

UNITED STATES OF AMERICA

NATIONAL TRANSPORTATION SAFETY BOARD

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In the matter of: *

ATTENTIVE DRIVING - COUNTERMEASURES *
FOR DISTRACTION FORUM *

* * * * *

Board Room and Conference Center
National Transportation Safety Board
429 L'Enfant Plaza East, S.W.
Washington, D.C. 20694

Tuesday,
March 27, 2012

The above-entitled matter came on for hearing, pursuant
to Notice, at 8:30 a.m.

BEFORE: BOARD OF INQUIRY
National Transportation Safety Board

APPEARANCES:

NTSB Board of Inquiry

DEBORAH A.P. HERSMAN, Chairman
 CHRISTOPHER A. HART, Vice Chairman
 ROBERT L. SUMWALT, Member
 MARK R. ROSEKIND, Ph.D., Member
 EARL F. WEENER, Ph.D., Member

NTSB Technical Panel

JANA PRICE, Ph.D., Senior Human Performance
 Investigator, Office of Highway Safety
 DEBORAH BRUCE, Ph.D., Project Manager, Office of
 Highway Safety
 ELISA BRAVER, Ph.D., Transportation Research Analyst,
 Office of Research and Engineering
 DENNIS COLLINS, Senior Accident Investigator (Human
 Performance), Office of Highway Safety
 NICHOLAS WORRELL, Transportation Safety Advocate,
 Safety Advocacy Division, Office of Communications

Panel 1: Attention to Non-Driving Tasks

JEFF CAIRD, Ph.D., University of Calgary
 DONALD FISHER, Ph.D., University of Massachusetts
 JOHN LEE, Ph.D., University of Wisconsin
 ANNE McCARTT, Ph.D., Insurance Institute for Highway
 Safety (IIHS)

Panel 2: Distracted Driving Laws and Enforcement

STATE SENATOR (OR) BRUCE STARR, Vice President, National
 Conference of State Legislatures (NCSL)
 CHRISTOPHER MURPHY, Immediate Past Chairman, Governors
 Highway Safety Association (GHSA)
 SGT. JERRY OBERDORF, Pennsylvania State Police
 NEIL CHAUDHARY, Ph.D., Preusser Research Group
 TIM BARKER, York County Pennsylvania District
 Attorney's Office

APPEARANCES: (Cont.)

Panel 3: Attentive Driving: Changing Attitudes and Behaviors

JACOB NELSON, American Automobile Association (AAA)
DANIEL McGEHEE, Ph.D., Center for Policy, University
of Iowa
DAVID TEATER, National Safety Council (NSC)
JEFFREY MICHAEL, Ed.D., National Highway Traffic Safety
Administration (NHTSA)

Panel 4: Technology and Design Countermeasures

JOHN MADDOX, National Highway Traffic Safety
Administration
LINDA ANGELL, Ph.D., VTTI/Touchstone Evaluations
JAMES SAYER, Ph.D., University of Michigan
Transportation Research Institute (UMTRI)
ROBERT STRASSBURGER, Alliance of Automobile
Manufacturers (AAM)
MICHAEL CAMMISA, Global Automakers

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P R O C E E D I N G S

(9:30 a.m.)

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2
3 CHAIRMAN HERSMAN: Good morning. Welcome to the Board
4 room of the National Transportation Safety Board.

5 I am Debbie Hersman, and it is my privilege to serve as
6 Chairman of the NTSB. Today I am joined by my colleagues, Vice
7 Chairman Christopher Hart, Board Member Robert Sumwalt, Board
8 Member Mark Rosekind and Board Member Earl Weener.

9 Will you please turn you attention to the video screen?

10 (Video/audio playback.)

11 That story, along with so many other tragedies, lives
12 cut short, lives forever changed, that's why we're here today.
13 It's time to address how to modify attitudes, change behaviors and
14 save lives.

15 Today, we are joined by experts as well as leading
16 highway safety advocates. We also have exhibitors out in the
17 hallway showcasing how they are fighting distracted driving. But
18 perhaps most poignantly are the victims and family members who are
19 here. They have suffered unimaginable losses, yet they work hard
20 so that others won't experience the tragedies they have known.

21 One person in the audience today, who is making a big
22 difference, is Ross Brenner. Ross is a sophomore at Spanish River
23 High School, in Boca Raton, Florida, and he's spearheading a
24 national event to raise awareness about the dangers of texting and
25 driving. His message is simple: Don't text and drive. As Ross

1 has put it so well, "There is already enough danger in the world.
2 We don't have to go out of our way to create our own." Ross, will
3 you please stand and be recognized? (Applause.)

4 Another person in the audience who has been working for
5 years to make a difference is champion racecar driver, Andy
6 Pilgrim. He has been focusing on teen driver safety for more than
7 15 years. As many of you know, car accidents are the biggest
8 killer of teens on our roadways. Andy's message has been "Pay
9 attention at all times while driving." His public service
10 announcements, which are outstanding, are going to be shown during
11 the breaks and there are copies available in the lobby. Andy,
12 will you please stand and be recognized? (Applause.)

13 And look at Chapel Hill, North Carolina. Yesterday,
14 their town council passed a complete cell phone ban, hands free
15 and handheld. Advocates Krista Slough and Joe Capowski, who
16 worked so hard tirelessly to achieve this ban, are here with us
17 today. Congratulations to you, both, and to Chapel Hill. Will
18 you all please stand? (Applause.)

19 It is truly these individual and collective actions that
20 are going to change behaviors and attitudes when it comes to cell
21 phone use and texting behind the wheel.

22 At the NTSB, we've seen distracted operations on our
23 nation's railways, airways, waterways and, most commonly, on our
24 roadways. Ten years ago, we investigated an accident where a
25 young driver was talking on her cell phone. Her car crossed the

1 high median, flipped over and landed on a minivan. That
2 conversation ended in five fatalities.

3 Just last year, we completed an investigation involving
4 a commercial truck driver. He was on his phone, he crossed the
5 median, overrode a barrier, struck a van, killing himself and 10
6 others.

7 Then, in December, the Board met on a multi-vehicle
8 crash, caused by a teen driver who sent and received 11 text
9 messages in the 11 minutes before the fatal accident.

10 After a decade of issuing recommendations about
11 distraction, in December, we issued our boldest recommendation
12 yet. We called for a nationwide ban on the use of portable
13 electronic devices while driving. As you all know, that
14 recommendation struck a chord, as it should. We ignited a
15 national dialogue and heard from citizens from across the country.
16 Some of them said the NTSB sure has a lot of nerve; there goes
17 intrusive government again. But others applauded us for taking
18 such a strong stand. We received letters, e-mails, phone calls
19 and even original public service announcements. One man even sent
20 a song that he had composed called "Shut Up and Drive".

21 Yes, our nation is truly at the intersection of mobility
22 and connectivity. Mobility because Americans are always on the
23 move. We have millions of people driving billions of miles every
24 day. Connectivity, just look at the growing market share of
25 electronic devices. There are more wireless accounts than there

1 are people in the United States.

2 So if you all in the audience will help me out here,
3 please raise your hand if you have one or more BlackBerrys, cell
4 phones, Smartphones or other devices. As you can see, these
5 devices are pervasive. They are in our offices, in our homes, our
6 schools and in our cars, with fatal consequences. People want to
7 be connected anywhere, anytime, anyhow.

8 Whether it's hands free or handheld, touching the
9 dashboard or waving at a windshield, it can be distracting.
10 Further what we know, there are multiple kinds of distractions:
11 visual, oral, manual and cognitive. We have got to dispel the
12 myth of multitasking. We are still learning what the human brain
13 can and cannot handle.

14 But what is the price of our desire to be mobile and
15 connected at the same time? Just ask Jacy Good, Allen Andres and
16 many of the others who are here with us today. They can tell you,
17 the price is just too high. Can any message, any text or any call
18 be worth someone's life?

19 As we gather on the eve of National Distracted Driving
20 Awareness Month, it's time to ask what it's going to take to move
21 from awareness to action. It's clear that we don't need another
22 decade of investigations and recommendations. It's clear that we
23 need to determine what we can do, individually and collectively,
24 to stop the deadliness of distraction, and it's clear that we need
25 to act now. Too much is at stake.

1 Let's listen, learn and identify specific steps to put
2 attention back in the driver's seat, to improve safety and most
3 importantly, save lives. I look forward to an informative and
4 provocative discussion here today as we hear from our experts, and
5 I would like to turn the podium over to Dr. Deb Bruce. She and
6 her team have done an outstanding job putting this event together,
7 and I would ask you to please introduce our first panel, Dr.
8 Bruce.

9 DR. BRUCE: Chairman Hersman and Members of the Board,
10 our first panel this morning will introduce the broad range of
11 distractions that compete for driver's attention. Panelists have
12 been asked to discuss the categories and the terminology applied
13 to the subject of driver distraction, and to discuss the findings
14 of distracted driver research, both experimental and naturalistic.

15 There are four panelists on the first panel. As I
16 introduce each, they will provide some brief opening remarks.

17 Our first presenter this morning will be Dr. Jeff Caird
18 from the University of Calgary. Dr. Caird is the Director of the
19 Cognitive Ergonomics Research Laboratory, and he directs the
20 University of Calgary Driving Simulator Center. He also co-leads
21 the Teen and Novice Driver Network, which is part of Canada's
22 National Research Initiative for Automotive Research and
23 Development.

24 Dr. Caird, I invite your presentation.

25 DR. CAIRD: Thank you. I'd like to introduce a number

1 of things with respect to research on driver distraction. First
2 of all, as you see in the picture before you, Times Square. Now,
3 Times Square contains many, many, many distractions, and it's very
4 interesting to look around, but as you see, somebody's on their
5 cell phone, somebody's looking up at the billboards. That's one
6 of the first things that I'd like to introduce. There are many
7 types of distractions.

8 Secondly, what is the contribution of distraction to
9 U.S. traffic fatalities? First of all, it's increasing. From
10 1999 to 2008, it increased from 10.9% to 15.8% of total fatalities
11 in the United States. Secondly, we know that driver distraction
12 from texting is a large problem. One of the analyses predicts
13 that texting has increased the number of fatalities a great deal
14 across that same time period.

15 Yet another theme I'd like to introduce is if you see
16 the big V or W, or however you want to see the particular figure,
17 the data varies, but one of the themes I'd like to bring forward
18 is that there's convergent evidence in much of the research that's
19 out there, meaning that if you look across the types of studies,
20 distraction and the negative effects of it tend to accumulate,
21 whether you're looking at it from -- there's a number of different
22 types of methodologies, epidemiology. Many are familiar with
23 naturalistic observation studies, of the 100-car study, driving
24 simulators, who the expert panel is quite familiar with. There's
25 convergence evidence of cross-studies.

1 Secondly, there's not a definitive method per se that
2 answers all the driver distraction questions. So it's often
3 important to look across all the different types of methods to see
4 what they all say. Again, they tend to be convergent indicating
5 that driver distraction is a problem.

6 This is a busy slide but people are distracted by many
7 things. Many of those distractions are outside the vehicle. The
8 first line, and this is a particular set of data from Jane Stutts,
9 and she's looked at it from a number of points of view: adjusting
10 music, looking and interacting with occupants, and lower on down,
11 you see a much smaller proportion, talking and listening to the
12 cell phone, which appears to be growing in this particular data
13 set.

14 Again, if you look across the two time periods, you see
15 some variance in the two data sets which indicates it's not
16 particularly stable data because you have a general indication of
17 the overall contributions of many different types of distractions.

18 Why do cell phone conversation or other in-vehicle tasks
19 affect driver performance? We did a meta-analysis that included
20 26 studies, and we find that, in general, conversation increases
21 responses to hazards and events by a quarter second.

22 Other things like, do people decrease their speed when
23 they're engaged in a conversation? No, not necessarily across the
24 studies. Do they increase their following distance or headway?
25 No, not necessarily. Many people argue that there's a

1 compensation that occurs. That tends not to be the case.

2 Lane keeping, do you stay in your lane, is less affected
3 by being in a conversation. Do the eye movements change? Yes,
4 they do, but there's problems with combining across a number of
5 studies. And do people miss things? There's, again, insufficient
6 data on that but many individual studies have found that you can
7 miss things altogether like traffic lights and so forth.

8 And there's a number of slides that are missing, but I'm
9 not sure where they went to. So thank you.

10 DR. BRUCE: Thank you, Dr. Caird.

11 Our second presenter will be Don Fisher from the
12 University of Massachusetts Amherst. Professor Fisher is the head
13 of the Department of Mechanical and Industrial Engineering as well
14 as Director of the Arbella Insurance Human Performance Laboratory.
15 In addition, Dr. Fisher has pioneered the development of both PC-
16 based hazard anticipation training and attention maintenance
17 training to improve novice drivers' ability to anticipate hazards
18 while driving.

19 Dr. Fisher, I invite your presentation.

20 DR. FISHER: Thank you, Dr. Bruce. There are a number
21 of different categories of distraction. From the last slide, one
22 Jeff actually didn't have, he would have spoken briefly about the
23 engineering, enforcement and education remedies that the
24 transportation community can take in order to reduce the dangers
25 that distracted driving presents to the motoring public.

1 As many of you know, we already have a number of
2 engineering, enforcement and education remedies we can take.
3 However, it is the case that the sources of distraction seem
4 almost to be limitless, and unless we can define some finite
5 number of categories, we're going to have almost a limitless
6 number of remedies.

7 Fortunately, fortunately, from the standpoints of
8 behaviors that affect the safe operation of the vehicle, there are
9 roughly five categories of distraction. Those categories depend
10 on whether the driver's eyes are on the road, off the road, and if
11 off the road, whether they are inside the vehicle or outside the
12 vehicle. So five categories of distraction.

13 Category 1 distractions are just those distractions
14 where you're taking a single glance inside the vehicle. Category
15 2 distractions are those distractions where you're alternating
16 glances inside and outside the vehicle and so on and so forth, as
17 you can see in that slide.

18 Let's start by considering the engineering remedies
19 across the five possible types of distractions. To begin, I want
20 to consider Categories 1 through 4. In Categories 1 through 4,
21 the engineering remedies are targeted at making sure the drivers
22 are alternating short, safe glances inside the vehicle or to the
23 side of the vehicle with sufficiently long glances on the forward
24 roadway, sufficiently long enough to anticipate hazards.

25 Most of us in the engineering and transportation

1 communities agree that we should limit the glances off the forward
2 roadway during a single glance to no more than two seconds.
3 However, we are still not sure when a driver is alternating
4 glances on and off the forward roadway, how long the glance has to
5 be on the forward roadway in order to anticipate a hazard. Note,
6 that this means that many of our new in-vehicle systems where the
7 drivers are alternating glances on and off the forward roadway are
8 not necessarily safe because we don't know yet how long the driver
9 needs to glance on the forward roadway in order to remain safe.

10 In Category 5, that last category, conversely, we try
11 and monitor driver state and fatigue, and Professor John Lee will
12 talk about some of those.

13 So next let's consider some of the enforcement
14 strategies across the five categories. In fact, there have been
15 really only two: Category 2 enforcement strategies, such as
16 texting, and Category 5 enforcement strategies, such as hands-free
17 -- bans on handheld cell phones and now the NTSB's call for a ban
18 on cell phones altogether. I think in the future, we're going to
19 see a major discussion of certainly bans on cell phones in work
20 zones and school zones.

21 Finally, let me consider the education remedies we might
22 take across the various different categories. I want to begin by
23 saying that novice drivers are much, much, much more likely to be
24 distracted than our experienced drivers. As evidence for this, we
25 have, in one study, evaluated drivers' glances inside the vehicle,

1 both comparing novice and experienced drivers, and we find, for
2 example, when the drivers are trying to get change for an exact
3 tollbooth, that novice drivers -- that's the bar on the right in
4 the slide -- novice drivers are some 16 times more likely to take
5 a dangerous glance inside the vehicle than are experienced
6 drivers, 16 times more likely to take a dangerous glance inside
7 the vehicle.

8 We've also looked at novice and experienced drivers when
9 they're glancing outside the vehicle and we find that when novice
10 drivers are trying to anticipate hazards, they're some six times
11 less likely -- the bar on the left is six times lower than the bar
12 on the right -- some six times less likely to anticipate hazards
13 than are experienced drivers.

14 There is some good news with respect to training
15 programs designed to remediate the dangers of distracted driving.
16 We have evaluated and developed training programs for Category 1
17 and Category 2 distractions that reduce the frequency of
18 especially long glances, and we've developed and evaluated novice
19 driver training programs that increase the likelihood that novice
20 drivers will anticipate a hazard up to a year after training.

21 In short, there are three takeaway messages. First, we
22 really don't know whether in-vehicle systems are safe which are
23 requiring drivers to alternate their glances on and off the road
24 because we don't know how long you need to stay focused on the
25 road in order to anticipate a hazard. Second, in terms of

1 enforcement, I really think we ought to quickly move as a nation
2 towards banning cell phones in work zones and school zones. And,
3 third, I think the evidence is very strong that novice driver
4 training programs, especially when they're immersive and in a
5 virtual environment, can have a positive effect on the behaviors
6 that are causing crashes. Thank you for your attention.

7 DR. BRUCE: Thank you, Dr. Fisher.

8 Our third presenter will be Dr. John Lee from the
9 University of Wisconsin Madison. Dr. Lee is the Emerson Electric
10 Professor at the Department of Industrial and Systems Engineering
11 at the University of Wisconsin Madison, and director of the
12 Cognitive Systems Laboratory. Dr. Lee's research focuses on
13 safety and the acceptance of complex human-machine systems and he
14 considers how technology mediates attention.

15 Dr. Lee, I invite your presentation.

16 DR. LEE: Thank you very much, and thank you for the
17 opportunity to be part of this discussion.

18 I'd like to start with an anecdote about a trip that I
19 took about a month ago. On February 13, I was returning to
20 Madison, and I was approaching Madison on a divided highway that
21 was transitioning into a suburban arterial, and I looked down to
22 change the radio. I looked down to scroll through a list of songs
23 that had been read into my car's computer from a CD. Wanting to
24 avoid the Adele songs that my wife had stored there, I searched
25 for songs by Bruce Springsteen, looking through the list,

1 Springsteen, Adele, Springsteen, Adele.

2 I then looked back to the road. No looming crash, no
3 imminent death, nothing untoward, nothing but the feeling that I
4 had looked away from the road for much, much too long. I was
5 really lucky. I think I may have looked away from the road for 3,
6 4, 5 seconds, dangerously long.

7 This experience I think provides some important lessons
8 that are typical of the more general trends regarding driver
9 distraction that I think are worth thinking about. First, despite
10 a strong commitment to driving safety, I was seduced in the moment
11 by technology. I never talk on my cell phone, hands
12 free/handheld, in the car and yet I was inadvertently distracted,
13 tempted to do something much more distracting.

14 Second, although some of these vehicle entertainment
15 systems seem like old technology, just seem like the radio, it
16 isn't; it's very different. So the surface similarities belie
17 really profound differences that make something seem familiar and
18 safe but it may not be.

19 Third, education is not sufficient. Despite publishing
20 a paper on the dangers of scrolling through a list of songs while
21 driving, I failed to adjust my own behavior, and that paper is
22 cited at the top, published in the same month that I had this
23 event. So a sad irony there.

24 The danger I think of distraction comes from the huge
25 proliferation of new types of distractions. Hundreds of thousands

1 of Smartphone apps have been developed. I think at last count
2 there's over 500,000 apps for the iPhone alone and many of those
3 are designed to be used while driving, and some are designed, I
4 think, expressly not to be used while driving, but drivers do
5 anyway.

6 The pace of change is daunting. The pace of change far
7 outstrips the pace of regulatory response, which I think is a
8 major problem. A recent news release highlights this challenge.
9 Intel has pledged a \$100 million fund that will, quote, "give
10 consumers what they want, uninhibited access to the Internet and
11 news, entertainment and social media while driving." So I think
12 that's just an indication of the pace of change.

