state has ever given consideration to repealing a GDL system or even weakening one they enacted.

Mr. Chairman, and members of the committee, we owe it to our teens to develop them into safe and responsible drivers in a manner that reduces their risk and the risk of others. On behalf of AAA North Dakota I urge a "Do Pass" recommendation on HB 1492.

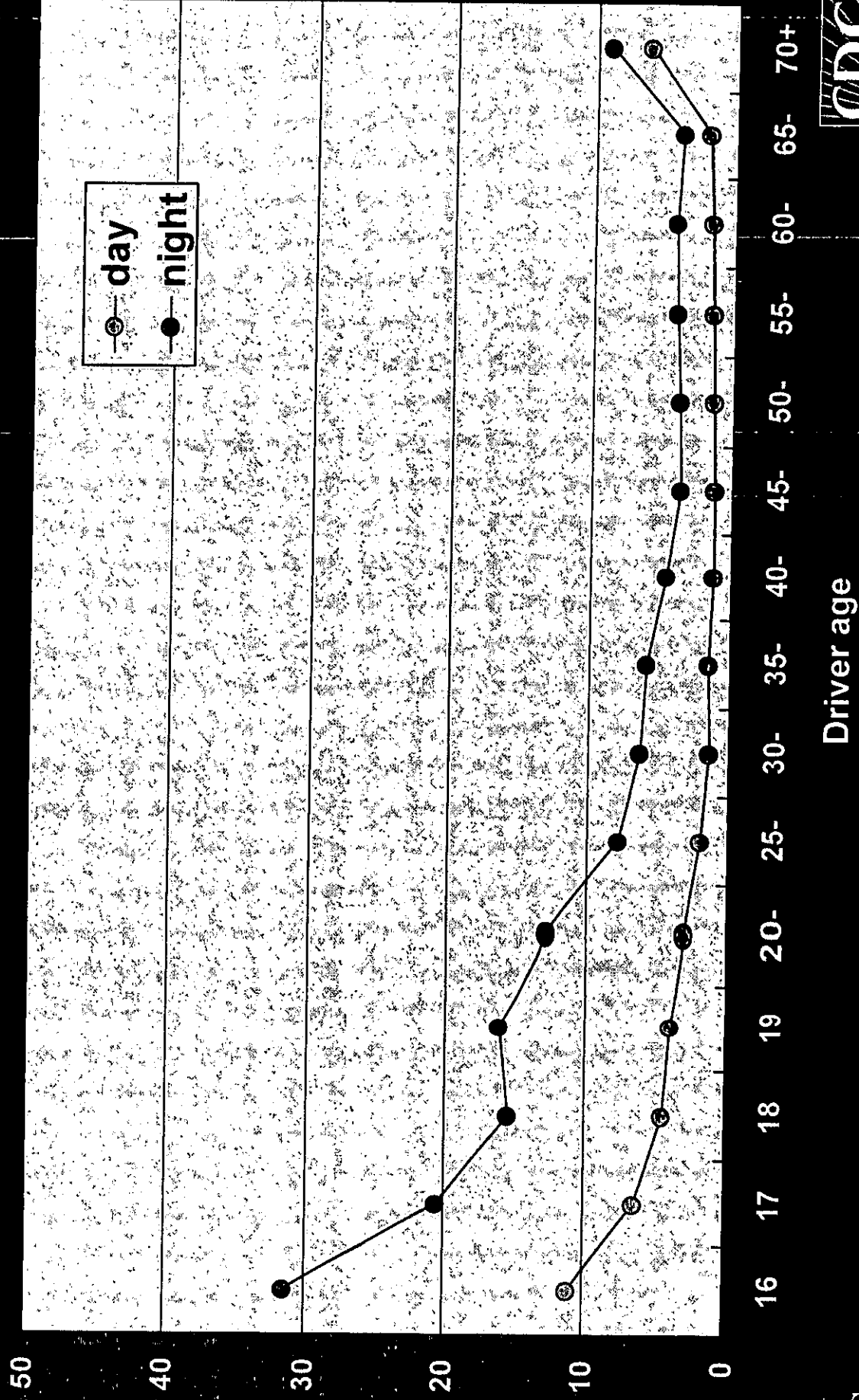
GDL: Passenger and Night Limits

(Enacted as of October 2008)

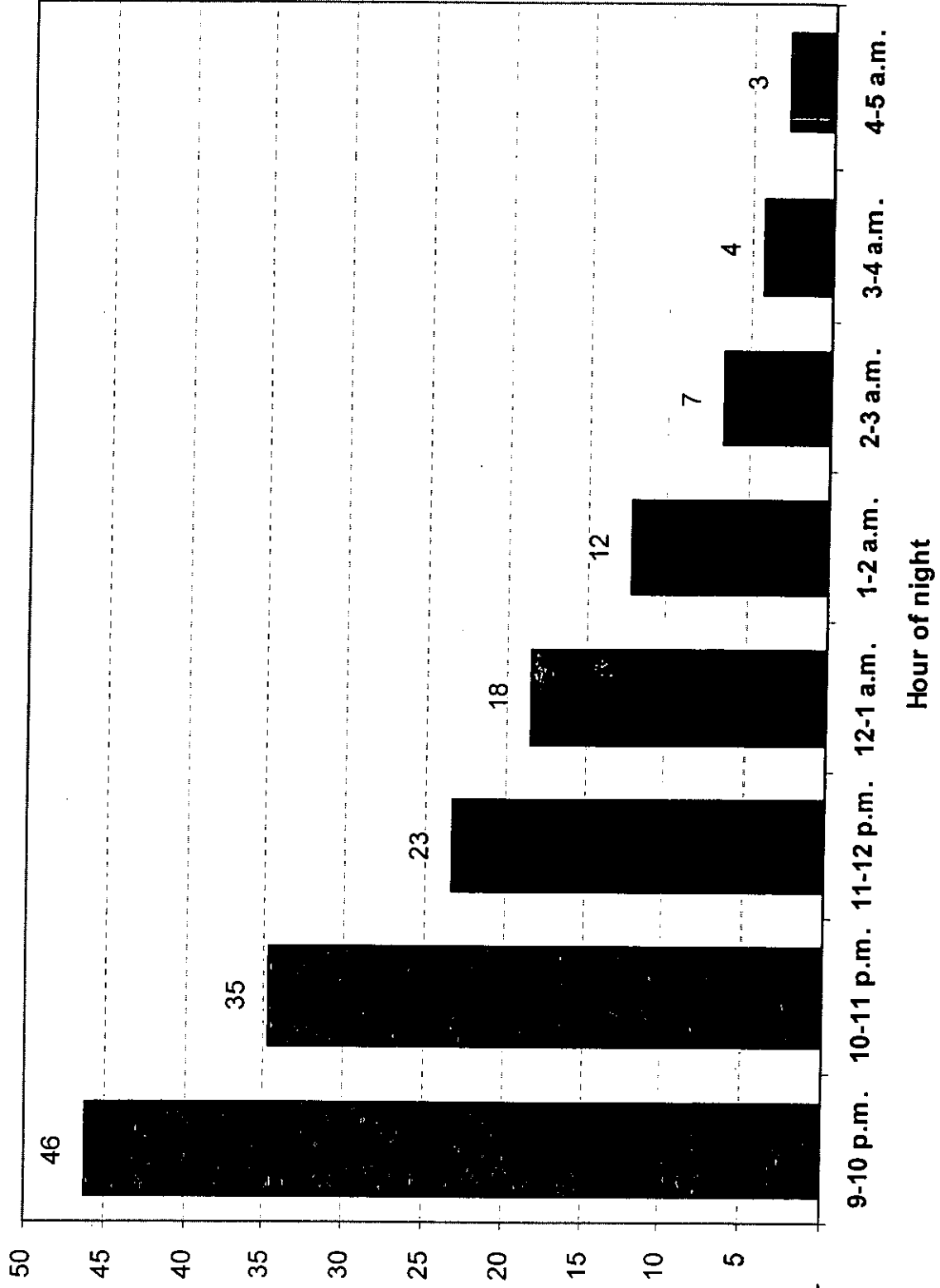


Fatal crashes per 100 million miles

Day vs. night, by driver age, 1995-96



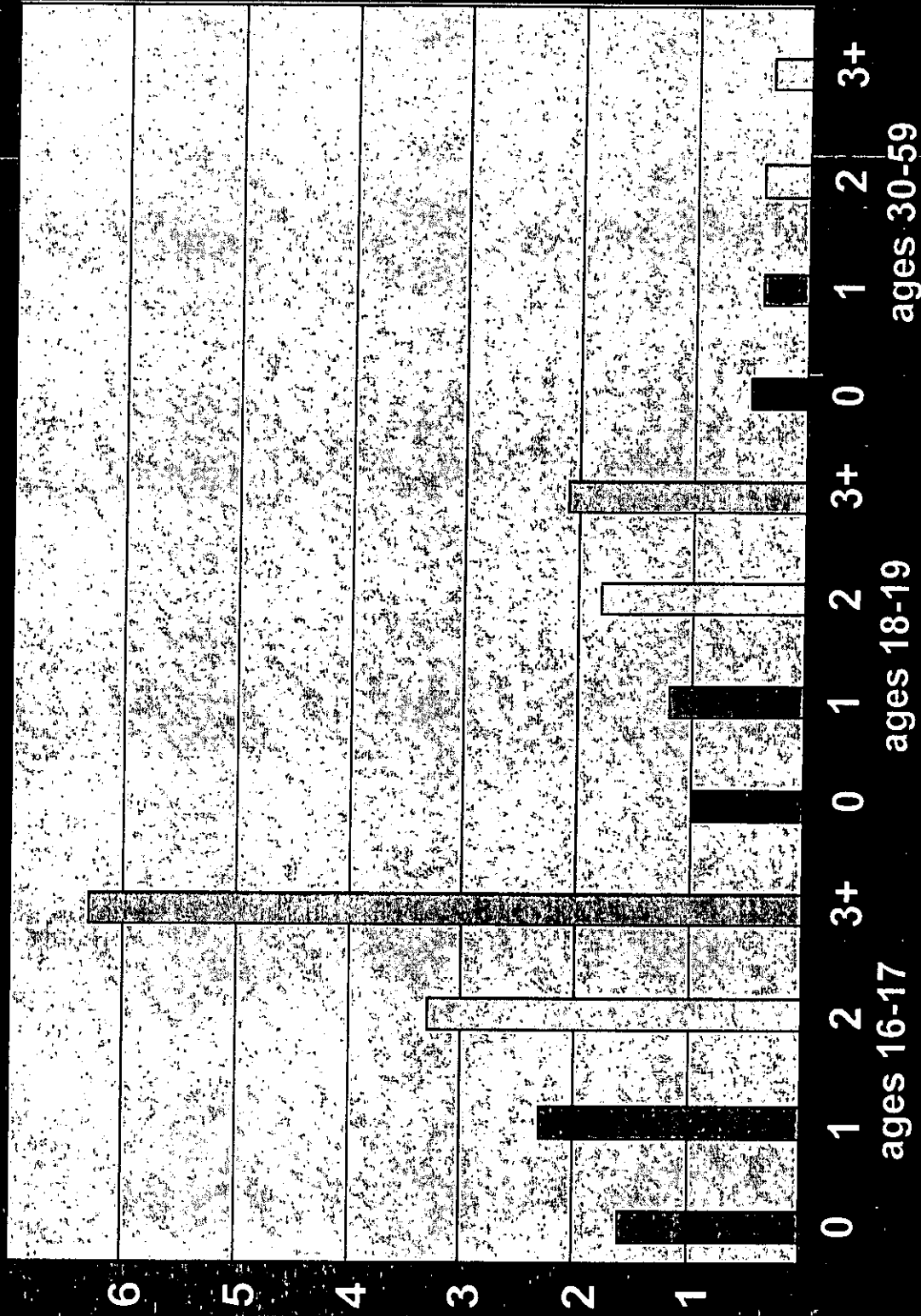
North Dakota 16-year-old driver Nighttime crashes, by hour.
Yearly average, 2001 - 2007



Source: Vachal, 2008

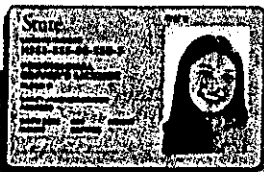
Crash rates by driver age and passenger presence

Per 10,000 trips



number of passengers

Nationwide Review of Graduated Driver Licensing



Summary Report

Susan P. Baker, MPH
Li-Hui Chen, PhD, MS*
Guohua Li, MD, DrPH

Johns Hopkins School of Public Health
Center for Injury Research and Policy
14 N. Broadway, Baltimore MD 21205

Introduction

Motor vehicle crashes are the number one cause of death among teenagers in the United States, with roughly 1,000 16-year-old drivers involved in fatal crashes annually. Many diverse approaches, from minimum drinking age laws to driver education, have attempted to reduce the toll of motor vehicle crashes involving new drivers.

One highly promising approach is Graduated Driver Licensing (GDL), which is intended to ease new drivers onto the road in a step-by-step process in which their driving privileges are initially limited and then phased in gradually as the driver gains experience. A typical three-stage GDL program comprises a "learner" stage, during which all driving must be supervised; followed by an "intermediate" (or "provisional") stage, during which unsupervised driving is permitted except under certain conditions (e.g., at night or with passengers); and finally full, unrestricted licensure.

In 1996, Florida became the first state in the U.S. to implement a three-stage GDL system. Today a total of 44 states have enacted three-stage GDL systems, and all states have some form of GDL. Virtually all studies of GDL programs, at the state or national level, have found

GDL to be effective in reducing the crash involvement of young drivers. However, due to both the wide range of types of GDL programs that exist, and differences in the methods used in different studies, it is extremely difficult to determine what types of GDL programs are most effective.

This study addresses this research need by analyzing the impact of GDL programs implemented in the United States between 1994 and 2004 on the involvement of 16-year-old drivers in fatal crashes and injury crashes, and identifies characteristics common to effective programs.

Methodology

This study is based upon analysis of data on fatal crashes, compiled and made available to the public by the National Highway Traffic Safety Administration; midyear population estimates, compiled and made available to the public by the U.S. Census Bureau; data on injury crashes, compiled by individual states and obtained specifically for this study with the permission of each respective state; and information on GDL laws, provided by the Insurance Institute for Highway Safety, AAA, and representatives of individual states.

Negative binomial regression models were fitted using generalized estimating equations to estimate the impact of GDL on the crash involvement rates of 16-year-old drivers over the period of the study, while controlling for factors unrelated to GDL that influenced crash rates across states (e.g., demographics or level of urbanization), over time (e.g., trends across all states included in the study), and seasonal variation (e.g., weather or travel patterns). In these models, crash rates per unit population, in each state, for each quarter-year of the study period (hereafter "state-quarter"), were analyzed for 16-year-old drivers. Drivers aged 20-24, 25-29, and 30-54 were also analyzed for comparison purposes, under the assumption that their crash rates would not have been impacted by GDL.

