PENNSYLVANIA HOUSE OF REPRESENTATIVES

TRANSPORTATION COMMITTEE HEARING

TEEN DRIVING AND OTHER DISTRACTED DRIVER ISSUES

Public Hearing on

House Bill 1827

425 Sixth Avenue

31st Floor

Regional Enterprise Tower

Pittsburgh, PA 15219

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Committee Members:

Joseph Markosek
Transportation Committee, Chairman

Representative Paul Costa
34 Legislative District
Allegheny County

Representative Michael Gerber
148 Legislative District
Montgomery County

Representative Mark Longietti
7 Legislative District
Mercer County

Representative Timothy J. Solobay
48 legislative District
Washington County

Representative Chelsa Wagner
22 Legislative District
Allegheny County

Representative Josh Shapiro
153 Legislative District
Montgomery County

Representative John R. Evans
5 Legislative District
Erie County

Richard A. Geist, Chairman
79 Legislative District
Allegheny County

Representative Jeffrey P. Pyle
60 Legislative District
Armstrong County.

I N D E X

P R O C E E D I N G S

(1:17 p.m.)

MR. MARKOSEK: Okay. Ladies and gentlemen, welcome. Normally we start the Transportation Committee meetings off with the Pledge of Allegiance to the flag. We have no flag here today.

REPRESENTATIVE PAUL COSTA: We have one on my lapel.

CHAIRMAN MARKOSEK: We're going to ask Paul Costa, to stand, pledge anyway, and we'll have an imaginary flag.

(Pledge of Allegiance recited.)

CHAIRMAN MARKOSEK: Thank you.

I'm sorry we're a little bit late. We were waiting for some members. We got phone calls that some members were on their way, some have arrived. Chairman Geist is on his way. We thought maybe if we held off a little bit he would get here, but I think he'll be here soon. We thought in the interest of time, we would move forward. And when he gets here, we'll give him a chance for some opening remarks.

Before I make my opening remarks, I would like to introduce the panel today. First of all, we have Representative John Evans from Erie County, who has

traveled here today.

We have Representative Josh Shapiro from Montgomery County, and also his neighbor from Montgomery County, Representative Mike Gerber.

We have Representative Jeff Pyle from Kittanning and Armstrong.

REPRESENTATIVE PYLE: Ford City.

CHAIRMAN MARKOSEK: Ford City. And he represents Kittanning, but Armstrong County.

We have Representative Tim Solobay from Washington County; and Representative Mark Longietti from Mercer County; and Representative Paul Costa, whom you've already had met from Allegheny County.

Let me just start by saying thanks to everybody for attending today. This is really the third hearing that we have had on distracted driving issues. We held one in Philadelphia. We held one in Harrisburg, and, of course, now this one here in Pittsburgh.

You know, it's interesting, when I was first elected to the legislature, I think drinking a cup of coffee may have been about the extent of distracted driving, maybe disciplining your child in the car, perhaps lighting a cigarette. In fact, in those days I don't even think they had cup holders, and even turn

signals might have been optional back then. But there was a time when that was the case.

Nevertheless, as the technology has gone on, in so many areas, not just in driving, but with the computer age, et cetera, oftentimes the legislature has had a difficult time keeping up with the changes in technology. And we don't move as fast as the technology moves. We're not designed to move fast. We are a deliberative body, and there's a reason for that. Its's actually a good reason, but, nevertheless, when we have such outside factors, such as technological advancements, we oftentimes don't move quick enough to meet those demands that take place. We see a lot of that when it comes to operating automobiles.

Obviously, with the invention and advancement and the ubiquitous nature of cell phones, and blackberries, and text messaging now, as well as all of the other things that used to distract us; having a lot of teenagers in a car that are perhaps egging on each other to go faster, the mixing of alcohol into that equation; the whole idea of primping in a car, you know, combing your hair, putting your makeup on, shaving, in some cases that we see.

We have finally decided, at least this term the

Transportation Committee to grapple with some of these issues, and they're not easy to do that. It's oftentimes an easy thing a lot of our constituents will contact us and say that, you know, there ought to be a law. We ought to ban cell phones or we ought to ban text messaging, or not allow too many teenagers to drive in an automobile together. And those things are often very good ideas, but we sometimes run into a lot of legislative detail. For example, things like the enforcement of those laws that factor into these situations.

So anyway, the testimony that we will hear today will help us as a committee.

And before I go on to recognize anybody else, I would like the minority chair, Representative Geist, who now has arrived, to please come forward, and, certainly, Representative Geist, I would appreciate to hear any comments that you may have.

REPRESENTATIVE GEIST: Thank you.

CHAIRMAN MARKOSEK: We have a number of bills in our committee dealing with various aspects of distracted driving. And we have, obviously, each one of those bills has a sponsor, sponsored by both Democrats and Republicans. One of those sponsors is actually with us

today, he's not a member of the committee, but he's been very active in the area of distracted driving, and precisely, he is the author of House Bill 1827, which would not ban cell phones, but would mandate cell phones, but would mandate that cell phones be used in a handsfree situation.

I'm going to deviate slightly from the agenda and recognize first Representative Josh Shapiro, who traveled here from Montgomery County, to give us a few comments about his particular piece of legislation. Representative Shapiro.

REPRESENTATIVE SHAPIRO: Thank you, Mr. Chairman, Chairman Markosek and Chairman Geist. Thank you to the members of the committee. Thank you for giving me the chance to join your committee today for this important hearing on distracted driving.

As the chairman alluded to, there are many bills that have been introduced by Democrats and Republicans in the legislature to deal with distracted driving. My legislation is very simple. It would ban the use of handheld cell phones while driving. We mandate that drivers used some sort of handsfree device, whether it's a Blue Tooth, a head set, a speaker phone, so that we can disconnect distracted drivers, allow them to have

both hands on the wheel, and operate their cars, their vehicles in a more, I think, safe manner.

The statistics are clear. The National Highway Traffic Safety Administration found that distracted drivers are the number one cause of accidents on Pennsylvania roadways. And the number one distraction is the use of a cell phone while driving.

In addition to that, I've asked PennDOT to cull over their statistics, their accident statistics. And what they found is in 2006, there were 1,241 accidents on Pennsylvania roadways where one of the drivers in that accident was using a handheld cell phone.

At the same time, in 2006, there were just 60 accidents where one of the drivers was using a handsfree device. So there were less accidents where a driver was using a handsfree device than a handheld device. Just having a handsfree device is not going to render all distractions obsolete, as it relates to a cell phone. Certainly, a driver can still be distracted while using a handsfree device, but I believe, and I think the statistics bare it out, that if we can give the driver the opportunity to have both hands on the wheel, use a headset, we can minimize the risks of accidents and make Pennsylvania roadways safer.

So, Mr. Chairman, I thank you again very much for giving me the opportunity to be with the committee today. I look forward to the testimony and, hopefully, have the opportunity to ask questions. And I just really want to plug you for your leadership in trying to make our roadways in Pennsylvania safer.

Thank you.

CHAIRMAN MARKOSEK: Thank you, Representative Shapiro. And Representative Shapiro will join the committee up here on the panel, and he may also ask questions of any of the folks testifying.

Okay. Our first formal witness today, is Dr. Klauer here?

DR. SHEILA KLAUER: Yes.

CHAIRMAN MARKOSEK: Dr. Sheila Klauer, who is a Senior Research Associate for the Center For Automotive Safety Research of the Virginia Tech Transportation Institute.

DR. SHEILA KLAUER: Yes.

CHAIRMAN MARKOSEK: Dr. Klauer, thank you very much for attending. Welcome.

REPRESENTATIVE GEIST: We've got a Hokie here.

DR. SHEILA KLAUER: My pleasure to be here.

CHAIRMAN MARKOSEK: We appreciate you being

here. And we know that Virginia Tech has been in the news here in the last year or so for a lot of different reasons, but, nevertheless, thank you.

And you may proceed when you're prepared.

DR. SHEILA KLAUER: Okay. Thank you. Mr. Chairman, I would like to thank you and the other members of the Transportation Committee for the opportunity to testify before you today on this very important topic of distracted driving.

I am hopeful that the testimony I give you will provide you a unique and valuable perspective as you weigh the important policy decisions that are in front of you.

My name is Sheila Klauer. I'm a Senior Research Associate at the Virginia Tech Transportation Institute and I'm testifying before you today as a driving safety researcher with a very unique experience in the collection of naturalist instrumented vehicle data. Recently, I served as the project manager for the 100Car Naturalistic Driving Study, and as Principal Investigator for several studies involving the subsequent analysis of these data. These analyses constitute the most comprehensive analysis of driving distraction to date. Currently, I am the CoPrincipal

Investigator of the 40 Teen Naturalist Driving Study where we are studying the driving behaviors and the driving performance of 40 teens from the onset of their licensure and continuing on with their first 18 months of driving. My work in the field of driving inattention has resulted in 24 technical reports and publications. During this time I've worked with the National Highway Traffic Safety Administration, the AAA Foundation for Traffic Safety, the National Institutes of Health, and the Transportation Research Board, which is a branch of the Academies of Science in the conduct of research and evaluation activities associated under the consideration today.

There are several important points that must be carefully considered in determining an appropriate action to solve this growing problem. I would like to highlight the important viewpoints here for your consideration.

The distraction issues that we face today are much different and have the potential to be a much greater public health risk than the distraction issues that we faced in the past. And there are two reasons for this: First, many of the electronic devices now used, and planned for use, in automobiles require

greater visual and cognitive attention from the driver than do conventional tasks. Driving distractions, which is an old problem, has entered a brand-new dimension. Historically, secondary tasks performed in a moving vehicle have been, and for the most part, relatively simple. Tuning a radio and eating represent some of these common tasks. While it is true that these tasks divert attention away from the forward roadway and cause crashes, analyses of some of the more current and popular electronic devices and those under development that are used in automobiles show that they increase the risk of a crash more significantly than the simpler common tasks previously described. The results of our 100 Car Study, which observed the driver behavior in the seconds leading up to that crash indicated that when drivers are engaging in tasks that require multiple eye glances or multiple button presses, the driver's crash risk is increased by two to three times that of an alert driver. Simple tasks like drinking your morning coffee, or adjusting our radio, or talking to an adult passenger do not increase these crash risks significantly.

With the proliferation of the electronic devices in our culture including cell phones, MP3 players, and blackberries, both the visual and cognitive aspects of

distraction are much greater and more dangerous than ever before. Even more concerning is how ubiquitous these devices are in our teenage culture. Teens, who represent 24 percent of all traffic fatalities, and are the most inexperienced drivers on the roadway, are using these devices frequently. The results from the 100 Car Study indicated that the 18 to 20yearold drivers were involved in four times the number of inattention related crashes and near crashes than any other age group.

And I would like to demonstrate this by showing a couple of video clips. The first one was identified as a near crash in the 100 Car Study. There are five cameras in the vehicle.

CHAIRMAN MARKOSEK: Excuse me, excuse me, please.

DR. SHEILA KLAUER: Yes.

CHAIRMAN MARKOSEK: I think at this point in time PCN cannot show your video.

DR. SHEILA KLAUER: Yes, don't record the video, please.

CHAIRMAN MARKOSEK: So we apologize to the viewers back home, but because of confidentiality issues, we can't. So if you're watching at home, don't leave. We'll be back shortly.

Are we okay, PCN? Okay.

DR. SHEILA KLAUER: Can you start the tape?

On their five cameras in the vehicle, including a forward view, the driver's face, an over the shoulder view, and then the fourth quadrant is split once again; the top quadrant of the bottom is supposed to be looking out the passenger side backwards, and then the bottom is the rear view.