13 Some of this technology is entertainment and directly
14 distracting from the task of driving. Some of the other
15 technology, shown here in this futuristic vision of driving from
16 *Wired Magazine*, may actually direct drivers' attention to the road
17 or intend to provide driving-related information, but can also
18 distract, as indicated by this head-up display showing the
19 speedometer that might at the same time mask other important
20 information on the roadway. So just as entertainment can
21 distract, driving-related information can also distract, and I
22 think that this is a growing issue as cars are changing
23 dramatically, moving from cars as we normally think about them to
24 computers on the road, 200 million lines of code in a modern
25 vehicle just in the navigation system. So dramatically complex

1 cars that are changing the nature of driving.

2 So what's to be done? One approach is to use attentive
3 cars that help direct drivers' attention to events of interest in
4 the moment, but also provide feedback to help drivers understand
5 the dangers of the risks they're taking.

6 So to conclude, I think some of the important issues for
7 us to consider are, first, that there's a plethora of new
8 distractions entering the car. Second, these new distractions
9 bring dramatically new capacity to distract the driver. The
10 increasing computerization of the car brings the potential for the
11 car itself to distract the driver through collision warnings that
12 might be given to the driver.

13 The second to last point there, is that this rapid pace
14 of technology change outstrips the ability, I think in many cases,
15 for policy to keep up, and attentive cars may be an answer to
16 complement regulations, public awareness and training.

17 Thank you for your attention.

18 DR. BRUCE: Thank you, Dr. Lee.

19 Our fourth presenter for this panel will be Dr. Anne
20 McCartt, Vice President of Research at the Insurance Institute for
21 Highway Safety. Dr. McCartt has worked in the highway safety
22 field for more than 25 years and has authored more than 150
23 technical reports and scientific papers in such areas as
24 distracted driving, alcohol-impaired driving, large truck safety,
25 young drivers, side airbag effectiveness and occupant restraints.

1 Dr. McCartt, I invite your presentation.

2 DR. McCARTT: I'd like to thank the Board for inviting
3 me today to speak.

4 There's really no study or a single study approach
5 that's going to tell us all the things that we'd like to know
6 about the problem of distracted driving, and I'd like to use the
7 research on cell phones to illustrate this point.

8 So there's ample evidence that many drivers talk on
9 phones when they're driving. This slide summarizes surveys
10 conducted by the federal government over the last few years. If
11 you look at the gold line, that indicates that any given time of
12 day, about 5% of drivers are talking on handheld phones while
13 they're sitting at intersections. The blue line incorporates an
14 estimated 4% additional drivers who are talking on hands-free
15 phones.

16 We know a lot more about the use of handheld devices,
17 talking on handheld devices. We know a lot less about the use of
18 hands-free devices. There are also large gaps in our knowledge
19 about different driving situations. So, for example, we know
20 little about phone use at night, on busy high speed roads or rural
21 roads.

22 Most studies have been experimental studies. These are
23 able to isolate very precisely the effects on driving performance
24 of specific phone tasks, and pretty much all of them have found
25 that there are decrements in driving performance with either

1 handheld or hands-free phone tasks. The limitations are that
2 these are small volunteer samples, that the driving and the phone
3 tasks are controlled by the researcher, not the driver, and so
4 it's unknown whether the findings generalize to drivers using
5 their own phones and their own vehicles.

6 Naturalistic driving studies have the advantage that
7 they are looking at real world driving, so they can document very
8 precisely exactly what observable distractions of drivers are
9 present. The biggest limitations to these studies to date have
10 been that there have been very few crashes in their samples. So
11 if you look at the 100-car study of passenger vehicles, for
12 example, there were about 500 crashes and near crashes. Only
13 about 50 were crashes. In a study of commercial vehicle drivers
14 where there were 3600 safety relevant events, only 10 were at-
15 fault crashes and about 112 were at-fault near crashes.

16 It might seem that a logical place to study distraction
17 would be to look at police crash reports. Unfortunately, it's
18 just a reality that distraction is not reliably reported by
19 police.

20 This slide summarizes the percent of deaths involving
21 just driver distraction. This is based on the Fatality Analysis
22 Reporting System. The red line shows the national percentage.
23 These other lines show four states. And a couple of points that
24 this slide makes, if you focus, for example, on the purple line,
25 which is Maryland at the top -- that green line is Florida -- what

1 you see when you look across the states is very large differences
2 across the states and also you have some what you might call
3 anomalies when you look year to year within a state.

4 There have been two studies that have been able to
5 verify phone use for crash-involved drivers. These used cell
6 phone company billing records. These were strong study designs
7 that accounted for many driver factors, but these studies also
8 have some potential limitations.

9 One is that the driving situation when the crash
10 occurred may not have been the same as the driving situation in
11 the control period. These were all crash-involved drivers. So
12 the risk of their using phones might not generalize to non-crash-
13 involved drivers. Certain aspects of this study also relied on
14 drivers recalling events.

15 So I think one of the things that we understand the
16 least is what we know from all these different studies about the
17 risk of talking on phones, how that translates into trends and
18 crashes. This is the trends in police reported crashes. You see
19 a similar trend when you look at fatal crashes.

20 If you look, for example, at the studies where cell
21 phone use was verified, there was a fourfold increase in the risk
22 of crashing when a driver was on the phone. If you look at
23 estimates that run from 7 to 10% of drivers on the phone during
24 their driving time, and you put these things together, you would
25 expect 25% of police reported crashes, approximately, to involve

1 distraction. So many of us are puzzled by the fact that we don't
2 seem to be seeing a very large number of crashes showing up when
3 we look at trends due to talking on phones.

4 And then finally just one last comment. I think to some
5 extent, there are a lot of things we'll really never understand
6 about distraction and the effect that it has on crashes, but there
7 are new technologies, crash awareness technologies in vehicles
8 that may help prevent crashes that occur due to distraction,
9 fatigue and other kinds of inattentions. So we may actually be
10 able to solve a lot of the problem without fully understanding it.

11 Thank you.

12 DR. BRUCE: Thank you. Chairman Hersman, that concludes
13 the introductions and opening remarks. Panelists, I want to
14 recognize your adherence to our tight schedule today. I and the
15 Board are well aware of how difficult it is to follow the clock.

16 I turn the panel back over to you and the Board for
17 questioning.

18 CHAIRMAN HERSMAN: Thank you, Dr. Bruce.

19 Dr. Caird, I know that we may have had some challenges.
20 Did you have another slide you wanted to show?

21 DR. CAIRD: Sure. That would be great.

22 CHAIRMAN HERSMAN: Okay.

23 DR. CAIRD: Rob, do you have that second set? Okay.

24 Okay. Thank you. So the last slide was just a more
25 comprehensive list of all current and potentially future ways of

1 mitigating driver distraction, and throughout today many of these
2 will be addressed, but I wanted to put it on a single list, if you
3 will.

4 Maybe pick off the last one, what is a social norm?
5 Some people may scratch their head. This is not unlike in drink
6 driving or alcohol that you actually make your friends conform to
7 the social norm. Under no circumstances should you drive and be
8 distracted at the same time. A social norm takes a very long time
9 to permeate and transmit through a society, but that's one of the
10 things of many others that we should be working on, and with that
11 I'd like to close. Thank you for that opportunity.

12 CHAIRMAN HERSMAN: Thank you very much, and we'll turn
13 the first questions over to Member Sumwalt.

14 MEMBER SUMWALT: Well, good morning. I want to thank
15 all of the panelists, not just this panel, but all of you who have
16 come. This is a very important topic, as are all the issues the
17 NTSB looks at, but this one is one that we've said many times is
18 growing to a -- the problem of distractions in transportation is
19 growing to be an epidemic. So thank you all for being here.

20 I realize that distractions come in all forms or
21 fashions. We've got kids in the back seat. We've got billboards.
22 We've got electronic devices. We've got all kinds of things going
23 on. But the questions I want to talk about are those related to
24 cell phones and texting.

25 Dr. McCartt, do you have figures on how much greater the

1 likelihood of being in an accident is as a result of being on a
2 cell phone from not being on a cell phone?

3 DR. McCARTT: Well, I think still the strongest study
4 looking at the crash risk of being on the phone are the two
5 studies I described that were able to verify phone use using cell
6 phone billing records for drivers involved in crashes, and both of
7 these studies found that the risk of either a property damage only
8 crash or an injury crash was increased by fourfold when drivers
9 were on the phone.

10 Both studies also found that the risk was similar
11 whether the phone was handheld or hands-free. The only thing I
12 think we weren't able to look at in terms of hands-free phones, we
13 weren't able to separate out the different kinds. So, for
14 example, we couldn't quantify the risk of crashing with a fully
15 hands-free phone.

16 MEMBER SUMWALT: Thank you. And I think that there's a
17 lot of good information right there. The data are showing that
18 there's about a four times increased likelihood of being in an
19 accident if you're on a cell phone, and that's one point. The
20 other point is, and the big point is, the data do not show any
21 difference between hands-free and handheld. Is that correct?

22 DR. McCARTT: That's correct, in that study. I would
23 also say that I think the large majority of experimental studies
24 have found similar things. There may be some differences in terms
25 of there might be an added risk from manipulating a phone, dialing

1 a handheld phone, but I think pretty much across the board for
2 experimental studies there is some decrement in measures of
3 driving performance associated with different kinds of cell phone
4 tasks.

5 MEMBER SUMWALT: You know, there are a couple of points
6 I really want to make out of this forum, and that issue that there
7 is no difference between handheld and hands-free, that's a point
8 that I think is huge. And after we made our recommendations in
9 December, we were -- you know, it's unfortunate we pick up the
10 newspaper and we see what other people are saying, especially
11 other high ranking government officials that really ought to know
12 better and say that we missed the mark on that, that hands-free is
13 okay. But your data are not showing that, correct? I want to
14 really drive this point home.

15 DR. McCARTT: That is what we found. I should say -- I
16 mentioned the naturalistic studies. They have the limitation that
17 they don't have a lot of crashes in their samples, but their
18 findings did diverge. They found that dialing or texting had an
19 increased risk of a safety-relevant event. They did not find a
20 significant risk to talking on a handheld phone.

21 I want to say something. Hopefully I can say do it
22 simply.

23 MEMBER SUMWALT: Well, that --

24 DR. McCARTT: When they -- sorry.

25 MEMBER SUMWALT: No, and this is going to be the

1 challenge for all the panelists all along. Board members have 5
2 minutes for questioning, and so that's going to be a challenge for
3 everybody. So thank you.

4 And so why is it? The big question I get is that why --
5 what's the difference between talking on a cell phone and having
6 somebody sitting next to you talking? And there is a difference.
7 So who would like to take a stab at that one?

8 Dr. Fisher?

9 DR. FISHER: Sure. Thank you.

10 There's a fundamental difference. When you're sitting
11 talking in the car with someone next to you, you have an extra
12 pair of eyes and you don't have that when you're on the cell
13 phone. Second, and importantly, when you're involved in a cell
14 phone conversation, the protocol is not to stop talking while
15 you're in the middle of an intersection or to stop talking when
16 the situation might be dangerous. So one is over-involved in a
17 cell phone conversation without the extra pair of eyes that a
18 conversation in the car involves.

19 I'd like to let others on the panel perhaps answer that
20 if they want to.

21 MEMBER SUMWALT: So I think that -- again, we've got 53
22 seconds. So I think what the issue here is that when you have a
23 licensed driver in the car with you, that licensed driver is sort
24 of mentally driving the car. I notice that when I'm a passenger,
25 we come to a stop sign, I'm clearing -- I'm looking to make sure

1 that that driver is not going to pull out when there's traffic.
2 So I adjust my speech patterns according to what I perceive the
3 driving demands are. Do you agree with that?

4 DR. FISHER: Exactly. Yes.

5 MEMBER SUMWALT: Well, Dr. Caird, you're chomping at the
6 bit there. So go ahead in 19 seconds.

7 DR. CAIRD: So some people as passengers regulate their
8 conversations with the drivers and others do not. So passengers
9 can be distracting, too.

10 MEMBER SUMWALT: Well, that's a good point. That is a
11 very good point. Thank you very much.

12 So, Madam Chairman, I have 4 seconds left, and you can
13 have it back.

14 CHAIRMAN HERSMAN: Member Weener.

15 MEMBER WEENER: Thank you. I was struck by -- we have a
16 little buzz here. Okay. Dr. Caird, I was struck by your slide
17 number 4. Can we put number 4 up, Dr. Molloy?

18 It's the table with the two studies, and we've so far
19 had a discussion -- standby for technical difficulties, huh?

20 Okay. Back to the question. On this chart, there are
21 two different studies here. Is that correct?

22 DR. CAIRD: That's correct.

23 MEMBER WEENER: And I'm always drawn to data, and in
24 this particular case, if this were a bar chart, the big bars in
25 both cases are outside person, object or event. Can you describe

1 what that means?

2 DR. CAIRD: People walking by, billboards, you know,
3 looking for signs, all things outside the vehicle essentially. So
4 it's a very broad category.

5 MEMBER WEENER: And these are nothing new?

6 DR. CAIRD: Not necessarily, unless you think about how
7 the environment, the traffic environment may be changing to --
8 billboards, other things.

9 MEMBER WEENER: Okay. Yeah, now these studies though
10 were basically within the last decade?

11 DR. CAIRD: That's correct.

12 MEMBER WEENER: Okay. So a third or 30% -- somewhere
13 between 24 and 30% are then -- these are crashes due to outside
14 distractions?

15 DR. CAIRD: That's correct. I would use those numbers
16 though -- as Anne mentioned, police reported data is particularly
17 unstable -- that it's relatively the largest category; however, it
18 varies somewhat.

19 MEMBER WEENER: Okay. I'm doing a little reading.
20 There was a NHTSA report of a couple years ago looking at just
21 inside distractions and, in that case, conversation with the other
22 person was the biggest bar by far.

23 DR. CAIRD: That's correct. And again, if you have a
24 passenger, that passenger could be either protective, meaning
25 they're with you -- in the case of two older drivers driving

1 together, they can provide a protective effect, that they're both
2 looking out for hazards and so forth, but in the case of teen
3 drivers, we know if you have passengers, crash risk goes up as the
4 number of teens in the vehicle increases. So sometimes it's
5 protective. Sometimes occupants, other passengers, can be
6 distractive, too. So, yes, there's that category.

7 MEMBER WEENER: Yeah, I notice the third line on this
8 particular table is the other occupant, and that's somewhere
9 between 10 and 20% of the crashes are due to the other occupants.

10 DR. CAIRD: Yes, that's right. I like data, too.

11 MEMBER WEENER: Yeah. So, you know, in the past, I've
12 always chided people to work on the big bars first and drive the
13 big bars down until the little bars now become the new big bars,
14 but at the moment, we don't seem to have a focus on this other
15 category of distraction, being what goes on outside the vehicle.

16 DR. CAIRD: Right. Well, there are many, many different
17 things in that category. So we've done a couple of studies, one
18 on wind farms, one on driver billboards. Those are external
19 things that lend themselves to a little bit of experimental
20 control. However, the variety out there -- you know, do you have
21 people walk by? Again, if you come back to what should the driver
22 be doing; they should be focusing their attention on the roadway
23 and, you know, not let their attention wander to the things
24 alongside the road that grab their attention, necessarily. But,
25 you know, that's common sense but we don't do it.

1 MEMBER WEENER: Dr. Fisher.

2 DR. FISHER: Yes, we've looked at eye tracker studies of
3 novice and experienced drivers' willingness to take their eyes off
4 the road to look at things like billboards, and it turns out there
5 that both novice and experienced drivers are equally likely to
6 take especially long glances, long glances meaning those longer
7 than 4 seconds. And the problem with external billboards and
8 distractions on the side is they're seductive because you can
9 maintain your lane position, but you're going to totally miss a
10 pedestrian who steps off the sidewalk.

11 MEMBER WEENER: I would presume then that some of these
12 billboards could kind of capture you cognitively as well?

13 DR. FISHER: Exactly the problem that Dr. Lee talked
14 about, yes.

15 MEMBER WEENER: All right. Thank you.

16 CHAIRMAN HERSMAN: Member Rosekind.

17 MEMBER ROSEKIND: Good morning. I'm going to ask my
18 questions to the whole panel. Since you can tell we're all time
19 sensitive, I'll let you decide who wants to actually answer them.

20 I've been struck about how, even in the Chairman's
21 opening comments, we've been talking about visual, aural, manual,
22 cognitive kinds of distractions. That's just sticking with cell
23 phone. It seems that there's such a focus on eye gaze, and I get
24 that as sort of we're looking someplace. Where's the brain in all
25 this? I'm not seeing much about sort of brain processing. In

1 fact, even the question about how long you have to look forward
2 isn't about the gaze; it's about the processing that's involved in
3 actually interpreting what's going on, reacting to it, et cetera.
4 Is anyone doing research on brain activity? Can you also tell us
5 whether or not, are we only actually capturing 25% of the issue
6 here because we've not focused so much on the cognitive, manual
7 and some of the other things there?

8 DR. LEE: I could take a stab at answering this. I
9 think two important points is that when we separate out visual,
10 manual, cognitive, we treat them as discrete, independent elements
11 of distraction when, in fact, they're tightly coupled. So my
12 reading through the list of songs had a visual component of
13 distraction. I was looking away from the road, but there was also
14 a cognitive component as I was trying to think, was that a
15 Springsteen song or an Adele song, long-term memory, working
16 memory, coupled into trying to make that decision, and so that
17 cognitive component was partly what led to the long visual glance
18 away from the road, the visual distraction. So we really can't
19 separate them.

20 The cognitive component in a number of laboratory
21 simulator studies has been shown to impede our ability to
22 consolidate memory for objects seen in the environment, also slow
23 response to events in the response selection stage of information
24 processing. So there is a cognitive component even when your eyes
25 are on the road, and I think the big debate is whether most

1 crashes that occur, the precipitating event grabs your attention,
2 breaks through the cognitive distraction and allows you to respond
3 in time, and I think that's the big question at the moment.

4 MEMBER ROSEKIND: And I'll just -- you can keep coming
5 at me here, but Dr. Lee just made the point, which is the central
6 part of all those is the brain, and I just haven't seen much
7 about, you know, EG or functional MRIs or other places that are
8 processing all those different aspects of what you just described.

9 DR. FISHER: I'd like to add quickly that indeed if you
10 don't look, you can't see. You can look but not see, but if you
11 don't look, you can't see. And what we're finding again and again
12 and again is people aren't looking. So therefore they're not
13 seeing. So therefore they're crashing.

14 It is true that when you're looking, you've got to think
15 about the brain, but our problems as transportation safety
16 professionals come about largely because the drivers aren't even
17 looking.

18 MEMBER ROSEKIND: And switching to another one, which is
19 different methods seem to give us different prevalence numbers
20 here, and I'm wondering amongst you, without giving me strengths
21 and limitations of all of them -- we look at naturalistic; it
22 gives us sort of one end of this. We look at cell phone records
23 and sort of other crash relationships, another end of this. So
24 I'm kind of curious, first, if you can give us a sense of where
25 the strongest methods may be without, you know, getting into

1 strong limits for all of them.

2 The other really part of my question is, later we're
3 going to talk about enforcement bans, et cetera, and people
4 questioning their effectiveness, and clearly if we've got a moving
5 baseline here of just what the prevalence is to begin with, it
6 makes it even harder for us subsequently to determine whether any
7 of the interventions are actually effective or not. Can somebody
8 or all of you address that?

9 DR. CAIRD: I'll just say a few things, and then I'm
10 sure Anne has some things to say as well.

11 Again, I'd like to return to one of my original themes,
12 that a lot of the levels or ways of approaching it are saying the
13 same thing. There are problems at the epidemiological level. The
14 naturalistic data is saying the same thing, that it increases
15 crash risk. In a driving simulator, we're seeing eyes off the
16 road, longer reaction times. So in essence they're saying the
17 same thing. And if you ask a levels of evidence kind of question,
18 you know, if they're all convergent, it's less of an issue perhaps
19 that if they diverged in some way or another, it would be more of
20 a problem and you'd have to sort it out. So they're essentially
21 all saying the same thing in a way. So --

22 MEMBER ROSEKIND: Before we get to Dr. McCartt, the
23 challenge is they may converge that way, but later somebody is
24 going to say, we put a ban in or our insurance claims don't seem
25 to match up, and if I take my prevalence from one place and then

1 measure my other, all of a sudden that delta doesn't actually
2 justify any action.