First, statistical modeling assessed the overall impact of having any form of three-stage GDL program in effect, relative to not having a three-stage GDL program. In this model, a binary variable indicated the presence or absence of any program that included a learner stage and an intermediate stage prior to full licensure.

Second, a similar model analyzed the impact of GDL programs having a given number of the components defined as follows. In this model, an ordinal variable indicated the number of components in effect, with the reference being state-quarters with none of the seven components. The maximum number of components actually in effect in any state-quarter included in the analysis was five.



* Dr. Chen is currently with the National Center for Health Statistics, Hyattsville, MD.

- ✓ A minimum age of **at least 16 years** for gaining a learner's permit.
- ✓ A requirement to hold the learner's permit for **at least 6 months** before gaining a license that allows any unsupervised driving.
- ✓ A requirement for certification of **at least 30 hours** of supervised driving practice during the learner stage.
- ✓ An intermediate stage of licensing with a minimum entry age of **at least 16 years and 6 months**.
- ✓ A nighttime driving restriction for intermediate license holders, beginning **no later than 10 PM**.
- ✓ A passenger restriction for intermediate license holders, allowing **no more than one passenger** (family members excepted).
- ✓ A **minimum age of 17 years** for full, unrestricted licensure.

Because overall results could be biased by short-term perturbations in crash rates associated with the implementation of new licensing policy (e.g., young people rushing to become licensed shortly before new restrictions take effect), four state-quarters before the effective date of each change in GDL legislation were excluded from the analysis. Four state-quarters were also excluded for the effective date of each change in legislation, because it can take as long as one full year from the time when legislation becomes effective until all 16-year-old drivers in the state are bound by the new legislation. Analyses of fatal crashes were based on data from 43 states from 1994 through 2004 (1,480 state-quarters; 8,953 16-year-old drivers in fatal crashes; excluded states: AK, DC, HI, ME, NH, RI, UT, and VA). Analyses of injury crashes were based on data from 35 states from which usable data were obtained, spanning 1994 through 2003, though not all years of data were available for all states (850 state-quarters; 489,836 16-year-old drivers involved in injury crashes; excluded states were the above states excluded from analyses of fatal crashes plus CT, IN, MS, NC, NJ, NY, OK, and WA).

Results

The per capita involvement rate of 16-year-old drivers in fatal crashes, adjusted for state-, year-, and quarter-fixed effects, was 11% lower in state-quarters with three-stage GDL programs than in state-quarters without three-stage GDL programs, and the corresponding rate of injury crash involvement was 19% lower in state-quarters with three-stage GDL programs. These differences were statistically significant at the 95% confidence level.

Rates of involvement in both fatal crashes and injury crashes were somewhat lower for comparison drivers aged 20-24, 25-29, and 30-54 in states with three-stage

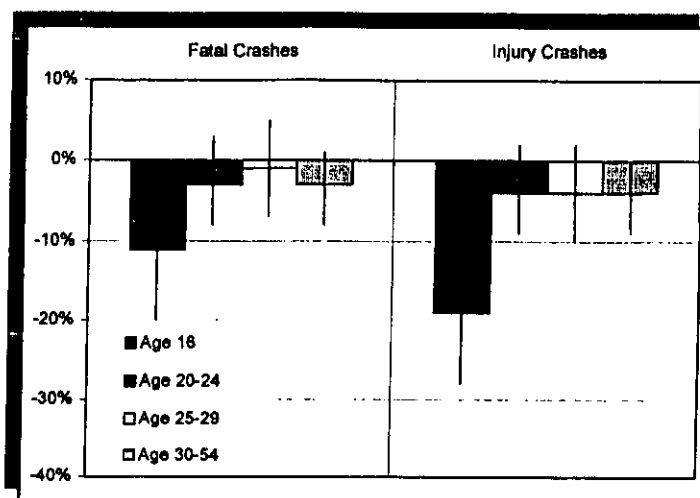


Figure 1. Percentage difference in fatal crash involvement rates and injury crash involvement rates in relation to driver age and presence of a three-stage GDL program. Vertical lines represent 95% confidence intervals.

GDL programs than in states without three-stage GDL programs; however, none of these apparent reductions was statistically significant. These results are shown in Figure 1.

In analyses of programs by their number of components, as defined above, the fatal crash involvement rate of 16-year-old drivers was 38% lower in state-quarters with five of the seven components in effect, and 21% lower in state-quarters with four components, relative to the rates in state-quarters in which none of the seven components was in effect. For injury crashes, the involvement rates of 16-year-old drivers were 40% lower in state-quarters with five components, and 36% lower in state-quarters with four components, relative to the rates in state-quarters with none of the components. All of these differences were statistically significant at the 95% confidence level. Differences in crash rates were smaller in all cases, and were not statistically significant in most cases, for the older comparison drivers. For 16-year-olds in programs with fewer than four of the seven program components, reductions were smaller, and were not statistically significant in the case of fatal crashes. These results are summarized in Figures 2 and 3.

Discussion

This is the first study to present national data pertaining to the impact of GDL programs on the injury crash involvement rates of 16-year-old drivers, in addition to fatal crash involvement. The results indicate that implementation of three-stage GDL programs was associated with an overall national reduction in the fatal crash involvement and injury crash involvement of 16-year-old drivers. The more comprehensive programs, quantified in this study according to the number of components that they include, are clearly more effective. Overall, programs with five of the seven components analyzed here

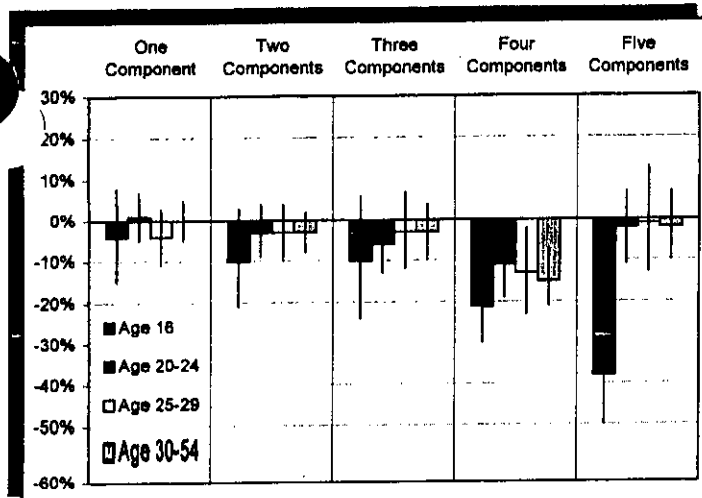


Figure 2: Percentage difference in fatal crash involvement rates in relation to driver age and number of GDL program components. Vertical lines represent 95% confidence intervals.

were associated with reductions of 38% and 40%, respectively, in the fatal crash involvement rates and injury crash involvement rates of 16-year-old drivers. For all three-stage programs combined, including weaker programs, there were overall reductions of 11% and 19% in the fatal crash involvement rates and injury crash involvement rates of 16-year-old drivers, respectively.

Although most of the differences between the observed crash reductions associated with having n program components versus having $n - 1$ components (e.g., five components versus four) were not statistically significant, it appears from Figures 2 and 3 that the crash involvement rates of 16-year-olds were generally lower in state-quarters in which more program components were in effect than in state-quarters in which fewer program components were in effect. Thus, these results suggest there is a "dose-response" relationship between the number of components in a program and its impact on the crash involvement of 16-year-old drivers.

It is extremely difficult to evaluate the effect of GDL legislation, because of the variety of state laws and the inherent difficulty of isolating the effect of GDL legislation from other factors. First, there is much variety in the implementation of some restrictions. For example, some states have nighttime driving restrictions that begin at 8 or 9 PM, whereas others do not begin until midnight or 1 AM. Second, often several GDL program components are implemented simultaneously (e.g., a nighttime driving restriction plus a passenger restriction). Together, these challenges make it virtually impossible to isolate the effectiveness of each individual component (e.g., having vs. not having a nighttime driving restriction), or to differentiate among variations of a single component (e.g., a nighttime driving restriction beginning at 8 PM vs. 10 PM). To facilitate statistical modeling, all GDL program components were dichotomized (i.e., classified as present or absent) according to the definitions provid-

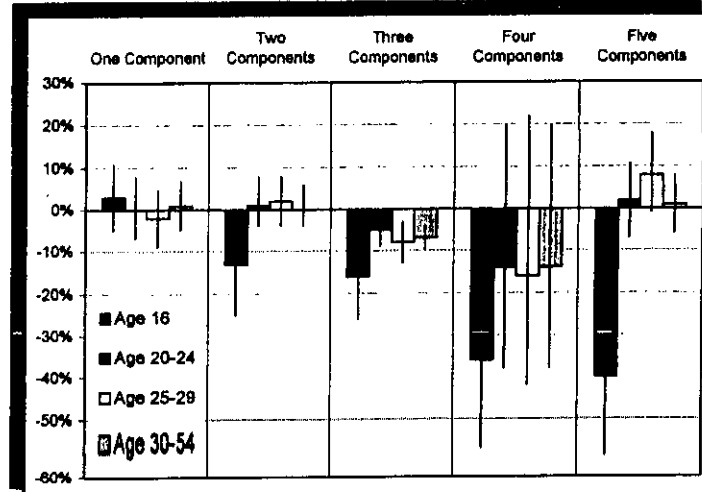


Figure 3: Percentage difference in injury crash involvement rates in relation to driver age and number of GDL program components. Vertical lines represent 95% confidence intervals.

ed previously. These definitions were selected by balancing existing recommendations, from IIHS, AAA, and others, with practical requirements to have a sufficient number of state-quarters to perform statistical analyses. The component definitions used here should not be construed as the optimal components for the best possible GDL programs.

The statistical modeling procedure used here took into consideration seasonal variations and time trends in crash rates across all states included in the study. However, the study was not able to account for changes in other laws, or other factors unrelated to GDL, that may have impacted some but not all states or may have impacted different states at different times over the course of the study (e.g., changes in speed limits or alcohol control laws). For example, Figure 2 shows that in state-quarters with four GDL program components in effect, the fatal crash involvement of the older comparison drivers was also significantly lower than in state-quarters without any GDL program components. It is possible that there were other factors besides GDL (not accounted for in the statistical model) that influenced crash rates in state-quarters with four GDL program components, leading to the result shown in Figure 2. This possibility should be investigated further in future studies.

It is also important to note that this analysis examined the crash rates of 16-year-old drivers per unit population. Thus, the observed crash reductions may have been attributable to reductions in licensing rates and/or delay in licensure among 16-year-olds, general reductions in the amount of driving done by the 16-year-olds who were licensed, specific reductions in the amount of driving done under high-risk conditions (e.g., at night and/or with passengers), driving more safely, or some combination of these. It also was not possible to distinguish the impact of having a law

per se from the impact of existing laws as they have actually been implemented. The current study was not able to examine the levels of public awareness of or compliance with the GDL legislation that was in effect. Factors such as these would likely influence the actual impact achieved in the real-world implementation of GDL legislation, and might reasonably be expected to vary across states and over time. Determination of the mechanisms responsible for the observed crash reductions was outside the scope of this study and should be studied further.

Finally, this report examines the impact of GDL on the per capita crash rates of 16-year-old drivers. The impact of GDL on the per capita fatal crash involvement rates of 17- and 18-year-old drivers will be addressed in a separate report by the same authors at a later date.

Despite the limitations of this study, these results, as well as a large and still growing body of research, indicate that GDL programs are effective in achieving real-world reductions in the toll of crashes involving 16-year-old drivers. The potential value of strengthening GDL programs is indicated by the apparent great difference between the *overall* nationwide reductions in crash rates associated with all three-stage GDL programs combined—including the weaker programs—and reductions associated with GDL programs that include five of the seven specified components.

Recommendations

- ✓ States that have not yet implemented three-stage GDL programs should do so.
- ✓ States should move toward implementation of a full complement of meaningful program components similar to those analyzed in this report.
- ✓ Future research should investigate the effectiveness of specific components of GDL programs (e.g., nighttime driving restrictions), including evaluation of different variations of similar components (e.g., the hours during which a nighttime driving restriction is in effect).
- ✓ Future research should investigate how other aspects of program implementation (e.g., publicity and enforcement) influence the effectiveness of programs.

For more information

To obtain a copy of the complete research report *Nationwide Review of Graduated Driver Licensing*, upon which this Summary Report was based, visit aaafoundation.org and click "Resources" to view or download a PDF version. To request a free hardcopy, please call, e-mail, or write to the AAA Foundation for Traffic Safety.