This particular driver is 19 years old. She is lost in a middle class suburban neighborhood. And as she pulls out of there, she's going to pick up her cell phone to dial. Please pay very close attention to the forward view.

CHAIRMAN MARKOSEK: Ohhh.

DR. SHEILA KLAUER: Had she not looked up at that critical moment, this could have been a devastating event.

CHAIRMAN MARKOSEK: This is not a stage? This is - -

DR. SHEILA KLAUER: No. This was actual data in the 100 Car Study.

Okay. You can click that one and go to the next one.

The second clip is from our 40 Teen Study. In

this clip, the lower right quadrant shows only the rear view. Please pay very close attention to this one. The teen driver in this particular video is notorious for using her cell phone, iPod, radio. At this moment she's using her iPod.

Traffic is going to stop very suddenly in front of her on the highway on the interstate. Watch the back. She hit 0.9g to break in order to stop in order to avoid hitting the vehicle in front of her. The truck behind her had to pull all the way over on to the side shoulder to avoid hitting her. How he missed her, I don't know.

REPRESENTATIVE GEIST: She wasn't texting with both hands like the kids do?

DR. SHEILA KLAUER: She was not.

Thank you. The second reason that distraction issues are a much greater health risk

CHAIRMAN MARKOSEK: Are we

DR. SHEILA KLAUER: Yeah. We're getting

CHAIRMAN MARKOSEK: PCN, hold on. Okay. Welcome back, PCN.

You may continue.

DR. SHEILA KLAUER: Thank you.

The second reason the distraction issues are a

much greater health risk today is due to the rate of deployment. The rate of deployment of technology is occurring at a record setting pace and is outpacing our full understanding of the public health impact. For all practical purposes, we are allowing many devices to be used in moving vehicles without fully understanding how they affect safety. In many ways, it's analagous to allowing a drug company to release a new drug on the market without fully understanding the impacts.

Many will argue that the true extent of this threat, public safety, cannot currently be estimated precisely, and, therefore, action is not appropriate. But using the new drug analogy, one could argue that it is necessary because we don't understand the threat to public safety.

To be certain about the safety impact of these devices, vehicle crash data must be collected in a proper form for a period of several years. And even the process of determining what is needed to collect and how to collect it is considerably slow. For example, many states still do not collect data whether a cell phone was present at the scene of the crash. Thus, if we wait until all the accurate data is there, the data will most likely tell us that hundreds of thousands of crashes

involved in fatalities have resulted from delayed reaction.

Despite our inability to make a precise estimate about the true risk to public health, a growing number of studies and analysis are in existence that shed light on this important issue. Specifically, a number of studies have investigated the risk associated with this recent explosion in cell phone use over the past several years. The 100 Car Study, for example, suggested that cell phone use contributed to 6 percent of the crashes and near crashes occurring in an urban environment. And this is approximately over 100,000 crashes per year nationwide, based on GES, which is the national crash database.

The most methodologically sound estimates for fatalities associated with cell phone use range between 300 and 1,000 per year for last year, excuse me, with estimates as high as 2,000 fatalities per year. It is important to note that these estimates represent on the "tip of the iceberg", since the use of cell phones is increasing at a rapidly accelerating rate and the figures do not include the impact of other emerging technologies like MP3 players and mobile Internet devices.

While there are safety benefits that will be realized, the deployment of electronic devices, these benefits can be attained in only vehicles engineered to minimize driver distraction.

Many in vehicle technologies promise to make driving safer. These include collision warning systems, night vision systems, and "Mayday" alert systems. In addition, studies have shown that cell phones do, in fact, have significant safety benefits, such as reducing the response time of emergency personnel in case of a crash. However, while these electronic devices have shown some benefits, these benefits can be fully realized only when they are incorporated in systems that are designed to minimize distractions in a moving vehicle. That is, with prudent design and selective restrictions it may be possible to enhance safety as part of the electronic revolution in automobiles instead of increasing crashes and fatalities. For example, a cell phone that can be used only to contact emergency or law enforcement personnel by using a simple interface would allow an obvious safety benefit to be realized while minimizing the associated safety decrement.

The problem of driver distraction associated with electronic devices is multidimensional, requiring

multiple solutions. There are important differences in the deployment of electronic technology in the automobile. Specifically, there are major differences that exist between the devices that were designed for the vehicle in the first place versus those that are portable and are carried in by consumers into vehicles. So for the in vehicle devices, automotive stakeholders in this mobile information revolution have recognized the potential risks to the public. Automobile manufacturers and suppliers have already taken measures to improve design and provide the appropriate functionality of in vehicle systems. It is important for the government to continue to support this ongoing effort these ongoing efforts by these stakeholders and to address the distraction issues through design and implementation of safety devices. Specifically, the following considerations are important for in vehicle devices. Human factors design principles should be followed, such as limiting visual information complexity and maximizing display legibility and speech intelligence.

To provide appropriate functionality of these devices, including limiting functionality in some cases in a moving vehicle, for example. This will be

necessary as more electronic convenience features become commonplace.

To develop a consistent driver interface among manufacturers for selected driver interface function. This can significantly reduce the task load, and, therefore, can reduce distraction.

Use properly designed "handsfree" devices when effective. Handsfree operation can reduce visual distraction relative to manual control/visual display devices. However, Voice Activated Control, as any other interface, requires careful design and deployment. When properly implemented, Voice Activated Control can provide an appropriate alternative method of input.

Handsfree devices, although advantageous in many instances, can also pose a risk. Where feasible, care should be taken to limit "cognitive distraction" through simplification design and messaging.

I believe that in general the automotive industry is currently taking appropriate action to protect public safety. Most automobile manufacturers and some major supplies are actively engaged in research, product evaluation, and standards development activities aimed at safely deploying electronic devices. As long as this activity continues and results in devices that limit

functionality and minimizes driver distractions, I believe that no regulatory action is necessary.

Portable devices, on the other hand, are a greater concern than the design of in vehicle devices. Because of the introduction of portable devices in cars and truck. These devices include standard cell phones, cell phones with additional wireless features such as Internet access, personal digital assistance, and portable computers.

In general, portable devices are not designed to be safely used by the driver in a moving vehicle. In addition, unlike in vehicle devices, vehicle manufacturers and suppliers do not have any control over their functionality or design.

Public awareness and education programs are an important part of the solution to the driver distraction problems, but they will be insufficient in and of themselves. Many organizations, including the wireless communications industry, have recognized the hazards associated with electronic devices. Several are embarking upon public awareness programs in their reducing distraction and reducing crashes by educating drivers about the consequence of distraction and persuading them to limit associated activities. There

are many historical examples of the effectiveness of such public awareness campaigns. Examples would be seat belts, drinking and driving, motorcycle helmets and many non driving related public health initiatives. This historical perspective tells us that this campaign will reduce unsafe behavior associated with electronic devices, however, the effectiveness in terms of people influenced to behave safely, for even with the successful public persuasion program will be in the range of 20 to 25 percent. Therefore, while such endeavors are important and should be supported, they will not be sufficient in and of themselves.

From this perspective, I believe that additional laws and enforcement methods aimed at limiting the use of portable devices in moving vehicles may be necessary to provide a complete set of countermeasures to the distraction problem and provide adequate protection for the driving public.

Driving distraction associated with the electronic devices has a potential to pose a serious public health risk. Due to this potential risk and the rapid deployment of the technology, quick and decisive action is needed. However, in vehicle devices have also been shown to enhance safety in some cases. Therefore,

measured action is also warranted so that solutions enacted with good intent do not stifle the improvements to driving safety. Based upon this logic, I recommended the following:

Enhanced support of government and government/industry cooperative research to determine the causes and effects of driver distraction and the promotion of safe electronic technologies. Driver distraction is a complex issue that requires further research to effectively support the rapid evolution of technology development. A critical part of this activity includes the improvement of pre crash and crash data collection methods to better understand distraction as a causal and contributing factor in crashes. It is important that such legislation does nothing to stifle the continued development of technology that can improve driving safety.

To continue the support and development of public awareness and pur suasion campaigns to lessen the impact of the distraction problems. Such programs can have a positive impact and can be instituted relatively quickly.

Consider measured legislation limiting the use of portable hand held devices in moving automobiles. I

believe that the use of any portable hand held device should be banned for drivers under the age of 18 years. This wireless device ban should also be passed as a primary offense with consequences. Research has shown that without enforcement of true consequences such a ban will not significantly alter teen drivers' behavior. This measured legislation should also contain a caveat for true emergency situations where it will allow a teen to call 911 without penalty. The extensive research on teen drivers' inability to accurately detect hazards coupled with the knowledge that they are using that they are using these electronic devices while driving will undoubtedly lead to increased crash rates. Teenagers are already overrepresented in fatality rates and we should not let this increase.

Again, thank you very much for giving me the opportunity to testify before you on this important issue. I will be willing to answer any questions you have regarding this issue, and please feel free to contact me, if necessary. Thank you.

CHAIRMAN MARKOSEK: Dr. Klauer, thank you very much, very interesting testimony. As much as we hear about this, we keep learning some new things. And you helped us do that here today.

I would like to ask Representative Jeff Pyle.

REPRESENTATIVE PYLE: Thank you, Dr. Klauer. I think we were all sufficiently terrified by the film we saw of the girl distracted, who looked up just in time. My question for you. Technology's growth, what it is, where would you put a GPS unit in that list of portable units that can be carried into a car and used?

DR. SHEILA KLAUER: There are several things about GPS units. Again, the portable aspect of it is the dangerous part.

REPRESENTATIVE PYLE: Without my GPS, I never would have found this. I get lost frequently.

DR. SHEILA KLAUER: It depends on where it's located and how much it takes your eyes off the forward roadway. Those are the true risks that I see of any of those types of portable devices. Anything that takes your eyes off of the forward roadway for greater than two seconds, even a very short period of time, like a six second period, increases your crash perspective time that of an alert driver.

So if you're going to use your navigation device, or you feel it improves your safety because you're getting to places

REPRESENTATIVE PYLE: I'm not getting lost in bad

neighborhoods.

DR. SHEILA KLAUER: You need to make sure that it's up as high as it can be and as close to the forward roadway, so that your stand is minimal, and that also reduces the amount of time that your eyes are off the forward roadway. Those are the critical components to what I think is a very unsafe aspect of those type of electronic devices.

REPRESENTATIVE PYLE: Very good. Thank you.

CHAIRMAN MARKOSEK: Thank you. Representative Mark Longietti.

REPRESENTATIVE LONGIETTI: Thank you, Dr. Klauer.

If I heard your testimony correctly, part of what's going on right now is there hasn't been sufficient time to research exactly what all the risk factors are. In your testimony you pointed that out.

Do you have any thoughts on how much of the risk associated with visual versus cognitive? Have you looked at that or have you had an opportunity to see, quantify that?

DR. KLAUER: Yes. The types of studies yes, with the types of studies that we conduct, it's a little bit difficult to measure precisely how many distractions.

And I will also argue that even in simulator studies and test track studies, it is very difficult to precisely measure that. But what I think is very interesting in some of our results that we have found is in some of the more typically cognitive tasks have less risk associated with it, than those are typically visual. So those distractions that take the driver's eyes off the forward roadway in our estimation and our calculations demonstrate a much higher risk, than those other tasks than those tasks that are typically more cognitive. So while I can't give you a percentage, I would definitely say that a bigger piece of the problem is definitely visual distraction aspect.