3 DR. McCARTT: Could you put up slide 11? I want to just
4 show a slide from the naturalistic study, the 100-car study.
5 Hopefully it'll come up here in a minute. Because I think there's
6 been some debate focusing on the crash risk estimates.

7 The one before that I think. Yes.

8 There appear to be discrepancies between our studies
9 that found a fourfold increase in risk of crash-involved drivers
10 and the naturalistic studies. This slide summarizes, for the 100-
11 car study of passenger vehicles, the first column of numbers there
12 is the odds ratios for different types of distraction. The center
13 column is basically how frequently these distractions occur, and
14 then the right-hand column is when you put those things together,
15 you get a measure called population attributable risk, which is
16 basically the contribution of these different distractions to, in
17 this case, near crash and crash events.

18 And I think a couple of things this slide illustrates,
19 one is that it's a limitation of naturalistic studies in almost
20 all studies, that it's very difficult to measure cognitive
21 distraction. So they can measure what they can observe basically.
22 But I think the other thing that you see here is that even though
23 the risk of talking or listening on a handheld device is not
24 significant in this study, because it occurs so much more
25 frequently than some of these other tasks. In fact, it has a

1 comparable contribution to these crash/near crash events as
2 dialing a handheld device.

3 I think one of the biggest things we don't know is we
4 don't know about cell phone use and other distractions across a
5 variety of driving situations, and part of what that gets at, I
6 think, is to what extent drivers self-regulate. And, you know, I
7 put up the slide showing crash trends and you mentioned a study
8 that the Institute did looking at claims data where we did not
9 find a significant decline in insurance claims data in states that
10 had handheld bans, and some of these things, frankly, they just
11 don't add up. When you put the research together, you would
12 expect to see a decline, and we don't know all the reasons for
13 that. Some of it may be people switching to hands-free, which our
14 study would suggest is just as hazardous, but I think another
15 element in there is that drivers do self-regulate to some extent
16 and maybe the riskiest drivers are the least well at self-
17 regulating. And I think these are some of the things we really --
18 I don't know how to get a handle on them really well, but I think
19 they're a part of the puzzle.

20 MEMBER ROSEKIND: Great.

21 DR. McCARTT: There's just an awful lot we don't know
22 about the gambit of distractions in drivers in all kinds of
23 driving situations.

24 MEMBER ROSEKIND: Great. Thank you.

25 CHAIRMAN HERSMAN: Vice Chairman Hart.

1 VICE CHAIRMAN HART: Thank you. Dr. Molloy, would you
2 bring up that slide that Dr. McCartt described as slide number 11?

3 I'm not sure what the source of it is but -- yes, that one.

4 I'd like to throw this question out to the entire panel
5 because when I first saw this, I first saw it in a NHTSA
6 presentation, and I think it's based on the Virginia Tech study,
7 but correct me if I'm wrong. But I see the Figure 1 is normal
8 driving, and so that's the risk of normal driving. I'd be
9 interested in hearing from you how it is that that driving with
10 hands-free cell phones was shown to have less risk than normal
11 driving. I'd be interested in hearing from anyone on the panel
12 who'd like to speak to that because it was sort of
13 counterintuitive for me, and it didn't make any sense to me, and I
14 know there is divergence on that research, but I'd be interested
15 in hearing from anybody on the panel who would like to comment on
16 why it is that hands-free use is viewed as safer than normal
17 driving. Yes, Dr. Lee.

18 DR. LEE: One possible explanation is that when we think
19 about normal driving, we may not be thinking of what actually
20 happens during normal driving. I think many of us assume that
21 normal driving means that your eyes are on the road, you're
22 attentive, you're concentrating on the road ahead, and that may
23 not be the case.

24 If in the course of normal driving, you are actually
25 distracted by a variety of things, reaching for objects and so on.

1 The effect of the cell phone may actually keep you from doing more
2 dangerous things while you're driving. And I think that that's an
3 important point in terms of that normal driving baseline, it may
4 not be what some of us imagine driving to be.

5 VICE CHAIRMAN HART: Anybody else? This is a crucial
6 point because I know that the Department of Transportation has
7 declined to follow our recommendation regarding hands-free driving
8 based on this study and this chart, and that's why I'm really
9 interested in getting to the heart of this issue.

10 DR. McCARTT: I believe the finding that hands-free
11 phone was actually beneficial was from the study of truck drivers
12 and, you know, and involved very few crashes. Mostly lane
13 deviations and traffic conflicts were the measures they used. And
14 I would caution generalizing findings from a study of on-the-road
15 long distance truck drivers to the general driving population. I
16 just think their whole driving schedule, the fact that they are
17 prone to fatigue, that's the caution I would have with that
18 finding. I don't, you know, I don't believe Virginia Tech looked
19 at hands-free phone use in their passenger vehicle study and don't
20 have an estimate of that.

21 VICE CHAIRMAN HART: Thank you. Anybody else on that
22 question?

23 DR. CAIRD: Sure. If you look at the figure that's up,
24 which distractions increase crash risk, if you come down to either
25 dialing a cell phone or talk or listen to hands-free or handheld

1 cell phone, the first column is 100-car study. Again, these are
2 odds ratios. Anything above 1 increases the odds, 2, 4. You see
3 the 23 times for text messaging being the worst obviously. But if
4 you come down to the top of the list, you also have the commercial
5 vehicle study that was just mentioned, and then if you come across
6 to the last, you have Rune Elvik's meta-analysis of these same
7 things and you actually see a much higher odds ratio for handheld
8 and hands-free as a combined category of increasing crash risks.
9 So this is combining five reasonable studies, including the two
10 that Anne McCartt described earlier, the McEvoy and Don
11 Redelmeier's two studies, but in addition to that it also brings
12 in the data from the 100-car study. So that's maybe a better
13 indication of the odds ratio on that. Thank you.

14 VICE CHAIRMAN HART: Thank you. Anyone else on that
15 one?

16 Let me move to the next question. Dr. Caird, slide
17 number 2, it struck me that you had a huge dip in that slide, and
18 excuse me if I missed it, but I'd be interested in knowing what
19 was the reason for that enormous dip in the slide, if we can bring
20 that slide up, please.

21 DR. CAIRD: I can't understand why it dropped so much,
22 but again, if you go to Anne McCartt's data, and this is FARS
23 data, there's a lot of variability in reporting and maybe the
24 category changed or states something happened. I can't imagine
25 that, you know, all of a sudden it dropped so quickly and then

1 swung back, but that's the nature of the data. That was the point
2 that I tried to make here.

3 VICE CHAIRMAN HART: Okay. Thank you. And then last,
4 I'd like to follow up on a question that Member Sumwalt started
5 and just hear the thoughts of the two of you on the panel who did
6 not have the opportunity to comment due to limited time, and that
7 is the differences between speaking on a cell phone and speaking
8 to the passenger beside you.

9 DR. McCARTT: Well, I would agree that the biggest
10 difference is that the passenger is in the vehicle looking at the
11 driving situation, whereas the person on the phone or texting has
12 no idea. I actually think there's pretty subtle research that
13 shows for fatal crashes anyway, passengers are a risk for teens.
14 They're neither helpful nor not helpful for people in their 20s,
15 and for people 30 and older, passengers are actually beneficial in
16 decreasing crash risk.

17 DR. LEE: I agree, and I would only add that in the
18 extreme situation, beyond just modulating the conversations
19 according to the events on the road, the passenger, an attentive
20 passenger can reduce risk by acting as a collision warning system
21 for the driver, pointing out hazards and screaming in the extreme
22 case.

23 VICE CHAIRMAN HART: Thank you.

24 CHAIRMAN HERSMAN: Well, as a mother of three boys, I
25 will say that I am over 30 but I'm not sure that all of the

1 passengers in my car are actually helpful to the driving task. So
2 I definitely appreciate that there are certain types of passengers
3 that can be helpful to the driving task and others that can be
4 distracting.

5 I'd like to go back to follow up on a couple of the
6 questions. Member Weener raised the question of the big bar, and
7 you all are really our data panel in many respects. And so what
8 I'd like to ask you about, if we go back and we look at some of
9 the slides that were provided, I think Dr. Caird's slide, where we
10 talk about the risk outside the vehicle. My question to you is
11 has this changed much in studies over the years or has this been
12 pretty constant?

13 DR. CAIRD: I would say I don't know. I haven't seen
14 subsequent studies that have looked at the bigger picture, you
15 know, the total number of distracted driving crashes or fatalities
16 that gives a better indication on a crash-by-crash basis what
17 category they necessarily fall into. Maybe some others have
18 better data.

19 CHAIRMAN HERSMAN: I'm talking for the external crash
20 risk, the looking outside the vehicle.

21 DR. CAIRD: That's what I was referring to.

22 CHAIRMAN HERSMAN: Any others have any experience?
23 Rather than one study, are there multiple studies looking at this
24 over time?

25 Okay. Well, I think there is an issue there too, you

1 know, to learn from that lesson.

2 My follow-up question on that would have been, and as I
3 suspect that this information is probably reflective of
4 distractions that have been always present, since the Model T.
5 There's a lot going on outside the vehicle that you need sometimes
6 to pay attention to and others times you ought not be to be paying
7 attention to. There have been pretty girls probably since people
8 started driving cars that, you know, attracted people's attention
9 outside of the vehicle. So can we control for those external
10 distractions? People rubbernecking on the roadway, people looking
11 at pedestrians, can we control for those?

12 DR. FISHER: The bigger danger, as I think I said, in
13 many cases is the novice driver. With experience, drivers learn
14 to rubberneck less. And I think one of the ways to control that
15 is through education programs that just don't exhort the driver
16 not to look but actually show the driver that he or she would
17 crash if engaged in any of that rubbernecking. And our driver
18 education programs now do not do that, and many of the new studies
19 are suggesting that indeed for the novice driver, you can reduce
20 rubbernecking, you can reduce the dangerously long glances inside
21 the vehicle, and you can increase the likelihood that the novice
22 driver will actually anticipate a crash. I think a big bar is the
23 novice driver, and I think there are things that can be done to
24 reduce the size of that bar.

25 CHAIRMAN HERSMAN: Okay. But your study that had the

1 big bar that you referred to wasn't focused on novice drivers,
2 Dr. Caird, right? That was all drivers.

3 DR. CAIRD: That's correct. That's all drivers.

4 CHAIRMAN HERSMAN: Okay. So a question to you all is
5 what does research tell us about engaging in multiple concurrent
6 tasks? And what does that research help to inform us about when
7 it comes to guidelines or requirements, laws? How does the
8 research help us to inform good policy decisions?

9 DR. FISHER: I'll take a quick stab at that. The
10 research helps us inform good policy decisions because it lets us
11 know, among other things, what the durations of glances inside the
12 vehicle can be, what the maximum duration of those glances can be,
13 what the minimal durations of glances on the forward roadway can
14 be, among other things, and tasks and displays need to be designed
15 that do not go beyond those maximum and minimum limits. And I
16 think that's in part where the NHTSA visual-manual guidelines are
17 going, so on and so forth, but they've nowhere near evolved enough
18 yet, I think, to have an impact on policy. We're starting that
19 way, but we haven't done enough research.

20 CHAIRMAN HERSMAN: But that only applies to in-vehicle
21 systems, not things that can be brought into the vehicle.

22 DR. FISHER: No, it would apply to -- the five
23 categories of distraction would include when you're alternating
24 your glances inside the vehicle and on the forward roadway,
25 anything in the vehicle at which you are glancing, whether it was

1 a nomadic device, an integrated in-vehicle system or a CD that was
2 in the car. That's why at one level those five categories are
3 important because it suggests that all those devices where you're
4 alternating your glances inside and outside the vehicle really are
5 identical in terms of at least one thing, and that is the minimum
6 time you should spend on the forward roadway and the maximum
7 glance you should make inside the car.

8 CHAIRMAN HERSMAN: Okay. Ms. McCartt, did you want to
9 respond?

10 DR. McCARTT: I'm sitting here thinking about your last
11 question, and I guess I do think that there are certain
12 distractions which may be very risky but which drivers have very
13 little control over, and I think phones, texting, I think they are
14 different from most of the other distractions. I think they tend
15 to be more engaging because it's a dialogue. You're expecting a
16 response, expecting for you to respond. They can occupy a much
17 larger percentage of time, and they are within the control of the
18 driver. I mean, some of these other distractions are too, but I
19 do think that if you think about being able to change driver
20 behavior, some things really are beyond a driver's control,
21 including what is going on outside the vehicle.

22 CHAIRMAN HERSMAN: Dr. Lee.

23 DR. LEE: Yes, I think education is useful but limited,
24 and I think that some of the new technology that can move into
25 cars can help address both distractions within the vehicle and

1 outside the vehicle. As I alluded to in my slide showing
2 technology monitoring the driver, monitoring the environment and
3 then directing the driver's attention, I think that that sort of
4 technology can be incorporated into the vehicle to provide in a
5 sense real time coaching and feedback directing the driver's gaze
6 away from objects in the environment where they could become
7 distracted, so technology that might actually track the driver's
8 gaze in real time in production vehicles. I think that's
9 something that's futuristic at the moment but feasible in the long
10 term.

11 CHAIRMAN HERSMAN: Thank you all very much, and I'll
12 turn to Member Sumwalt.

13 MEMBER SUMWALT: Thank you. I'm going to ask Dr. Molloy
14 to pull up Dr. Caird's slide number 5, and maybe one more after
15 that, Rob.

16 On this particular slide, it appears, if I'm reading
17 this correctly, that the only detriment to performance associated
18 with cell phone conversations is a quarter-second increase in
19 reaction time. Did I read that correctly?

20 DR. CAIRD: Yes, but let me qualify it. This is a meta-
21 analysis where we're combining effect sizes across a lot of
22 different studies. So 26 is the one that feeds into the quarter
23 second. What we're not showing necessarily is a whole lot of
24 studies that have necessarily correctly measured headway and speed
25 and a variety of things such as eye movement. So we're not able

1 to really bring that to bear on cell phone conversation. So I
2 would qualify the data a little bit. There's been a lot of
3 studies since and maybe there's a better indication of that.

4 MEMBER SUMWALT: And I appreciate that clarification
5 because I thought if, you know, if we're here only because of a
6 quarter of a second increase in reaction time, then we may as well
7 go home, because it is a lot more significant than that and, as
8 you pointed out, there are other studies that show, for example --
9 and I realize that there are a lot of conflicting studies and
10 things. That's one thing I've learned from the literature review.
11 Young and Regan in 2007 indicated that drivers have difficulty
12 when they're on the cell phone, have difficulty maintaining speed,
13 throttle control and lateral position. So I don't want to
14 understate the significance of cell phone usage while driving.

15 DR. CAIRD: So again I would say across, combining
16 effects from a number of studies, we were not able to come up --
17 you can interpret that differently, though, essentially saying
18 that while people don't sufficiently adapt to being cognitively
19 distracted, is another way to interpret it. And using Anne's
20 point of some of the limitations of experimental research, is that
21 really that combination is a very, very optimistic view of the
22 best performance -- there's still a decrement -- and that what
23 people actually do behaviorally in their own vehicles with their
24 own cell phones is much worse.

25 MEMBER SUMWALT: Thank you. Thank you very much.

1 Dr. McCartt, I was interested in your last slide which
2 says that basically we may not be able to fully understand -- we
3 may be able to reduce the issue of distraction without fully
4 understanding the problem, and I can relate to that. I used to
5 talk about something called error management, whereby we're not
6 going to necessarily prevent people from making mistakes, but what
7 we can do is keep those errors from having consequential results,
8 and I think you're saying the same thing here, is that we can
9 develop technology to compensate for these errors. We don't want
10 to put all of our eggs in that basket and just have people sit
11 back and do whatever they want to do and rely on the technology,
12 but the technology could be yet another layer of defense. Do you
13 have anything you'd like to elaborate on regarding that?

14 DR. McCARTT: No, I would say a couple of people have
15 mentioned education, and I think there's a long history of studies
16 in highway safety that suggests that educating drivers about risk
17 is rarely enough, and --

18 MEMBER SUMWALT: I'm sorry. I didn't hear that.
19 Educating drivers is not --

20 DR. McCARTT: Is rarely enough --

21 MEMBER SUMWALT: Right.

22 DR. McCARTT: -- to change behavior and, you know, in
23 some areas like seatbelts, we've been very successful in passing
24 strong laws and enforcing them strongly to change behavior. But I
25 think there is a great deal of promise -- I think, you know, most

1 in highway safety would agree with me -- with these new crash
2 avoidance technologies that can, again, help prevent or mitigate a
3 crash regardless of the source of the inattention of the driver.
4 But as you say, these are not -- you know, these are new. They're
5 not well tested. We don't know how they will work. It may be
6 that drivers will adapt so that they're riskier, believing the
7 technology will save them. So there's a lot we don't know but
8 it's certainly very promising.

9 MEMBER SUMWALT: Well, and I appreciate your comment
10 that education should not be the primary layer of defense. In
11 fact, if you look at the system safety order of precedence as
12 outlined in MIL-STD 882, which is a common standard for system
13 safety, the order of precedence is design something, design it
14 well, and then guard in some form or fashion, and then warn, and
15 then the last is training and procedures. So we need a
16 combination of all of them, but we should not be putting all of
17 our eggs in the basket of let's train and educate people, and
18 that's what it sounds like you're saying as well. Thank you very
19 much.

20 CHAIRMAN HERSMAN: Member Weener.

21 MEMBER WEENER: I'd like to go back to the discussion we
22 were having about accommodation times. Now, the figure of 2
23 seconds of eye time off the road was brought up. What's the
24 significance of the 2 seconds? Probably, Dr. Fisher, since you
25 talked about that in your slides.

1 DR. FISHER: There was a study which looked at how long
2 the eyes were off the road and the likelihood of a crash, and --

3 CHAIRMAN HERSMAN: Could you speak up just a little bit?

4 DR. FISHER: Sure. There was a study that looked in the
5 simulator at how long the eyes were off the road and the
6 likelihood of a crash, and some 80% of the crashes roughly were
7 due to the 20% of the glances that were longer than 1.5, 1.6
8 seconds, 2 seconds. So in a driving simulator, if you look at the
9 tails of the distribution, you find that when the glances are
10 especially long, it's during those events that indeed crashes
11 occur.

12 There's also the 100-car study which takes an interval,
13 1 second after an event occurs and 5 seconds before, and finds
14 that if the driver's looking away for a total of 2 seconds during
15 that 5 seconds before and 1 second after, there's an increased
16 risk of crashing. So the 2 seconds comes about as an averaging,
17 if you will, across a number of different studies that basically
18 show it's the extra long glances, the dangerously long glances,
19 that create into crashes.

20 MEMBER WEENER: So the behavior then of looking out,
21 looking in, looking out, looking in, is there a physiological
22 accommodation time for the eyes to look in, look out?

23 DR. FISHER: Yes, there is.

24 MEMBER WEENER: Does that change with age?

25 DR. FISHER: Yes, it does. I don't know the exact

1 figures but both of those are true. There's an accommodation
2 time. Your eyes have to obviously focus at a closer distance when
3 you're inside the vehicle and a larger distance when you're
4 outside the vehicle, and as you age, that accommodation time
5 changes.

6 One of the major points I was making, and it's not in
7 the NHTSA visual-manual guidelines, is that indeed you could
8 glance down for 2 seconds, up for half a second, down for 2
9 seconds, up for half a second, and you'd still be consistent with
10 the NHTSA visual-manual guidelines. They're just not considering
11 how long you really need to look outside the vehicle in order to
12 comprehend and assess potential risks, and I think that's a major
13 weakness in those guidelines.