About the sponsors

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607 14th Street, NW, Suite 201, Washington, DC 20005
202-638-5944 • 800-993-7222 • www.aafoundation.org

Societal Cost of Crashes Involving Drivers Ages 15-17, 2006

State	Number of Crashes	Number of Deaths	Number of Injuries	Cost (in Millions)					
				Medical	Work Loss	Property Damage	QALYs	Other	Total
Alabama	32,551	98	13,583	\$110	\$353	\$135	\$365	\$185	\$1,148
Alaska	1,964	7	820	\$9	\$23	\$11	\$24	\$13	\$80
Arizona	23,852	61	9,953	\$86	\$242	\$99	\$250	\$117	\$794
Arkansas	17,117	40	7,143	\$40	\$157	\$64	\$163	\$75	\$499
California	66,785	177	27,869	\$211	\$884	\$343	\$911	\$461	\$2,810
Colorado	17,258	41	7,201	\$55	\$229	\$70	\$237	\$92	\$683
Connecticut	6,735	13	2,810	\$19	\$97	\$30	\$100	\$39	\$285
Delaware	4,069	5	1,698	\$15	\$54	\$20	\$55	\$25	\$169
Dist of Columbia	561	1*	234	\$1	\$9	\$3	\$10	\$3	\$26
Florida	65,102	169	27,166	\$187	\$731	\$264	\$756	\$337	\$2,275
Georgia	38,023	103	15,866	\$95	\$411	\$141	\$425	\$179	\$1,251
Hawaii	2,245	5	937	\$8	\$25	\$14	\$26	\$18	\$91
Idaho	7,576	20	3,162	\$25	\$74	\$32	\$76	\$40	\$247
Illinois	34,655	109	14,461	\$102	\$461	\$135	\$476	\$179	\$1,353
Indiana	27,780	64	11,592	\$64	\$296	\$97	\$306	\$132	\$895
Iowa	13,189	37	5,503	\$29	\$149	\$47	\$154	\$65	\$444
Kansas	14,031	34	5,855	\$34	\$155	\$51	\$161	\$66	\$467
Kentucky	23,571	66	9,836	\$52	\$232	\$79	\$240	\$106	\$709
Louisiana	18,520	47	7,728	\$38	\$189	\$71	\$196	\$94	\$588
Maine	6,033	23	2,518	\$13	\$64	\$23	\$67	\$31	\$198
Maryland	16,135	34	6,733	\$40	\$224	\$58	\$231	\$80	\$633
Massachusetts	10,944	29	4,567	\$40	\$168	\$54	\$173	\$72	\$507
Michigan	29,184	67	12,178	\$70	\$352	\$116	\$363	\$160	\$1,061
Minnesota	20,064	54	8,372	\$50	\$260	\$78	\$268	\$105	\$761
Mississippi	24,133	59	10,070	\$65	\$208	\$88	\$216	\$116	\$693
Missouri	33,814	90	14,110	\$93	\$390	\$124	\$404	\$164	\$1,175
Montana	3,929	11	1,639	\$9	\$37	\$14	\$38	\$18	\$116
Nebraska	10,102	33	4,215	\$26	\$117	\$34	\$121	\$46	\$344
Nevada	7,436	18	3,103	\$24	\$87	\$33	\$90	\$40	\$274
New Hampshire	4,209	7	1,756	\$7	\$54	\$15	\$55	\$22	\$153
New Jersey	11,645	40	4,859	\$38	\$186	\$60	\$192	\$82	\$558
New Mexico	9,120	23	3,806	\$26	\$81	\$35	\$84	\$46	\$272
New York	26,097	64	10,890	\$84	\$364	\$142	\$376	\$200	\$1,166
North Carolina	36,620	93	15,281	\$78	\$382	\$131	\$395	\$181	\$1,167

State	Number of Crashes	Number of Deaths	Number of Injuries	Cost (in Millions)					
				Medical	Work Loss	Property Damage	QALYs	Other	Total
North Dakota	4,069	16	1,698	\$7	\$40	\$12	\$41	\$17	\$117
Ohio	32,551	84	13,583	\$81	\$315	\$122	\$325	\$165	\$1,008
Oklahoma	19,222	46	8,021	\$46	\$191	\$71	\$198	\$92	\$598
Oregon	8,278	17	3,454	\$25	\$95	\$34	\$98	\$50	\$302
Pennsylvania	33,252	73	13,876	\$82	\$403	\$133	\$412	\$174	\$1,204
Rhode Island	2,385	5	995	\$6	\$29	\$11	\$30	\$16	\$92
South Carolina	20,204	64	8,431	\$49	\$198	\$77	\$205	\$100	\$629
South Dakota	5,191	16	2,166	\$11	\$56	\$17	\$58	\$24	\$166
Tennessee	29,885	75	12,471	\$75	\$333	\$105	\$344	\$141	\$998
Texas	71,696	174	29,918	\$181	\$828	\$267	\$854	\$362	\$2,492
Utah	9,260	26	3,864	\$31	\$91	\$41	\$94	\$51	\$308
Vermont	2,666	7	1,112	\$6	\$29	\$11	\$30	\$15	\$91
Virginia	23,291	59	9,719	\$62	\$295	\$81	\$306	\$116	\$860
Washington	12,066	47	5,035	\$39	\$155	\$53	\$160	\$70	\$477
West Virginia	7,296	21	3,044	\$18	\$65	\$24	\$67	\$33	\$207
Wisconsin	23,431	58	9,777	\$67	\$271	\$86	\$281	\$114	\$819
Wyoming	4,209	11	1,756	\$14	\$49	\$18	\$51	\$21	\$153

*Average of 2004-06

Attachment # 2

North Dakota Graduated Drivers License

Better Teen Drivers, Longer Lives, Safer Roads

Learner Stage

Qualifications

- Age 14
- No previous seatbelt or other infractions
- No history of alcohol or drug use

Pass written and vision exam

Restrictions

- Must be accompanied by an adult driver age 21 or over
- No cell phones
- No driving 11 pm - 5 am

Intermediate Stage

Qualifications

- Age 15.5
- No previous seatbelt or other traffic infractions
- No alcohol or drug violations
- At least 40 hrs of supervised driving w/10 night hrs
- Have had learner permit for at least 12 months

Pass driving exam

Restrictions

- No cell phones
- No driving 11 pm - 5 am
- No more than one passenger under the age of 18

Unrestricted Stage

Qualifications

- Age 16
- No previous infractions
- No history of alcohol or drug use
- Have had intermediate license for at least 6 months

Farm/Ranch Exception

- Must be at least 14 years of age
- Must pass the vision, written and driving exam
- Must live or work on a farm or ranch that demands operating a motor vehicle
- Only valid when driving for farm or ranch purpose

Attachment #3

**TESTIMONY BEFORE THE
HOUSE TRANSPORTATION COMMITTEE**

January 29, 2009

House Bill No. 1492

Testimony-Presented by:
Chuck Clairmont - North Dakota Safety Council

Mr. Chairman and members of the House Transportation Committee, my name is Chuck Clairmont and I am the Executive Director of the North Dakota Safety Council and I'm here to testify in favor of HB1492.

Motor vehicle crashes are the leading cause of death for people age 15 to 20. Statistics show that a high percentage of young drivers are involved in traffic crashes, and that they are twice as likely as adult drivers to be in a fatal crash. There are a number of factors that contribute to the higher crash rates such as lack of driving experience, excessive night-time driving, and distractions from teenage passengers. These are the reasons why it is so important that North Dakota adds components to its current Graduated Driving Licensing (GDL) system.

There is clear evidence that three components – the extended learner's permit period, night restrictions, and passenger restrictions – each contribute to the positive effects of a GDL system. Based on current research there is evidence that GDL systems combining these three components yield the greatest crash reductions and the single most effective GDL provision appears to be the extension of the learner's period when this extension has the effect of delaying the time at which unsupervised driving is permitted. According to the National Highway Traffic Safety Administration (NHTSA), states with nighttime driving restrictions show crash reductions of up to 60 percent during restricted hours.

In summary Mr. Chairman, the North Dakota Safety Council would encourage you to recommend a "pass" for HB1492. Thank you and I will gladly answer any questions you may have.

What you should know about...

Extended Learner's Permit Holding Periods



Graduated Driver Licensing

A key component of an effective GDL system is a longer learner's permit holding period. How do learner's permit holding periods relate to the crash rates of novice teen drivers?



While teenage driver crashes and casualties decreased in the past decade, and in spite of recent attention to the issue, teens are still high risk drivers and unintentional injury from motor vehicle crashes remains the number one cause of death among teens in the United States. In absolute numbers, 3,889 teens aged 16-19 – more than 10 every day – died in passenger vehicles driven by a teen in 2005. Per population, teen drivers age 16-19 are involved in about twice as many crashes, fatal and non-fatal, as drivers aged 30-59 (Ferguson, Teoh, & McCartt, 2007).

These extremely high crash rates for teens, and 16-year-olds in particular, are related to driver inexperience and driver immaturity. Driving experience must be accumulated sooner or later regardless of when a person starts to drive. But, initial driving experience can be limited to lower risk situations (e.g., daylight and limited number of teen passengers) under a Graduated Driver Licensing (GDL) system which has three stages of licensure:

1. A learner's permit that allows driving only while supervised by a fully licensed driver.
2. An intermediate license that allows unsupervised driving under certain restrictions.
3. A full license.

Longer learner permit periods can reduce crashes by delaying full licensure (stage three license). According to Williams, 2007:

- Prior to the GDL movement, most jurisdictions had no required minimum time periods for the learner stage.
- That situation has changed dramatically (see Table 1), with all but three jurisdictions having extended the learner phase, including 44 requiring a learner permit period of at least six months.
- The amount of time before full licensure depends largely on the minimum permit age, which varies from 14 to 16 in the United States, and the length of the learner and intermediate periods.

An extended learner period provides more time to practice and gain driving experience, and this is also encouraged by parent certification requirements. Table 2 shows that in 43 jurisdictions, parents are required to certify that their teen drove at least a minimum number of hours under supervision, anywhere from 12 to 100, although the norm is 40-50.

Table 1. Learner Stage Mandatory Holding Periods*

Number of months	Number of jurisdictions
12	5
9	1
6	38
2-5	4
0	3**

*2 jurisdictions have lesser requirements for driver education graduates

**Includes Wyoming, which has a 10-day holding period

Table 2. Learner Stage Parent Certification Requirements*

Number of hours	Number of jurisdictions
100	1
60	2
50	18
40	9
35	1
30	4
25	2
20	4
0	10

*5 jurisdictions have lesser requirements for driver education graduates
Williams, A.F. (2007). Contribution of the components of graduated licensing to crash reductions. *Journal of Safety Research*, 38(2), 177-184.

This fact sheet reflects current information presented at the International Symposium on Novice Teen Driving: GDL and Beyond -- Research Foundations for Policy and Practice held in Tucson, Arizona on February 5-7, 2007. For more information, go to www.nsc.org/gdl/.

Extended Learner's Permit Holding Periods

Evidence from Current Research on the Effectiveness of Learner's Permit Holding Periods

Although it is not an easy task to sort out the contribution of various GDL components, there is clear evidence that three components – the extended learner's permit period, night restrictions, and passenger restrictions – each contribute to the positive effects of a GDL system. According to Williams, 2007:

- There is evidence that GDL systems combining these components yield the greatest crash reductions.
- The single most effective GDL provision appears to be the extension of the learner's period when this extension has the effect of delaying the time at which unsupervised driving is permitted. Crash reductions are due to reduced exposure to driving risk during this time.

In addition to delaying when a young person can drive unsupervised, the learner's permit period also allows novice drivers to learn how to drive and accumulate their initial experience under low-risk conditions – allowing beginners to practice under parental supervision before attempting the road test for an intermediate license.

By 2006, all but seven states required the learner's permit to be held for at least six months. Typically, after a learner's permit period of at least six months, teenagers earn intermediate licenses that often prohibit driving unsupervised at night or carrying more than one teenage passenger.

Age of obtaining a learner's permit can be a factor as well as length of learner's holding period. An analysis of fatal crash rates for drivers aged 15-17 in states with different minimum learner's permit and intermediate license ages found that as these ages decrease, fatal crash rates increase. The earlier young people are allowed to learn and the earlier they become licensed are both associated with higher fatal crash rates (Preusser & Tison, 2007).

Attempts to Increase Effectiveness of Learner's Permit Holding Period & Next Steps

Further increasing the amount of time to build driving experience as a learner, and raising the minimum permit age, are ways that states are modifying GDL systems to increase effectiveness. According to Williams, 2007:

- California, Hawaii, and Virginia have raised the permit age. Such as, in 2004, California increased the minimum permit age from 15 to 15½, and this combines with a holding period requirement of six months and a licensing age of 16. Studies are needed of how these changes affect licensing ages, and whether there are negative effects, for example, an increase in illegal driving.
- Six states have extended the learner's permit holding period by lowering the starting age by three or six months. This change could encourage earlier licensure (Williams, 2007). Earlier licensure is associated with higher fatal crash rates (Preusser and Tison, 2007).
- Lengthening the supervised driving period to 12 months may provide better experience and exposure to a larger number and greater variety of driving situations (Foss, 2007).
- Effectiveness may be enhanced if parents ensure that their teens obtain a wide range of experience. Parent behavior may be key in GDL systems, as supervisors during learning stages and as driving behavior role models (Foss, 2007).

Because supervised driving is a key related component, study of how to structure supervised driving to maximize effectiveness is needed. As noted in 43 states, parents must certify that their teens had at least a minimum number of hours of supervised driving while they had a learner's permit – typically 40 to 50 hours allowing novice teens to gain driving experience in safer circumstances. Some states require some supervised driving hours to be at night. However, more information is needed on how much supervised driving occurs under these requirements and on whether these requirements affect teen driver crashes (Williams, 2007; Foss, 2007).

References (These sources contain a complete listing of secondary references.)

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- Preusser, D.F. & Tison, J. (2007). GDL then and now. *Journal of Safety Research*, 38(2), 159-163.
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NOTE: James Hedlund summarizes information presented and discussed at the Symposium. This summary contains a complete listing of secondary references. See: Hedlund, J. (2007). Novice teen driving: GDL and beyond. *Journal of Safety Research*, 38(2), 259-266.

What you should know about

Nighttime Driving Restrictions



Graduated Driver Licensing

Nighttime driving is a high-risk activity for young drivers. How does driving at night relate to the crash rates of novice teen driver?



While teenage driver crashes and casualties decreased in the past decade, and in spite of recent attention to the issue, teens are still high risk drivers and unintentional injury from motor vehicle crashes remains the number one cause of death among teens in the United States. In absolute numbers, 3,889 teens aged 16-19 – more than 10 every day – died in passenger vehicles driven by a teen in 2005. Per population, teen drivers age 16-19 are involved in about twice as many crashes, fatal and non-fatal, as drivers aged 30-59 (Ferguson, Teoh, & McCartt, 2007).

Teen crash risk is particularly elevated when driving at night and when carrying teen passengers.

- In 1995, prior to most night restrictions being enacted, 14% of fatal crashes of 16- and 17-year-old drivers occurred from midnight to 5:59 am. With nighttime defined from 9:00 pm-5:59 am, 32% of all 16- and 17-year-old driver fatal crashes occurred during these hours. Driving after midnight is particularly risky, but not many crashes of 16- and 17-year-olds take place in that time frame. The majority of nighttime fatal crashes of young beginners take place before midnight (Williams, 2007).
- Between 1996 and 2005, according to the data in Tables 1 and 2, the most progress has been made in reducing crashes among the youngest drivers. Fatal and police-reported crashes per population declined about 40% for 16-year-old drivers compared with declines of about 25% for 17-year-old drivers and 15-19% for 18-year-old drivers. Reductions among 16-year-olds were consistently higher at night than during the day (Ferguson, Teoh, & McCartt, 2007).

Factors contributing to nighttime crashes include:

- Inexperience with night driving (and driving, in general).
- Lower visibility, including the glare of oncoming headlights.
- Being in a vehicle with teen passengers may cause distractions and influence risk-taking behaviors of young drivers.
- Fatigue.
- Alcohol and/or other drug use.

This fact sheet reflects current information presented at the International Symposium on Novice Teen Driving: GDL and Beyond – Research Foundations for Policy and Practice held in Tucson, Arizona on February 5-7, 2007. For more information, go to www.nsc.org/gdl/.