REPRESENTATIVE LONGIETTI: So, for example, a piece of proposed legislation like what Representative Shapiro has imposed where a cell phone could be used in the vehicle, but it has to be a hands free situation, whether it's a Blue Tooth or voice activated, if you know, if the legislature were looking to do this on a more incremental basis, that would be a logical first step in your mind because of the visual part of it represents a bigger part of the problem?

DR. SHEILA KLAUER: Yes. I would agree with that. With this caveat, there are a lot of hands free

devices out there that are not truly hands free. And there are some that are far more hands free. The Blue Tooth with voice activation is a very good technology, as long as the driver is used to it and comfortable with it.

Drivers who have their headsets sitting on the seat next to them and when it rings and they're fumbling for that and put it on, and those with headsets that they still have to dial on their regular phone, those are not as, obviously, the visual distraction is still there.

But I do agree that a hands free a hands free ban is a really good step in the right direction.

REPRESENTATIVE LONGIETTI: Do you have any thoughts on, you know, once again, thinking about the cognitive end of it, a conversation being held on a cell phone, for example, versus conversation with another occupant in the vehicle, do you see any distinction?

DR. SHEILA KLAUER: Yes, a very large distinction, actually.

REPRESENTATIVE LONGIETTI: Could you explain that.

DR. SHEILA KLAUER: For adults, for adult drivers, and this is not teen drivers. Teen drivers is

a very different situation. I will explain that, if you would like me to explain it.

For an adult driver speaking with adult passengers, we demonstrated that passengers in the vehicle actually showed a protective effect. And we believe that is true because when an adult is driving and they have a passenger in the vehicle, A, they are either driving more safely, or, B, they kind of have what we call a collision avoidance warning system built in, whereas that person has a set of eyes and they can also tell the driver if they missed something, missed a potential hazard.

Talking on a cell phone, on the other hand, is an increased risk by 30 percent, of that familiar driver. That risk was not significantly different from an alert driver, statistically speaking.

However, when we calculated the number or the percent of crashes and near crashes that access talking on a cell phone, actually, was a contributing factor for it. It was the same as for some of our higher risk conditions, or higher risk tasks. So together, dialing and talking to a passenger, or talking on the cell phone contributed to 6 percent of the crashes and near crashes in the population, in the metropolitan population.

So that being said, talking on a cell phone definitely increased risks, but less so than it certainly had an effect as talking to a passenger.

REPRESENTATIVE LONGIETTI: So if I understand what you're saying, part of what helps when you're talking to a passenger, is there's another set of eyes in the car?

DR. SHEILA KLAUER: We believe so, yes.

REPRESENTATIVE LONGIETTI: If you're not seeing what's happening on the road, somebody could say "slow down" or whatever?

DR. SHEILA KLAUER: Right.

REPRESENTATIVE LONGIETTI: Could you touch on, because we are in some of these pieces of legislation we're making a distinction between teens and adults.

DR. SHEILA KLAUER: Right.

REPRESENTATIVE LONGIETTI: There's a different sets of rules. You know, I heard your statistic that teens in general have a higher a significantly higher amount of vehicle homicide rates.

But can you explain why is it so important for this rule to apply for teens, maybe not as important for adults?

DR. SHEILA KLAUER: There's also a lot of

research that's demonstrating quite nicely that teenagers are very inexperienced drivers. And part of that inexperience is that they are not very good at detecting hazards. So they drive down the roadway. And we have done some research where we put them on our test track, and have what we call surrogate hazards, one of which is a pedestrian that appears around the front of a van. But the van is parked on the line of the roadway. They don't slow down. They don't veer over into the other lines. They fly right by at 35 miles per hour, even though that passenger could very easily step out in front of them.

They simply are not very good at detecting these types of hazard. And so when they're not good at detecting hazards when they're looking forward, and then you couple that with text messaging, so they're only looking up half the time or three-quarters of the time, it increases their risk I think significantly.

And once we actually finish our study, our 40 Teen Study, I think I will be able to provide a nice research finding for that, but we believe that it's going to be very high.

They simply are not good at they're not as good as dual tasking as they think they are. But they

that's basically the problem, is that they can't detect hazards and then they're not even looking forward, in the first place. And so that is what increases their risks, much more so than adults.

REPRESENTATIVE LONGIETTI: A few other quick questions.

In your mind, the age of 18 has been picked as the cutoff. Does that make sense to you? Do you think it should be a different age than 18, if we're talking about this difference, you could be technically 19 and still be a teen. But is there any age cutoff that appeals to you or seems to make sense to you?

DR. SHEILA KLAUER: I think 18 makes sense for a lot of reasons, and some of those are legal, at some levels, 18yearolds are legal adults. And they're voting adults. And I think that so on some levels, 18 makes a very good makes a very good cutoff for things like this.

Do I think that cell phones should be banned for all adults, yes. But I think that's going to be difficult to pass. So I think

REPRESENTATIVE LONGIETTI: Hands free, or a total ban, or a ban only with hands free?

DR. SHEILA KLAUER: I think I think somewhere in

the list of devices there should be a total ban. But that's my opinion.

REPRESENTATIVE LONGIETTI: The last question, and it's kind of a comment. And I know you talked about public awareness, just thinking back of when I was learning to become a driver, I took drivers' education in my high school. And I would hope to think that I would always use a safety belt, regardless, if it seemed like when you develop that habit, that was the first thing that we did when we walked in the vehicle got into the vehicle is we put the safety belt on. And that just carried over naturally.

And I'm just wondering if there's something that we could do on that front of the drivers' education front, before you get into the vehicle, you shut off all cell phones or electronic devices, and kind of try to train kids to have that type of habit. I don't know if that makes sense to you?

DR. SHEILA KLAUER: Yes. Yes. I think that would be a great habit.

REPRESENTATIVE LONGIETTI: Thank you.

DR. SHEILA KLAUER: Yes. Thank you.

REPRESENTATIVE LONGIETTI: Thank you, Dr. Klauer.

CHAIRMAN MARKOSEK: Thank you.

Chairman Geist.

REPRESENTATIVE GEIST: Thank you. I've read some of your stuff before. It's very well done.

DR. SHEILA KLAUER: Thank you.

REPRESENTATIVE GEIST: One question. We know that there a lot of things that contribute to distracted driving. But we know that media fixates and some legislators fixate on the cell phone.

We know that these are the devices that are inside vehicles. We know that putting on makeup, and there's a whole list of those things that were listed in a couple of the reports. And it might have been on your board cameras that you had one of those listed.

DR. SHEILA KLAUER: Yes, we did.

REPRESENTATIVE GEIST: And if I remember right, cell phone usage was pretty far down the list compared to some of the other things.

DR. SHEILA KLAUER: Talking with talking on the cell phone was in the middle.

REPRESENTATIVE GEIST: Yeah. I mean, eating fast-food, you know, doing some of these things was way, way up there.

How in the world do you ask a legislature to

legislate common sense? And then how do you make that whole list as responsible as just, for instance, those who like to beat up on cell phones?

DR. SHEILA KLAUER: While talking on a cell phone was somewhat lower than other tasks, it still contributed to a much higher percentage of the crashes and near crashes in the population.

I think that all wireless devices should be legislated to a certain degree, because of those findings. It wasn't just simply the actual risk or the relative risk, but it was also that percentage of crashes and near crashes, it was a contributing factor to in the population.

Part of the reason that I believe it is contributing to that many crashes and near crashes in the population is because of the amount of time that drivers are actually engaging in cell phone conversations while they're driving. And it's happening more frequently. It happens for longer periods of time. And it's happening people are getting more and more comfortable with it, and they're doing it at times when they shouldn't be.

There are times when you're driving and I'm originally from South Dakota. I could drive on the

interstate in South Dakota and maybe, you know, five five other vehicles will pass me on the other side of the interstate for an hour.

REPRESENTATIVE GEIST: Unlike the Parkway I just came on.

DR. SHEILA KLAUER: You know, talking on a cell phone in those very, very sparse traffic situations I don't think is an issue.

But when people get more and more comfortable, and technology is, you know, in their car and they're using it all the time, they're doing it in moderate to high speed levels of traffic. They're doing it while they're trying to navigate through intersections and busy urban areas. They're doing it while they're merging on to busy freeways. And that's when it gets very dangerous, because they're not able to look. They're not able to attend to everything that they need to tend to.

REPRESENTATIVE GEIST: Go back to the question, the list, the long list of listed distractive driving

DR. SHEILA KLAUER: Yeah.

REPRESENTATIVE GEIST: How do you legislate to really cover all of that? I mean, how do you tell them they can't put makeup on while they're driving? How can

you tell people they can't eat when they're driving? I mean, how do you legislate in car activity to the point that it's enforceable or workable law?

DR. SHEILA KLAUER: I think you need I don't think you should worry about the whole list. I think you should worry about those types of tasks that are actually that are actually contributing to a high percentage of the crashes and near crashes. And those are those tasks that are primarily involving wireless devices.

REPRESENTATIVE GEIST: With turning on and off your light bar, stuff like that, would that it's an inside job. Thank you very much. That's all I wanted to know.

We just have to learn how to do some kind of a reasonability, rather than a rifle shot at one thing.

CHAIRMAN MARKOSEK: Representative Josh Shapiro.

REPRESENTATIVE SHAPIRO: Thank you, Mr. Chairman. And Chairman Geist alluded to members who are fixated on the cell phone issue. I think I'm one of those members that perhaps that he was referring to. And I do think your testimony was spot on in that there may be other distractions happening in the car. But the cell phones are really leading to these crashes. And I

heard you testify that you would want to see a full ban of cell phones while driving. That's certainly not my position. I appreciate where you're coming from, but I just want to clarify something that you said. I believe you said that the most dangerous way to have a cell phone conversation is using a hand held, holding it in your hand up to your ear.

The better way to do it would be on a hands free device. And then the best way to do it would be on a hands free device that's optimized with voice dialing and other things that make you have to touch your phone even less; is that correct? I just wanted to make sure I understood you said that.

DR. SHEILA KLAUER: Well, with one little caveat. The best way, if you're going to have conversations, the best way is to do everything voice activated, so that the eyes never have to come off the road. It is far more for me, the dangers are far more or the risks are higher when drivers take their eyes of the forward roadway. So if with hands free devices, a truly hands free device, I believe that is the safest and the best way to have a cell phone conversation in the car.

REPRESENTATIVE SHAPIRO: So with a hands free

device, we can reduce the risk of accidents over a handheld device and still allow a drive to carry on a conversation, if he or she wishes to?

DR. SHEILA KLAUER: Yes, provided but I do want to reiterate what I said earlier in that that by hands free device is not the driver who has their hands the headset on the seat next to them

REPRESENTATIVE SHAPIRO: Oh, correct.

DR. SHEILA KLAUER: And it rings.

REPRESENTATIVE SHAPIRO: Using one properly.

DR. SHEILA KLAUER: The proper use of a headset is imminent.

REPRESENTATIVE SHAPIRO: And that makes the conversation safer?

DR. SHEILA KLAUER: Yes.

REPRESENTATIVE SHAPIRO: Thank you, Mr. Chairman.

CHAIRMAN MARKOSEK: Okay. Dr. Klauer, thank you very much. You did a wonderful job and helped us define the interesting task we have ahead of ourselves. And thank you very much. I appreciate you traveling this far to come here today. Thank you.

DR. SHEILA KLAUER: Well, thank you for the opportunity. I appreciate it.

CHAIRMAN MARKOSEK: Thank you.

Our next person to testify. He and I were talking beforehand. No, he's not the famous hockey player. His name is actually spelled slightly different, I believe, but Matthew Sundeen is the program principal of the national conference of state legislatures. And, Matt, welcome to Pittsburgh and thank you for attending. And you may proceed, whenever you're ready.