14 MEMBER WEENER: Okay. So it's important to recognize
15 the cognitive load, the cognitive recognition time or, if I might,
16 the cognitive accommodation. Because you can look outside but it
17 takes some mental processing time to recognize what you're looking
18 at.

19 DR. FISHER: Yes. That's the exactly the way I would
20 put it, and I would add when you're doing an in-vehicle task,
21 already you're cognitively distracted because you have to keep
22 some memory of where you were scrolling through the music, where
23 you are in the menu system. So it's not like you're looking down,
24 then you're looking up cognitively unloaded, but rather you're
25 looking up and you're cognitively loaded. So it's going to take

1 even more time, I think, for you to assess what's happening.

2 MEMBER WEENER: Of course, most of us claim that we can
3 multitask. Now, what is actual multitasking? Is it multitasking
4 or is it multiplexing?

5 DR. FISHER: No one knows for sure since we don't have
6 yet the fMRI studies that show that we're actually processing
7 simultaneously. So it might be multiplexing or multitasking, but
8 there's no doubt that if we're trying to do two things at once,
9 we're compromised. I would let others speak to that point if they
10 want.

11 MEMBER WEENER: Any other comments by the panel?

12 DR. LEE: I would like to add one point, that we haven't
13 talked about that I think is quite important regarding this issue
14 of multitasking. I think that in general drivers have the
15 illusion that they can multitask better than they can actually
16 multitask and so they're overconfident in their abilities to text
17 and drive, talk and drive at the same time, so this decrement in
18 performance that comes with multitasking is often unappreciated by
19 the driver.

20 MEMBER WEENER: So actually then, are we arriving at the
21 reason for texting being such a high risk because of the cognitive
22 workload involved with texting?

23 DR. LEE: I think texting brings together sort of a
24 perfect storm of dangerous activities. One is the visual off-the-
25 road glances where you're not processing the road because you're

1 not looking at it. The second is the cognitive engagement in the
2 sort of conversation that's going on. And I think in addition to
3 that, there is the social compunction to continue that
4 conversation, and beyond that also the failure in the course of
5 driving to get feedback that you've just done something very
6 dangerous. For me, I was lucky. Most of us are lucky. We look
7 away from the road for a long period, we don't crash generally.
8 And that failure to get feedback, the failure for the road
9 environment to signal when we've done something dangerous, I think
10 leads us to overestimate our abilities and that contributes to
11 texting being dangerous because we don't recognize that it's
12 dangerous.

13 MEMBER WEENER: Thank you.

14 CHAIRMAN HERSMAN: Member Rosekind.

15 MEMBER ROSEKIND: I have a couple of questions, but I
16 want to thank Member Weener for bringing us back to this because
17 I'm going to where I started before. This is all about the brain,
18 and we can talk about cognitive workload, et cetera, but it's all
19 about the brain. The brain is deciding where to look, how long.
20 Every time you use the word comprehend to figure out how long we
21 should be there, the eye movement is just a behavioral outcome
22 measure that you can observe or measure somehow, but it's really
23 all about the central processing that's going on, and that's
24 really kind of the question here of whether it's internal,
25 external, how much else is going on. Even the manual part is all

1 about the cognitive processing that's going on. And I mention
2 that because it seems like, and this happens in a lot of areas,
3 with such a focus on the eye movement, eye gaze, it's kind of like
4 we're stuck in a methodology because it's observable and we can
5 measure it, but it may grossly underestimate the issues that are
6 really going on here and just because we have challenges getting
7 to the cognitive through other mechanisms, you know, we're kind of
8 leaving that out, but that seems like the central issue here. I
9 could almost reinterpret everything that gets said about eye gaze
10 and put it into some kind of an attention cognitive language
11 probably as well.

12 That said, I'm curious. Is there any studies showing
13 cell phone use and interactions with alcohol, drugs, fatigue? So
14 when we add any one of those other things, what happens to
15 performance? There's some great studies that show if you sleep
16 deprive somebody, add alcohol, they're not additive but
17 synergistic, for example. Anything like that in the cell phone
18 arena?

19 DR. CAIRD: There's one study by Nick Ward and et al. at
20 the University of Minnesota on that. I don't recall the data,
21 though, but it has been done. I'm not sure that it's additive
22 but, yeah, it's been done. I can't give you more specifics.

23 MEMBER ROSEKIND: But it increases risk beyond then?

24 DR. CAIRD: To be honest with you, I'm not sure. Again,
25 it's a simulator study where they had alcohol and fatigue and

1 distractions. So they're trying to do it all.

2 MEMBER ROSEKIND: Can anybody give me a sense -- you
3 know, there has been this focus on eye gaze. Are people even good
4 judges of that? I mean, we're teaching people -- we're down to
5 this really finite, you know, 2 seconds good, you know, below is
6 good. Do people even have a sense of being able to judge how long
7 their gaze is?

8 DR. CAIRD: Initially I don't think people do, which is
9 why we really fail at one level in our novice driver's education
10 programs, but it doesn't take long with a little training program
11 for someone to get that sense. Having said that, Professor Lee's
12 observation of in-vehicle displays can be very seductive. It
13 doesn't necessarily override that training. But there's no doubt
14 whatsoever that I, too, experienced the same thing that John did
15 and found that I thought I was looking inside the car for only
16 short periods of time and after I started timing myself, I
17 realized how bad I was.

18 So I would say to you, the panel, people out there do
19 not understand how long they're spending in the car and we should
20 really teach them how long 2 seconds is because they don't
21 understand that, and then people can take away that learning and
22 use it. Not always completely effective; we need technology to
23 help us, but, boy, we can get better with just a little bit of
24 insight into that process.

25 MEMBER ROSEKIND: When automation was introduced into

1 aviation cockpits, there was a real concern about what was called
2 heads-down time, and some of the first accidents were people
3 playing with the computers instead of looking out at what was
4 going on. And somehow it shouldn't surprise us, I guess, that
5 we're putting all this technology into the car, whether it's built
6 in or nomadic, basically we've just created the same situation and
7 seem surprised somehow that's created a problem for us.

8 I'm curious, is there -- how would you characterize our
9 sense of just the sort of baseline relative risk of driving? You
10 know, we're adding all the great charts and great data, especially
11 the meta-analyses of all these things, but I'm wondering sort of
12 how comfortable are we with just sort of the baseline relative
13 risk. There's all kinds of stuff going on inside, outside, et
14 cetera. Do we feel pretty comfortable knowing what that relative
15 risk is so that when we start adding cell phone and other things,
16 we can differentiate the way our line suggests?

17 DR. LEE: So I'll take a stab at this stupidly because
18 maybe none of the other panelists want to, but I think one of the
19 challenges is really understanding what is baseline driving. And
20 as I mentioned before, I think we have this illusion sometimes,
21 particularly as experimenters setting up simulator experiments,
22 that baseline driving is an attentive driver, a driver doing
23 nothing other than driving, and the fact is that most of the time
24 people are doing other things while they drive. The majority of
25 the time spent driving involves other activities beyond just

1 driving. So at that level, I think it's important to understand
2 that baseline risk.

3 Another perspective on baseline risk is a societal
4 commitment to safety. If you look at what Sweden is doing, they
5 have a policy, a Vision Zero policy, where any fatality or
6 permanently impairing injuring is one too many. So they're
7 looking to zero fatalities. We have 30,000 plus fatalities a
8 year. Zero is a long way from where we are now for baseline
9 driving.

10 DR. McCARTT: I would agree. We don't really have a
11 good understanding of baseline driving, but a couple of the
12 studies, the ones -- the couple that verified with phone records
13 whether drivers were on the phone in crashes, and the naturalistic
14 driving studies, do compare a particular distraction like talking
15 on the phone to a control period where the driver may be doing --
16 it's like normal driving. So I think in our study, for example,
17 the finding was that your risk of crashing when you're talking on
18 a phone is four times it would be whatever else you were doing.
19 So some of the studies do incorporate whatever that baseline
20 driving is, I think.

21 MEMBER ROSEKIND: And I'm just going to report to Member
22 Weener. Last year there was a Stanford study that basically -- of
23 brain function showing that multitasking is a misconception. It
24 doesn't happen. We all think we can do it. It was done with
25 students basically thinking they were experts at it. Can't do it.

1 CHAIRMAN HERSMAN: Thank you. Vice Chairman Hart.

2 VICE CHAIRMAN HART: Thank you. As the Chairman noted,
3 we've had distractions every since the first driver was driving
4 the first car, ranging from the beautiful scenery to looking at
5 the road sign to see where do I turn to, wow, look at that '56
6 Thunderbird. There's lots of distractions, that Whopper that it
7 takes two hands to eat. So I've been often asked when I'm
8 testifying about cell phone use, why am I concentrating on cell
9 phone use? Of course, the reason why is because we follow the
10 accidents. That's what we do. We follow the accidents, and we've
11 seen an increase in accidents relating to cell phone use.

12 My question to you is under the general umbrella of
13 distracted driving, have you seen any troubling trends with
14 respect to any other distractions besides use of personal
15 electronic devices?

16 DR. CAIRD: Well, I would just reiterate texting is one
17 of the major themes. In addition to that, everything that's
18 coming into your cell phone in the future, as you Facebook, as
19 well as text and all the social media that's coming into your
20 phone in the future, if you're not already using it, that's the
21 troubling trend.

22 DR. LEE: I would just like to emphasize the future is
23 here, and all of that stuff is coming into the car, is in the car
24 in some form with Smartphones. I think it's really important to
25 keep the rate of technology change in mind. If you think about

1 the 100-car study, many of the results that we've been going back
2 to repeatedly here, that was started in January 2003, completed in
3 January 2004. All of the data that we've been talking about were
4 collected during that period. Since then, Facebook was introduced
5 in 2004, Twitter 2006, the iPhone 2007, the apps for the iPhone
6 2008. A lot has changed, fundamentally changed. All of that is
7 moving into the car either in the Smartphone or increasingly in
8 the car itself, and so we're talking about these issues of
9 distraction, relying on a lot on a data set that doesn't include
10 any of that and on experiments that involve little beyond cell
11 phone conversation.

12 VICE CHAIRMAN HART: Thank you. And one of the issues
13 we'll be looking at is how to disable distracting devices with
14 respect to driver use while not necessarily disabling them with
15 respect to passenger use. I don't know if it's too early for us
16 to have any data on anything like that. If the passenger is
17 listening to the music and the driver says, oh, that's one of my
18 favorite songs or the passenger started the Bluetooth conversation
19 through the car phone and the driver's engaged in that, do we have
20 any sense of where that would fit on the spectrum with the driver
21 not actually actively doing it but being in the car and engaged in
22 the activity nonetheless because the passenger's doing it?

23 DR. LEE: I think there are a number of technologies
24 that are being developed that are aiming to differentiate and
25 allow passengers access and use of technology and then prohibiting

1 the drivers from doing so. I don't think there's any one clear
2 answer how to do that. It's a difficult technological problem,
3 and so I think that's one element of a future car that will
4 hopefully be smart enough to know who's doing what in the vehicle
5 and grant permission accordingly.

6 DR. CAIRD: I wanted to mention one case regarding your
7 current question and the former question. What happens when two
8 distracted drivers meet each other in the road? One on the
9 navigation device, the second passenger pair having a conversation
10 on the phone together with someone else and getting in a crash.
11 So pretty soon the system starts interacting with each other, and
12 that goes towards all this additional technology for the passenger
13 or the driver.

14 VICE CHAIRMAN HART: Anybody else on that question?

15 Okay. Thank you very much.

16 CHAIRMAN HERSMAN: Dr. Fisher, I just wanted to follow
17 up on something because I think the 2-second issue is one that's
18 important but it's not completely clear to me. We were talking
19 about the 2-second glance away. Is that what you would consider
20 an extra long glance or a dangerous glance, 2 seconds?

21 DR. FISHER: The danger increases as the length of the
22 glance increases, but generally glances under 2 seconds aren't
23 leading to statistically significant increases in crash risk.
24 That doesn't mean that if we had a larger sample size, we wouldn't
25 see that any glance away was dangerous, but we allow some risk

1 associated with activities and so we're seeing only statistically
2 significant increases in glances longer than 2 seconds.

3 CHAIRMAN HERSMAN: Two seconds and longer?

4 DR. FISHER: Yes.

5 CHAIRMAN HERSMAN: Okay. So there's a statistically
6 significant increase in glances that are 2 seconds of duration or
7 longer?

8 DR. FISHER: Statistically significant increase in crash
9 risk in glances that are 2 seconds or longer.

10 CHAIRMAN HERSMAN: Okay. So is 2 seconds something that
11 we want to be shooting for or do we want to be under 2 seconds
12 when we're talking about what we're willing to accept as a
13 baseline for what drivers should be able to do in a vehicle?

14 DR. FISHER: Two seconds or under.

15 CHAIRMAN HERSMAN: Okay.

16 DR. FISHER: Exactly 2 seconds, it's not going to make
17 much difference I don't think.

18 CHAIRMAN HERSMAN: Okay. So 2 seconds and longer
19 increased crash risk is not necessarily 2 seconds is increased
20 crash risk? Because I'm also hearing you say 2 seconds and under
21 is okay. And so I think where's the line, if we're trying to
22 establish some sort of baseline for what's safe?

23 DR. FISHER: Under 2 seconds.

24 CHAIRMAN HERSMAN: Under 2 seconds?

25 DR. FISHER: Yes.

1 CHAIRMAN HERSMAN: So 2 seconds and over is increased
2 crash risk?

3 DR. FISHER: Yes, that's the way the analyses were
4 reported.

5 CHAIRMAN HERSMAN: Okay. And I thank you very much,
6 Dr. Lee, for bringing out the point about the age of the data
7 that's being collected because that's something that I think is
8 very important to put into context. If you're looking at data
9 that was collected almost 10 years ago, the environment that we're
10 operating in today is very different. And I think even when we
11 look back to the other study that VTTI did that was on commercial
12 vehicles, which the Vice Chairman was referring to, the reduced
13 risk based on the hands-free conversation, that data is also
14 fairly old. That was self-selected participants in that, and I
15 think people who are using hands-free 7 years ago were way ahead
16 of the curve 7 years ago. And so I don't know if you all have any
17 comment on that of hands-free versus handheld in that study and
18 what the choice to go hands-free at that time said about the
19 drivers.

20 DR. LEE: I think you bring up an excellent point that
21 is a challenge with all of the naturalistic data in the sense that
22 what you're looking at is a self-selected sample of people who
23 choose to use hands-free versus handheld, and so there could be
24 differences in demographic variables, wealthier people having the
25 built-in hands-free, maybe also being generally safer, more

1 experienced drivers. So there are a lot of those sorts of
2 variables that are difficult to pull out as you might in an
3 experimental study and really understand what's driving risk.

4 I would also like to add, if I could, going forward,
5 even though we're collecting data, say as part of the SHRP II
6 Program, another large naturalistic data collection effort, the
7 analysis of those data will be coming to us over the next few
8 years. As we analyze those data, innovations are going to be
9 coming into the fleet and the environment is changing almost more
10 quickly than we can analyze the data let alone collect it. So I
11 think this is a persistent problem going forward. Technology is
12 changing very, very quickly. Our ability to understand those
13 changes is relatively slow.

14 DR. McCARTT: I would add, too, that an inevitable
15 limitation of the naturalistic study, because they can only
16 document what they can see, they are unable to do a good job
17 identifying fully hands-free phones.

18 CHAIRMAN HERSMAN: So I guess the challenge, you know, I
19 want to put forward is, we've talked about the myriad of
20 distractions that are out there, and they're certainly not limited
21 to the portable electronic devices. There are many. How do we
22 move the person in the driver's seat on the continuum to be an
23 attentive driver? What is it that your data, your research is
24 showing us is effective in moving our population and societal
25 norms, Dr. Caird; how do we make the attentive driver what the

1 norm should be and the expectation? How do we achieve that?

2 DR. FISHER: Well, I think a start is the anti-texting
3 laws we have. I think of the seatbelt laws. Some of them were
4 secondary, but parents started wearing their seatbelts. And I
5 remember backing out of the driveway when my daughter was 5 and
6 she screamed at me, "Daddy, Daddy", and I had no idea what the
7 problem was, and she hadn't put on her seatbelt, and I simply had
8 always put on my seatbelt. I think once adults stop texting, stop
9 using their devices, that will be a beginning message to the kids.

10 Second, Dr. Rosekind, I believe, asked whether we have a
11 good idea of how long 2 seconds is. We don't, and unless we're
12 actually taught how long 2 seconds is, we're not really going to
13 be able to attend properly to in-vehicle displays.

14 So I think those are two of the things that are going to
15 move us forward: the parent now not texting and then ourselves
16 learning, both as parents and children, exactly how short a glance
17 has to be inside the vehicle. But that by itself, having said
18 that, is not enough. We need technology actually to help us get
19 out the technology problems because sometimes we're seduced into
20 looking inside the car too long.

21 DR. CAIRD: Well, I'm simultaneously optimistic that we
22 can do something and make a difference with the whole array of
23 different things available to us, education, enforcement and so
24 forth, but at the same time I also know how hard it is to change
25 driver behavior. It's a very fundamental problem, and without

1 feedback that, in fact, you're doing something that potentially
2 can cause a crash and not having that near miss where you adjust
3 your behavior accordingly or, even if you have, you go back to
4 previous habitual behavior of using your cell phone and so forth,
5 I can be pessimistic as well. However, it's fairly clear that
6 societally we need to do something, otherwise, many, many people
7 will get hurt and killed. Thank you.

8 DR. LEE: I, being an engineer, have to be optimistic
9 about technology. I think technology can help with the visual
10 distraction in terms of providing real time coaching for when
11 drivers have looked away from the road for too long. That
12 technology is very close, I think, to being implemented in
13 vehicles, being able to warn drivers when they have looked away
14 from the road for 2 seconds or longer, and help them understand
15 that risk.

16 I think technology is also helping to address some of
17 the cognitive issues, but I think as designers we need to be well
18 aware of the demands we're putting on people. As they drive, they
19 cannot engage in cognitively demanding tasks as they would in
20 front of their computer. So I think considering the car as a
21 mobile internet device is a wrong-headed thought if we're thinking
22 about that in terms of what people can do as their driving. I
23 think we have to be very careful about overloading drivers.

24 And I think we need to move beyond just the cognitive
25 consideration of distraction to really think about the social

1 component, that it's not just all cognitive, that there is a
2 social influence that's tremendous. Adjusting social norms is, I
3 think, one important component. And one way to think about
4 distraction may be in terms of a disease that spreads through the
5 population, that when you text, that text message goes out to a
6 number of other people who may be driving, and so it spreads that
7 way. It also spreads by connoting that it's normal or acceptable
8 to do these things while you're driving, and I think thinking
9 about distraction as a disease as opposed to just 2 seconds off-
10 the-road glance being dangerous, I think is important, and I think
11 technology can provide useful feedback to guide people and help
12 them understand those risks.

13 DR. McCARTT: I would agree with the comments. I don't
14 think there's one magic solution, one silver bullet. I think all
15 these things are necessary. I guess I would tend to see some of
16 the technological or the engineering, kind of engineering
17 solutions John has mentioned as maybe having some of the most
18 potential.

19 CHAIRMAN HERSMAN: Thank you all so much for your
20 presentations and for candidly answering our questions. You've
21 given us a lot to think about.

22 We will take about a 20-minute break, and we will resume
23 at 10:30. Thank you.

24 (Off the record at 10:11 a.m.)

25 (On the record at 10:30 a.m.)

1 CHAIRMAN HERSMAN: If everyone would take their seats,
2 we're going to begin.

3 Dr. Bruce, would you please introduce the second panel?

4 DR. BRUCE: Our second panel in today's forum will
5 address distracted driving laws and enforcement. More than half
6 of all states have some form of ban on cell phone use by some
7 drivers and virtually all states have laws against distracted
8 driving behaviors that pose a hazard.

9 In this panel, we will discuss the differences in how
10 states have adopted restrictions as well as examining the effects
11 of those laws. The panel is composed of people that work on
12 safety issues from different perspectives: the legislator who
13 makes the laws, the state office that oversees traffic safety, the
14 officer that writes the ticket violations, the attorney that
15 prosecutes traffic offenders, and a researcher who evaluates the
16 effects of policy actions.