Table 1. Daytime & Nighttime Fatal Crashes per 100,000 Population by Driver Age, 1996 vs. 2005 FARS

Age	1996	2005	% reduction
Daytime (6 am to 8:59 pm)			
16	22	14	40
17	25	19	24
18	28	24	14
19	24	23	3
30-59	14	12	12
Nighttime (9 pm to 5:59 am)			
16	11	6	48
17	14	10	24
18	19	16	17
19	19	17	12
30-59	6	5	11

Table 2. Daytime & Nighttime Police-Reported Crashes per 100,000 Population by Driver Age, 1996 vs. 2005 NASS/GES

Age	1996	2005	% reduction
Daytime (6 am to 8:59 pm)			
16	80	49	39
17	91	69	24
18	92	75	18
19	80	68	14
30-59	47	36	24
Nighttime (9 pm to 5:59 am)			
16	14	7	47
17	16	11	29
18	20	17	16
19	18	17	4
30-59	7	5	30

Data from the Fatality Analysis Reporting System (FARS) and the National Automotive Sampling System/General Estimates System (NASS/GES), 2005 (Ferguson, Teoh, & McCartt, 2007). Crash rates and percent reductions were rounded to whole numbers.

Nighttime Driving Restrictions

Evidence from Current Research on the Effectiveness of Night Restrictions

Nighttime driving restrictions are a critical component of Graduated Driver Licensing (GDL) systems. The effectiveness of these restrictions in reducing crashes had long been established. A few states have had night restrictions since the 1960s or 1970s, starting anywhere from 9:00 pm to midnight.

The purpose of night restrictions on driving is to protect novice teen drivers by keeping them from driving unsupervised during high-risk nighttime hours. Typically, after a learner's permit period of at least 6 months, teenagers are given restricted licenses that often limit driving unsupervised at night.

In 45 of 51 jurisdictions, night driving restrictions are now the most widely implemented feature of a GDL system. (Williams, 2007). Even before nighttime restrictions were introduced as part of GDL, many parents restricted their teen's driving during nighttime hours. This is a restriction that parents are likely to enforce.

Table 3 shows the wide range in starting times for night driving restrictions, with the most popular starting at midnight or later. Table 4 indicates the effectiveness of night restrictions in jurisdictions that have reported effects during both restricted and unrestricted time periods. Similar to positive trends in crash data presented in Tables 1 and 2, the data below shows much greater reductions during restricted hours (Williams, 2007).

Table 3. Beginning Hours for Night Driving Restrictions*

Hour	Number of Jurisdictions
6 pm	1
Sunset	1
9 pm	2
10 pm	4
11 pm	12
Midnight	17
12:30 am	2
1 am	6
No restriction	6

*Five states have different start times depending on day of week or time of year; the table tallies the earlier starting hour

Attempts to Increase Effectiveness of Night Restrictions & Next Steps

Exemptions, such as work and school-related activities that are allowed for unsupervised night driving and thought to be essential and entail lower risk, may lower the effects of nighttime restrictions. Exemptions should be carefully reviewed and considered for elimination to increase the effectiveness of nighttime restrictions.

A North Carolina study indicates that, in urban and rural areas, most parents and teens support the 9:00 pm restriction. Support is shown through 88% of parents in urban/suburban areas and 86% in rural areas agreeing with it, as did 56% of teens in urban/suburban areas and 63% in rural areas. Studies are needed in other states with early-starting restrictions to determine effectiveness and acceptability (Williams, 2007).

Table 4. Percent Crash Reductions, Nighttime vs. Daytime*

Jurisdiction	Restricted hours	Percent reduction	
		Night	Day
Florida	11-6	16	9
Michigan	12-5	59	32
North Carolina	9-5	47	22
Nova Scotia	12-5	49	5

*Data are for 16 year-olds in Florida, Michigan, and North Carolina and for 16-17 year-olds in Nova Scotia

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What you should know about

Passenger Restrictions



Graduated Driver Licensing

**A major risk factor for teen drivers
is the presence of teen passengers.
How do peer passengers relate to crash rates?**



While teenage driver crashes and casualties decreased in the past decade, and in spite of recent attention to the issue, teens are still high risk drivers and unintentional injury from motor vehicle crashes remains the number one cause of death among teens in the United States. In absolute numbers, 3,889 teens aged 16-19 – more than 10 every day – died in passenger vehicles driven by a teen in 2005. Per population, teen drivers age 16-19 are involved in about twice as many crashes, fatal and non-fatal, as drivers aged 30-59 (Ferguson, Teoh, & McCartt, 2007).

Teen drivers in fatal crashes were more likely to make driver errors, speed, or carry passengers than drivers age 26-49. In particular, teen or peer passengers increase crash risk, with each additional passenger adding to the risk (Ferguson, Teoh, & McCartt, 2007; Williams, 2007). The majority of crashes occur during daytime and passenger presence for teenagers elevates crash risk both day and night (Williams, 2007).

In addition, 40% of 16-19 year olds killed in passenger vehicles in 2005 were riding as passengers. The largest proportion of these deaths, 51%, were 16-year-olds (Ferguson, Teoh & McCartt, 2007).

A few factors seem likely to be the cause of increased passenger and driver injuries and deaths associated with peer passengers:

- Passengers can cause distractions.
- Passengers may influence risk-taking behaviors of young and inexperienced drivers (and teen drivers may overestimate their driving ability).
- Alcohol and other drug use may be more likely to impact attention and decision-making when one or more passengers are present.

As the number of teen passengers increases, fatal crashes among 16- and 17- year-old drivers are more likely to involve a single vehicle, speeding, and driver error (Table 2). With three or more teenage passengers, 85% of crashes involved driver error, almost 50% involved speeding, and almost 70% involved a single vehicle (Ferguson, Teoh & McCartt, 2007).

Table 1. Characteristics of Fatal Crashes by Driver Age (Percent), 2005 FARS

	Driver Age					
	16	17	18	19	20-25	26-49
Driver error	74	73	71	68	64	51
Speeding	34	32	33	33	30	19
Single vehicle	49	47	44	46	45	38
3+ occupants	29	24	23	24	19	17
Driver killed with positive BACs	15	23	30	32	53	48

Table 2. Characteristics of Fatal Crashes among 16-17 Year-Olds When Driving Alone or When Carrying Teenage Passengers (Percent), 2005 FARS

	Driver alone	Driver +1 teen passenger	Driver +2 teen passengers	Driver & 3+ teen passengers
Driver error	71	75	78	85
Speeding	30	34	42	46
Single vehicle	41	45	57	69
Driver killed with positive BACs	12	15	12	16

Data from the Fatality Analysis Reporting System (FARS), 2005 (Ferguson, Teoh, & McCartt, 2007).

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Passenger Restrictions

Evidence from Current Research on the Effectiveness of Passenger Restrictions

Passenger restrictions are a key feature of Graduated Driver Licensing (GDL) systems. Restrictions limit the number of passengers a teen driver may have in the vehicle to reduce distractions. In 2006, 37 states and the District of Columbia restricted passengers in some manner, from no passengers to no more than three passengers, for some period of time.

Several studies have found that passenger restrictions reduce crashes (Williams, 2007). However, fatal crash and survey data confirm that compliance is lower for passenger restrictions than for nighttime restrictions. According to Williams, in reviewing the effectiveness of passenger restrictions:

- Four studies of California's strong restriction (no passengers under age 20) have indicated positive effects (Cooper, Atkins, & Gillen, 2005; Masten & Hagge, 2004; Rice, Peek-Asa, & Kraus, 2004; Zwicker et al., 2006). For example, in the Zwicker study, there was a 38% reduction of 16-year-old drivers in crashes in which teen passengers were injured or killed.
- Positive effects of passenger restrictions in California, Massachusetts (no passengers younger than 16), and Virginia (no more than one passenger younger than 18) are being reported in a forthcoming study (Chaudhary, Williams, & Nissen, in press).
- In North Carolina, multiple passenger crashes declined by 32% among 16-year-old drivers, and by 15 percent among 17-year-old drivers since a passenger restriction was enacted (Highway Safety Research Center, Research Directions, 2006).
- National studies of GDL systems also are showing evidence of positive effects due to passenger restrictions (Chen, Baker, & Li, 2006; Morrissey et al., 2006; Williams, Ferguson, & Wells, 2005).
- New Zealand reported mildly positive effects of their restriction (Begg & Stephenson, 2003).

Attempts to Increase Compliance & Next Steps

Despite the presence of passenger restrictions in more than two-thirds of U.S. jurisdictions and evidence of positive effects, teens driving with teens is still a major problem. According to Williams, 2007:

- Attempts have been made to increase compliance with passenger restrictions through systems involving parents. These efforts have achieved modest success.
- More experimentation is needed, including programs targeting parents and police in combination.
- Programs would benefit from more thorough information than presently available on attitudes and practices of teens, parents, and police in regard to passenger restrictions and how they vary depending on the specific rules in force.

It is not currently clear whether dangerous types of passenger travel are more likely to be reduced by laws allowing one young passenger, or by more restrictive laws allowing none, which may be more likely to be ignored and create disrespect for the law (Williams, 2007).

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What you should know about

Technology



Graduated Driver Licensing

How does technology relate to the crash rates and driving behaviors of novice teen drivers?



While teenage driver crashes and casualties decreased in the past decade, and in spite of recent attention to the issue, teens are still high risk drivers and unintentional injury from motor vehicle crashes remains the number one cause of death among teens in the United States. In absolute numbers, 3,889 teens aged 16-19 – more than 10 every day – died in passenger vehicles driven by a teen in 2005. Per population, teen drivers age 16-19 are involved in about twice as many crashes, fatal and non-fatal, as drivers aged 30-59 (Ferguson, Teoh, & McCart, 2007).

Technology must be considered for both negative and positive effects on novice teen driving. Factors that cause young drivers to crash more frequently than other drivers amplify the potential risks and benefits of new technology.

Infotainment Technology and Teen Driver Risk

According to Lee, 2007, infotainment technologies include a wide array of devices that enable drivers to perform tasks unrelated to driving and place young drivers at risk, such as making telephone calls, watching videos, managing e-mail, sending and reading instant messages, and selecting and listening to music. Even commonly accepted devices in vehicles, such as a car radio, are changing substantially with satellite radio and MP3 music players, like the iPod. As of 2007, approximately 70% of new cars will include a capability to connect to iPods. All of these systems have the potential to distract drivers, but cell phones have attracted the most attention.

- A focus group study found that teens were more willing than other drivers to use cell phones, text messaging, and PDAs while driving. This study also showed that peer influence may exacerbate the tendency of young drivers to use infotainment technology while driving – passengers in the car increased the use of cell phones.
- A survey of 1,291 college students found that of the respondents that were drivers, 87% owned a cell phone and 86% reported using their phone at least occasionally while driving. The respondents also reported 762 crashes or near-crashes and that 21% of these incidents occurred while using a cell phone.

- Similarly, another survey found that young drivers used a cell phone more often while driving and were more likely to experience a dangerous situation as a result of using a phone compared to experienced drivers.
- New internet services made possible by Wireless Applications Protocol (WAP) may be even more distracting. Text messaging represents one such service that already poses a substantial distraction.

Potential Impact of Emerging Technologies on Driving Safety and Risk

At the same time, emerging technologies such as electronic stability control, collision warning systems, and intelligent speed adaptation that support the driver are recognized by Lee (2007) for the potential to enhance driving safety and may mitigate risks posed by infotainment distractions. Lee notes that:

- Increasingly, cars are being equipped with advanced driver assistance systems (ADAS) that include GPS and navigation systems, sensor suites, and control systems that can help people drive safely.
- These systems may also use biometric technology to recognize individual drivers and develop a history of driving performance to assess momentary and long-term changes in the driver.

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Technology

Evidence from Current Research on the Effectiveness of Technology

Young drivers are particularly vulnerable to distractions posed by information systems, but could benefit tremendously from driver support systems. Extending proven approaches to improve teen driving safety, such as GDL, represents the most promising path for implementing new technology. Tailoring technology to teen drivers may have an effect similar to placing an adult passenger in the teen's vehicle (Lee, 2007).

In a pilot study (McGehee, 2007), vehicles with novice teen drivers were equipped with an event-triggered video recording system. As an instructional and monitoring device, the device also recorded seat belt use. Teens and parents received a weekly report which compared their performance to their peers.

Based on the research conducted and presented by McGehee, 2007, the event-triggered video system (with feedback in a weekly graphical report card and video review) can reduce unsafe driving behaviors when reviewed by teens and their parents.

- After four weeks of these reports there was a substantial reduction in events due to "coachable" driving errors.
- These results suggest that incorporating both video and parental involvement in driver training can significantly reduce the number of unsafe driving events of newly licensed teens.
- This feedback may help teen drivers, particularly those who experience many incidents, become aware of their unsafe driving behaviors and improve their driving.

Attempts to Increase Effectiveness of Technology & Next Steps

The coming years are likely to bring increasingly complex distractions and vehicles. When paired with novice drivers, this combination has potential to undermine teen driving safety to a greater extent than any one trend alone. However, technology has potential to enhance the safety of young drivers. There is an urgent need for researchers, designers, and policy-makers to consider how to capitalize on the potential benefits of emerging technology.

For example, young drivers might benefit from advanced driver assistance systems developed for the general public, but greater benefits are possible by tuning this technology to the specific needs of young drivers. One promising example is video feedback technology (Lee, 2007).

In regard to video feedback, according to McGehee, 2007:

- One promise of the video feedback intervention is that it could reduce teen fatalities by helping them learn to drive more safely during their first months of unsupervised driving.
- One explanation for the reduction in events is that the teens modified their behavior by learning to slow down for turns, curves and intersections, plan ahead, and look further down the roadway to allow more time to react to traffic situations. If video feedback accomplished only this, it could save many lives.
- A multi-year longitudinal study of the video feedback intervention is needed to assess its long-term effects on teen driver behavior, for example, to find if improvements in teen driver behaviors were sustained.

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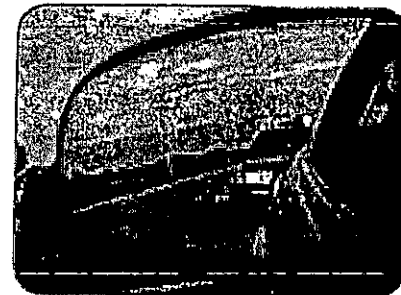
What you should know about

Key GDL Influences & Partners



Graduated Driver Licensing

An effective GDL system is the result of many influences and partners that work together.



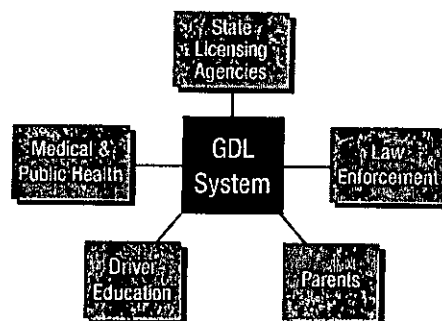
While teenage driver crashes and casualties decreased in the past decade, and in spite of recent attention to the issue, teens are still high risk drivers and unintentional injury from motor vehicle crashes remains the number one cause of death among teens in the United States. In absolute numbers, 3,889 teens aged 16-19 – more than 10 every day – died in passenger vehicles driven by a teen in 2005. Per population, teen drivers age 16-19 are involved in about twice as many crashes, fatal and non-fatal, as drivers aged 30-59 (Ferguson, Teoh, & McCartt, 2007).