MR. SUNDEEN: Thank you, Mr. Chairman. I actually wonder how often the famous hockey player gets asked if he does policy analysis? I sort of suspect no.

CHAIRMAN MARKOSEK: The next time I see him I'll ask him.

MR. SUNDEEN: Okay. Thank you. Thank you members of the committee. And it's a pleasure to be before you again. As you recall, I was with you in Philadelphia, about a year ago. And as many of you know, I'm a native of Pennsylvania. So it's always a pleasure to come back, I'm from Yardley Pennsylvania, the other side of the state.

But thanks, once again, for having me in front of the committee.

What I want to talk to you about is kind of give you the national picture on distracted driving legislation. And, actually, I'll respond to some of Chairman Geist's questions about some of these other broader distraction laws that are out there.

If we could go to our first slide, Mark, the question is why is distracted driving such an important traffic safety topic? You could see some of the figures up there. Some of these actually come from Virginia Tech, and the study that Dr. Klauer did. You could see nationally 80 percent of crashes and approximately 60 percent or 65 percent in near crashes have some form of driver inattention as a causal factor. It may not have been a primary factor, but it factored in the accident. And if you look at the numbers there, fairly significant traffic safety numbers nationally, with more than 34,000 fatalities; 2.1 million injuries, and a very significant amount of traffic damage as a result of driver inattention.

Go to the next slide.

The question is how significant is driver distraction for lawmakers? And thank you.

If you look over the last five years, every single state has considered some sort of driver

distraction legislation. Just in 2000, there were 44 states that considered a 145 bills related to driver distraction. And this year alone, there are already 28 states that have driver distraction bills. So, obviously, at the state legislative level, it's a significant traffic safety issue.

It has also been a significant issue at the local level, with more than 300 local jurisdictions considering legislation. At the federal level, not so much a significant issue yet.

At a personal level for me at NCSL, this is a very popular issue. You see more than 25 percent of the hits on our website are on our transportation page, are on our driver distraction related documents. And it's really the number one issue that we answer in our transportation program.

And if you think about all of the other transportation issues we have, I know here in Pennsylvania, funding is a very significant issue for you. But believe it or not, we get more questions on driver distraction than we get on transportation funding. So it's a very significant issue for us at NCSL.

If you go to the next slide. Why is driver

distraction a big issue? And as it was pointed out by the committee, we've had driver distraction since we've had cars. There's a virtually limitless list of things that could distract us, including things as abstract as our own personal thoughts, but certainly, people on the road, other drivers, eating, drinking, but, really, the driver distraction issue has become an issue in state legislatures because of the growth of technology in our motor vehicles.

If you think about it, not a decade ago, less than a million people actually had cell phones. And most of those were those sort of shoe boxlike devices that people couldn't really carry around.

Well, now there's more than 254 million subscribers of cell phone services in the United States. A large number of those phones or most of those phones are very portable devices that can go into our cars. And it's estimated that 50 to 75 percent of people use their phone while they're driving.

There's also been a growth in the complexity of the phone, where now phones can do all sorts of things, take pictures, take videos. You can have inboard navigations devices, on board computers in your car; pretty much anything that you can do in your home or in

your office, you can do in a car.

And as a consequence I think that's made driver distraction a much bigger issue.

As driver distraction has become a bigger issue, we see a lot of interests in these other type of distractions that Chairman Geist was talking about.

Two years ago, Nationwide Insurance did a survey to try to get a perspective on this. And this, I would point out is sort of a clean list of things that are described in the car. The daydreaming, fixing their hair, text messaging, other bizarre behaviors. Like I don't know how you could paint your toenails while driving. But, again, this is the clean list. There are other behaviors that people fessed up to in the car, which I think would be much more technically difficult than the ones described here.

Go to the next slide.

The real question here is which distractions are the most dangerous? And sort of you see the whole range of spectrum behaviors in this car that's in here.

If you would go to the next slide.

Talking about phones. And our phone is the most dangerous activity in the car. And really, if you look at the crash data that are out there, they don't answer

the question. It's unlike some of the other traffic safety issues that have come up in recent years, like drunk driving and seat belts, where there's a wide body of crash statistical or statistics out there to answer the question.

For cell phones, there's not this data stream that we can tap to answer the question of whether phones are dangerous in the car.

And, first of all, only a handful of states have published any sort of data related to cell phone involvement in motor vehicle crashes. You see the states listed up there.

The thing I would like to point out is a lot of those are fairly limited studies. They were pilot programs, maybe a one year type of study. We don't have a multiyear study yet based on crash statistical analysis to answer whether cell phones are involved in a motor vehicle crashes or not.

The data that has been published seem to indicate that cell phones are involved in less than one percent of motor vehicle crashes. But I think there are a lot of questions about data and the reliability of the data.

If you think about it, cell phones aren't like

drunk driving or seat belts where there's a physical indicator that the cell phone was in use at the time of the motor vehicle crash.

Instead, with cell phones a lot of times law enforcement will have to rely on self reporting by the driver, or perhaps a witness reporting. But I think it's that self reporting that makes the data sort of suspect. You're asking the driver to admit that they were using a phone, and because of that, they were involved in a motor vehicle crash.

And there was a report done by the California Highway Patrol that really, I think, pointed this issue out, where they did a report to the state legislature. And they had a very low cell phone involvement in the motor vehicle crashes.

Later the LA Times came in and examined the same exact data that the CHP did, and found a different rate of cell phone involvement in the crash. And, it, really, pointed because of that, a study by the LA Times, CHP had to go back and revise their statistics. So there's really a lot of questions about the crash data.

If you go to the next slide.

REPRESENTATIVE GEIST: Could I ask you a question

what you're

MR. SUNDEEN: Sure.

REPRESENTATIVE GEIST: When you break that out, that data, does texting count the same as talking?

MR. SUNDEEN: I don't know of any states that have broken it down by texting. And that's a lot of the problem in the crash data. I'll talk a little bit about it further in my

REPRESENTATIVE GEIST: If you could look into the development in that, if you could.

MR. SUNDEEN: Yeah, I'll talk about it further in my presentation, but I don't know of any states that have broken it out from texting to just using the cell phone.

So given the suspect nature of the crash data, we have to look at some of the academic studies that are out there. And there's a number of them.

And one of them I've listed Dr. Klauer's study from Virginia Tech. But there are a number of studies out there that seem to indicate cell phones create a greater risk of crash. Probably the ones with the biggest tag lines are the ones from the University of Toronto in 1997, and a more recent one from published by the Insurance Institute for Highway Safety had a tag

line that drivers were four times more likely to be in a crash if they're using a cell phone, which is incidentally the same rate as legal intoxication. So there's a number of studies out there on the you know, cell phones are risky.

But if we go to the next slide. There are a couple of studies that seem to indicate that cell phones are a less of a risk. And so I wanted to point out there's some conflict in the academic community on this issue.

If we'd go to the next slide. I think it's important to know where the public stands on this. This is a survey down by Gallup back in 2003, which seems to indicate that although most people or many people use cell phones in their car, a lot of people seem to support some sort of restriction on the cell phone use in the car, and realize that using their cell phone is distracting and could be dangerous in the vehicle.

If we go to the next slide, we get a chart here on state legislation. And, again, if you look at the last seven or eight years, every single state has considered some sort of legislation or related to cell phone use in the car. And the number of states that are passing legislation continues to grow.

Where if we go to the next slide, and look at the driver distracted laws, there are now 29 states and the District of Columbia that have passed some sort of law related to cell phone use in the car.

Now, I frequently hear in the media this mischaracterized as a ban on cell phones in the car. Channel 4 left the room, so we can't set the record straight with them, but I think really there's no state that prohibits all sorts of cell phone devices in the car. So there's no total prohibition law out there.

There are a number of states that have laws where the handheld phone is the primary focus. A number of states have laws related to young or novice drivers. There are a few states that have laws related to texting while driving. And then there's a variety of other cell phone issues. So I'll go into this in a little more detail.

If we go to the next slide. The first issue to talk about is the prohibition on the handheld phone, at which gets at Representative Shapiro's bill. There are now currently six states that have prohibitions on the use of the handheld phone in the car, although my caveat there is that California's law will become effective in July of 2008; the other states, Connecticut, New York,

New Jersey, Utah, and Washington, as well as the District of Columbia.

The thing to point out, Washington enforced it as a secondary offense. New Jersey just changed that on Saturday, actually, and now New Jersey will change it from a second enforcement to a primary enforcement bill.

This is really the primary law that we see considered in the state legislatures. And back in 2001, 24 states considered some sort of handheld prohibition. You have 18 states considering that this year.

If you go to the next slide. Handheld prohibitions are also being considered fairly extensively at the local level. And I think that's something important to consider in Pennsylvania.

If you look at the jurisdictions up there, the two biggest local jurisdictions are Chicago and Santa Fe. Miami Dade County's prohibition was superceded by state law, or preempted by the state law.
But there are a number of local jurisdictions in eastern Pennsylvania that also have this prohibition on a handheld phone.

It's important to note that there was a court decision related to one of those local prohibitions. And

there's some question whether state law in Pennsylvania actually preempts the local jurisdiction.

If we go to the next slide.

You need a microphone?

CHAIRMAN MARKOSEK: Excuse me. One is for the PCN, our television and the one is for the room.

MR. SUNDEEN: Okay. Go to the next slide. The question is are handsfree devices effective. And you see here the sort of low tech handsfree device. But if go to the next slide, you talk about the hands free technical solution. There are many types of handsfree devices, since it was pointed out in the last discussion that we had, and sort of intuitively, we think about, you know, hands free makes it safer. You certainly do have more control of the vehicle. You eliminate some of the physical distractions, like searching for a ringing phone with some of those types of devices. And certainly, handsfree is more politically palatable than those total prohibition type of bill. I think that's been borne out in the other states that have laws.

A lot of the studies seem to think or seem to indicate that the cognitive distraction is really the key. And many of the studies find very little

distinction between the hands free and a handheld, in terms of the potential distraction.

There's also some potential distraction from some of these voice activated devices, from having to think on how to interact with that type of device. So I think that's something for you to consider.

If you go to the next slide. A lot of the focus for this hearing has been on younger drivers and the phone. And I think any of you who have a teen driver in your house know that teen drivers are not the best drivers.

Certainly, we saw that in Dr. Klauer's video. And I think, you know, that's very it has been clear from the crash data that we have and the statistics we have.

A lot of reason for that is teen drivers are less experienced. They have more distractions in the vehicle. And they're more likely to take risk.

I think a lot of, especially male teen drivers like to try to show off as they're driving. And motor vehicle crashes are the leading cause of death for teens. So something as a very considerable traffic safety issue is to think about as the younger drivers, particularly younger drivers on the phone, I think is a

very significant issue, where teenage drivers or drivers between the ages of 16 and 24 are twice as likely to use a phone as other drivers. So I think when we're talking about phones in the motor vehicle, teens are a very important part of that issue.

If we go to the next slide. When we look at the state laws that are out there related to young or novice drivers on the cell phone, I think there's a couple of things to note here. First of all, generally these bills in the state legislature get very limited opposition. I think a lot of people agree that teen drivers are more risky. And, frankly, U.S. legislators that your teen lobby probably isn't that strong. Still, a lot of these bills make their way through the legislature pretty easily.

There's also a recommendation made by the National Transportation Safety Board where they recommended that states should implement restrictions for teen drivers use of the cell phone.

17 states and the District of Columbia currently have laws related to teen driver use. At least two of those states, California and Maine, have prohibitions on all teen drivers, and prohibit them them from using all types of cell phone devices.