17 Our first presenter on this panel is Senator Bruce Starr
18 of Oregon. Senator Starr has served in the Oregon legislature for
19 more than a decade where he services as vice chair of the Senate
20 Transportation and Economic Development Committee. Senator Starr
21 is also the vice chairman of the National Conference of State
22 Legislatures and has chaired the NCSL's standing Committee on
23 Transportation.

24 Senator Starr, would you lead us off by talking about
25 the attitudes you hear from your legislative colleagues, what's

1 said in the hallways and cloakrooms about distracted driving laws
2 and cell phone and texting bans?

3 SENATOR STARR: Thank you very much. I'm pleased to be
4 here this morning, and I appreciate Chairman Hersman and the NTSB
5 including the legislative perspective of this important forum on
6 attentive driving.

7 State Legislators have had and will continue to have an
8 important role to play in this critical discussion and policy
9 debate. Motor vehicle laws are under the purview of the states,
10 and these issues have been and will continue to be debated and
11 contemplated in the state capitals across the country.

12 Each state will address these issues in a form and a
13 fashion that best addresses the differences and challenges
14 resident in each state. Distractive driving is not a new issue
15 for state legislatures.

16 According to the CTIA, the wireless association, in June
17 of 2011, 196 billion text messages were sent or received in the
18 U.S., up 50% from 2009. As we know, many of those text messages
19 are being sent from moving vehicles, which has led most experts to
20 agree that distractive driving is a significant traffic safety
21 problem. Five percent of drivers have been seen talking on
22 handheld phones in the Agency's 2010 observation survey of drivers
23 in traffic.

24 The prevalence of cell phones, new research, publicized
25 crashes, have fueled many debates about the role cell phones play

1 in driver distraction. Since 2000, legislatures in every state,
2 the District of Columbia, and Puerto Rico, have considered
3 legislation related to distracted driving or, more specifically,
4 driver cell phone use. In 2011, legislators in 37 states
5 considered approximately 160 driver distraction bills.

6 No state completely bans all phones for all drivers,
7 although Alaska did consider but didn't pass legislation in 2011.
8 State legislation usually addressed a range of issues, including
9 particular wireless technologies and specific driver types. Nine
10 states prohibit driver use of handheld phones. Nevada passed a
11 2011 law that makes it a misdemeanor, not a traffic infraction for
12 using a handheld device while driving.

13 The most common driver distraction measure debated in
14 legislatures last year was prohibitions on texting while driving.
15 As of December 2011, laws in 35 states specifically banned texting
16 while driving for all drivers. Indiana, Maine, Nevada, North
17 Dakota and Pennsylvania passed texting while driving prohibitions
18 in 2011. Many other states, including Oregon, changed their laws
19 last year.

20 Penalties for violating texting bans vary among the
21 states. In Georgia, for instance, texting while driving is a
22 misdemeanor that carries a \$150 fine, while in California, the
23 traffic infraction carries a \$20 fine. Violators in Nebraska will
24 have points assessed against their license and pay a \$200 fine.
25 In 2001, Connecticut changed its definition of serious traffic

1 violation to include the offense of texting while driving.

2 In 2011, 15 states introduced legislation related to
3 teen and young drivers' use of mobile phones while operating a
4 motor vehicle. North Dakota, New Mexico and Texas enacted those
5 laws. The Texas law prohibits young drivers from using a wireless
6 communication device while operating a vehicle, motorcycle or a
7 moped, except in the case of emergency. Maryland, Mississippi,
8 North Carolina considered legislation specifically related to
9 young drivers who use cell phones to send text messages. North
10 Carolina's bill would have appropriated \$100,000 to the State
11 Highway Patrol Division to make teenagers aware of the risk and
12 penalties of texting while driving. And North Dakota enacted a
13 2011 law assessing demerit points to restricted drivers who are
14 caught using electronic communication devices. As you can see,
15 the states have a variety of ways to address this very important
16 issue.

17 I think there are clearly challenges to enacting
18 legislation and there are certain arguments that we hear as
19 legislators against these particular laws. I think primary what
20 you hear is an infringement on personal liberty: Don't tell me
21 what I should or shouldn't be doing in my vehicle as I drive.

22 And we also hear about other distractions. You know,
23 what about, you know, all these other distractions I hear from my
24 colleagues, you know, reading; you know, you see people reading a
25 book while they drive or reading the newspaper. What about

1 eating? What about those rowdy children in the back seat? And
2 then, quite honestly, there's a plethora of other activities that
3 are not related to driving that individuals do while they drive.

4 I also hear from my colleagues the lack of data or
5 conflicting data as it relates to this particular issue, and
6 perhaps even old data. One of the things that I continue to hear
7 is that, well, isn't it true that talking on a hands-free cell
8 phone is just as dangerous or just as distracting as talking on a
9 handheld phone? Those are issues that legislators contemplate and
10 grapple with during their legislative sessions on a year in and
11 year out basis.

12 The other piece of this, and as you saw through my quick
13 run through of the state laws, is the enforcement issues and the
14 variety of ways that state legislators are choosing to penalize
15 drivers who ultimately are convicted or are charged with
16 distracted driving. So enforcement issues is something that the
17 legislators also have to grapple with.

18 Finally, in this particular section, I believe that
19 legislators are grappling with the issue of Smartphones and all of
20 the apps that are available there, and how to manage that piece of
21 this conversation. Today, your Smartphone very easily can replace
22 your Garmin for navigation. So those are issues that legislators
23 are grappling with.

24 I think it's important that we continue to focus on
25 education and research. The research has to be appropriate for

1 non-biased, independent, science-based research. Data will drive
2 this conversation, I'm convinced, with my fellow colleagues.

3 And then finally, education. Education as we've seen in
4 other public policy areas, like seatbelts I think was mentioned
5 earlier, education is the key to behavior modification, and
6 legislators, I believe, will be partners in that conversation.

7 Thank you.

8 DR. BRUCE: Our second presenter will be Chris Murphy,
9 the director of California's Office of Traffic Safety and the
10 immediate past chairman of the Governor's Highway Safety
11 Association. Mr. Murphy co-leads the California Strategic Highway
12 Safety Plan and is active in numerous traffic safety committees
13 and advisory groups.

14 Mr. Murphy, I invite your presentation.

15 MR. MURPHY: Thank you. In California, if you receive a
16 ticket for handheld or for texting, it will cost \$159. While our
17 base fine is \$20, when you add penalties and assessments, you can
18 see it becomes much more expensive.

19 We have a total ban for drivers under 18. We have a
20 handheld ban for adults and a texting ban while driving, and those
21 are both primary enforcement.

22 In 2011, we did a statewide observational survey, kind
23 of mirrored what NHTSA had done, and we found that 9% of all
24 drivers were estimated to be talking or texting while driving in a
25 typical day during the daytime. It's also interesting to note, we

1 do intercept surveys, and we did one in 2010 and 2011, and
2 Californians last summer stated that texting and talking are the
3 biggest safety concern on California roadways, and nearly 84% of
4 drivers stated that the conversations or texting while driving
5 constitutes the most serious driving distractions.

6 If we take a look at enforcement, it's interesting to
7 note in 2011, we had almost half a million convictions for
8 handheld citations for drivers, up considerably from 2009. If you
9 look at our texting, obviously those have been increasing;
10 however, they pale in comparison to our handheld cites. And for
11 under 18, on the total ban, you can see those numbers are very
12 small and they've actually been going down a little bit.

13 We look at last April, and we kicked off the It's Not
14 Worth It statewide campaign to support the federal government, and
15 we also allocated \$1.5 million in paid media where we developed
16 three commercials. We use NHTSA commercials, TV, radio,
17 billboards, social media, to get the message out that it's not
18 worth it, and that was our campaign message.

19 We also asked police departments and the highway patrol
20 to do added enforcement during that month. We had 280 police
21 departments and 103 CHP area offices combine to write 52,000
22 citations in just that one month. And we know of 272 known
23 printed newspaper articles. We also use 625 fixed changeable
24 message signs to actually promote the message which is, handheld
25 ticket \$159, it's not worth it, and we had the same message for

1 texting.

2 Our fatal crashes in April were down about 7% when you
3 look at 2011 as compared to 2010.

4 So our handheld bans are effective. I can tell you that
5 UC Berkeley last month looked at 2 years prior to our laws
6 actually coming in, being effective and 2 years afterwards.
7 Overall deaths were down 22%. We know that handheld driver deaths
8 were down about 47%.

9 Part of our intercept survey is we asked drivers -- and
10 I think this is really important. We wanted to find out if our
11 handheld law decreased overall cell phone use, and 40% said, yes,
12 they use their cell phone in total less since we had our handheld
13 law. IIHS also had a study I think that's very important. They
14 found that 44% of drivers surveyed in states with the handheld ban
15 reported they use their cell phone, handheld and hands-free, less
16 than states that did not have a handheld ban.

17 And finally IIHS found that the ban on handheld phones
18 while driving, they said they can have a big and long-term lasting
19 effect in curbing handheld cell phone use, and that was in New
20 York, Connecticut and the District of Columbia.

21 So I think that the California experience has been good.
22 I think our handheld ban has saved lives, and those are all my
23 comments, Chairman.

24 DR. BRUCE: Thank you. Our third presenter will be
25 Dr. Neil Chaudhary, Vice President of Preusser Research Group.

1 Dr. Chaudhary will discuss his recent work with the National
2 Highway Traffic Safety Administration's distracted driving
3 demonstration projects in Hartford, Connecticut and Syracuse, New
4 York. He is currently the project director for the evaluation of
5 similar programs to be implemented on a statewide level.

6 Dr. Chaudhary, I invite your presentation.

7 DR. CHAUDHARY: Thank you. I'm just going to very
8 briefly talk a little about NHTSA's distracted driving
9 demonstration project that happened in Hartford, West Hartford and
10 East Hartford, Connecticut, as well as Syracuse, New York.

11 Okay. So there were four waves of high visibility
12 enforcement occurring over roughly a year. In Hartford, West
13 Hartford and East Hartford, all three of those police departments
14 were involved as well as the state police. In Syracuse, the
15 Syracuse police department, the county sheriff's office and the
16 state police all contributed to the ticketing there.

17 NHTSA provided paid media for the enforcement efforts,
18 which included the "Phone in one hand, ticket in the other"
19 slogan, and there was extensive earned media, including on-site
20 visits by Secretary LaHood.

21 The design of the evaluation included certain data
22 elements that we collect to be able to evaluate the program, the
23 number of tickets written by police, how many earned media clips
24 occurred during the time period, how strong was the actual media,
25 the awareness and attitude about the enforcement by the public

1 collected through a one-page survey and observations of actual
2 phone use made on corners observing drivers. There were also
3 comparison cities so that we could establish to what extent any
4 changes were a result of enforcement versus changes going on
5 naturally in the areas.

6 Very briefly, the results were quite nice. There was
7 very good media penetration, at least 50% of the respondents by
8 the end of the program in Connecticut had heard the slogan, "Phone
9 in one hand, ticket in the other." Ticketing was ginormous with
10 between 99 and 190 tickets per 10,000 population. There was
11 approximately 20,000 tickets written over that time period in both
12 states combined.

13 Handheld phone use clearly went down. The highlight is
14 6.8% handheld use in Connecticut dropped to 2.9 by the post, and
15 texting also went down. Both states banned texting while driving
16 and officers did issue tickets for texting while driving though
17 definitely not to the same extent as handheld tickets.

18 So in conclusion, it was pretty effective. Cell phone
19 ticketing was substantial. Observations showed a decreased in
20 use. Awareness was high by the public. Message recognition was
21 there.

22 And there are some unknowns as a result. Like I've
23 mentioned, this was really a strong effort by the police. Do we
24 actually need that level to have the results we had? Do the rates
25 stay down or once enforcement stops, do they go back up and how

1 quickly do they go back up, if they do? What happens to these
2 drivers when they stop using the handheld phone? Do they go to
3 hands-free? Do they stop using altogether? What percentage moves
4 to what? And unfortunately as was mentioned by the earlier panel,
5 the data required to make a good evaluation of the impact of this
6 program on crashes was not available, so we weren't able to really
7 look and see how this enforcement program affected crashes.

8 That's it.

9 DR. BRUCE: Thank you.

10 Mr. Tim Barker serves as assistant district attorney for
11 the York County, Pennsylvania District Attorney's Office. As the
12 chief deputy prosecutor for policy and research, he is active in
13 establishing investigation and prosecution polices for York
14 County, including all protocols concerning vehicular crimes.

15 Mr. Barker, I invite your presentation.

16 MR. BARKER: Thank you. Basically what I want to run
17 through is, it's one thing to talk in the abstract about what
18 distracted driving does; it's another thing to go ahead and talk
19 about it in the concrete, and basically one of the things I've had
20 the unfortunate pleasure to do is prosecute numerous distracted
21 driving vehicular fatalities.

22 CHAIRMAN HERSMAN: Is there another mic that's on up
23 there? Just one at a time. There we go.

24 MR. BARKER: I can try another microphone. Okay. Thank
25 you.

1 Basically taking a look at the faces that we've actually
2 prosecuted, our first experience with distracted driving,
3 vehicular fatality prosecution actually occurred back in 2001.
4 All of this predates any kind of a texting or cell phone ban. In
5 Pennsylvania, we've just had our first texting law, incomplete as
6 it is, we had our first one pass. And we have been prosecuting
7 these under the scope of careless driving and reckless driving.
8 However, we have alleged and been successful in establishing
9 beyond a reasonable doubt that this conduct constitutes reckless
10 driving, constitutes such conduct that it meets the requirements
11 of homicide by vehicle.

12 It's very difficult to establish, however, because it
13 required a lot of education along the way. The status, as far as
14 we're concerned, of where distracted driving is, at least in our
15 area, if not in our country, is that it's equivalent to where DUI
16 had been, that it's beginning to invade the collective
17 subconscious but it's not there at that same level. And so steps
18 need to be taken to get there.

19 Through the practical experience we've had with cases,
20 it's beginning to show, and it's been of all kinds. Our first one
21 that we did back in 2001 did not involve any technology. It
22 involved a bag of McDonald's food and an elderly woman died as a
23 result. We've had them due to young people messing around in the
24 car, talking. We've had them due to all kinds of technology used
25 in all kinds of ways, be they GPSs, texting and communicating both

1 on handheld and also on hands-free. There was specifically a
2 commercial motor vehicle driver who went through a red light and
3 killed a businessman in our county because he was engaged in
4 communication on his hands-free device, on his Bluetooth.

5 But the one I want to turn to my attention to is Joanna
6 Seibert. Now, I do not single her out because of who she is as a
7 person, but it's because of what happened in this case, and what
8 we typically see. We had three things going on, and this is the
9 thing we cannot forget about distracted driving. It is a
10 dangerous driving characteristic that is usually seen in
11 conjunction with other types of dangerous driving activity by
12 people who engage in them repeatedly.

13 From the oft cited 100-car naturalistic study, I believe
14 it was 80% of the crash or near crash occurrences were caused by
15 20% of the people. Recidivism is a true danger, and quite
16 frankly, our laws are woefully inadequate to address recidivists
17 in the areas of distracted driving as well as other dangerous
18 driving areas that exclude DUI. And until attention is paid that
19 area, we will not be able to get at our most likely causers of
20 fatalities and serious injuries, such as Ms. Seibert.

21 Now, I called it the trifecta of death because as a
22 trial attorney, I'm obliged to come up with a cheesy catch phrase
23 to stick in the jury's mind. That was mine. Speeding, 69.7 in a
24 55 zone; tailgating. How was she able to do that? Because we all
25 know that you can be engaged in distraction and yet track the car

1 in front of you, which was what she was doing. Why didn't she go
2 off the road? Because she was engaged in up/down glancing and
3 tracking her lead vehicle. When her lead vehicle went to the
4 left, she had no more lead vehicle and instead killed a police
5 officer because she was engaged in two distracted driving
6 functions. She was multitasking that day. She was engaged in
7 multimedia functions on her iPhone. We're not sure which type of
8 multimedia function, but we know she was entering data input at
9 that time, as well as she was in the application process of
10 makeup.

11 This is the stretch of roadway on that day. As you see,
12 it's a four-lane highway, very bright, nice sunny, beautiful fall
13 day. That's the crash scene area, and there's the cone taper
14 after she went through it. Standing right behind that cone taper,
15 was Officer David Tome who was reconstructing an unrelated
16 vehicular fatality that had occurred previously.

17 This is her car. You see the impact damage. That's
18 from where she hit Officer David Tome, and he flew, I believe it
19 as approximately 150 feet in the air off the roadway. You see the
20 cones under her car. This is approximate area where he landed off
21 the roadway. You see his reflective gear. He was wearing
22 reflective gear that day. He was clearly visible to anybody who
23 was paying attention.

24 Here's a picture of her makeup bag. We actually found a
25 makeup spatter pattern, if you want to call it that, that existed

1 on the steering wheel and on the car door, showing the pattern in
2 which it flew from the top makeup powder and applicator.

3 Basically ultimate goal, we want people like Officer
4 David Tome alive, and he would be except for three things: if
5 Joanna Seibert would have just slowed down, didn't tailgate and,
6 most importantly, put the cell phone and the makeup away, pay
7 attention to the roadway. That's how simple it is. That's how
8 simple it would have been for Office David Tome to be alive today.

9 There's nothing more heartbreaking than having to take a
10 look at this. They did this for Officer Tome, the police officers
11 who were there working on the crash site, after his body was
12 placed in a body bag, and they were going to carry him up off the
13 road. His colleagues gave him one final salute. He died in the
14 line of duty. He didn't have to die, as everybody does not need
15 to die.

16 We need to do what we can to enhance our ability to
17 truly prosecute these cases especially our recidivists, and we
18 need laws that directly address this. I know I'm out of my time.
19 So thank you very much.

20 DR. BRUCE: Our last panelist is Sergeant Jerry Oberdorf
21 of the Pennsylvania State Police. Sgt. Oberdorf has served 21
22 years in the Pennsylvania State Police with 18 years on road as a
23 patrol trooper and patrol unit supervisor. He currently holds the
24 rank of sergeant within the Bureau of Patrol.

25 Sgt. Oberdorf, I invite your remarks.

1 SGT. OBERDORF: Good morning. I apologize. I got a
2 little choked up with Mr. Barker's dissertation on the last story.
3 I wear the same uniform that the troopers wear that were standing
4 by the roadside there. I attended the funeral. It was a horrible
5 situation.

6 Okay. Nonetheless, I'm here to talk to you today about
7 challenges of law enforcement regarding enforcing texting driving
8 laws that are now in place in Pennsylvania. Prior to March 8 of
9 2012, the Pennsylvania law enforcement community had no law on the
10 books that we could use to enforce cell phone usage, texting, or
11 basically any type of distracted driving per se. The only
12 sections that we could use in the Pennsylvania Vehicle Code that
13 would be applicable were careless driving, reckless driving and
14 possibly driving on roadways laned for traffic, which means
15 failing to stay within a single lane.

16 I don't have a lot of statistics or anything. I'm here
17 to give you the field experience part of it, and that's what I'm
18 going to do.

19 Back in 1994, I was assigned to the Carlisle Station
20 near Harrisburg. I was called to investigate a crash. The
21 investigation led to the information that a driver of a van who
22 was from Spain and was currently working in a pizza shop, reached
23 over for a piece of pizza. This has nothing to do with texting or
24 a phone or anything. Reached over for a piece of pizza as he
25 approached a stop sign. The roadway that was intersecting had no

1 traffic control device and did not have to slow down or stop at
2 that intersection. As the gentleman reached over for a slice of
3 pizza, he realized there was a stop sign. By then it was too
4 late. He went through the intersection, hit a mid '80s Ford
5 Thunderbird and killed a 19-year-old pregnant female in the
6 passenger seat.