The goal of a Graduated Driver Licensing (GDL) system is to prevent injuries and deaths from teen drivers' motor vehicle crashes. Since the presentation of a summary of US GDL evaluation results at the November 2002 Symposium on GDL, many more US states and Canadian provinces have implemented GDL and/or enough time has passed that additional evaluation results are now available. According to Shope, 2007:

- Twenty-one studies of GDL within 14 individual jurisdictions and six nationwide studies of GDL were conducted and made available.
- Positive results (usually crash reductions) of varying degrees were reported from nearly all the studies. Given differences in approaches, study goals, methods, and analyses, the results are surprisingly consistent. Overall, GDL systems reduced the youngest drivers' crash risk by approximately 20-40%.

These studies, together with earlier studies, show conclusively that GDL reduces teen driver crashes. However, crash reductions vary by jurisdiction because of differences in both their pre-GDL licensing requirements for novice teen drivers and in components of their GDL systems. The research does show that:

- In general, crash reductions were greater for stronger GDL systems, as rated by the Insurance Institute for Highway Safety scale (Shope, 2007).
- Crash reductions also were generally larger than those produced by most traffic safety initiatives (Foss, 2007).
- Also, studies showed similar crash reductions for both male and female teen drivers, and no increase in crash risk for 17- or 18-year-old drivers once fully licensed.



Much more can be done to reduce morbidity and mortality from teen crashes. An effective GDL system results from multi-level and system efforts – macro (multinational, regional, national) and micro (community, organizations, groups, parents) – and a variety of approaches.

- Key partners in a GDL effort include state Departments of Motor Vehicles (DMVs), law enforcement, parents, driver education, and medical and public health professionals and organizations.
- Integrated approaches are required to reduce the especially high teen crash rates during the first six months of unsupervised driving, including integrating licensing, driver education, parent involvement and monitoring, peer programs, and insurance systems in a comprehensive community effort (Shope, 2007).
- Public health and traffic safety practitioners can work with policy makers to make GDL's effects even more pronounced – research shows that the public supports reducing teen traffic casualties and there is strong evidence of GDL's effectiveness.

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Key GDL Influences & Partners

State Motor Vehicle Licensing Departments

Each state's Department of Motor Vehicles (or Secretary of State office in some states) establishes driver licensing requirements authorized by state laws, issues and monitors all licenses, and is responsible for administering the state's GDL system. DMV efforts range from conducting required knowledge and driving skill tests and issuing licenses, to actively educating parents and teens about traffic safety and working with law enforcement to monitor novice teen drivers in all stages of GDL.

Law Enforcement

GDL requirements must be enforced. To effectively enforce requirements (such as when stopping an unsupervised teen driver), officers must recognize a learner's permit or intermediate license and know their provisions, such as nighttime and passenger restrictions. For example, Omaha, NE recognized this issue and incorporated GDL issues into training received by all officer recruits, substantially increasing GDL enforcement (Scott, 2007).

Parents

Parents are partners with their teens as they learn to drive and they are the primary instructors and guardians of teen safety. In most states, parents must endorse applications for a learner's permit, intermediate license, and full license. Parents provide most of the supervised practice driving during the learner's permit period. In states with a supervised driving requirement, parents must certify that requirements have been met. GDL laws are enforced primarily by parents and nearly all parents impose additional driving restrictions during the initial months of independent driving. Recent studies conclude that risky driving, traffic violations, and crashes are lower among teens whose parents set limits on high risk driving conditions such as teen passengers and night driving (Simons-Morton, 2007).

Driver Education

The driver education model of 30 hours of classroom instruction and 6 hours on the road in existence for many decades (about 40 years) does not produce reduced crash rates. According to Mayhew, 2007, driver education may decrease safety by enabling teens to become licensed earlier, putting more drivers on the road at an earlier age. However, several improvements may help its role in a partnership with parents and GDL, including:

- Adopt a multi-stage approach – teach basic driving skills followed by safe driving procedures and decision-making.
- Update course content to focus on teen driver risk factors.
- Use teaching methods based on sound learning principles.
- Match instruction to the skill levels and needs of individual teens.

Medical and Public Health

Professionals and Organizations

Medical and public health organizations and individuals have long been active in many traffic safety areas, including child safety and booster seats, adult seat belts, bicycle and motorcycle helmets, and alcohol and other drugs. Their influence as partners in GDL and other novice teen driver issues are a natural extension of their traffic safety work. As one example, the American Academy of Pediatrics recently released a policy statement recommending that pediatricians counsel teen patients and parents on safe driving issues, including GDL provisions.

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Q&As: Teenagers — graduated driver licensing

April 2008

Show all answers

Source: Insurance Institute for Highway Safety and National Highway Traffic Safety Administration

- 1 | **What is graduated driver licensing?**
- 2 | **Why target young people? Why not target all novice drivers?**
- 3 | **Isn't it unfair to restrict all teenagers' driving privileges? Why not just penalize the problem drivers?**
- 4 | **Has graduated licensing reduced crashes?**

Yes. Sound research indicates positive effects on the crash experience of young drivers in the United States and other countries including Canada and New Zealand. In U.S. states that have adopted elements of graduated licensing, studies have found crash reductions of about 10-30 percent.^{2,3,4,5,6,7} A national evaluation reported that states with 3-stage graduated systems had 11 percent fewer fatal crashes of 16 year-olds during 1994-2004 than states without such systems.⁸

- 5 | **What are nighttime driving restrictions?**
- 6 | **Are nighttime restrictions critical components of graduated licensing?**
- 7 | **How early should nighttime driving restrictions begin?**
- 8 | **Are passenger restrictions important?**
- 9 | **What guarantees that beginners will get more supervised driving under graduated licensing?**

Requiring longer learner's permit periods (at least 6 months) provides more time for beginners to practice driving under the supervision of adults. Many states require parents to certify that their children have acquired a minimum amount of practice time, typically 50 hours. A survey conducted in Michigan indicates that parents are very positive about the 50-hour requirement. These parents reported an average of 75 hours of supervised driving.¹⁷

- 10 | **Do parents support graduated licensing?**

Yes, parents strongly favor it. An Insurance Institute for Highway Safety survey of parents of young drivers in California who had gone through the graduated licensing process found 95 percent of the parents supported a 6-month period of supervised driving. Ninety-four percent favored night driving restrictions, 84 percent favored restricting teenage passengers during the first 6 months, and 79 percent of the parents said they favor a licensing system that includes all of these components. The survey was conducted in 2000.¹⁸

Parents of teenagers surveyed in 1996 in Connecticut, Delaware, New Jersey, and New York said they strongly support graduated licensing.^{19,20} Although many parents want their children to get licenses early so they no longer have to be taken to school, work, or social activities, the same parents indicate that they also worry about the risks.

- 11 | **Are teenagers who are subject to graduated licensing restrictions allowed to drive to school, work, and their extracurricular activities?**
- 12 | **Can driver education reduce the need for graduated licensing?**

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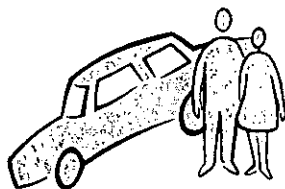
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YOUNG DRIVERS

105

Motor-vehicle crashes are the leading cause of death for young people 15-20 years old. In 2005 (the latest year available), according to a National Safety Council analysis of National Center for Health Statistics mortality data, 6,230 young people died in crashes.

In 2007, there were 6,552 fatal crashes involving young drivers (age 16-20). Young drivers killed in crashes decreased nearly 9%, from 3,407 in 2006 down to 3,108 in 2007. In addition, passenger fatalities in vehicles with young drivers decreased nearly 6% from

2,086 to 1,967. Seventeen percent of young drivers involved in fatal crashes had blood alcohol concentrations of 0.08 or greater.

As shown in the table below, both crashes and fatalities involving young drivers have decreased from 2006. The only crash type showing an increase from 2006 is property damage only crashes with a 4% increase. Although young driver fatalities among males are decreasing faster than females, males still represent nearly 74% of the fatalities.

NUMBER OF CRASHES AND FATALITIES IN CRASHES INVOLVING YOUNG DRIVERS, 2006-2007

	Year		Percent Change
	2006	2007	
Crashes			
Fatal	7,012	6,552	-6.6
Injury	461,000	430,000	-6.7
Property Damage Only	993,000	1,037,000	+4.4
Fatalities			
Young Drivers	3,407	3,108	-8.8
Male	2,513	2,284	-9.1
Female	894	824	-7.8
Passengers*	2,086	1,967	-5.7
All Others	2,516	2,437	-3.1

Source: National Center for Statistics and Analysis. (2008). Motor Vehicle Traffic Crash Fatality Counts And Estimates of People Injured for 2007 presentation (DOT HS 811 034). Washington, DC: National Highway Traffic Safety Administration. Accessed on 12/02/08: <http://www.nhtsa.dot.gov/Pubs/811034.PDF>. National Center for Statistics and Analysis. (2008). Traffic Safety Facts 2007 Traffic Safety Annual Assessment—Alcohol-Impaired Driving Fatalities (DOT HS 811 016). Washington, DC: National Highway Traffic Safety Administration.

*In vehicles with young drivers.

Graduated driver licensing (GDL) is an effective way to reduce the impact of motor-vehicle crashes on the lives of young drivers.

A national evaluation of graduated driver licensing programs sponsored by the National Highway Traffic Safety Administration found that the most comprehensive GDL programs are associated with crash

involvement rates about 20% lower for 16-year-olds than comparable crash involvement rates without GDL programs. The greatest benefit appears to be in programs that include age requirements plus three or more months of waiting before the intermediate stage, nighttime driving restrictions, and either supervised driving of at least 30 hours or a passenger restriction.

COMPARISON OF 16-YEAR-OLD DRIVERS FATALITY RATES BY PRESENCE OF GDL RESTRICTION, UNITED STATES, 1994-2004

GDL Component	Level of Restriction	Number of States Compared*	Driver Fatal Crash Involvement Rate ^b
Minimum Age For Learner Permit	15½ years	13	22
	<15½ years	30	35
Mandatory Waiting Period	3 + months	37	27
	None or <3 months	6	31
Minimum Of Supervised Driving	30 + hours	29	23
	None or <30 hours	14	35
Minimum Age Intermediate Stage	16 + years	29	23
	None or <16 years	14	35
Minimum Age Full Licensing	17 + years	23	22
	<17 years	20	37
Nighttime Restriction	Any	31	23
	None	12	36
Passenger Restriction	Any	21	21
	None	22	31

Source: Baker, S., Chen, L., & Li, G. (2006). National Evaluation of Graduated Driver Licensing Programs. National Highway Traffic Safety Administration (DOT HS 810 614). Washington, DC: National Highway Traffic Safety Administration. Accessed on 12/02/08: <http://www.nhtsa.dot.gov/people/injury/NewDriver/GDLReport/images/GDLReport.pdf>

*As of 2004, for the 43 states studied.

^bDriver fatal crash involvement rate: the number of crashes per 100,000 person-years for relevant states. Because more than one GDL component is applied at a time, rates may reflect the impact of multiple GDL components.

Traffic Safety Facts

Laws



DOT HS 810 888W

January 2008

Graduated Driver Licensing System

Background

The National Highway Traffic Safety Administration encourages States to implement a graduated driver licensing (GDL) system. Easing young drivers onto the roadways by controlling their exposure to progressively more difficult driving experiences can reduce the incidence of traffic crashes involving young drivers.

A significant percentage of young drivers are involved in traffic crashes, and they are twice as likely as adult drivers to be in a fatal crash. Sixteen-year old drivers have crash rates that are about three times greater than 17-year-old drivers, five times greater than 18-year-old drivers, and approximately twice the rate of 85-year-old drivers. The factors contributing to these higher crash rates include lack of driving experience

and inadequate driving skills; excessive driving during night-time, higher risk hours; risk taking behavior; poor driving judgment and decision making; drinking and driving; and distractions from teenage passengers.

To address these problems, traffic safety researchers developed a licensing system that would prolong the learning process for young novice drivers. Based on this system, NHTSA and the American Association of Motor Vehicle Administrators developed an entry level driver licensing program to give young drivers more time to learn the complex skills required to operate a vehicle. The program consists of three stages, identified at each stage by the type of license: learner's permit, intermediate (provisional) license, and full licensure. Young drivers are required to demonstrate responsible driving behavior at each stage of licensing before advancing to the next level.

Key Facts

- In 2006, 3,490 drivers 15 to 20 years old were killed and an additional 272,000 were injured in motor vehicle crashes.
- Motor vehicle crashes are the leading cause of death for people age 15 to 20.

- In 2006, 7,463 drivers 15 to 20 years old were involved in fatal crashes—an 8-percent decrease from 8,074 involved in 1996. Driver fatalities for this age group increased by 3 percent between 1996 and 2006. For young males, driver fatalities rose by 5 percent, compared with a 3-percent decrease for young females.
- In 2006, 12.9 percent (7,463) of all drivers involved in fatal crashes (57,695) were young drivers 15 to 20 years old, and 16 percent (1,621,000) of all drivers involved in police-reported crashes (10,558,000) were young drivers.
- Twenty-eight percent (378) of the 15- to 20-year-old drivers involved in fatal crashes who had invalid operator's licenses at the time of the crash also had a previous license suspension or revocation.
- Thirty-one percent of 15- to 20-year-old drivers who were killed in motor vehicle crashes during 2006 had been drinking.
- In 2006, 64 percent of youth (age 15 to 20) who died in passenger vehicles were not wearing seat belts.
- In 2006, 39 percent of fatalities of 15- to 20-year-olds occurred in speed-related crashes.

Inside This Issue

- Background
- Key Facts
- How Effective Are GDL Systems?
- How Does GDL Work?
- Which States Have a GDL System?
- References

- States with nighttime driving restrictions show crash reductions of up to 60 percent during restricted hours.
- GDL has been shown to reduce crashes by young drivers.

How Effective Are GDL Systems?

Evaluations clearly show the benefits of adopting GDL laws and GDL components. Florida's GDL law resulted in a 9-percent reduction in crashes for drivers who were 16 and 17 years old.

Ongoing research in Michigan and North Carolina has shown a 26-percent and 25-percent reduction, respectively, in crashes involving 16-year-old drivers. Maryland and Texas GDL program showed similar success. GDL components adopted in the late 1970s and early 1980s also had positive effects. For instance, California reported a 5-percent reduction in crashes and a 10-percent reduction in traffic convictions for 16- and 17-year-old drivers, while Oregon saw a 16-percent reduction in crashes for male drivers age 16 and 17. A more recent evaluation of Oregon's GDL system demonstrated a 29-percent decrease in crash rates for 16-year-old drivers 3 years post-GDL implementation; there was a 16-percent decrease in crash rates for 17-year-old drivers.