Now, Dr. Klauer tells me that's true in the State of Virginia as well. I didn't have them on my list. I'll have to check that.

But there are 15 states currently that have restrictions on teen drivers that tie in to drivers with only an instructional permit or a learner's permit type of device. For those types of drivers, they are prohibited from using any type of cell phone device, not just restricted to the handheld phone.

A number of states are considering legislation or have considered legislation related to younger driver use of cell phones. 16 states in 2008 are reconsidering that type of bill.

If we go to the next slide. And specifically talk about texting while driving. I think this is probably the number one driver distraction issue I face this year. It has been a very popular issue in the state legislatures, and certainly, within the media. And if you look at the numbers for it, it's estimated that there are approximately 158 billion text messages sent each year. It's unknown how many of those are done while driving. But a significant number of drivers admit to texting while they're in the car. And a lot of those drivers are the younger drivers.

You see there the statistics; 66 percent of drivers between 18 and 24 text while driving. I don't think this is limited to younger drivers, but certainly, they are a key part of the texting while driving issue. There are only two states currently that specifically prohibit texting while driving. Those are New Jersey and Washington, although there are 21 states considering bills this year.

REPRESENTATIVE PYLE: Question.

MR. SUNDEEN: Sure.

REPRESENTATIVE PYLE: Well, I know that New Jersey just put theirs into effect last Saturday. How long has Washington had their ban on text messaging?

MR. SUNDEEN: They just passed it last year.

REPRESENTATIVE PYLE: So there are really no arrest statistics?

MR. SUNDEEN: Not for the texting. For the cell phone use while driving, there are some arrest statistics. And I believe I've got a slide a little bit later on, I could talk about that.

REPRESENTATIVE PYLE: Thank you.

MR. SUNDEEN: So we should be on the slide that let me make sure if we're on the right one.

If you go to the next slide. Then there are a

variety of other cell phones laws that are out there. A number of states try to address school bus drivers using cell phones. There are a number of local preemption textal laws where the state legislatures preempted local jurisdictions from acting. Then there is some miscellaneous provisions. Of course, my favorite here is Massachusetts requires that you have one hand on the steering wheel at all times while using a cell phone.

REPRESENTATIVE GEIST: Elbows don't count?

MR. SUNDEEN: Elbows and feet don't count, apparently. So although Massachusetts is actually looking at changing to that requirement. If we go to the next slide, and talk about some of the other distractions. And this I guess was getting at your question, Mr. Chairman.

There are now states taking an interest in all of these other behaviors in the car. And you could see the list of states up there. Connecticut, Utah, Washington and the District of Columbia all have laws targeted towards this broader range of distraction. And the way that they worded it is they prohibit distraction unrelated to the operation of the motor vehicle. And, you know, they've got different kind of phrasings within the law. But I think a number of states are looking at

trying to get at this whole broader range of distractions, whether eating or writing, reading the paper, that type of thing.

We also have a number of states that are very interested in the television screen and the navigation systems in the car. The reason that the navigational systems are an issue here is when you talk about prohibiting a television or the placement of a television screen, well, a lot of these navigation systems kind of look like a TV. And so you have to be real careful about how you word the law to exclude some of the navigation systems or other safety devices from that prohibition or restrictions. So I think you find with a lot of these TV types of laws, they have an exclusion for navigation systems.

There have also been laws related to DVD players.

And then, finally, Tennessee passed a law related to the type of video that you could watch in the car. You could use your imagination of which types are prohibited from a motor vehicle.

If you go to the next slide. The question of data collection. I think this is a rising issue in the state legislatures. As I mentioned, there are not a lot

of crash statistics published out there on the cell phone issue. I think that's changing. We now have 29 states that are collecting crash data related to cell phone involvement in motor vehicle crashes.

There are a number of state studies that have been done related to the cell phone issue in the car.

And then, finally, we have what are known as the Model Minimum Uniform Crash Criteria, or MMUCC for short, which are sort of national crash statistics standards that are developed by a number of national organizations.

Well, a couple of years ago, those were changed to include studies involvement in motor vehicle crashes. And so now you see states adopting this MMUCC model. And I think we'll see more information collected about the cell phone involvement in motor vehicle crashes.

If we go to the next slide. And the question was asked about enforcement. We don't have a lot of information about enforcement. But we do have some. The best experience has been in New York. Best, I mean, you know, the most data collected. I don't know if it's best if you're one of the drivers ticketed.

But the latest statistics I saw from New York is

from 2001 through 2006. They issued approximately one million citations for using a cell phone while driving. And talking to a law enforcement officer in New York, it said that enforcement really wasn't an issue. In some cases, it was sort of a shooting fish in a barrel.

So I think the experiences in New York and D. C. Have been that enforcement hasn't been an issue. The real question is the effectiveness of it.

And it seems the drivers to a certain extent altered the behavior when the law was passed, but they went back to their original behavior months after the law was passed.

If you go to the next slide. I could talk briefly about driver education. I have some more interesting driver education.

AAA I know will be here up after me, published a study in 2003 to see how many driver education manuals included cell phone use in them. Most states did not have some sort of distracted driver component in their cell phone or driving component in their driver education manuals. Some of this may be changed. And last year Illinois passed a driver education requirement. And we're beginning to see nationally more bills being proposed with some sort of driver education

component.

If we go to the next slide. The state trends. I think real briefly to talk about the I think the novice issue and the texting while driving issue are the real big issues right now. We see a lot of states considering this and it's coming up in bills. And I think we'll continue to see more information about that.

We could talk more detail, although there have been a number of now court cases related to cell phone use in the car. And I think that may push the legislation nationally as well.

If you go to the next slide. I mentioned several actions. There really has been no federal action. I know the National Highway Traffic Safety Administration has considered regulations, but they've done nothing so far. They've been studying the issue.

I mentioned there was a bill back in 2003 by then Senator Corzine. That really went nowhere in Congress. And I think until you see federal government legislation, you won't see any regulations as to this topic right now.

If we go to the next slide, International Activity. I think it's important to note there are a

number of countries that have restrictions on cell phone use in the car. And that's something we sort of have been tracking as well.

And then our final slide is sort of the NCSL resources. We've done a lot of research on this issue. We have a number of resources on our website. I would invite you to go to our website. We have a legislative tracking database where you could find the latest state legislation, links to the bills, bill sponsor information, status information, and that type of thing.

And then finally, the final last line, contact information. And I am happy to take any questions from the committee.

CHAIRMAN MARKOSEK: Thank you very much. I apologize for not recognizing Representative Chelsa Wagner has arrived, and joined us. Welcome, Chelsa.

Representative Chairman Geist.

REPRESENTATIVE GEIST: I have some questions. I do informal surveys at times. And I have a bunch of nephews that are in high school sports and national merit scholars and all kind of things. And I bounce a lot of this stuff off of them and others.

I kid them about trying, you know, texting and

driving with the diablos. But they say that it's much, much more than texting now, that they're on the Internet and they're blogging, and they're on UrTube or UTube, all of these different teenage sites, and they're doing that, and at the same time talking on the speaker phone. So it goes way, way, way beyond holding a cell phone to your ear, which I don't really believe is nearly as dangerous as some kid looking like he's looking down a gun sight trying to drive while he's texting Jeff Pyle.

REPRESENTATIVE PYLE: A lot of them do that, Mr. Geist.

REPRESENTATIVE GEIST: This whole business of what is available on your palm, or you guys that have their crackberries.

REPRESENTATIVE PYLE: Crackberries.

REPRESENTATIVE GEIST: This is an addiction.

MR. SUNDEEN: I think, Mr. Chairman, that that is absolutely true, and I think anybody who has been in a car lately knows this. You talk about informal surveys, and oftentimes, we'll lead off a discussion taking a survey of the room and saying, well, how many people are on the cell phone? And we could do that now. How many people are on the cell phone, just raise their hand. I

think probably most of the people here. And how many use it while driving? I would say a significant number of you. And you're right, now that the cell phones are so much more sophisticated, there's many more things that you could do in the car, you know, that you couldn't do ten years ago. And that's why I think you're seeing so much state legislation is legislators are really trying to catch up with this issue.

And, you know, if you're behind a driver who has got their hand in their ear and they're slowing down erratically, you know what they're doing. You know, I think because of the high visibility of the cell phone, it has become such an issue.

REPRESENTATIVE SHAPIRO: Let's talk about enforceability. I can remember many, many years ago in the General Assembly when the speed limit was dialed down to 55 miles an hour in Pennsylvania. No legislature ever broke that speed limit, but an awful lot of other Pennsylvanians voted with their right foot, which made the law absolutely useless.

In New York, you see how many arrests that they make, yet they show no impact as to decrease in accidents, based upon the arrests made with cell phones.

How do you go about doing something other than

with education, when enforcement is really the last resort?

MR. SUNDEEN: I don't know if I have a good answer for you on that question.

REPRESENTATIVE GEIST: I know I don't know.

MR. SUNDEEN: Yeah. I know a lot of the sponsors of the bill, and Representative Shapiro could correct me if I'm wrong. But in some of the other states, I think a lot of the sponsors have said, "Look, we need to start tackling this issue." And, you know, for them, it's sort of been a foot in the door on addressing the issue of these various technologies in the car.

And as I mentioned in my remarks, I think it's really this focus on the cell phone has now brought attention to this whole range of behaviors in the car, and made more people aware of it.

I'm not sure what the best solution is. But certainly, it's a much bigger issue in the states now than it was ten years ago.

REPRESENTATIVE GEIST: One of the things we could outlaw fast-food lanes in these places. Because do you ever watch people pull out in traffic and unwrap food and start eating it going down the road? That scares the devil out of me, just to watch it happen.

MR. SUNDEEN: Sure.

REPRESENTATIVE GEIST: And they pull out of the convenience store and there will be coffee things that are all over the place. And this is distracting driving. And this is what I think really needs to be addressed in total.

MR. SUNDEEN: Sure.

CHAIRMAN MARKOSEK: Thank you.

Representative Pyle.

REPRESENTATIVE PYLE: A question, Matt. Your studies of all the states in the nation, how many other states are using the integrated approach? What I'm referring to this enhanced driver's ed education. And I know a lot of insurance companies that insure these younger drivers will frequently, you know, contact folks like us and say, you know, can we do something to arrange this before this kid hops behind the wheel at the age of 16, can we make sure they are better educated?

And a few years ago we changed that. Now it's pretty much 16 1/2. I think it's about that.

Are any other states making an effort in that integrated approach of enhanced drivers' ed pertaining to cell phone distractions while driving or not?

MR. SUNDEEN: I believe more states are taking a look at the cell phone issue and trying to incorporate it in their driver education. I think that's sort of been a slower process. And frankly, we more tract the legislation, and we haven't seen a lot of legislation on drivers' education, you know, although I think that is growing. But I do think, you know, state driver education programs are trying to talk more about the driver distraction issue.

And, actually, another place where we're seeing it is in the private sector. We get quite a few calls from companies who want to incorporate information about driver distraction in their company policies, to prohibit their drivers from using a phone while on company time, or on company property, that type of thing. And so that's another place where we've seen sort of this integrated approach that you're talking about.

REPRESENTATIVE PYLE: Very good. Thank you.

CHAIRMAN MARKOSEK: Thank you.

I just had one question myself, and it's relative to the portion of your testimony, Matthew, that you had mentioned that we don't have a lot of feedback yet relative to distracted the cell phone use. It didn't

appear that cell phone use was the cause of very many accidents, but then I think you if I recall your verbal testimony, had mentioned something about the fact that we're getting better as we move along, and getting more data relative to that particular issue.