7 At that time, there was no real aggressive enforcement
8 in distracted driving and fatalities. Long story short, I went to
9 the district attorney's office, reviewed the case. I had to call
10 the family up and tell them that the man is only going to get a
11 summary traffic citation with a \$25 fine for killing their
12 daughter. Another tough incident for me to be involved in.

13 Just as late as last year, 2011, prior to the new
14 texting law coming into effect, I was on routine patrol on the
15 midnight shift about 1:30 in the morning. I see a vehicle
16 traveling south on a two-lane road. I'm following it. It is
17 completely all over the road, crossing the double yellow line,
18 almost onto the berm on the opposite side of the road in the
19 oncoming lane. Fortunately, it was not a high traffic road at
20 that time of night, and I had to find a place to pull this person
21 over, which took me approximately 2 miles. In that 2-mile
22 stretch, this vehicle crossed the centerline approximately 10
23 times, several times completely in the oncoming lane, and I
24 thought to myself, wow, I've got a good drunk here.

25 I pulled the vehicle over and you probably know where

1 this is going. I get up there. There's one occupant. It's a 17-
2 year-old female. Her phone is laying on the passenger seat and
3 it's all lit up. And I introduced myself. I asked if she had
4 been drinking. She said no. I said, then what caused you to be
5 all over the road tonight? She said I was texting. She hung her
6 head and said, I was texting. At that point, no law in effect
7 regarding cell phone usage while driving. I ended up giving her
8 one for careless driving, a \$25 fine plus costs, and one for
9 driving on roadways laned for traffic for leaving her lane of
10 travel. So those are the things that we have dealt with prior to
11 March 8 of 2012.

12 On March 8 of 2012, the Pennsylvania Vehicle Code, Title
13 75, Section 3316(a) prohibiting text-based communications went
14 into effect. Unfortunately, it was proposed in one way and until
15 the public comment period, and all the challenges and everything
16 are said and done, the law that went into effect is going to be
17 very difficult for law enforcement officers to enforce. And
18 eventually prosecution by the district attorney's office, they're
19 going to have the same challenges that we do.

20 Unfortunately, that's what we have to deal with, and in
21 Pennsylvania, we have what's called reasonable suspicion is
22 necessary to conduct a traffic stop. If I pull up beside a
23 vehicle and I see someone with a phone in their hand and they're
24 manipulating the phone, that's not reasonable suspicion to say,
25 hey, that person is texting. I could pull that person over and

1 they say, I wasn't texting; I was looking at photographs; I was
2 looking up my number to call my mother; I was, you know, a million
3 things that they can explain that situation away. So mere
4 manipulation of a cell phone is not going to be enough for them to
5 pull them over.

6 Now, if we get them weaving or erratic driving, stopping
7 and slowing and so forth, then we'll be able to possibly add those
8 things together to build the reasonable suspicion necessary to
9 pull them over, and there will be more difficulties that I will
10 probably discuss upon the question and answer period.

11 DR. BRUCE: Thank you.

12 SGT. OBERDORF: You're welcome.

13 DR. BRUCE: Chairman Hersman, that concludes the
14 introductions and opening remarks. I turn the panel over to you
15 for the Board for questioning.

16 CHAIRMAN HERSMAN: Member Sumwalt.

17 MEMBER SUMWALT: Thank you. Mr. Murphy, I understand
18 you are the immediate past chairman of Governor's Highway Safety
19 Association.

20 MR. MURPHY: Yes, sir.

21 MEMBER SUMWALT: Thank you for your service there. What
22 is the GHSA's position on whether or not states should have cell
23 phone laws?

24 MR. MURPHY: We do support a texting ban. We haven't
25 adopted support of a handheld ban as of yet.

1 MEMBER SUMWALT: Now, I'm under the impression that
2 sometime last summer the GHSA came out and said that they were not
3 going to recommend states adopt, I think it was texting bans
4 because there was data that were showing that the fatality rates
5 from the IIHS was showing that fatalities were not decreasing. So
6 what's the story behind that?

7 MR. MURPHY: My understanding, that that was more about
8 the handheld ban. We've supported a texting ban, I believe, for
9 the last couple of years, but the handheld ban, we'll be looking
10 at that very closely in the next 6 months. We will revisit that
11 policy.

12 MEMBER SUMWALT: Did you come out and actually say that
13 states should not adopt these handheld bans until --

14 MR. MURPHY: No. No.

15 MEMBER SUMWALT: Okay.

16 MR. MURPHY: We were just waiting for a little bit more
17 studies and a little bit more information and I think we're ready,
18 like I said, to take a hard look at it again.

19 MEMBER SUMWALT: Can you explain what the situation was,
20 had I described that accurately, that the Insurance Institute for
21 Highway Safety had found that laws banning texting and cell phone
22 use were not reducing crash risks?

23 MR. MURPHY: In terms of what their study said?

24 MEMBER SUMWALT: Yeah. Well, I guess really though the
25 fact is that you wanted to hold off until more data were

1 available?

2 MR. MURPHY: Yes, yes.

3 MEMBER SUMWALT: Okay. Senator Starr, so what should
4 policymakers do? Here we've got a situation where maybe there's
5 some data that show that the fatality rates are not going down
6 with the implementation of these laws. So what should
7 policymakers do? It's like you could say that heroin use does not
8 go down because there are laws against that, but as a policymaker,
9 do you just sit back and say we're not going to do anything or as
10 a policymaker do you say that it's incumbent upon us to draw that
11 line between acceptable and unacceptable behavior and the way we
12 draw that line is we pass laws?

13 SENATOR STARR: So I'm hard pressed to answer that
14 question on behalf of all legislators. You know, it's a broad
15 question, but I would say that as it relates to, you know, the
16 state that I'm from, that was the decision that we made, is that
17 we banned all handheld devices, no texting, no talking on the
18 phone, no handheld whatsoever.

19 Ultimately, I believe that the decision that legislators
20 are going to make across this country, and they're in the process
21 of grappling with those issues right now, as you see what's
22 happening in most states, is a ban on texting because the data is
23 most clear on texting, and I believe that the data will help drive
24 this conversation at the state legislative level and, you know,
25 that's a big piece of this conversation.

1 In addition to that, what we've seen is the education
2 works, and you've heard from examples here on this panel. I think
3 you've heard that discussion in the earlier panel. You've seen
4 that example in other cases of highway safety, and seatbelts I
5 think is the most recent example of that. So those are places
6 that I think are important.

7 MEMBER SUMWALT: Well, thank you, and I realize you
8 can't answer on behalf of all 50 state legislatures, but I'm
9 curious, I think that you mentioned that you went for handheld
10 cell phone bans and you did not go to hands-free. Is that
11 correct?

12 SENATOR STARR: In Oregon, hands-free is allowed.

13 MEMBER SUMWALT: I'm wondering about that, and I'm
14 wondering if hands-free, if there's a false sense of security
15 there. I mean, we heard earlier, we had testimony, that hands-
16 free and handheld, there is no difference, and that's what worries
17 me, is that people think that they're solving the problem and
18 they're really not, and it's that false sense of security. What
19 are your thoughts?

20 SENATOR STARR: I mentioned that in my comments about
21 one of the hurdles that legislators have to overcome because that
22 piece of data is available to legislators and so they say, why
23 would we ban handheld cell phone use when it's just as bad as, you
24 know, allowing hands-free, and so in Oregon, we made that choice.
25 I think as I talk to my colleagues, legislators across the

1 country, those are issues that they're grappling with. We're also
2 talking about, you know, fines and fees and whatnot on drivers and
3 to a certain extent legislators want to make sure that they're
4 making the appropriate policy choices there.

5 MEMBER SUMWALT: And I want to make sure of that as
6 well, and when we have the next panel after lunch, we're going to
7 talk about what companies are doing to try to improve safety. And
8 I don't want to see two waves of this, to go through a period of
9 10 years where we pass the handheld bans and think we've solved
10 the problem, and then 10 years down the road realize that we still
11 have an epidemic problem. So anyway, I'm out of time, and I
12 appreciate your answers. Thank you.

13 SENATOR STARR: Thank you.

14 CHAIRMAN HERSMAN: We have another Oregonian, Member
15 Weener.

16 MEMBER WEENER: Yes, another Oregonian. Thank you for
17 coming out to this wonderful sunny area. I think I know what you
18 left.

19 SENATOR STARR: Yes, no question.

20 MEMBER WEENER: Yes. Actually, Senator, could you just
21 give me a feeling for how many states have banned texting?

22 SENATOR STARR: I believe the number, as of the end of
23 last year, was 35, and there might be a handful of states,
24 apparently Pennsylvania has passed a law this year as well. So at
25 least 35 have banned texting.

1 MEMBER WEENER: And as far as handheld cell phones,
2 that's a lesser number; is it not?

3 SENATOR STARR: Yeah. It looks like nine states and the
4 District of Columbia have passed handheld bans.

5 MEMBER WEENER: And hands-free?

6 SENATOR STARR: And I don't have that piece of
7 information.

8 MEMBER WEENER: But that's a smaller number yet?

9 SENATOR STARR: I'm sure it is.

10 MEMBER WEENER: Now, in terms of a traffic stop, in law
11 enforcement, how do you determine whether or not you have somebody
12 texting? And probably Sgt. Oberdorf or --

13 SGT. OBERDORF: I'd be glad to discuss that. As our law
14 is written, it is going to be very difficult. I'll give you a
15 prime example. If I'm going on a two-lane highway, traveling the
16 same direction -- we'll pick Interstate 81 which is very popular
17 in our area. If I'm traveling south on Route 81, there's another
18 vehicle in the right lane, I'm in the left lane, and as I'm
19 passing this vehicle, I see that person looking at their phone and
20 again manipulating the phone in some fashion, that is not enough
21 for a police officer to pull someone over in our state. I'm going
22 to have to have other indicators, maybe a long period of
23 manipulating the phone, 2 or 3 minutes, without holding it up to
24 the ear and actually engaging in a voice conversation, possibly
25 maybe that vehicle will drift over towards me. This is all well

1 and good. If I'm in a marked unit, that person's probably going
2 to see me even though they're already distracted, and as soon as
3 they see me, they're going to stop. There goes my chance to
4 develop enough reasonable suspicion.

5 The one instance that we may have a good chance would
6 possibly be a crash. In other words, just a crash in Lancaster
7 County where a 20-year-old female, I believe it was, was killed
8 and they have preliminary information that she was texting prior
9 to the crash. That's going to take some investigative effort,
10 possibly a search warrant to get the phone data and see if they
11 can verify closer to the time of the crash if she was actually
12 texting.

13 MEMBER WEENER: Dr. Chaudhary, in the four waves that
14 you did in Connecticut, how did you determine in that activity who
15 was texting, who was talking and, you know, what was going on?

16 MR. CHAUDHARY: As far as the talking, I mean, it's all
17 observational. So we had observers on the side of the road
18 looking into vehicles. If somebody had a phone to their ear, we
19 coded it as handheld talking. I use the term texting with quotes
20 around it because the proper term should probably be manipulating.
21 So I can't be sure whether they were dialing, checking their
22 e-mail, using a GPS device on their phone. So texting is not the
23 best term for that. Manipulating the phone would be a better
24 term. But if they had the phone in their hand, we considered that
25 manipulating as far as our definition.

1 MEMBER WEENER: So how narrowly are the laws written?
2 Is that texting versus manipulating, a difference?

3 MR. CHAUDHARY: I'm basing this on my memory, which may
4 not be accurate, but I believe at least in Connecticut, that's
5 enough for them to issue a citation. If the phone's in your hand,
6 that's pretty much it. So I believe it's written quite
7 differently from the Pennsylvania law.

8 MEMBER WEENER: And a question for Mr. Barker. How many
9 of these citations actually go to prosecution?

10 MR. BARKER: Well, if we're talking about the new
11 texting ban, this is so brand new that we have not seen any flow
12 its way through, and quite frankly, if we run this consistently
13 with how other traffic safety laws work, they will not wind up
14 being more than people mailing in their fines. And this is the
15 danger of what we see as the way that the current laws are
16 structured. In getting to read and evaluate numerous driving
17 records, and unfortunately we get to do it after people have
18 racked up either a number of DUIs or they've killed people in
19 other ways, you see a pattern of dangerous driving behavior that
20 they've been engaging in for a while.

21 Now, because they're summary offenses, they'll more
22 likely than not never hit a prosecutor because they'll be taken
23 care of, for instance, in Pennsylvania -- I know there are many
24 other states that are like this -- they'll go ahead, they'll, you
25 know, write their check, mail it in and then they're done, and

1 then if there's a point system, maybe they'll accumulate enough to
2 get a point exam. If their texting or cell phone ban counts
3 against points, maybe at some point in time they'll get their
4 license suspended, which quite frankly, hasn't been a great way to
5 stop these repeat offenders, and this 20%, if we go by the 100-car
6 naturalistic study, they're out there doing 80% of the crash/near
7 crash aspects and are what we've seen in our personal review of
8 our killers -- and I call them killers because that's what they
9 do. We don't get them until, as you heard Sgt. Oberdorf say,
10 yeah, Lancaster is getting to go ahead and do one now because
11 somebody died.

12 So if we're really looking to prevent, get us involved
13 in the system and have the system treat this conduct, this
14 dangerous driving conduct similar to how we do for DUI treatment
15 courts, drug treatment courts, other aspects. Develop programs
16 that are part of a mandatory education aspect. We need recidivism
17 laws to get these repeat offenders up into our sphere.

18 Without them -- and we're not talking about jailing
19 everybody. That's not what I'm talking about at all. But we
20 can't do anything truly to stop the most dangerous offenders.
21 Yeah, we'll knock out the same people we could have with an ARD
22 that was a first-time offender DUI, but we know that that's not
23 stopping the 25% repeat offender in that area. It's the same
24 thing with dangerous drivers. We know we're not stopping them
25 when they can write a check, mail it into a MDJ and then they

1 never hit our world, and we can never educate and change the
2 pattern of behavior.

3 CHAIRMAN HERSMAN: Thank you, Mr. Barker.

4 Member Rosekind.

5 MEMBER ROSEKIND: The panels have been great, just
6 different perspectives and different expertise and views of the
7 world here. So I'm curious, if each of you -- I'm going to start
8 at the non-professional for this one -- I'm curious, if each of
9 you could identify the three elements that you think need to go
10 into model legislation to deal with this issue. So, we're going
11 to keep it quick because I've got some other questions, and I'm
12 just filling a little air as you're thinking for a moment. So for
13 each of you, from your world view, what you think are three
14 critical elements that would go into some model legislation, and
15 as I say, we'll start -- see, he's already drafting legislation on
16 this end. We'll start with the Sergeant, if that's okay.

17 SGT. OBERDORF: Okay. First and foremost, I believe in
18 Pennsylvania -- California sounds like they have a decent handle
19 on things out there with their stats. In Pennsylvania, I believe,
20 number one, we need a more definitive law regarding texting. It
21 states right in the law, subsection (c), that we cannot seize the
22 phone because of what we've seen. To go a little further, if I do
23 develop enough reasonable suspicion to pull this vehicle over, now
24 I go up -- I'm still in kind of an investigatory mode. I go up
25 and I say, you know, I'm Sgt. Oberdorf with the Pennsylvania State

1 Police; what were you doing with your cell phone? If they look at
2 me and say, go pound sand; I'm not telling you, that's a strike
3 against me. Okay. I have no right to seize that phone. If I
4 say, do you mind handing your phone to me so I can look? Again,
5 they're going to tell me to go pound sand.

6 Another problem with the language in our section is that
7 if the device is an integrated device, then it's an exception.
8 There's going to be attorneys out there that are going to
9 challenge that language. I see this cop coming and I'm texting.
10 Well, guess what, I'm now going to plug my charger in and I just
11 integrated my wireless device into my car and that's an exception.
12 The general public doesn't know this yet, but it's coming. So
13 that would be first and foremost in my mind.

14 MEMBER ROSEKIND: Great. Give me three.

15 SGT. OBERDORF: I'm sorry.

16 MEMBER ROSEKIND: No, that's all right. No, no, those
17 were great. I'm just going to keep Mr. Barker in a box of three.
18 Go.

19 MR. BARKER: Okay. First, recidivism law, where if you
20 have at least two or more summary offenses from a dangerous
21 driving classification -- that would include running the gamut of
22 your speedings to distracted drivings to your careless driving,
23 reckless driving -- of summary offenses, that they then become
24 misdemeanors or higher. This means second degree or higher so
25 that we can meaningfully do something with those individuals

1 before they kill. That would be priority number one.

2 Number two would be to draft similar to our DUI laws,
3 put into place different educational and rehabilitation components
4 that would go along with those recidivism laws so that there's
5 mandatory evaluation and counseling for improper drivers to change
6 their behavior.

7 The third thing I would add is a penalty enhancement for
8 those who are engaged in distracted driving for all the other
9 catchall type of laws: homicide by vehicle, aggravated assault by
10 vehicle, careless driving, reckless driving. Trying to go ahead
11 and define the nuance of one specific type of distracter is going
12 to be virtually impossible, but we can establish it and prove it
13 across the board, and if we can utilize our general careless and
14 reckless crimes, with an enhancement based upon distraction, I
15 think we could get more use and implementation out of those and
16 lead to more consequence for engaging in that kind of driving.

17 MEMBER ROSEKIND: All right.

18 MR. CHAUDHARY: I think any law needs to be primarily
19 enforced, well defined in terms of what it allows and what it
20 doesn't, and the consequences need to be strict enough where it
21 overrides the perception of this is just the cost of doing
22 business. So if I get a ticket, I'll pay it and walk away. Well,
23 I just cut a deal where I more than made up for that.

24 MR. MURPHY: I would say to enact handheld bans. I
25 think in California we have reduced crashes and overall cell phone

1 use has actually gone down since we had our handheld ban. The
2 handheld bans, they can be enforced much more easily than the
3 texting bans. I agree they should be for primary enforcement and
4 the fines or what people pay for the ticket needs to be
5 meaningful. Ours is \$159. It can't be \$20. I just don't think
6 that works.

7 SENATOR STARR: I think the law has to be clear. Oregon
8 has an example where we passed a law a couple of years ago that
9 had an exemption so you could use your phone if it was for
10 business purposes. Basically that meant that every phone call was
11 for business purposes and law enforcement didn't enforce the law.
12 We fixed that last year. The enforcement piece we've heard about.

13 I think the education one is important, and that's
14 either through your transportation safety division or perhaps
15 having -- I know that we did this in Oregon for safety belts, and
16 if you got a ticket for a safety belt, you could take an hour
17 class where you basically learned the physics of why safety belts
18 are important. I'll tell you, that changed behavior right
19 quickly. A similar process here could help as well.

20 MEMBER ROSEKIND: Great. Thank you.

21 CHAIRMAN HERSMAN: Vice Chairman.

22 VICE CHAIRMAN HART: Thank you. This has been
23 fascinating. It sounds like we have kind of a circular problem
24 here that we can't get legislation because we don't have enough
25 data, but we're hearing from Sgt. Oberdorf that we can't get data

1 because the legislation doesn't let him do it. So I don't know
2 where to start to break that circle, but let me start with you,
3 Sgt. Oberdorf, and ask you what would the -- not just texting, but
4 what would the ideal law look like that would help you enforce
5 against distraction by, you know, these electronic devices. I'm
6 trying to take it beyond texting, but ideally what would you need
7 in order to help generate the data that Senator Starr needs in
8 order to do the legislation? Do you understand my question?

9 SGT. OBERDORF: Right, where is the starting point?

10 VICE CHAIRMAN HART: Yes.

11 SGT. OBERDORF: Unfortunately, I think we do need data
12 to show that we need some type of general distracted driving
13 section where, you know, we do have more reasonable suspicion. If
14 I'm following someone, you know, the mere fact that they have
15 their phone in their hand and are manipulating it for 2 miles,
16 should be enough to pull someone over. And I think we need the
17 statistics to back that up that, yes, that is distracted driving.
18 Whether I can prove whether you're texting or whether you're just
19 pushing buttons and your phone's not even on, it's a distraction.
20 And I think that's where we need to start. I think we need to
21 have a broader language and numerous sections that will allow us
22 to develop what we need to pull someone over and when we pull
23 someone over, we want to have enough to get a conviction, and
24 that's what's going to be required before we pull them over is
25 something broader that we can stop them for.