Nova Scotia, Canada, reported a 29-percent reduction in crashes involving 16-year-old drivers while a preliminary report from Ontario, Canada, cites a 31-percent reduction in crashes for all drivers 15 to 19 years old. A recent national evaluation of GDL programs by Johns Hopkins University concluded that the most comprehensive programs are

associated with reductions of about 20 percent in 16-year-old drivers' fatal crash involvement rates.

NHTSA recently released an evaluation of passenger restriction laws in terms of teen crash involvements. This study evaluated passenger restriction laws in three States: California, Massachusetts, and Virginia. Results demonstrated that, on average, there were 740 fewer 16-year-old drivers in California involved in crashes per year as a result of the passenger restriction law. There were 173 fewer 16-year-old driver involved in crashes per year in Massachusetts, and 454 fewer 16-year-old drivers in Virginia, both as a result of their passenger restriction laws.

How Does GDL Work?

In the mid 1990s, the Insurance Institute for Highway Safety, the National Safety Council, the National Transportation Safety Board, and NHTSA met to establish a national model for GDL. By establishing a national model, the various traffic safety groups sought to provide guidelines for States considering a GDL system.

The three stages of the GDL system include specific components and restrictions to introduce driving privileges gradually to beginning drivers. Novice drivers are required to demonstrate responsible driving behavior during each stage of licensing before advancing to the next level.

Each stage includes recommended components and restrictions for States to consider when implementing a GDL system. Examples of components and restrictions for each stage include:

Stage 1: Learner's Permit

- State sets minimum age for a learner's permit at no younger than age 16;
- Pass vision and knowledge tests, including rules of the road, signs, and signals;
- Completion of basic driver training;
- Licensed adult (who is at least 21 years old) required in the vehicle at all times;
- All occupants must wear seat belts;
- Teenage-passenger restrictions;
- Zero alcohol while driving;
- Permit is visually distinctive from other driver licenses;
- Must remain crash and conviction free for at least six months to advance to next level;
- Parental certification of 30 to 50 practice hours; and
- No use of portable electronic communication and entertainment devices.

Stage 2: Intermediate (Provisional) License

- Completion of Stage 1;
- State sets minimum age of 16.5;
- Pass a behind the wheel road test;
- Completion of advanced driver education training (safe driving decision-making, risk education, etc.)
- All occupants must wear seat belts;
- Licensed adult required in the vehicle from 10 p.m. until 5 a.m. (e.g., nighttime driving restriction);
- Zero alcohol while driving;

- ❑ Driver improvement actions are initiated at lower point level than for regular drivers;
- ❑ Provisional license is visually distinctive from a regular license;
- ❑ Teenage-passenger restrictions: not more than one teenage passenger for the first 12 months of intermediate license. Afterward, limit the number of teenage passengers to two until age 18;
- ❑ Must remain crash and conviction free for at least 12 consecutive months to advance to the next stage;
- ❑ Supervised practice; and
- ❑ No use of portable electronic communication and entertainment devices.

Stage 3: Full Licensure

- ❑ Completion of Stage 2;
- ❑ State sets minimum age of 18 for lifting passenger and nighttime restrictions; and
- ❑ Zero alcohol while driving.

Which States Have a GDL System?

No State has a GDL law with all of the recommended components. To date, 46 States and the District of Columbia have three-stage systems. States that have a two-stage system and lack an intermediate stage are Arkansas, Kansas, Minnesota, and North Dakota.

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Reports and additional information on this topic are available from your State Highway Safety Office; the NHTSA Regional Office serving your State; NHTSA Headquarters' Safety Programs Office, ATTN: NTI-122, 1200 New Jersey Avenue SE, Washington, DC, 20590, 202 366 2724; or NHTSA's Web site at www.nhtsa.gov.

2007 Crash Data

14-17 years of age

Age	# licensed drivers	% of licensed drivers	# crashes	% of total crashes	# fatal crashes/ percent	% fatal crashes
14-15 years	3,952	.83%	493	3.03%	2	2.1%
16 years	5,643	1.19%	691	4.25%	3	3.1%
17 years	6,897	1.46%	785	4.83%	7	7.36%
14-17 years	16,492	3.49%	1,969	12.1%	12	12.6%
Total	472,145	100%	16,229	100%	95	100%

Attachment # 5

Testimony in Support of HB 1492
House Transportation Committee – January 29th, 2009
Ron H. Miller, MD

Good morning, Chairman Ruby and members of the committee. I have asked to have this testimony introduced at the committee meeting as I am on call in Fargo.

I am the Medical Director of MeritCare Children's Services. Also, for over the past 10 years I have been on the North Dakota Child Fatality Review Panel.

From my work at MeritCare Children's Hospital and the NDCRP I have seen the tragic consequences of young, inexperienced teenage drivers. Our children in North Dakota are dying, or are being left with severe Traumatic Brain Injury (TBI), because they are driving too young and without supervised experience.

There is excellent scientific evidence that Graduated Driver Licensing (GDL) can decrease deaths of teenagers by up to 50 percent. House Bill 1492 will create a GDL system in North Dakota and help develop young drivers so they can avoid the pain and suffering crashes inflict.

You have undoubtedly heard some of the statistics regarding young drivers in North Dakota. While drivers 14-17 years of age account for only 3.5 percent of all drivers in the state:

- They were drivers in 10 percent of fatal crashes from 2004 to 2007.
- They were involved in an average of 2,360 crashes annually between 2001 and 2007.
- They are three times more likely to crash than drivers 25-34 years of age.
- They are twice as likely to crash as drivers over the age of 85.

Too often I've seen the physical and emotional devastation these crashes have on individuals and families. The teenage girl with her sister and friend who were all killed when their car went off the road, distraction is a killer, -- this does not happen just elsewhere, it happens in North Dakota.

Tragically, it is not just deaths that lay a heavy burden on children and their families, but the long term handicap of Traumatic Brain Injury (TBI). In one of countless tragic cases I've seen, the only son and only child of a ND farmer/rancher--a boy who wanted to farm like his dad--was left with a TBI that will never allow him to take over the family farm. He was driving too fast at too young an age in a pickup.

The research on GDL has been presented and is undeniable. This is not something that is just happening in other states. It happens here, and we should stop it. Automobile crashes kill and maim North Dakota children more than any disease. I urge you to vote "Do Pass" on HB1492 in an effort to save lives and reduce life-changing injuries to North Dakota's teens.

Attachment # 6

In regards to House Bill No. 1492

North Dakota Graduated Drivers License

Chairman Ruby; Vice Chairman Weiler, and fellow committee members.

I am here in support of the proposed North Dakota Drivers License bill No.1492. I am also here on behalf of our son, Ryan Bartsch.

Sunday, August 12, 2007 is a date that will I will never forget. We received a phone call at 3:37 that afternoon. It was the worst call a parent could ever receive. The driver of the vehicle had called us and told us that they were in an accident. He said Ryan was barely breathing and in and out of consciousness.

When we arrived at the crash site 1 mile west of Casselton, it was the worst thing I have ever seen. I knew as soon as we came over the tracks heading west and seen that there was a semi facing northbound on the road and not moving, I knew then that it was not going to be good.

This small pick up was wedged under the side of a semi. Where Ryan was setting the door was crushed in. Crushed in as the tires from the semi rode up on the door where he was. We could not see him as he had one person on top of him that was not wearing a seat belt and he was underneath her. He was pinned in and had no room to breath or try and protect himself. The passenger in the middle could not get out because "3 sets of legs" were where stuck in the passenger side of the vehicle. Four teenagers, ages 14 to 17, were in a 3 passenger pickup. Three people had on seatbelts including my son and passenger setting on their laps there was not one for her.

For 7 days we hoped and prayed that Ryan would beat the odds and survive this horrific crash. He had a very severe traumatic brain injury and was in an induced coma and on a respirator. There was so much brain damage from the violent impact that Ryan did not beat the odds. On August 19th he was pronounced brain dead. We lost one of the most precious people in our life. We then spent the next 48 hours with him as he lay there on life support as representatives and nurses from Lifesource looked for recipients of our son's organs.

Ryan was 16 years old and had had received his permit when he was 14 years old and held it for 2 years. He was in no hurry to get his drivers license and did not spend a lot of time driving with us. Ryan would complain periodically that he wanted his drivers license and at the same time did not want to spend the time in the car with his dad or I to do enough driving where we felt comfortable with him testing to get his drivers license. But for the most part, he really did not care if he had his license and I figured when he was really ready he would put in the time driving with us before he could ever test to get his license.

I cannot help but think that had there been limited passengers in the vehicle it would not have been as fun to drive fast and jump an old railroad bed. If the driver had been paying attention to the blind intersection that they were approaching he maybe would have slowed down. Had the driver had more experience and maturity he would not have drove like he did.

Instead he drove in a reckless manner at a high rate of speed down that gravel road and when he seen the semi, it was too late. He hit the brakes and skidded the length of a football field before hitting the semi. It is my assumption that he ever had the intention of slowing down or even yielding at that intersection.

The driver was 17 years old and had had his license for over 2 years. He had a couple of prior speeding tickets in the 6 months prior to the crash but that did not deter him from doing anything different because there were really no consequences other than to pay a fine and maybe loose a point here and there. That same driver had been involved in an accident 6 weeks prior to the crash that caused Ryan's death. None of this was ever reported to the police or insurance company. My only assumption would be after the fact is that he would have probably been at risk at loosing his license for too many violations in a 6month period? It is too late now for my son and his friend, the driver, has to live for the rest of his life without Ryan because of what he did that day.

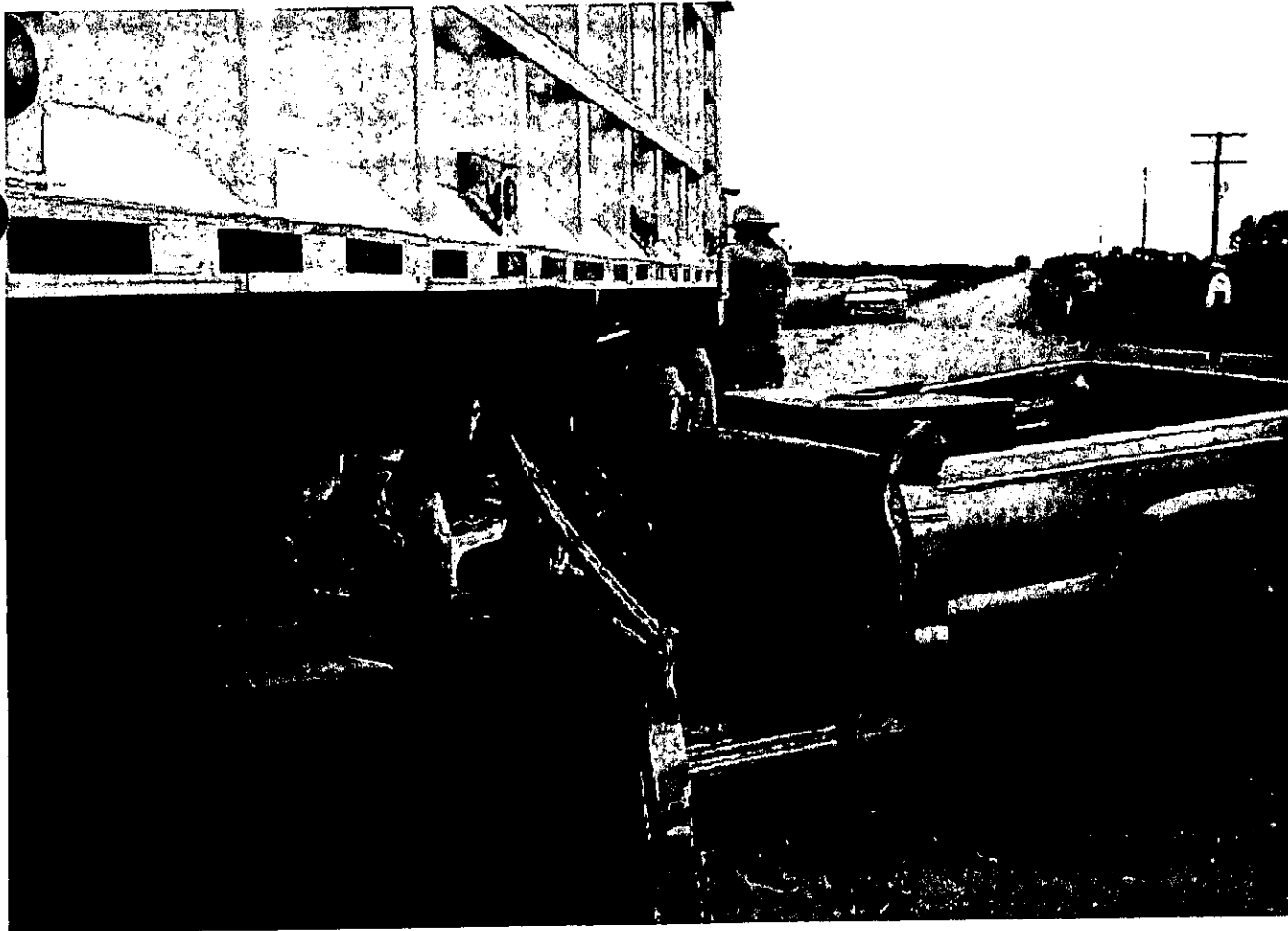
We as parents are already responsible for what our children do and we have a say in what they are allowed to do but I believe we need to do more as a government to protect our children.

Our young drivers need to have more training, more time behind the wheel driving. We need to limit the passengers in the vehicles and get rid of the distractions such as cell phones and texting while driving. We need restrictions as to what time of the day they can drive and who can be in the vehicle.

We need this graduated drivers license bill to pass in North Dakota as another safeguard in protecting our children and reducing the amount of teen traffic fatalities in our state. I do not want my son to just be another statistic. We need to change the laws to protect our children.

Thank for your time.

Paula & Kevin Bartsch
Casselton ND
701-347-4361







Attach # 7

HOUSE BILL NO. 1492

Presented by: Adam Hamm
Commissioner
North Dakota Insurance Department

Before: House Transportation Committee
Representative Dan Ruby, Chairman

Date: January 29, 2009

TESTIMONY

Good afternoon, Chairman Ruby and committee members. For the record, my name is Adam Hamm and I am North Dakota's Insurance Commissioner. I am here in support of House Bill No. 1492.

As you have heard today, North Dakota is one of only three states in the nation that does not have an intermediate stage for new drivers. House Bill No. 1492 proposes a three-stage graduated drivers license (GDL) that increases the minimum age to achieve an unrestricted license, places limitations on passengers and cell phone use for inexperienced drivers, and requires young drivers to be free of seatbelt and traffic violations.

Preventing young driver crashes and fatalities is important to saving lives and has positive spin-off effects for everyone. Reducing the number and severity of crashes will also help reduce the value of insurance claims, therefore, helping to keep premiums low for all North Dakotans.