So even though we don't have a lot of data that says that cell phones cause accidents, is it in your opinion that as we move forward and collect data in a more efficient manner that that particular distraction will grow as a cause of accidents?

MR. SUNDEEN: It's hard to say. I think where we've seen improvement is in the number of states that are collecting data. Where within the last five years or so, we've seen 15 to 20 more states begin to collect data on their accident report forms related to distracted driving and cell phone involvement in motor vehicle crashes.

We also see law enfortionment officers more aware of this issue, and at the crash scene investigating the issue.

Where the concern is you still have, you know, questions about can you actually reliably get that information at the crash scene? And I don't know if there's an answer to that question yet.

I think we've seen a lot more academic studies on this issue. We've seen more studies like the one at Virginia Tech where they're trying to actually get information about the driving environment. So it's hard to say what that will tell us, but certainly, we are getting more information.

CHAIRMAN MARKOSEK: Isn't there a way that the law enforcement folks can get data relative to when any of us happen to be making a call and the time of that call, and they can match that with an accident situation, to determine, you know, if somebody was using their cell phone at the time of an accident?

MR. SUNDEEN: You know, that's an issue that's been discussed. And I know in some of the studies that have been done, most notably the one that was done at the University of Toronto, they did do that; they matched time of the call to the accident to get their crash data.

I haven't seen that was done on a statewide level. I imagine there are probably some concerns about privacy, and things like that. But I have not seen any state pass legislation to authorize that yet.

CHAIRMAN MARKOSEK: Okay. Thank you very much.

MR. SUNDEEN: Thank you.

CHAIRMAN MARKOSEK: Wonderful testimony again. Thank you for traveling here today.

REPRESENTATIVE GEIST: You did a really good job.

MR. SUNDEEN: Thank you.

CHAIRMAN MARKOSEK: The next person on the agenda, Mark Fox, I'm told is not here.

So we will move to our friend, Brian Newbacher, the Director of Public Affairs from AAA Ohio Motorist Association.

Brian, welcome.

Somebody that I've worked with in the past. AAA has been out front on distracted driving issues, and we're happy to have you here today.

MR. NEWBACHER: Thank you, Mr. Chairman.

CHAIRMAN MARKOSEK: You may proceed when you're prepared.

MR. NEWBACHER: Thank you, Mr. Chairman.

Mr. Chairman, Chairman Markosek, Chairman Geist, members of the committee. As the chairman noted, I'm Brian Newbacher, Director of Public Affairs with AAA Central, a member of the Federation of Pennsylvania AAA Clubs. And today I'll talk about some of the dangers young drivers face, what that means for the rest of us and what AAA believes can be done to better protect

Pennsylvania's motorists.

I also will highlight what other states have done to reduce the number of crashes involving teen drivers, and we'll focus on states that AAA believes are worthy of duplication.

But first, I would like to take this opportunity to thank the General Assembly and this committee for its leadership in creating Pennsylvania Graduated Driver Licensing Program. The Commonwealth's minimum age of 16 years for a junior license and a six-month holding period before proceeding to the intermediate stage, place it among just a handful of states in the top tier for these requirements. The states are Kentucky, Massachusetts, New Jersey, New York, and Rhode Island. And that's indicated on the chart that you have titled GDL Laws, which I'll refer to a couple of times during my testimony.

Despite the success of GDL programs thus far, teen crashes remain a major safety issue, and not just for the young person behind the wheel. According to a AAA analysis conducted two years, 1,067 citizens lost their lives over a ten-year period in crashes in Pennsylvania that involve the teen driver. Two thirds of those lives lost were people other than the driver,

including their passengers, people in other cars and pedestrians. So it's important to understand this problem potentially affects everyone.

Graduated licensing does save lives but comprehensive GDL programs save even more lives. The AAA Foundation for Traffic Safety released another report last year showing that states with at least five of seven key GDL components obtained major lifesaving and crash reducing benefits.

In states with these comprehensive GDL programs 16yeardrivers were involved in 38 percent fewer fatal crashes and had 40 percent fewer injuries. That's why, even with all 50 states now having some form of GDL, so many legislatures are looking to improve their teen licensing efforts.

In Pennsylvania, the largest gaps in its teen licensing laws are related to dangerous distractions. Two of these distractions teen passengers and wireless communications devices are targeted by bills that have been introduced this session.

Let's start by looking at passenger limits. They're a key part of all major safety organization's model GDL programs. As of today, 39 other states have already added passenger limits. If you look at the

color map provided, it might surprise you to know that Pennsylvania is the only state in the northeastern Midatlantic region without one.

Of our neighboring states, three are considering bills to improve the passenger limits they already have in place. And as you could see from the GDL chart I mentioned earlier, many states such as Alaska and Colorado, specifically restrict passengers younger than age 21.

For a teen driver, the presence of one peer passenger almost doubles the crash risk than driving alone. With two or more peers along for the ride, the risk spikes to five times, according to research by the Insurance Institute for Highway safety. As a result, AAA strongly supports as a minimum, no more than one non family passenger under 21 for at least the first six months. AAA is pleased to see that legislation before this committee proposes a limit beyond the recommended minimum, by calling for no passengers until age 18. This is similar to the laws currently on the books in New Jersey and Virginia.

AAA supports this improvement because the research is compelling. In addition AAA members, who represent a large percentage of your constituents,

resoundingly support them. In fact, 93 percent of Pennsylvania members are in favor of the passenger limit called for in the current proposal.

But passenger limits alone do not counter all of the distractions teen drivers face. Today, it's really an statement to say we live in a fast paced world. As the other people testifying noted, communications technology is everywhere, and, unfortunately, that also means the automobile. It's a major distraction, especially for inexperienced drivers. And last July AAA and Seventeen Magazine, released the results of a study on teen driving behaviors. The results, quite frankly, were alarming. More than half of the teens surveyed admitted to risky behavior behind the wheel involving technology. Of them 51 percent said they talk on the cell phone; 43 percent said they read text messages; and 32 percent said they send text messages. This may go along with what your nephews were saying, Chairman Geist.

AAA understands that distracted driving, including the use of cell phones and other devices, is a significant contributor to teen crashes. Therefore, AAA supports a ban on all wireless communication devices for junior drivers until a full license is granted, except

in the case of an emergency.

Now, if you refer to the chart titled "Teen Cell Ban," you can review the states that have taken steps to address this growing problem.

As Mr. Sundeen noted earlier, laws prohibiting or eliminating the use of cell phones by teens are now in place in 17 states and the District of Columbia.

As you could see, there's a range of remedies, and some laws do, in fact, specify a restriction on the "wireless communication devices." There goes one now.

This language captures all devices that are capable of sending and receiving text messages. Maryland does it this way. Nebraska, Oregon and Texas also use this language.

Another component of a strong GDL program is a limit on nighttime driving. Teens are at greatest risk when driving at night. In fact, more than half of all crashes, 54 percent occur between 9:00 p.m and midnight. To have a real impact on safety, a nighttime limit needs to keep novice drivers off the roads during these high-risk hours.

If you look back at the GDL chart, you can see that nine states, beginning with Delaware, have night limits that start at 10:00 p.m. or earlier. It's also

worth noting that a couple of states with some of the most highly regarded GDL systems, actually start their night limits at 9:00 p.m. Those being New York and North Carolina. AAA encourages Pennsylvania to consider setting nighttime driving limits that begin an hour earlier at 10:00 p.m.

Combining the best measure from bills already introduced, and from the best laws around the country, makes for good public policy. Research and the experience of other states tell us that limiting passengers and further limiting nighttime driving hours for our youngest drivers will save lives. A ban on wireless and other electronic devices also will help by eliminating another major distraction from our least experienced drivers.

Thank you for this opportunity to appear before you on this issue, which for AAA and the Federation of Pennsylvania AAA Clubs, is it's highest priority. I'll be happy to answer any questions you may have.

CHAIRMAN MARKOSEK: Thank you very much, Brian, for the record, AAA came in to see me over a year ago and had this very high on their agenda, distracted driving. So I'm happy to say we're at least trying to deal with it here today.

MR. NEWBACHER: Thank you.

CHAIRMAN MARKOSEK: Representative Costa.

REPRESENTATIVE COSTA: Thank you, Mr. Chairman. Thank you, Brian.

On the states that surround us that have the occupancy limits on passengers, are we getting any feedback about people being pulled over that are not of age? I mean, my fear is if we it goes back to enforcement again, my fear is that if we're pulling kids over all the time, they may be not children. They may be adults. It may give people an excuse to pull somebody over.

Are we getting any feedback at all from the police departments or are we getting any feedback from people complaining that they were pulled over because they looked like they were younger? Is there enforcement at all on these issues?

MR. NEWBACHER: Mr. Chairman, and Representative Costa, you know, the feedback we've gotten to date is largely anecdotal. And I heard feedback from Police Departments and states who have a passenger limit, and although in some cases these laws are primary, enforcement is pretty judicious. Officers generally aren't looking to pull over a car that has more than one

person in it, even if they appear to be young, unless something is going on, there appears to be, you know, some other violation, either about to happen or already in progress. And really, you know, AAA looks at passenger limits as more of a tool for the parents, because parents look to laws for guidance. And passenger limits really become successful because of that dynamic, which parents can say to the teen, "You know this is the law. And it's the law of this household. And it's the law of this state. So you're only going to have one passenger tonight."

REPRESENTATIVE COSTA: Thank you.

CHAIRMAN MARKOSEK: Representative Solobay.

REPRESENTATIVE SOLOBAY: Thank you, Mr. Chairman.

Brian, on the nighttime driving ban portion, have you found any distinction between the accidents occur with just normal drive around scenarios with the kids out just joyriding, as opposed to those individual children under that age that may be coming back from an evening job?

One of the big negatives we hear from the folks on the nighttime banning kids have after hour or after school jobs, and it may carry them into that time line.

And is there a distinction between maybe kids coming home from work, may be just doing that, straight back and no problems, whereas most joyriding is going to cause more of those accidents? Is there a distinction between your data?

MR. NEWBACHER: Mr. Chairman, Representative Solobay, to my knowledge, it is not a distinction, but I would add that, you know, AAA has no issue with exceptions for work related driving. And some states have done it in a manner in which they're you know, as long as the driver has a note from an employer or some other official document, then that gets them off the hook with an officer that might pull them over.

CHAIRMAN MARKOSEK: Thank you. Representative Wagner.

REPRESENTATIVE WAGNER: Thank you, Mr. Chairman.

This question somewhat goes to the question that Representative Costa asked. I'm the prime sponsor of one of the bills to reduce the number of passengers in a car for teen drivers. And I thought one of the most compelling stats that I reviewed in that context was the percentage increase in accidents when you have additional teenagers in a car.

Could you share that with the committee? I don't have it in front of me, but I think it is a very important statistic.

MR. NEWBACHER: Sure. The Insurance Institute for Highway Safety has done some excellent research on this, and concluded that with one peer passenger, the risk just about doubles; with two or more, the risk quintuples. So it's as you add a passenger, you know, you're really beginning to create a situation that's ripe for disaster.

REPRESENTATIVE WAGNER: Thank you. I would also add that the feedback that I have received from parents is very much like what you said, where having the law as a deterrent enables them to enforce the rules that many of them have in their household anyway.

MR. NEWBACHER: That's right, Representative Wagner.

Mr. Chairman, if I could just add, California was the first state to add a passenger limit. I believe in 1998, and after that limit was set, and the state had some experience with it, it went back out and surveyed parents and found that the inconvenience created by a passenger limit was well tolerated with only 8 percent saying that it caused a major inconvenience. So I

think, by in large, over time any inconvenience issues are learned to be dealt with, and, in fact, viewed as really a minor inconvenience; when in totality, you know, the reason for doing it in the first place is quite compelling.