1 VICE CHAIRMAN HART: Okay. And while I'm talking to
2 you, Sgt. Oberdorf -- I appreciate that answer. Let me ask you
3 another question. Law enforcement in their cars have been using
4 radios for years, and they're talking on their radio all the time
5 while they're driving. Is there anything we can learn from that
6 experience to help address the problem with distraction from
7 personal electronic devices? Because it's been a success
8 experience for law enforcement, what can we learn from that to try
9 to reduce the hazard for Joe Public?

10 SGT. OBERDORF: If I understand your question, you're
11 saying the police have been using --

12 VICE CHAIRMAN HART: Talking on the radio while driving.

13 SGT. OBERDORF: -- talking on police radios while
14 driving.

15 VICE CHAIRMAN HART: Yes.

16 SGT. OBERDORF: Unfortunately, there's a lot of
17 necessary evils in our job when we're driving a patrol car. We
18 receive extensive training on how to operate an emergency vehicle.
19 We try to keep farther distances back to allow for that
20 distraction that may cause us to come up on someone quicker than
21 the normal driver.

22 VICE CHAIRMAN HART: I'm not asking the question in a
23 negative way. I'm looking at it in a positive way. There must be
24 a wealth of experience that has been acquired by our highway law
25 enforcement officers that can come into this equation to help us

1 make it less unsafe.

2 SGT. OBERDORF: Yeah, I think the only thing I can say
3 is it's an awareness. We have to be aware that we have these
4 distractions. We have computers in our car that, you know, a
5 normal driver in Pennsylvania is not allowed to operate a computer
6 in their vehicle. You know, our regulations say we're not to use
7 it while we driving. But it makes noises; it sends messages and
8 it's going to be a human reaction, you're going to glance at it.

9 As a supervisor, I tell all the young people, all the
10 young troopers coming out, you've got to minimize your
11 distractions while you're driving this patrol car. You're
12 thinking about the call you're going to. Well, the civilian is
13 thinking about the event they're going to or the house they're
14 going to, the friend they're going to see or the movie. And I
15 tell my kids -- I have two kids that are college age, you've got
16 to minimize your distractions. I don't know that there's anything
17 unique that law enforcement can say other than minimize your
18 distractions, keep that safe distance and, as much as possible,
19 keep your attention on the road ahead of you.

20 VICE CHAIRMAN HART: Thank you. Another question is,
21 Mr. Barker made an interesting point about the recidivists and
22 maybe the best person to ask this is to Mr. Murphy because you
23 might have the best perspective on the state laws in various
24 states after your Governor's Highway experience. To what extent
25 do states address the recidivist issue that Mr. Barker is very

1 concerned about and rightfully so?

2 MR. MURPHY: Vice Chairman, I'm not really sure. I
3 don't know too much about that one, to be honest with you.

4 VICE CHAIRMAN HART: Okay. That sounds like something
5 that's emerging from experience that hasn't yet reached the
6 legislative arena that we're going to be looking at more, as we
7 learned with drunk driving, for example, the same kind of
8 recidivist issue. Okay. Thank you.

9 Moving to the Connecticut and Syracuse experience, I
10 think the slide said you weren't sure whether the reduction was
11 sustained after the wave finished. Do you have any -- there's no
12 late data on that, on whether there's an uptick again after the
13 enforcement waves?

14 MR. CHAUDHARY: Yeah, it's actually mixed. Between the
15 first wave and the second wave, the decrease was maintained, which
16 was very exciting. Between the second and third waves, however,
17 it shot back up. The rates went pretty high. And then third to
18 fourth brought them down below where they were at any other point
19 during the evaluation.

20 So what was the difference between one and two and two
21 and three? Novelty may have been an effect. The extent of the
22 earned media may have differed. I just can't say exactly what it
23 was.

24 Just your earlier question, Connecticut does increase
25 their fines for repeat offenders. So I don't know if that's

1 helpful.

2 VICE CHAIRMAN HART: And we heard that for California as
3 well. Okay. Thank you very much.

4 CHAIRMAN HERSMAN: My questions goes to you all with
5 respect to what I'm hearing, the conversation as far as laws and
6 enforcement seems very much focused on texting and also handheld
7 devices. And so I'd like a little bit of feedback from you all
8 because certainly some of you all have experiential time with
9 this, California, in your case, several years under your belt, but
10 also in the legislative, the pushback, and the enforcement side
11 dealing with how do you actually fault someone for these things.

12 I'm not hearing about the hands-free at all in this
13 conversation here, and I want to make sure that I understand as
14 far as, is it a disconnect between the information, Senator Starr,
15 that's available that people think somehow that hands-free is
16 safer than handheld or is it the problem with enforcement, the
17 challenge of it's hard to write a law where you enforce a hands-
18 free, and so can you give me a little bit of feedback on that?
19 And what seems to me is everyone gets texting, some people get
20 handheld, and then others are getting the hands-free. Where is
21 this level of maturity here and why the receptiveness towards the
22 first in the continuum but harder at the top?

23 SENATOR STARR: I believe that legislators are
24 responsive to their voters, and quite honestly --

25 CHAIRMAN HERSMAN: And maybe their own needs?

1 SENATOR STARR: Well, and maybe their own needs, no
2 doubt. And, you know, a lot of our constituents spend a lot of
3 time in their vehicles and, you know, I think that there is a
4 common probably misunderstanding that hands-free is safer, and so
5 that's a reason that we haven't addressed the hands-free issue as
6 dangerous yet. And I quite honestly believe that if legislators
7 at this point were to move in that direction, it would be a very
8 difficult sell with the average driver and average voter, quite
9 honestly.

10 CHAIRMAN HERSMAN: How about on the enforcement side?
11 How difficult is it to enforce a hands-free type prohibition?

12 SGT. OBERDORF: Well, we're just dealing with the actual
13 texting law now, so we have no experience with that.

14 I guess if you have multiple occupants in a vehicle, and
15 again, I pull up next to that vehicle on 81 southbound and I see
16 them flapping at the gums, as they say, how am I to determine if
17 they're actually using a hands-free phone or if they're talking to
18 their passenger? I see that as a challenge.

19 I'm going to kind of combine the Vice Chairman and the
20 Chairman's last two issues. Thinking about the question that you
21 proposed regarding radio usage, there we're not actually
22 manipulating a device. You know, we're so used to grabbing that
23 off the handle, pulling it up and using it, we can keep our focus
24 out ahead of us. Is it a distraction? Yes, but again, we're
25 going back to the minimization. We're going to minimize our

1 distraction. So I don't have statistics on hands-free versus, you
2 know, handheld. Maybe the hands-free is safer. I don't know.
3 But I guess a hands-free system in a perfect world may be better
4 than actually holding the phone in your hand, manipulating it and
5 making a call.

6 Unfortunately that's going to involve money, vehicles.
7 Not everybody has got the money to go hands-free. Not everybody
8 has the opportunity or the equipment to go hands-free, depending
9 on what vehicle they're driving. So again, there's going to be a
10 lot of issues that are going to dictate that.

11 CHAIRMAN HERSMAN: Okay. And how about as we've seen,
12 35 states have texting bans. And so I'm interested in you all,
13 and you have near experience, do you think that the texting bans
14 actually create a more dangerous type of hidden texting where
15 people are actually having more contortions to try to actually
16 text without other people seeing them? Is there a negative effect
17 of passing some of these laws?

18 MR. BARKER: There can be, absolutely, and we do see --
19 and one of the things that we get reported on a wide scale is that
20 individuals take extra steps to go ahead and hide their cell
21 phones, to put them and contort them into different places. I
22 think though that the overall danger about how we've continuously
23 talked about texting ban, texting ban, texting ban, is -- you
24 know, one thing I did mention in my beginning is, I have one
25 hands-free fatality prosecution under my belt already, and the

1 reason why it happened, the person was engaged in discussion with
2 his wife where they were more focused on the conversation than
3 there was a red traffic light, and especially when you're talking
4 about a commercial motor vehicle where you have even less, you
5 know, margin of error, there's nothing you can do.

6 The danger, the true danger in these focusing on
7 texting, and what I fear for Pennsylvania, is that by keeping the
8 discussion so narrow, it's not only everybody will try to figure
9 out how to get around the latest law -- you know, you'll have a
10 portion that will try to do that, especially if they think all
11 they've got to do is pay a fine and it's the cost of doing
12 business. The bigger danger is now we've narrowed the focus of
13 discussion and are thinking that we're accomplishing more than we
14 actually are.

15 There are a lot of different ways to drive your vehicle
16 dangerously and many ways to be distracted, and if we narrow the
17 focus of our view so much in our discussion, we'll get a false
18 sense of security that then 10 years down the road, after many
19 deaths, that's the real place where we'll collect the data. When
20 -- Vice Chairman, you asked about data collection. The data's
21 there, but it's all in dead bodies, and that's the unfortunate
22 thing. If we want to prevent that data from ever occurring, we
23 need to always widen our margin, widen our scope, keep our
24 discussion broad and focus in that way.

25 CHAIRMAN HERSMAN: So you've raised the issue of

1 commercial vehicles, and I see our friend, Steven Garcia, who is
2 in the audience from FMCSA, and they've passed a federal ban when
3 it comes to texting or operating a handheld device for commercial
4 drivers, and the penalties for a commercial driver violating the
5 ban is \$2,750 per violation for up to -- for the driver, and for
6 the company, \$11,000. Is that the cost of doing business?

7 MR. BARKER: It depends. I've seen some companies --
8 I've done quite a few commercial motor vehicle fatalities, too,
9 and I know quite a few companies that, depending upon what they
10 need to do, the same way they violate, you know, driver logs,
11 fatigue, different aspects like that, it's going to depend upon
12 how reputable your company is and what they determine is the cost
13 of doing business.

14 Quite frankly, my view has always been this. My view
15 is, from dealing with the amount of cases that I have, is that
16 unless you have a technique to let us get somebody under our thumb
17 and not be able to write a check, we cannot go ahead and truly
18 change the scope of the cost-benefit analysis, and then impose the
19 educational requirement. I'm not talking about criminalizing
20 everything. I think that whenever we talk about that, that
21 there's a few of, oh, here comes the prosecutor again. He loves
22 throwing people in jail, sticking it to folks and criminalizing
23 all conduct. That's not the case.

24 But what we're seeing is if the cost-benefit equation
25 always just deals with dollars and cents and does not deal with

1 something as meaningful follow up, meaningful education which can
2 only be obtained by sentences that actually have tails to them and
3 require them to appear in court, appear before a judge, appear
4 before a prosecutor, and have meaningful education be a component,
5 in whatever form -- diversionary, non-diversionary, whatever form,
6 we cannot meet the heart of this problem, especially with
7 recidivists.

8 CHAIRMAN HERSMAN: Thank you. Member Sumwalt.

9 MEMBER SUMWALT: Sort of a follow up of what the
10 Chairman was asking and, Mr. Murphy, when Member Rosekind asked
11 each of the panelists what suggested laws they would put in place,
12 and I believe you replied a handheld ban. Is that correct?

13 MR. MURPHY: Yes.

14 MEMBER SUMWALT: Given the data that we've discussed
15 today, why would you not say an outright ban on cell phones? Why
16 do you limit it to handheld?

17 MR. MURPHY: I just don't think, as the Senator said, I
18 just don't think we're ready for that. I mean this is really more
19 of a political issue, and I don't know, right now we don't have
20 any state that has a total ban and I don't even know if there's
21 any legislation that's been drafted on a total ban. Senator, do
22 you know?

23 MEMBER SUMWALT: And -- no, go ahead.

24 MR. MURPHY: No, I'm sorry.

25 MEMBER SUMWALT: No, this is the big myth, folks, and

1 this is what worries me, because we have people that think they're
2 doing the right things. They think they're solving the problem.
3 They're going to vote on something and then slap their hands and
4 say we took care of that problem. But they're not. And that's
5 what worries me. And we've got people that are in safety-related
6 positions that are advocating a handheld ban when that's not doing
7 anything. If you're going to be in a safety-related position,
8 you've got to take the position that we've got to ban cell phones,
9 period, while being used in a car. (Applause.)

10 Now, there's a good paper out there, and I'm not saying
11 this; I have found this to be a very good paper. It's out on the
12 table, I believe it is, National Safety Council, and it talks
13 about it's the cognitive distraction. It's not the fact that
14 you've necessarily got this thing up to your ear, even though
15 having that extra appendage is a distraction, but it's the
16 cognitive distraction, and the data are showing that there's not a
17 significant difference between handheld and hands-free. If we're
18 really going to make a difference, we've got to accept that. Is
19 that correct, Senator? Is that correct, Mr. Murphy? You're in a
20 safety position. You don't have to worry about the politics of
21 it.

22 MR. MURPHY: I would say right now handheld bans help us
23 get to where maybe you want to go, but to not have a handheld ban
24 because we can't get to the ultimate, I'm not -- you know, I'm not
25 really sure about that.

1 MEMBER SUMWALT: It's a false sense of security, sir.

2 Senator, you mentioned that there are arguments. How do
3 we counter these claims? Well, we don't have enough data. It's
4 an invasion of privacy. Well, correct me if I'm wrong here, but
5 when you have a driver's license, it is not a right. It's a
6 privilege and associated with that privilege, when you execute the
7 privileges of that license, you are agreeing to abide by the laws
8 and the restrictions and the regulations associated with that. Is
9 that correct?

10 SENATOR STARR: That is correct. I believe that part of
11 the challenge to go into a complete cell phone ban is the
12 enforcement piece, as we've heard. How does the law enforcement
13 know if someone is talking, whether they're singing along with the
14 radio or actually, you know, talking on a hands-free device. I
15 think that is a big challenge.

16 I think ultimately technology will solve this problem,
17 whether it's technology that someone can -- you know, through an
18 independent company or it's technology that's mandated by the
19 Congress to be included in vehicles. I think in the long term,
20 technology will be the issue that helps to solve this issue.

21 For legislators as well, emotion is important. You
22 know, you can get legislators to pass legislation based on
23 emotional testimony from folks that have been harmed by distracted
24 drivers, and we shouldn't negate that piece of this conversation
25 as well.

1 MEMBER SUMWALT: Thank you very much.

2 CHAIRMAN HERSMAN: Member Weener.

3 MEMBER WEENER: Yeah, I'd like to go back to kind of the
4 discussion we had at the beginning of the last panel, and that was
5 the data upon which we decide or we use to make decisions about
6 what to focus on, and I guess this is a question for
7 Sgt. Oberdorf. When you arrive on an accident scene, how do you
8 determine whether distraction has been a cause and, following
9 that, how do you decide what kind of distraction is in the
10 particular accident?

11 SGT. OBERDORF: First off, there are many things that
12 can cause a crash. Distracted driving, number one. Speed,
13 alcohol, drugs, so on and so forth. The list goes on and on.

14 The first thing we're going to look at is the physical
15 evidence. You've either got 100 feet of skid marks, no skid marks
16 on the opposite end. No skid marks, somebody coming up to an
17 intersection and blowing a red light would mean there was
18 something going on that they did not react to that red light. Was
19 it a medical condition? Was it texting? Was it reaching for that
20 piece of pizza? We don't know, and that's why we have to
21 investigate and that's why some of these are very difficult to
22 take to any serious level of prosecution. You know, we look for
23 witness statements, statements of the driver if they survive,
24 statements of the other vehicle that they hit. It's an
25 investigatory process where we have to eliminate certain things

1 and eventually focus on one particular area and then take it from
2 there.

3 MEMBER WEENER: So in the process of going through all
4 of those possible causes, you're trying to document the cause of
5 this particular accident. How difficult is it to make that
6 particular determination stick in a conviction?

7 SGT. OBERDORF: Well, again, you have some scenes where
8 the only thing you have is physical evidence. Physical evidence
9 never lies if it's presented properly and can go a long ways. But
10 it's great when you have something to corroborate that evidence,
11 such as I was following that vehicle up to the red light, they
12 were going 10 miles in excess of the posted speed limit and there
13 was absolutely no braking prior to entering that intersection, and
14 they were reaching over and picking up a phone, and that's best
15 case scenario. So, I'm sorry. I kind of lost track of your
16 question.

17 MEMBER WEENER: Well, I was just trying to explore -- in
18 a sense, the bigger question is, how valid is the data when it
19 comes to looking at what was the cause of distracted-related
20 accidents? But then really associated with that is the issue of
21 once you've made that determination, and you've made it on scene
22 through an investigation which may have continued after the scene,
23 the question is how solidly can you make it stick? In other
24 words, if it's texting, you can probably -- well, as you've
25 described, you can see if the unit has been lit up, if you're

1 right at the scene.

2 SGT. OBERDORF: Sure. That's where Mr. Barker's office
3 comes in very handy. We'll confer with the district attorney.
4 Oftentimes we'll bring a district attorney out to the scene,
5 because as we're doing our accident investigation, they're also
6 looking at, well, what are we going to need to prosecute this case
7 in addition to what we're looking at to prosecute the case because
8 ultimately they're going to be the ones that are going to present
9 this case to a jury if it goes that far. So we work hand-in-hand
10 with the district attorney's office at serious crash scenes, and I
11 guess maybe I can turn it over to Mr. Barker and he can take that
12 side of it.

13 MR. BARKER: Most of our involvement in Pennsylvania, of
14 course, deals with the true reconstruction of the crash and
15 involves with serious bodily injury and fatality scenarios.
16 That's when most of our situations occur. A lot of times these
17 are very little eyewitness testimony cases. If an officer is
18 lucky enough to observe or some other citizen is lucky to see
19 truly what was going into a vehicle, that's great, but a lot of
20 times these are post-crash scenarios where we don't have that.
21 Search and seizure laws do not allow us to just pick up the
22 phones, turn them on and go through them. In Pennsylvania, we
23 cannot do that, and so what we would need are search warrants to
24 go ahead and go into the phones and then get the data. We need to
25 get all the cell phone records, do comparisons on those and then

1 eventually you're going to need an expert in human factors, and
2 we're trying to encourage our collision reconstructionists to get
3 more expertise in the area of human factors because that's really
4 where this area of -- like you heard the data that you heard
5 previous from the first panel talking about, that human factors
6 data. Jurors need to hear and understand some of that.

7 We know, and I know from personal experience, and other
8 prosecutors know as well, juries understand certain things up to a
9 certain point, and for instance, when we talked about what makes
10 the impression difference between texting and talking. Well, it's
11 more visual for a juror to say, I'm going to have a tough time
12 doing something if I'm sitting there manipulating and looking
13 away, but I've talked many other times; how is that impacting me
14 the same way? That requires education, and we have to educate
15 juries, which requires our law enforcement officers to get more
16 expertise, mainly our collision reconstructionists. And many
17 times they have to call in outside witnesses, which also cost
18 money, and quite frankly, now our office -- you know, my boss, I
19 love the fact that he has always given us the green light to go
20 ahead and says, spend the money on the expert. We have people who
21 have died; let's do it. But when you're talking about smaller
22 counties, rural counties, very low budgets.

23 And it's very popular right now to go ahead where
24 literally we're seeing in the newspapers all the time about, hey,
25 we've got to make a cost-benefit analysis. Do we go ahead and

1 increase some taxes or do we reduce the number of law enforcement
2 and firefighters out in the street?

3 Well, that impacts our budgets and who we can bring in
4 and what we can do. But for the defendant, many times they'll
5 petition the court or, especially if they're private, they'll
6 bring in their expert to go ahead and try to manipulate the data
7 and manipulate human factors. So that's what goes into proving
8 these cases. They are extremely complex. A distracted driving,
9 homicide by vehicle prosecution is about as complex a case as you
10 can get out there. Give me a straight forward, shoot them up any
11 day of the week, I can prep that in 2 days. This type of case
12 takes months.