The insurance industry, some of whom you have heard from today, has long recognized the need for safer teen drivers through programs that provide discounts to better drivers, and through their support of GDL laws.

Nationwide auto crashes are the number one killer of teenagers. According to results published by the National Highway Traffic Safety Administration (NHTSA) in June 2006, significant reductions in deaths were associated with GDL laws that included age requirements, a restriction on nighttime driving, 30 or more hours of supervised driving, and a restriction on carrying passengers or the number and age of passengers carried. Analysis by the National Highway Traffic Safety Association has shown that adopting this type of GDL law will lead to a decrease in teen fatal crashes of approximately 20 percent.

It is my belief, and the belief of the folks who you have heard from this afternoon, that this proposal will help improve public safety, help save the lives of teen drivers, and help keep insurance premiums low.

Mr. Chairman and members of the committee, I urge your support of House Bill No. 1492. I am happy to attempt to answer any questions you have. Thank you.

Attachment # 8

Current Age	14	14 + 2 Months	14 months	15	15 + 6 Months	16	17	18
License Type	Instruction Permit		Unrestricted License					
Requirements	<ul style="list-style-type: none"> - Knowledge test - Vision test - Parent Sponsorship 		<ul style="list-style-type: none"> - Hold Instruction permit at least 6 months if under 18 YOA - Complete drivers education if under 16 YOA - Parent signature if under 16 YOA - Road test 					

License Type	Instruction Permit	Farm License for 14 to 16 YOA			Intermediate License	Unrestricted License		
Requirements	<ul style="list-style-type: none"> - Violation-free for 180 days prior to issuance - Knowledge test - Vision test - Parent approval - Parental Sponsorship 	<ul style="list-style-type: none"> - Violation-free for 180 days prior to issuance - Hold Instruction permit at least 2 months - Complete drivers education - Parent affidavit certifying farm resident/employee - Road test 			<ul style="list-style-type: none"> - Violation-free for 180 days prior to issuance - Hold Instruction permit for one year - 40 hours parent supervised driving certification - Complete drivers education if under 18 - Road test 	<ul style="list-style-type: none"> - Violation-free for 180 days prior to issuance - Hold Intermediate License for 6 months 		

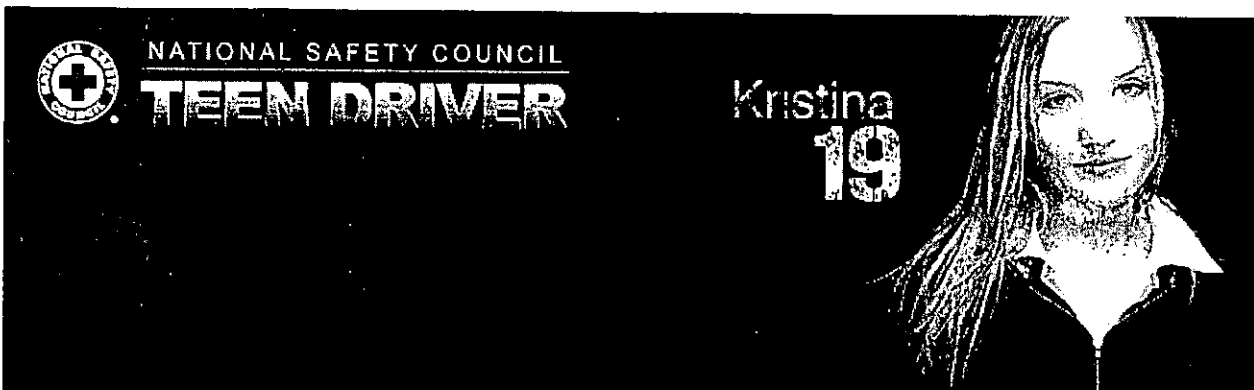
Note: Parental Sponsorship: Currently we require the parent or legal guardian to sign for financial liability of the minor

Note: Parental Signature: Currently we must obtain parent or guardian signature on the day of the road test certifying that child is at least 14, completed drivers ed, it is necessary to drive the parent's vehicle, and they have accompanied the minor to the test site. This must be completed for minors under 16.

Note: New GDL, PARENT SPONSORSHIP for financial liability will still be required.
PARENT SIGNATURE for all the reasons above will not be required.
A new PARENTAL APPROVAL, basically permission from the parent to issue the Instruction permit will be required.

Note: Farm License holder is not eligible for intermediate or unrestricted license for an additional 90 days from the time they would have been eligible if violates farm license restrictions.

Note: Farm License holder is not eligible for unrestricted license until age 17 if convicted of two or more moving traffic violations.



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We're on a mission

Traffic crashes are the leading cause of teen fatalities, accounting for 38% of all teen deaths in the United States. Chances are, your community has been struck by a tragic accident involving a teenage friend, classmate or family member. The National Safety Council is trailblazing new ground to confront this crisis on a national level.

We're on a mission to inform teens and their parents that they can beat the odds.

Join Us as we launch new strategies to:

- Reduce teen drivers' exposure to risk
- Modify risky driving behavior
- Develop driver skills and experience

The Hard Truth

Every day – more than 10 young drivers age 15-20 are killed in crashes and another 745 are injured.

About 25% of crashes killing young drivers involve alcohol.

39% of young male drivers and 26% of young female drivers were speeding at the time of their fatal crash.

Although young drivers only represent 6% of all licensed drivers, they are the drivers in 16% of all traffic crashes.

Reducing risk

All new drivers can make wrong decisions behind the wheel; however teens are the most at jeopardy. They bring to the road a unique mix of inexperience, distraction, peer pressure and a tendency to underestimate risk.

The National Safety Council pioneers research, symposiums and partnerships to identify and reduce the major risk factors teenage drivers face.

What you should know about:

- Teen passengers
- Nighttime driving
- New Technology and teen drivers
- Inexperience and extended learner's permits

Learn what you can do as a parent to curb these risks

Modifying risky behavior

Most Americans typically learn to drive during the teen years, when the brain is not fully mature yet. Recent research is beginning to give us insight why many teens have difficulty regulating risk-taking behavior:

- The area of the brain that weighs consequences, suppresses impulses and organizes thoughts does not fully mature until about age 25.
- Hormones are more active in teens, which influence the brain's neurochemicals that regulate excitability and mood. The result can be thrill-seeking behavior and experiences that create intense feelings.

Learning to regulate driving behavior comes with time and practice. Defensive Driving Course-Alive at 25® offers a balanced approach to help teens not only regulate their own driving behavior, but also help them deal with the

actual issues that can influence their driving behavior.



Developing Skills

Driver education programs play a role in preparing teens to drive, but should not be viewed as the end of the learning-to-drive process. In order to develop safe driving skills, inexperienced drivers need opportunities to improve through gradual exposure to increasingly-challenging driving tasks. Teens become safer drivers with more driving experience.

In some states, the completion of driver education qualifies a teen for full driving privileges. The National Safety Council believes this is not a wise approach. Research shows that significant hours of behind-the-wheel experience are necessary to reduce crash-involvement risk. Parental involvement and state-imposed Graduated Driver Licensing play important roles in developing skills.

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Teenage Brain: A work in progress

New imaging studies are revealing—for the first time—patterns of brain development that extend into the teenage years. Although scientists don't know yet what accounts for the observed changes, they may parallel a pruning process that occurs early in life that appears to follow the principle of "use-it-or-lose-it:" neural connections, or synapses, that get exercised are retained, while those that don't are lost. At least, this is what studies of animals' developing visual systems suggest. While it's known that both genes and environment play major roles in shaping early brain development, science still has much to learn about the relative influence of experience versus genes on the later maturation of the brain. Animal studies support a role for experience in late development, but no animal species undergoes anything comparable to humans' protracted childhood and adolescence. Nor is it yet clear whether experience actually creates new neurons and synapses, or merely establishes transitory functional changes. Nonetheless, it's tempting to interpret the new findings as empowering teens to protect and nurture their brain as a work in progress.

The newfound appreciation of the dynamic nature of the teen brain is emerging from MRI (magnetic resonance imaging) studies that scan a child's brain every two years, as he or she grows up. Individual brains differ enough that only broad generalizations can be made from comparisons of different individuals at different ages. But following the same brains as they mature allows scientists a much finer-grained view into developmental changes. In the first such longitudinal study of 145 children and adolescents, reported in 1999, NIMH's Dr. Judith Rapoport and colleagues were surprised to discover a second wave of overproduction of gray matter, the thinking part of the brain—neurons and their branch-like extensions—just prior to puberty.¹ Possibly related to the influence of surging sex hormones, this thickening peaks at around age 11 in girls, 12 in boys, after which the gray matter actually thins some.

Prior to this study, research had shown that the brain overproduced gray matter for a brief period in early development—in the womb and for about the first 18 months of life—and then underwent just one bout of pruning. Researchers are now confronted with structural changes that occur much later in adolescence. The teen's gray matter waxes and wanes in different functional brain areas at different times in development. For example, the gray matter growth spurt just prior to puberty predominates in the frontal lobe, the seat of "executive functions"—planning, impulse control and reasoning. In teens affected by a rare, childhood onset form of schizophrenia that impairs these functions, the MRI scans revealed four times as much gray matter loss in the frontal lobe as

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normally occurs.² Unlike gray matter, the brain's white matter—wire-like fibers that establish neurons' long-distance connections between brain regions—thickens progressively from birth in humans. A layer of insulation called myelin progressively envelops these nerve fibers, making them more efficient, just like insulation on electric wires improves their conductivity.

Advancements in MRI image analysis are providing new insights into how the brain develops. UCLA's Dr. Arthur Toga and colleagues turned the NIMH team's MRI scan data into 4-D time-lapse animations of children's brains morphing as they grow up—the 4th dimension being rate-of-change.³ Researchers report a wave of white matter growth that begins at the front of the brain in early childhood, moves rearward, and then subsides after puberty. Striking growth spurts can be seen from ages 6 to 13 in areas connecting brain regions specialized for language and understanding spatial relations, the temporal and parietal lobes. This growth drops off sharply after age 12, coinciding with the end of a critical period for learning languages.

While this work suggests a wave of brain white matter development that flows from front to back, animal, functional brain imaging and postmortem studies have suggested that gray matter maturation flows in the opposite direction, with the frontal lobes not fully maturing until young adulthood. To confirm this in living humans, the UCLA researchers compared MRI scans of young adults, 23-30, with those of teens, 12-16.⁴ They looked for signs of myelin, which would imply more mature, efficient connections, within gray matter. As expected, areas of the frontal lobe showed the largest differences between young adults and teens. This increased myelination in the adult frontal cortex likely relates to the maturation of cognitive processing and other "executive" functions. Parietal and temporal areas mediating spatial, sensory, auditory and language functions appeared largely mature in the teen brain. The observed late maturation of the frontal lobe conspicuously coincides with the typical age-of-onset of schizophrenia—late teens, early twenties—which, as noted earlier, is characterized by impaired "executive" functioning.

Another series of MRI studies is shedding light on how teens may process emotions differently than adults. Using functional MRI (fMRI), a team led by Dr. Deborah Yurgelun-Todd at Harvard's McLean Hospital scanned subjects' brain activity while they identified emotions on pictures of faces displayed on a computer screen.⁵ Young teens, who characteristically perform poorly on the task, activated the amygdala, a brain center that mediates fear and other "gut" reactions, more than the frontal lobe. As teens grow older, their brain activity during this task tends to shift to the frontal lobe, leading to more reasoned perceptions and improved performance. Similarly, the researchers saw a shift in activation from the temporal lobe to the frontal lobe during a language skills task, as teens got older. These functional changes paralleled structural changes in temporal lobe white matter.

While these studies have shown remarkable changes that occur in the brain during the teen years, they also demonstrate what every parent can confirm: the teenage brain is a very complicated and dynamic arena, one that is not easily understood.

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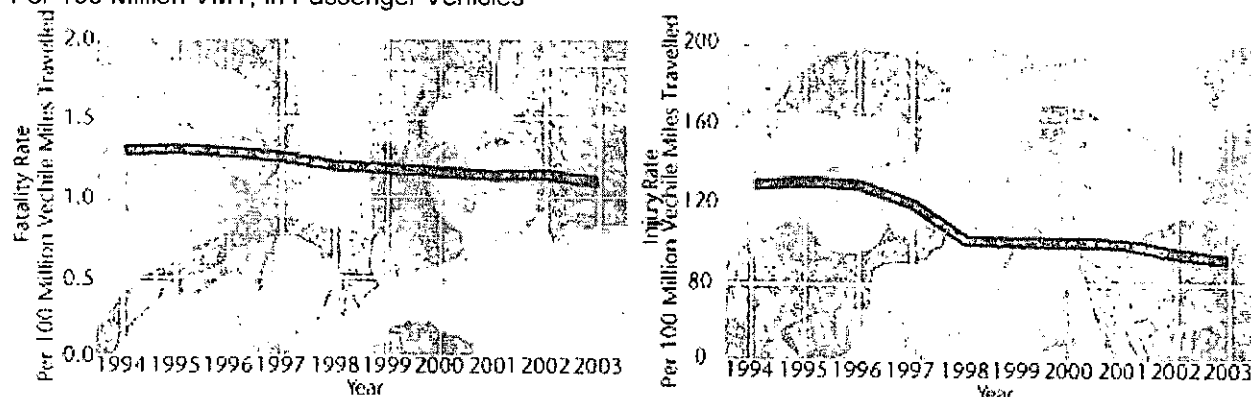
The Need to Promote Occupant Restraint Use for Children, Youth and Young Adults

The use of occupant restraints must be reinforced at an early age to reduce the disproportionately high rates of death and injury that teens and young adults experience in motor vehicle crashes. But parents cannot bear the burden by themselves. In communities across the country, health professionals, law enforcement officers, educators, elected officials and public employees, and every adult, not just parents, must develop the social and legal infrastructures necessary to make safety belt use a lifelong habit. *(See Appendix A for statistics on the number of children and youth who were killed in 2003 in motor vehicle crashes in each State.)*

Passenger vehicle occupant fatality and injury rates (per 100 million vehicle miles traveled [VMT]) have declined slightly during the past 10 years (see Chart 2 below).

Chart 2 Occupant Fatality and Injury Rates, 1994-2003

Per 100 Million VMT, in Passenger Vehicles



Thousands of children and young adults continue to be killed and injured in motor vehicle crashes. A total of 7,034 children and youth from birth to age 20 were killed and approximately 700,000 were injured in passenger vehicle crashes in 2003. Despite widespread public education campaigns promoting the use of proper occupant restraints, nearly 50 percent of children 4 to 7 and 66 percent of children 8 to 15 who were killed in passenger vehicle crashes in 2003 were unrestrained. Charts 3 and 4 illustrate the toll that motor vehicle crashes take on our children and youth, particularly among those 16 to 20.