CHAIRMAN MARKOSEK: Thank you.

Representative Pyle.

REPRESENTATIVE PYLE: Thank you, Mr. Chairman. Thanks, Brian.

I want to followup on Representative Solobay's question.

Yeah, the business community kind of depends on high school kids working nights. And I know legally they're allowed by federal law until 11 o'clock.

Has there ever been a cross-section done on the data as to what nights of the week teen accidents are happening? And I'll give you my rationale, one being on weekends, you know, they're probably going to be working earlier shifts as opposed to late, and week nights, they would be working after school until 9, 10, 11 o'clock.

And my second question I would ask for your response to is Dr. Klauer told us earlier that having one person in the car reduced risk.

Now, is it fair to say there's a differentiation

between having one driver, who is over the age of 18, 25, 30, whatever the voice of reason so to speak versus having the teenager in the car with another teenager? It's probably rhetoric, right?

MR. NEWBACHER: Representative Pyle, Mr. Chairman, the current proposal calls for no more than one passenger and no more than one non family member, so, you know, we don't have any issue with that one passenger. But to the first part of your question.

REPRESENTATIVE PYLE: The first part would be has there been a cross-section study done on what nights of the week these kids are getting in nighttime accidents? I'm curious as to the juxtaposition of kids working after school and kids going out joyriding on weekends?

MR. NEWBACHER: Right. I believe there have been, perhaps my colleagues are more aware than I, but if memory serves me correctly, I believe there is a correlation to increase in crashes associated with weekend joyriding, as you say - -

REPRESENTATIVE PYLE: Right.

MR. NEWBACHER: And fewer incidents on week nights, especially those involving work.

REPRESENTATIVE PYLE: Okay. I kind of assumed that would be the answer I would get. But the converse

of that would be, you know, have we ever done a study when kids are working these hours, because on weekends when they're going to be able to run the long shifts, which are the ones I think kids do. I taught high school for a number of years. I'm just curious, you know, I'm not trying to make it a point in question, or anything like that, I'm just curious if such data had been collected? But thank you.

MR. NEWBACHER: You're welcome, Representative Pyle.

CHAIRMAN MARKOSEK: Thank you, Representative Pyle brings up a good point there if there is any data, any either yourself, or any of the other speakers on that of which nights may or may not be more sensitive to teen driving accidents? I know I would be very interested in seeing that. You know, so I appreciate Representative Pyle bringing up that issue.

I see no more questions, so Brian, thank you very much again. It has been wonderful, and thank you for coming here to testify.

MR. NEWBACHER: Thank you, Chairman Markosek and Chairman Geist and members of the committee. It's my pleasure.

CHAIRMAN MARKOSEK: Not to be outdone by folks

traveling from out of state, we have some local a local person here from Carnegie Mellon University who will testify next, Dr. Marcel Just, who is the Director of the Center for Cognitive Brain Imaging, Carnegie Mellon university.

As soon as they get the technology ironed out there, we'll have Dr. Just testify.

DR. MARCEL JUST: Sorry, Mr. Chairman.

CHAIRMAN MARKOSEK: Dr. Just, welcome.

DR. MARCEL JUST: Thank you. It's a pleasure to be here.

CHAIRMAN MARKOSEK: Let me first ask a question. Are any of none of your slides are confidential or anything because

DR. MARCEL JUST: No, no, because it's all in the public domain.

CHAIRMAN MARKOSEK: Okay. All right, because we are on the Public Cable Network, Pennsylvania Cable Network, PCN, so that may be shown. So as long as there's no copyright or confidentiality problems, we will move forward.

Dr. Just, thank you. Whenever you are ready, you may proceed.

DR. MARCEL JUST: Okay. Our research addresses

the issue of whether you can do two things at the same time. What happens to your brain while you're driving while listening on a cell phone. And the results are kind of dramatic.

If you go to the next slide. We put people in an MRI scanner. That's just a schematic. We put people in a conventional MRI scanner.

CHAIRMAN MARKOSEK: Speak into the mikes, please.

DR. MARCEL JUST: They have headphones, so they can listen to someone talking to them. They have a little mirror above their eyes.

Could I have the next slide. This is a cut away from the actual scanner. You could see a little picture of a road behind them. There's a tiny mirror above the person's head.

Could we have the next slide. You could see the mirror there. And through that mirror is like playing a video game at Dave & Busters.

Could we have the next slide, please. Next slide. So we have people in the scanner. And we have them navigating along a highway, a winding road at a fixed speed. It's a little bit challenging, but you don't have to be a video gamer to do it. And some of the conditions, you give them sentences to answer as

true or false in questions. Paris is the capital France, true or false. And we look at their what their brains are doing while they're doing this. And it is an amazing, and I think a clearcut answer.

Could I have the next slide, please. I think I'm not going to show you the actual video. But they navigate along the highway; in some cases, they pass cars and so on. Oh, maybe we will see it. And you can't hear the sentences right now, because they're playing over the speaker of my laptop.

So you could imagine people doing this, and all the time their brain activity is being monitored.

So there's a part of the brain that deals with some spatial thinking, the way an architect or a mechanical engineering thinks and the way a driver thinks, how am I going to make this next turn. It's called the parietal lobe.

And that next slide. And here I think is the single slide that shows most of the story. The left-hand panel shows the activation in the parietal area while you're just driving. And the red show the activated areas. We're looking at the back of someone's brain, and you sliced away sort of the tip of it. So you could see the place it activates. And you could see

this nice, bright activation while the person is driving.

You take that same person on the right-hand slide and see what happens to the brain activities, when they're also listening to sentences. They're not dialing. They're not holding a phone. They're just listening to someone talk. The activation goes down by 37 percent. It's like you're having a little bit of a problem driving brown out and, some of the time you can't afford that. If the driver in front of you would stop suddenly, if a child were to dart out from between parked cars, we're going to be less able to handle it.

Now we measure not only the brain activity. We also measure the driving performance in this simulator. We measure how well people maintain their lane. And we get a reliable increase in the amount of weaving in the lane. We get a reliable increase in the hitting of the side of the road when you're listening. Listening decreases your brain activity associated with driving. And it also makes you drive more poorly. And we have this as the first study showing the effects of listening while driving, and see that they're fairly traumatic results.

Could I have the next slide, please. So this

just summarizes the results I gave you. The participants in this is 29 students, licensed drivers, this is not the first time they're faced with a winding road.

The next slide, please. Let's skip this.

So the biological account of this, and there is a biological reason why we can't do two things at the same time, is simply that there's a limited amount of brain resources to go around.

You could certainly do two things at the same time, but you can't do them as well. There's a penalty, especially if they're these kinds of tasks.

I want to comment a little bit about the processing of language. It's very automated. If you try to will yourself to not understand or not process the next sentence I utter, you can't do it. It's going to go into your brain. And you could watch that. We've done studies where we ask people, "Don't attend to the other things that you're hearing." How you could see that information flowing into the brain from one center to another, and you could see what it causes.

So sometimes somebody who uses a cell phone might think, "Oh, well, if there's a difficult situation comes up, I won't pay attention to the person talking to me."

Well, no such luck. You can't do it. And there are published studies to show it.

So back that's why, that's a biological reason why you shouldn't be using a cell phone while you're in a demanding traffic situation.

The next slide, please. Another road we used. So some of the take-home messages, I was just listening to someone talk is distracting enough. You don't have to hold or dial the phone. It's just listening. And this is, of course, is true if you listen to a passenger talk, or your radio. But a radio, you could reach over and turn it off. A passenger often knows that they should stop talking in a demanding situation. But your cell phone conversation partner doesn't know that. And they just keep talking, or they expect you to keep answering. So that's why it's I think particularly insidious talking on a cell phone.

The next slide, please. This is what I previously mentioned that the language processing just takes away from the other from the other task you're doing, in this case, driving.

The next slide, please. A conversation, besides getting in automatically being kind of an unstoppable force can also be extremely emotionally or cognitively

demanding. If somebody says, you know, your job depends on how you answer the next question, and the car in front of you starts slowing down, the chances are you're going to have problems. If somebody says something emotionally troubling to you, that's going to take away from your driving ability.

Now, we intuitively know that, and yet many people take that risk. I think it's wrong to be taking that risk. As we all know, we're not taking that risk just for ourselves, but the people in front of us and around us we're taking that risk. And given that we know that it impacts driving and brain function, there's no reason to allow people to take that risk when they put others in danger.

Next slide, please. I made a list of possible remedies. It's presumptuous of me. The third one is, of course, legislation legislating limiting cell phone use. And that's probably the main thing you're thinking about. And I think that's a good thing to be thinking about.

I also have other things listed on there. It's conceivable that the insurance industry could intensify nonuse of cell phones. They also want to decrease the accidents and fatalities.

You could imagine, the second bullet there refers to an electronic workload monitor that disables the cell phone. It's imaginable, with the current technology, that there could be electronic devices that automobile manufacturers could develop. They could monitor traffic densities, certainly vehicle velocity, and use those as triggers to disable cell phones in the car. I think this is well within the capabilities of current technology.

And finally, the asterisk is my favorite bullet. It sort of in some ways, it may be a low cost one, and that's public education and drivers' ed courses regarding divided attention. I think that if a driver's ed course told people that they're taking 37 percent of your activation away, some people will have the good judgment to not use the cell phone, just with that information.

Knowledge is an extremely powerful tool in our society, and that's one of the ways we transform our citizenry, besides in addition to legislative acts.

I don't have to tell you, I'm sure, other experts have told you about it causing 42,000 traffic fatalities annually in the United States. Do you how that compares to our fatalities in the Iraq War, which is pushing

4,000. 42,000 a year; that means approximately one person a day in the Allegheny County area dies in a traffic fatality.

We already have many evils on the road. We have inherent road hazards. We have mechanical problems. We have all sorts of weak spots. To add cell phone use to this, I think is doing ourselves an enormous disservice. It's us we're putting at risk, us, our children, and our relatives. And we don't want to do that. And so it's us that we're putting at risk, and it's us who are putting us at risk. We are the cell phone users. And we're putting our fellow citizens at risk. And it's time to get together in a sort of town square and say, "Enough." We don't want to take chances with our children's lives, with our own lives. And I think that this shows us why it's not a reasonable risk to take.

So perhaps I'll stop there.

CHAIRMAN MARKOSEK: Okay. Dr. Just, thank you very very, much for that very interesting and telling testimony, particularly with the visuals. I think you know a picture is worth a thousand words. That was a very interesting way to inform the committee. And we certainly appreciate that. And I know as an educator,

you believe in education. And I think that is part of our job here, too, as a legislative panel, along with help of the media, PCN, and others to help educate the public. And oftentimes, just the public awareness will by itself get people to comply with the common sense things that they should do while driving a car. However, we are going to need some legislation.

And I appreciate you coming here today to help us define what that may or may not be.

Representative John Evans from Erie County has a question.

REPRESENTATIVE EVANS: Thank you very much, Mr. Chairman. And thank you, Doctor, for your testimony today.

I'm curious about your point on electronic workload monitors disabling a cell phone in using technology to block cell phone usage in a vehicle. I haven't really heard that put forth before.

My question I guess surrounds the fact that in some cases cell phone have been proven to save lives. If you see an accident happening that someone goes off on a snowy night into a ditch, and that cell phone caller in another vehicle to 911 can save that person's life as well.

Wouldn't it be extremely frustrating if you had a disabling device in a car and you were unable to communicate in an emergency situation?