Adult Safety Belt Use Makes a Difference

Research conducted by NHTSA on occupant protection use from 1994 to 2003 confirms there is a strong positive correlation between the restraint use of an adult driver and that of young children in the vehicle. Among fatally injured children from birth to 15, the research revealed the following:

Chart 3 Occupant Fatalities in 2003

By Age, in Passenger Vehicles

- ▶ The probability of being unrestrained was nearly four times greater for infants and toddlers when the child was with an unrestrained driver, versus being with a restrained driver.
- ▶ When drivers were unrestrained, 63 percent of children up to age 3 were also unrestrained; conversely, when a driver was wearing a safety belt, 25 percent of children up to 3 were unrestrained.
- ▶ Among fatally injured children 4 to 7, 80 percent were unrestrained when the driver was unrestrained; conversely, when the driver was wearing a safety belt, 35 percent of children 4 to 7 were unrestrained.
- ▶ Among fatally injured children 8 to 15, 90 percent were unrestrained when the driver was unrestrained. Conversely, when the driver was wearing a safety belt, 45 percent of children 8 to 15 were unrestrained.

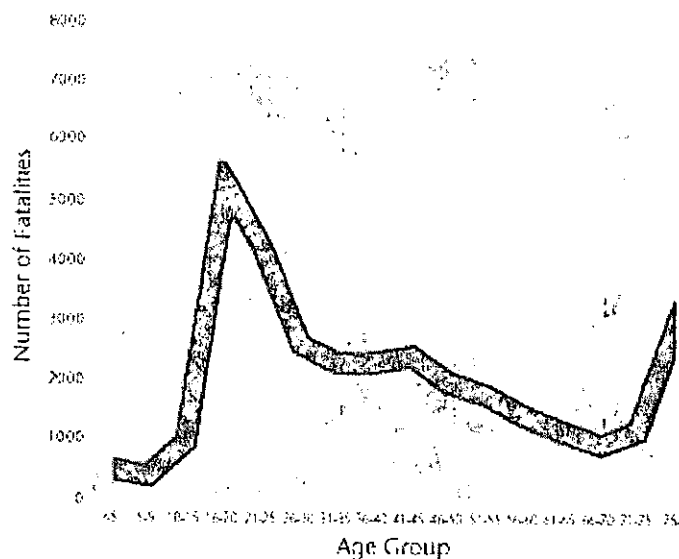


Chart 4 Occupant Injured in 2003
By Age, in Passenger Vehicles

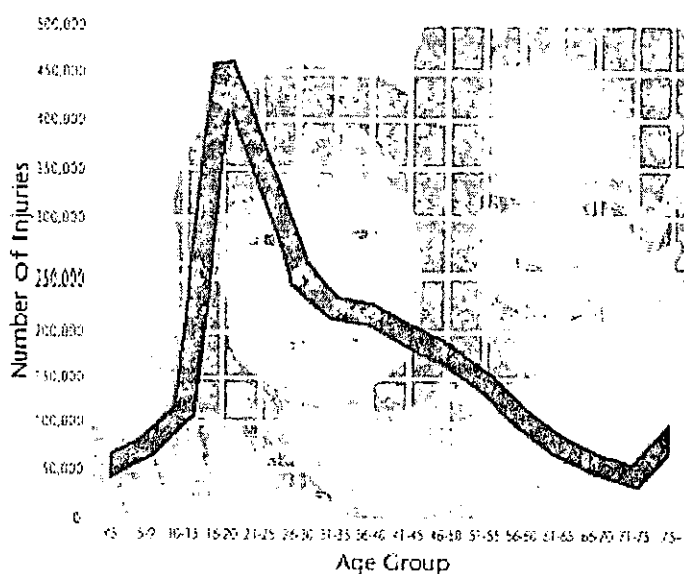


Exhibit 1 illustrates the relationship between driver and child restraint use in crashes in which a child was fatally injured.

Exhibit 1 Driver and Child Restraint Use in Fatal Crashes Involving Children from Birth to 15, 1994-2003

Percentage of Child Passengers Unrestrained, by Age Group

	<4	4-7	8-15
Driver Unrestrained	63%	80%	90%
Driver Restrained	25%	35%	45%

This strong association between parental and child restraint use speaks to the importance of

maintaining ongoing programs and outreach for children, youth, and parents to encourage the use of occupant restraints. NHTSA's 2003 *Motor Vehicle Occupant Safety Survey* (MVOSS) further illustrates this need. In the 2003 MVOSS, researchers asked respondents their level of agreement with the statement, "I have a habit of wearing a seat belt because my parents insisted I wear them when I was a child." Among people 16 to 24, 69 percent either strongly agreed or somewhat agreed with this statement.

Occupant Restraints for All Age Groups Save Lives

Most of the people who die in motor vehicle crashes are vehicle occupants (less than one-fourth of fatalities caused by crashes involve pedestrians, pedalcyclists, and motorcyclists). Safety belts and child safety seats have been designed to protect drivers and passengers from death and injury during a crash. But these restraints cannot save lives if they are not used. *See Appendix B—Passenger Vehicle Occupants Killed in Motor Vehicle Crashes, by State and Restraint Use, 2003.*

- In 2003, child restraints saved the lives of 446 children age 4 and under.
- Child safety seats are 71 percent effective in reducing fatalities among infants (less than 1-year-old) and 54 percent effective for toddlers (1- to 4-years-old) in passenger cars.⁶ For infants and toddlers in light trucks, the effectiveness in reducing fatalities is 58 percent and 59 percent, respectively.
- Among passenger vehicle occupants over 4 years old, safety belts saved an estimated 14,903 lives in 2003.
- Booster seat use substantially reduces the risk of injury for children 4- to 8-years-old; however, most children in this age group are currently (and very often incorrectly) restrained by safety belts designed for adults. A recent study by Children's Hospital of Philadelphia (CHOP) found that the use of belt-positioning booster seats lowers the risk of injury to children in crashes by 59 percent, compared with the use of vehicle safety belts.⁷
- According to NHTSA's *The Economic Impact of Motor Vehicle Crashes 2000*, the use of safety belts saved society \$585 billion in medical care, lost productivity, and other injury-related economic costs (since 1975).
- When lap/shoulder safety belts are used properly, they reduce the risk of fatal injury to front-seat occupants riding in passenger cars by 45 percent and the risk of moderate-to-critical injury by 50 percent. For light-truck front-seat occupants, safety belts reduce the risk of fatal injury by 60 percent and the risk of moderate-to-critical injury by 65 percent.⁸
- Ejection from passenger vehicles is one of the most harmful events that can happen to people during a crash. In passenger vehicle crashes in which someone died in 2003, 74 percent of occupants who were completely ejected from the vehicle were killed. Safety belts are effective in preventing total ejections. In 2003, in crashes in which someone was killed, only 1 percent of the occupants using restraints were totally ejected, compared with 29 percent of unrestrained occupants.
- Nearly 30 percent of 16- to 20-year-old occupant fatalities were ejections, compared with 22

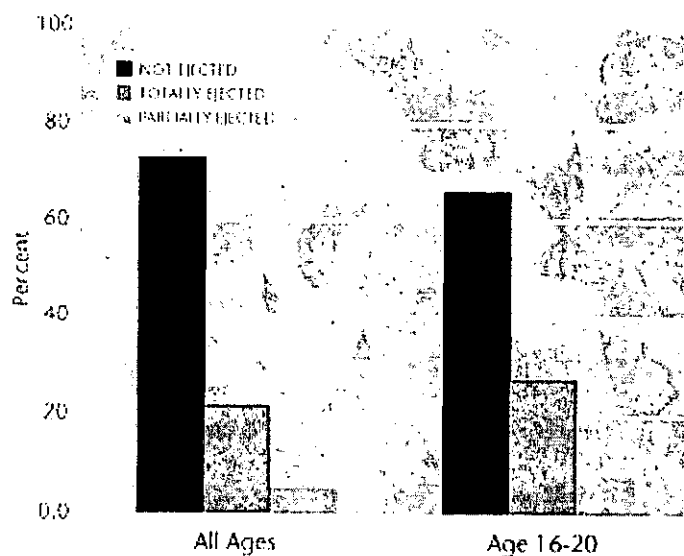
percent for the general population, illustrating the need to promote safety belt use in this age group. See Chart 5.

Closing the Gaps in Occupant Restraint Laws Can Save Young Lives

Every State except New Hampshire has adult safety belt laws and all States have child restraint laws requiring drivers to restrain children in approved, age-appropriate child restraint devices or safety belts. In some States, though, these laws do not cover all occupants in all seating positions (rear seats).

In some States, laws concerning the use of child restraint devices cover children only up to age 4, and laws concerning the use of adult safety belts cover only front-seat occupants, leaving some children uncovered by any occupant protection law. For example, in some States, a 10-year-old can ride legally in the back seat without being secured because, at this age and in this seating position, the child is not covered by either the child restraint law or the general (front-seat-only) safety belt law. *Appendix C contains information on State child restraint laws.*

Chart 5 Occupant Fatalities in 2003
By Age and Ejection Status, in Passenger Vehicles



Primary Enforcement Laws Help Protect Children of All Ages

Although child restraint laws are “primary” laws (laws that allow law enforcement officers to stop vehicles and issue citations for unrestrained drivers or passengers), the safety belt laws in many States are “secondary” enforcement laws. This means that police officers cannot stop drivers for the sole purpose of enforcing the use of occupant restraints. Rather, police officers can write tickets for not using occupant restraints only if they stop vehicles for another driving infraction. *See Exhibit 2 for a map of States with primary and secondary laws that were enacted at the time of this publication.*

Booster Seat Use Saves Lives and Reduces the Risk of Injury

In 2003, 51 percent of 4- to 7-year-old passenger vehicle occupants who were killed in crashes were restrained. Persuading parents to place their children in any kind of occupant restraint would undoubtedly reduce the number of children killed or seriously injured. In addition, children who have outgrown child safety seats, but are too small to ride safely in adult belts, should be properly restrained in booster seats until they are at least 8 years old, unless they are 4 feet 9 inches tall. If placed in adult safety belts prematurely, children can suffer serious internal injuries, slip out of the safety belt, or be ejected from the vehicle during a crash.

Booster seat use substantially reduces the risk of injury for children 4 to 8; however, most children

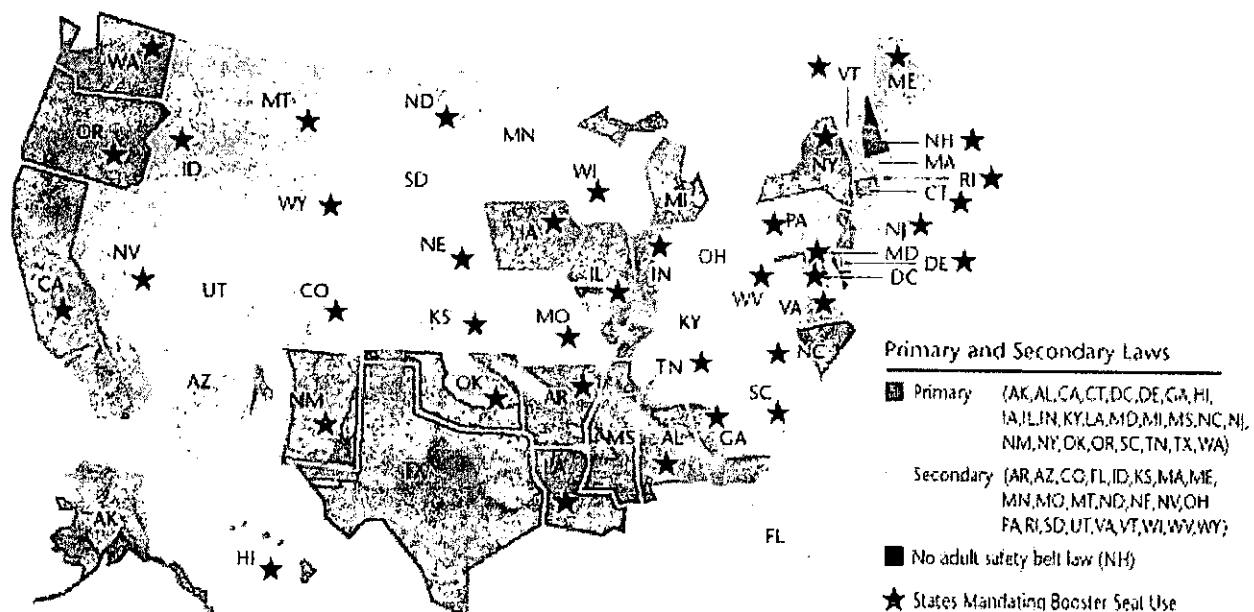
in this age group are currently restrained by safety belts designed for adults. In the 2002 study by Children's Hospital of Philadelphia (CHOP), only 16 percent of 4-year-olds, 13 percent of 5-year-olds, and 4 percent of 6- and 7-year-olds were using booster seats.⁹

The CHOP study found that the use of belt-positioning booster seats lowers the risk of injury to children in crashes by 59 percent compared with the use of vehicle safety belts. The study also found that none of the 4- to 7-year-olds who were in belt-positioning booster seats had any injuries to the abdomen, neck, spine, or back. Yet, such injuries did occur in children who used safety belts alone.⁹

Children who are 4 feet 9 inches tall before their 8th birthday may be ready for adult belts. They can start using safety belts when they can place their backs firmly against the vehicle seat-back cushion with their knees bent over the vehicle seat cushion.

As this booklet is published, 38 States and the District of Columbia had enacted provisions in their child restraint laws requiring the use of a booster seat or other appropriate restraint device by children who have outgrown their forward-facing child safety seats, but who are still too small to use an adult safety belt system correctly. The following jurisdictions have enacted these lifesaving provisions: Alabama, Arkansas, California, Colorado, Connecticut, Delaware, District of Columbia, Georgia, Hawaii, Idaho, Iowa, Illinois, Indiana, Kansas, Louisiana, Maine, Maryland, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Carolina, North Dakota, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, Tennessee, Vermont, Virginia, Washington, West Virginia, Wisconsin and Wyoming. See Exhibit 2 for a map of States that mandate booster seats or appropriate restraint use by older passengers. A number of other States are considering legislation that would require similar upgrades for booster-seat-age child passengers. For up-to-date information on booster seats and State laws visit www.boosterseat.gov.

Exhibit 2 States With Primary and Secondary Safety Belt Laws, 2003



⁶ Passenger cars are one of the vehicle types included in the passenger vehicle category.

⁷ Durbin, D., Elliott, M., and Winston, F. Belt-Positioning Booster Seats and Reduction in Risk of Injury Among Children in Vehicle Crashes. Journal of the American Medical Association, Vol 289 (21), 2835-2840, June 2003.

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