DR. MARCEL JUST: Presumably, the workload monitor would disable it while you're in extremely heavy traffic. Now, I'm not sure even in an emergency room situation, you don't want to save one life and take two others in the meantime.

You know, really, in heavy LA freeway traffic, I'm not sure I would want somebody reporting an emergency. Maybe, I would want them to take the exit and report it.

The work interestingly, the corporation that did the workload monitor research is a company that was working on a navigation system, because they wanted to give navigation instructions at a good time to the driver. So they're aware that there are good times and bad times to tell the driver to turn left at the next intersection. So that that kind of capability is there. You know, one could have an override on it, if necessary. I'm not sure how to work this out.

But most of the time, people are most it must be that 99 percent of cell phone use isn't reporting emergencies.

REPRESENTATIVE EVANS: Okay. My followup question is concerning the conversations, and as the chairman mentioned, the picture was worth a thousand words. And that was very, very compelling.

Is that conversation differentiated with a person in the vehicle or on a cell phone? I mean, if you're having a conversation, in theory, we should all be driving by ourselves then?

DR. MARCEL JUST: We should be asking our passengers not to talk to us in heavy traffic. And some of us do. It's little bit more of a problem when you have children, or your passenger is in the back seat. If they're raising a ruckus while you're in heavy traffic, you're taking a risk. If that ruckus is going in, you're concerned if they'll start fighting or something, that's a risk. You know, it's hard to legislate against that.

REPRESENTATIVE EVANS: Right.

DR. MARCEL JUST: But at the same time, I think that you want to tell parents that maybe, you know, be very careful to separate your kids in the back seat, make sure that they're adequately entertained, maybe bring along another person to entertain the kids or something. But you're right, a passenger could if a

passenger is talking to you in the middle of L. A. Freeway traffic, I think it would it would impose a similar load. But I think mostly I've experienced, and I believe there's a study, a scientific study that shows the passengers stop talking when the situation becomes very demanding.

REPRESENTATIVE EVANS: Thank you very much.

CHAIRMAN MARKOSEK: Representative Mark Longietti.

REPRESENTATIVE LONGIETTI: Thank you, Mr. Chairman.

Thank you for your testimony.

I'm just wondering whether or not you made you talked about the language process, and you can't shut that off.

Do you make any distinction in your research between information that I'm receiving as opposed to I need to answer a question. I need to respond to the language that's coming through to me?

DR. MARCEL JUST: No. I think you process the content of the sentence. Just suppose I say, I need I'm going to say something. And you don't have to respond to it at all. It's going to go into your brain and it's going to process, I get to name the brain

areas. I know how much they activate. It doesn't matter whether even if you have no obligation to respond or process, as I said, even if you tried to shut it out, you can't.

This result isn't a consequence of us asking people to respond to a poll. We do that just to make sure that they're actually attending.

But in another study where we asked them to not attend, we got the same result.

REPRESENTATIVE LONGIETTI: Just to take that further. Would you believe then that the results would be the same, whether it's conversation on a cell phone, or if I'm listening to music that has lyrics in it?

DR. MARCEL JUST: That's a very good question. I don't I'm not sure. I think that's a good question. I don't believe that study has been run. So lyrics to music, if you're attending to them, I would think, but we don't know for sure. We don't even know about just melodic music, without lyrics, instrumental music. We don't know what impact that has, how much of a drain or so we don't know that. We don't have the answer to that just yet.

REPRESENTATIVE LONGIETTI: If I took the music scenario away, certainly, for example, then say

listening to talk radio, or books on tape, or something like that, would have the same brain effect?

DR. MARCEL JUST: Absolutely. So, yes, the use of books on tape, audio, yes, I would think would have the same effect. You wouldn't want you know, I don't want to be crossing the street while somebody is listening to books on tape or using their cell phone. It will take away from the brain activity.

Now, that's, of course, if you're driving through the desert and sort of miles of clear head and there's no harm, of course.

REPRESENTATIVE LONGIETTI: I guess your point on that is that with the radio or books on tape, it becomes a stressful driving situation, I have the option of quickly turning the radio off, and I suppose I have an option of ending my conversation on the cell phone, but I may not be as apt to do that. I take it, that's your point?

DR. MARCEL JUST: Yes, that's right. And we do say, "Oh, I'm going into the tunnel I have to get off now." And now, we should be saying, "I'm going through heavy traffic, I have to get off now," similarly, yes.

REPRESENTATIVE LONGIETTI: I guess that explains maybe that I tend to shut off the radio when I'm lost or

if I'm driving into the City of Pittsburgh and I'm unsure where to turn.

DR. MARCEL JUST: Yes, absolutely.

REPRESENTATIVE LONGIETTI: It seems like I want to hit that radio and shut it off.

DR. MARCEL JUST: That's right, that's right, so intuitively, and people who are just learning how to drive have great difficulty driving with the radio on. So they can't even take it. So that's absolutely right. So we experience it and kind of intuitively know it, and here's the science to prove it. And the problem is getting big enough that I think it needs to be dealt with.

Really, as I walk through the neighborhood I live in, the proportion of people who are at a main intersection speaking on cell phones seems incredibly large. And it's a risky business.

I could also surmise that we measured weaving in our study. But when I sometimes when I'm driving, I could tell that the person in front of me is using the cell phone while they're weaving. It looks like somebody is slightly inebriated.

REPRESENTATIVE LONGIETTI: You could appreciate, and I think you did on your various options, how

difficult it is when you look at this from the cognitive side to tackle this legislatively because for years we've been used to being able to play our radios, have conversations with people in our cars, listen to books on tape, or CD, or what have you, it becomes very different when you look at it from the cognitive aspect, it becomes a very difficult area for legislation.

DR. MARCEL JUST: That's right, and the problem is growing. Now, many cars have navigation systems. It's enormously helpful, but you know, looking at that scene, unquestionably it takes away your attention from the road. And when talking to you, sometimes it says annoying things that are irrelevant and are distracting.

So as the technology enables us to pump more and more information into the car, the limiting factor remains with the human brain, which is now many million years old, and it doesn't know about navigation systems and so on. It could still only do one thing at a time well. So there are many challenges, cell phones, navigations systems, and so on. It seems to me that there's a need, a sort of, many segments of our society need to work together to solve this problem. Some of them one component I think is legislative, but there

are other components we have to be very weary of.

I think, you know, DVD players, the one you put in the front seat, that seems to be a madness to let a driver watch a DVD while driving.

REPRESENTATIVE LONGIETTI: Thank you very much.

CHAIRMAN MARKOSEK: Thank you.

Representative Josh Shapiro.

REPRESENTATIVE SHAPIRO: Thank you, Mr. Chairman.

Doctor, thank you for your testimony. And I'm going to invite you to sit in my back seat between each of my two children and help keep them quiet while I drive.

You may or may not have heard Dr. Klauer's testimony at the beginning of our hearing today where she testified that the best situation certainly would be not to have any cell phone conversation in the car. Something I don't support. I do support banning the use of handheld cell phones. And in her testimony, she made it clear that using a hands free device is better than a handheld device, and there are certain handsfree devices that are even better to make the conversation a less of an impact on your driving.

I want to contrast that with your testimony where

you seem to suggest that from a cognitive standpoint there really wasn't much difference between having a conversation on a headset versus having a conversation on a handheld while driving.

Did I understand your testimony correctly?

DR. MARCEL JUST: What I did say was having just having the conversation will the 37 percent would be what you would expect from the from the hands free. And I could imagine it would get worse if you're dialing or holding.

REPRESENTATIVE SHAPIRO: Okay. So it's slightly worse from a cognitive standpoint if you're dialing or holding?

DR. MARCEL JUST: That's right. So this is like and this is bad enough.

REPRESENTATIVE SHAPIRO: Okay.

DR. MARCEL JUST: Now, I could raise the question of never or sometimes. So I think that's a tough question because, like I say, in the desert, I would oppose a total ban.

REPRESENTATIVE SHAPIRO: Sure.

DR. MARCEL JUST: But on the Parkway here in Pittsburgh during traffic times, I think it would make sense to ban it.

REPRESENTATIVE SHAPIRO: Okay. But let's use so we're comparing apples to apples. You're talking about the Parkway, Pittsburgh, five o'clock rush hour, cell phones are not banned and not supposed to be banned. And the issue on the table or one of the issues on the table is to ban the handheld conversation, and instead require the driver to use a headset, which is what my legislation would do.

So it's your testimony that you would still be you would still have some level of cognitive impairment, although you would have less cognitive impairment if you're using a headset?

DR. MARCEL JUST: I haven't tested your situation, so I don't know I don't know how much less, but this is bad enough. Certainly hands free would at least have this much impairment. At least. So it's a risk. Why would one want to subject us?

REPRESENTATIVE SHAPIRO: I understand where you're coming from in terms of the global picture. I'm just trying to nail down. Let me explain the question I'm trying to nail down. There's been testimony, there's been research to suggest that when you have the cell phone conversation, there's really two issues at play. There's the physical distraction, the fumbling

for the phone, using your hands and then there's the cognitive. And from a physical standpoint, there have been several studies, one in front of me, the design science study from 2005, which I want to ask you to comment because this is really but this is what it says, 71 percent of drivers steered more accurately when they used the headset; 92 percent of drivers achieve more of a consistent speed when using a headset. There are statistics like that to suggest that from a physical standpoint, you're better off using a headset. And that seems to jive with some of the other testimony.

What I wanted to nail down with you is on the cognitive side, because that's what you're an expert in, and what I've heard you say that from a cognitive standpoint that you're better off using a headset, not perfect by any stretch, and there's still cognitive impairment, but you're better off than using a handheld device. And I just want to make sure that I have correct because I've heard you say

DR. MARCEL JUST: I think all things being equal, I'd rather a person using a hands free than a handheld. That's so you don't want the perfect to be, you know, the enemy of the good.

REPRESENTATIVE SHAPIRO: That's our struggle

every day.

DR. MARCEL JUST: Yes, that's right. But it's just not enough.

REPRESENTATIVE SHAPIRO: Thank you. I appreciate your testimony. Thank you, Mr. Chairman.

DR. MARCEL JUST: You're welcome.

CHAIRMAN MARKOSEK: Seeing there are no other questions, I just have one brief question.

Have you ever had a legislator in your brain imaging machine? You don't have to answer that question.

But, Doctor, thank you very much. You've been a wonderful person to add to the committee testimony here today. And you're certainly a credit to CMU. I certainly wish you the best in the world.

DR. MARCEL JUST: Thank you so much.

CHAIRMAN MARKOSEK: Chairman Geist and I would like to thank all of you here for attending today. And just keep in mind that, you know, the passage of legislation, if you visualize a spectrum is over here as zero, we have no laws to control any of this, and over here is banning or controlling everything, we're probably going to fall somewhere in the middle, maybe not even halfway, but it's our goal here is as a

committee to attempt to get off the zero dime so to speak and get some legislation passed that will control distracted driving in Pennsylvania.

So with that, I want to thank the members. I want to thank Chairman Geist. I especially want to thank our staff for doing such a wonderful job in setting this up, as well as PCN for traveling to Pittsburgh and presenting this. And certainly, the media that has attended as well. So with that, everybody thank you and the hearing is adjourned.

(Proceedings concluded at 3:17 p.m.)

COURT REPORTER'S CERTIFICATE

I, hereby certify that, I, Lois Sikoski, Notary Public, reported in stenotype the record of proceedings in the above entitled matter, and that this copy is a full, true and accurate transcript of my said stenotype notes.

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Court Reporter

dated: March 16, 2008