13 MEMBER WEENER: Thank you.

14 CHAIRMAN HERSMAN: Member Rosekind.

15 MEMBER ROSEKIND: So this is a question for any of you,
16 but I don't want to hear from all of you. Let's keep it tight.
17 But I want to go to the data issue, which is we're seeing a lot of
18 studies that are trying to look at crash reports and then relate
19 them to the accident reports from police. There's clearly an
20 issue here about what gets coded, how it's identified, the
21 databases, et cetera. We see this across many different areas.
22 Give me the fix. I mean, clearly, garbage in/garbage out. We
23 already know that. We have challenges correlating the stuff. How
24 do we fix the data input that's such a critical point in trying to
25 relate these things? Anybody have a fix for that? Sir.

1 SGT. OBERDORF: Again, from the field experience, our
2 state dictates what goes on a crash report. First and foremost,
3 there's a law on the books stating our Department of
4 Transportation will create the report for investigating crashes.
5 From there, we can have our own regulations, what else we put in
6 the narrative, a diagram and so forth. But all the checkboxes
7 that they're collecting for stats is dictated by the state itself.
8 So it's got to start with the state to determine what information
9 they want to recover from each crash scene.

10 MEMBER ROSEKIND: And so then, if I'm just interpret
11 that, then we're looking at a fix with all 50 states basically
12 making sure the reports, one, have the appropriate boxes on them,
13 and two, the officers know what they're looking for, and three, as
14 you were saying, that they have the ability to actually get the
15 data they need to put in there, right?

16 SGT. OBERDORF: Correct.

17 MEMBER ROSEKIND: So one other thing, and I again I want
18 to keep this focused because I think this is a recurring thing
19 that keeps coming up. When the NTSB made a recommendation in
20 December about banning all personal electronic devices,
21 immediately there's discussion about, well, you can't enforce
22 that; we can't tell if bans work or not. And I'm just wondering
23 conceptually, sort of how you address that. I mean, if we use
24 that for everything, then basically we wouldn't have any laws.
25 You know, I think of all the other acts that people could do. If

1 we just use the whether we can enforce it or, you know, a ban
2 works or not, we wouldn't start with step one, wear your seatbelt,
3 don't drink and drive, et cetera, right? And it just seems to me
4 listening to the previous panel that Member Sumwalt did a very
5 direct job of just -- is there a difference between hands-free and
6 handheld? No; the risk is increased.

7 So I'm curious if there's anything beyond a safety
8 argument about this that actually justifies not banning personal
9 electronic devices? I keep hearing the political, the emotional.
10 I haven't heard cost yet. That usually comes up, too. But if you
11 keep it in the safety realm, do we have any reason? Is there any
12 data, et cetera, that says, no, don't go for a total ban?

13 Oh, not good to stump the panel.

14 MR. BARKER: Well, I'll take a flyer at one thing. That
15 flyer is this. If that means that we go ahead and we have a total
16 ban and we stop there, then, yeah, we're going to have a problem
17 because when we sit back and we realize in 10 years that the
18 people that are going to ignore the ban and cut the check, are
19 still doing it, and I'm still seeing people come through my office
20 as prosecutors around the country do, who are dying from the
21 conduct, then, yeah, that will be a problem.

22 And overall, that's where, as we've seen it from the
23 field when we talk about the frustrations with things that we've
24 heard, is that so many times with legislation -- and I'm not
25 trying to be critical of the role of the legislature. I know how

1 difficult it is to navigate things through and we appreciate them
2 being our allies, but a lot of times it comes about piecemeal, and
3 where there's a sense of satisfaction upon saying, look, we
4 cleared one hill, yet we've got a mountain behind it, and that's
5 where the frustration -- and then we have artificial discussions
6 on what was the cost, what was the benefit, when we haven't really
7 done all the steps, really analyzed the data to its conclusion,
8 really put it together in the way that it needs to. We've become
9 very compartmentalized rather than interacting globally, and
10 driving is a global event. I mean all law is global. All law is
11 on a continuum. But driving especially is a global event. People
12 who are committing one type of dangerous behavior are going to
13 commit another type, and we pretty much know it. There may be an
14 exception or two out there, but the ones who want to do it will do
15 it.

16 So is there a danger? Yes, the danger is we'll become
17 self-satisfied and not deliver the full goods, and if that
18 happens --

19 CHAIRMAN HERSMAN: Mr. Barker, I'm going to have to ask
20 you to shorten your answers, please. We're almost out of time for
21 the panelists.

22 MR. BARKER: Sure. Sure.

23 CHAIRMAN HERSMAN: Thank you.

24 MR. BARKER: And if that's the case, then we'll have a
25 problem.

1 MEMBER ROSEKIND: And unfortunately, I'm going to stop
2 because I want to keep this moving along. So I'll just do a close
3 here, which is when the NTSB made its recommendation, we
4 highlighted NHTSA approach which requires education, strong laws
5 and high visibility enforcement. The discussion in this area is
6 coming around to technology being added to that so that you have a
7 relatively set -- have a whole set of different approaches
8 basically to deal with the issue. But it starts with the
9 discussion here legislatively is, you know, what does the ban need
10 to be and not letting the, well, we don't know if we can enforce
11 it, et cetera, driving. That's sort of the tail wagging the dog
12 here, and I guess all of us are trying to make sure that we're
13 kind of lined up on the safety side saying it starts with strong
14 laws, education, high visibility enforcement and, in this case,
15 probably technology as well. And later we can talk more. Thank
16 you.

17 CHAIRMAN HERSMAN: Vice Chairman Hart.

18 VICE CHAIRMAN HART: Thank you. I'd just like to touch
19 briefly on an issue I don't think I've heard about yet, which is
20 primary versus secondary enforcement, and I'm curious. First of
21 all, is the Pennsylvania texting law from March 8, 2012, is that
22 primary or secondary?

23 SGT. OBERDORF: It is primary. I believe it was
24 introduced as a secondary law, I believe, and that was one good
25 change that was made from the time it was proposed to the time it

1 came into law. It is primary.

2 VICE CHAIRMAN HART: Okay. And the reason I'm asking is
3 because I'm hearing a lot of debate about that issue, primary
4 versus secondary from the standpoint of targeted enforcement and,
5 of course, what's happening in Sanford, Florida, right now is
6 probably going to fuel that debate somewhat. But I'm just
7 wondering what kinds of thoughts do any of you have on targeted
8 enforcement and the extent to which it may affect primary versus
9 secondary? I'll open that to anybody who might have some
10 information on that.

11 MR. MURPHY: Ours in California is also primary, Vice
12 Chairman, and I think it's very important that states do enact,
13 that the law be for primary for the obvious reasons.

14 SENATOR STARR: I think this is a situation where the
15 data will help, as you have information that shows that primary
16 enforcement, secondary enforcement, and what that means in
17 ultimately a lives saved, that will drive the legislators to move
18 it toward primary just like it's happened in seatbelts.

19 MR. CHAUDHARY: Yeah, I think using seatbelt as an
20 example, the data so far does not show that having a primary law
21 leads to any sort of uneven ticketing. So I wouldn't expect a
22 cell phone to be any different.

23 VICE CHAIRMAN HART: Thank you. And in the interest of
24 time, I'll cut it off there. Thanks for a fascinating panel.

25 CHAIRMAN HERSMAN: I'd like to thank the panel because I

1 know we're getting tight on time. You all were asked here because
2 you have expertise, because you all have been leaders in many
3 areas, and so I do want to recognize that you all have been very
4 successful in certain area. We're trying to get from, you know,
5 a baseline level of not much to getting to something where we're
6 accomplishing things, and I think when we're trying really to make
7 a societal change like this, that there is an understanding that
8 it happens slowly and it happens over time.

9 And, part of the pressure is not necessarily on any of
10 you individually, but the pressure is on all of us collectively.
11 It's at our dinner table, making decisions about how we are going
12 to behave, how our family is going to behave. It's in the
13 workplace. It's about putting a ban on your employees and the
14 people who work for you about what expectations are in performance
15 behind the wheel. Yes, it's about what does the local law
16 enforcement do, what does the state do, what is a state's
17 priorities, what is the legislative priorities. But one thing is
18 not going to solve this problem. All of us have to work together
19 to try to change these attitudes, and I think, Mr. Murphy, we very
20 much appreciate what California has done because you have
21 demonstrated many of the positive things that we're actually
22 trying to pull from this debate. You all have done the high
23 visibility enforcement campaign. You all have done the education.
24 You all have measured the data. You have looked at not only did
25 you write tickets, but were the fatality numbers down, and you've

1 looked at people's attitudes and their behaviors and that's
2 important, too. I think at the end of the day, it's one person at
3 a time changing their behavior, and I think all of you all
4 contribute to that.

5 Sgt. Oberdorf, I mean, I think maybe the most important,
6 you know, impact for sure you can have, you were talking about the
7 young officers that work for you. It's about that one-to-one
8 communication and about making those changes. And so, Mr. Barker,
9 I definitely heard what you said about trying to address this. I
10 think our concern is that this is so pervasive. It's not just
11 about people who are dangerous drivers or recidivists. There's a
12 lot of people out there who don't have records of violations, but
13 they are texting behind the wheel or they're talking behind the
14 wheel and they think the accident's not going to happen to them.

15 You know, I got a letter yesterday from a woman about a
16 teen in her family that they had counseled many times about not
17 texting, not talking on the phone while she was driving, and this
18 person said, please let me do anything I can to help because this
19 young lady was involved in an accident, and you know what? She
20 didn't kill herself; she killed someone else. And that is the
21 tragedy here. It's about people making decisions that impact
22 other people and have an outcome that they are not anticipating,
23 and I think one of the challenges we see here in highway safety is
24 you can get away with murder. You do it behind the wheel. And I
25 think what we're hearing here is we have got to strengthen the

1 penalties. We've got to strengthen the education. We've got to
2 strengthen the enforcement.

3 Many of the families here who have lost someone, it
4 doesn't make any difference if that person intended to take that
5 life or they didn't intend to take that life. That person is
6 gone, and we have to figure out as a society a way to get that
7 across to everyone.

8 I've got three young boys. I sure hope when they're
9 behind the wheel, we've got a better handle on this because I
10 don't want to be the mother who receives the call that my child
11 was killed or have to deal with my child having done something
12 that resulted in the death of someone else. We have to deal with
13 this as a society.

14 We're going to have a death count a decade from now if
15 we say we need more studies and we need more data. If we don't do
16 something, it's going to be too late. It's going to be too late
17 for somebody in this room or someone in this room that you love.
18 I mean, it's that simple.

19 So thank you all very much for your participation.
20 We've had a great discussion. Our panel this morning was
21 fantastic as well. We very much appreciate everyone being here
22 and your attentiveness.

23 We are going to turn our attention to our third panel
24 this afternoon, and they're going to be focusing on attitudes and
25 behaviors. That panel will start at 1:30, but I hope you all

1 return by 1:15. We have a special guest, Jordin Sparks, will be
2 here to talk at 1:20 about her efforts on distraction and texting,
3 and so we will adjourn. We will resume back here at 1:20. Just
4 give yourself time to get through security. Thank you.

5 (Whereupon, at 12:00 noon, a lunch recess was taken.)

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A F T E R N O O N S E S S I O N

(1:30 p.m.)

1
2
3 CHAIRMAN HERSMAN: Thank you very much to our panels for
4 joining us, and for being here, so we can get an on-time start.

5 Dr. Bruce, if you'll introduce the third panel.

6 DR. BRUCE: Good afternoon. Our third panel looks at
7 the countermeasures of changing attitudes and behaviors. We'll
8 hear about various national and state education campaigns that
9 target distracted driving and we will look at the ways to assess
10 the effectiveness of such campaigns. As we learned this morning,
11 young drivers are particularly susceptible to distraction so we
12 will also focus on ways to address that population in these
13 efforts.

14 Our first panelist this afternoon is Mr. Jacob Nelson,
15 Director of Traffic Safety Advocacy and Research for AAA.
16 Mr. Nelson is also a Mid-American Public Health Leadership Fellow
17 alumnus and member of the National Public Health Leadership
18 Society.

19 Mr. Nelson, I invite your first presentation.

20 MR. NELSON: Thank you, Dr. Bruce.

21 This November will mark 6 years that I've worked in the
22 field of traffic safety, but before that time, I worked in the
23 public health community managing a local health department,
24 working on issues like HIV Aids prevention, responsible sexual
25 behavior, childhood obesity issues, substance abuse issues, those

1 types of things, and so I come at the work that we all do in
2 traffic safety with a slightly different perspective.

3 In public health, there's a pretty strict protocol for
4 tackling a health challenge. It starts with defining the problem,
5 and for that, we need very strong data, and we've talked a lot
6 about data today.

7 Number two, we identify risk and protective factors and
8 those factors will vary depending on the audience that we're
9 trying to reach with our messages.

10 Next, we design, evaluate and refine evidence in theory-
11 based interventions and ensure widespread adoption to relevant
12 audiences.

13 In public health, one of the things that we find is that
14 most of the interventions designed to impact attitudes in human
15 behavior involve multiple components, sort of an ecological
16 approach to tackling a problem, if you will. So that could
17 include, for example, public policy, outreach and education, and
18 by that I just mean providing information to people about a
19 subject matter in its most simplistic way.

20 And then also community-based programs. These are
21 components of a multipronged approach at addressing a challenge in
22 a health area that impacts individuals, the way the individuals
23 communicate with one another, organizations and institutions and
24 then also society at large.

25 All of those things come together and they change social

1 norms. It's very rare for a single component intervention to have
2 that type of effect. It's usually a combination of these factors
3 that really motivate people to change the way that they view an
4 issue and the way that they behave relative to that issue.

5 Let's not forget that just a generation ago, smoking was
6 very common in this country. Everyone smoked, athletes,
7 politicians, parents smoked near their children. In medical
8 schools across the United States, physicians would smoke during
9 lectures, teaching the physicians of tomorrow. And when public
10 health practitioners first started to tackle this issue, it seemed
11 impossible to address.

12 Everyone told these folks that it was too difficult,
13 it's too much of a challenge, there's no way that we'll be able to
14 change social norms relative to this issue, but through policy and
15 the things that I've kind of addressed already, obviously we've
16 made that type of an impact, and regardless of your personal views
17 on smoking cessations and bans on smoking in public places, we
18 can't deny the change that we've made in the way that society
19 views that issue in the United States.

20 Some of the lessons that we've learned through things
21 like the fight against tobacco and smoking in public places are
22 things that in many ways we already know. It's not easy to change
23 social norms, to change attitudes in human behavior. It takes a
24 lot of time to do it.

25 We know that a strong foundation of research data and

1 theory-based interventions are really key to supporting our
2 credibility and sustainable change relative to a given health
3 issue.

4 Social and behavioral theory is really important, and
5 it's sort of a cornerstone to the work that we do in public health
6 regardless of what the issue is. We persuade through reason and
7 motivate through emotion, and unless people believe the data that
8 we throw at them, we cannot motivate them to move from that point.

9 So in other words, facts and statistics bounce off, and
10 what sticks is the message. It's the way that we frame the
11 discussion around an issue that helps to sort of strike those
12 chords in people. And I watched the videos during the break and I
13 thought that a lot of them were really well done and really sort
14 of reminded me why we all do the work that we do in this area.
15 It's easy to get sort of lost in the beltway and the issues that
16 we all work on. So watching those videos was a nice reminder of
17 why we're all doing what we're doing.

18 One of the other things that we learn through public
19 health is that it's really important to know your target audience.
20 That includes sort of perceived susceptibility and perceived
21 barriers to the issue that you're trying to change. These are two
22 of the strongest predictors of success in changing human behavior.

23 Communication-based intervention should target segmented
24 audiences. One of the things that we learn as we expand the
25 messages that we put out into the world to large groups of people,

1 they have less impact than they might if we were to focus on a
2 very specific target audience. So that's something that I would
3 keep in mind.

4 And quickly, I'm going to walk through traffic safety
5 culture. So in 2006, the Foundation for Traffic Safety announced
6 a long-term commitment to research and education relative to
7 traffic safety culture. I'm sure most of the people here are
8 familiar with the traffic safety culture index, the public surveys
9 that the Foundation conducts each year. But this work really
10 began in 2007 with the publication of 22 papers and over 378 pages
11 from which 4 themes emerged, and these are listed up on the screen
12 here.

13 Complacency indifference is really sort of showcased
14 through the fact that in the year 2000 dollars, traffic crashes
15 cost \$230 billion per year, but we spend in this country less than
16 \$1 billion per year to address it in today's dollars.

17 Safer vehicles and safer roads. What I'm really
18 speaking to here is that safety sells. For some reason, the
19 public seems to demand safer vehicles and seems to accept and
20 demand the government's role in ensuring that our infrastructure
21 is safe for us to travel on.

22 Traffic safety science -- "science" in quotation marks
23 -- really speaks to the fact that on the vehicle infrastructure,
24 engineering side of the house, we have that rigor in the science
25 that we apply to changing the way that people travel on our roads

1 and increasing safety. That rigor is lacking relative to
2 behavioral highway safety.

3 Variations in traffic safety just speaks that there is
4 difference from urban to rural and from one issue to the next.
5 Drunk driving, occupant protection are areas that we've made a lot
6 of impact. We have a long way to go relative to distraction.

7 And finally, boosters and barriers that I'll get to in
8 the context of our Q&A. Thank you.

9 DR. BRUCE: Chairman Hersman, our second presenter will
10 be Dr. Dan McGehee of the University of Iowa. Dr. McGehee is the
11 director of Human Factors and Vehicle Safety Research Division at
12 the University of Iowa Public Policy Center. For several years,
13 Dr. McGehee has conducted naturalistic driving studies among young
14 drivers with event triggered video recorders which provides a
15 unique view into young driver behaviors.

16 Dr. McGehee, I invite your presentation.

17 DR. McGEHEE: Thank you, Dr. Bruce.

18 We'll be talking about teen drivers this afternoon which
19 is yet another unique population within the context of driving,
20 and one thing to consider not only about distraction in general
21 but in teen driving in particular, is that it has always been one
22 of the most dangerous things we allow --

23 CHAIRMAN HERSMAN: Can you pull your mic just a little
24 bit closer?

25 DR. McGEHEE: So as driving for teens is one of the most

1 dangerous things, it has been for a long time and continues to be
2 a major public health issue.

3 One thing that we sort of think about with our own teens
4 and the population in general is you worry about disease a lot of
5 times, and what I've displayed here on the screen here is to show
6 that motor vehicle crashes make up the majority of fatalities
7 within these unintentional injuries, and it's the leading cause of
8 death for those in their teenage years.

9 Now, when you take a look at crash rates over time,
10 they're highly dependent on exposure to driving itself, and so
11 over the last several years, where we've seen unemployment issues
12 and the young driver, high fuel prices, we actually can see those
13 crash rates and fatality rates go down, but as driving increases,
14 then they go up.

15 So why do teens crash relative to their adult
16 counterparts? Poor judgment and decision making is exacerbated by
17 their young age and their inexperience. And this is really keyed
18 to developmental issues, practice and so forth. Teens are very
19 sensitive to peer influence and risk taking. What we see in a lot
20 of crashes is that the more teens on board, the higher the crash
21 rate in general. We also see more risk and device interaction,
22 and I'll be talking a little about more sort of what we see as
23 group texting, that is, when you get a bunch of teens on board,
24 they all want to text because that's part of their social network
25 and so forth.

1 Risk-taking causes vary greatly. They can be
2 intentional. You can intentionally drive at high speeds, but they
3 also can be very naive as well, and all of those combined then
4 essentially reduce safety margins.

5 And we also see a big disconnect between the driving
6 abilities and task demands. We see young drivers essentially
7 selecting to be distracted, checking that text message that has
8 come through right when they're entering a complicated on ramp and
9 so forth which you might not see with an adult. They have a lot
10 of difficulties in speed maintenance, hazard perception and so
11 forth.

12 We find they're really good at the technology part but
13 really not good at task sharing. As we've heard in some of the
14 other testimony today, people think they're good multitaskers.
15 Teens think they're great multitaskers, but they're really not.
16 They're really experts at operating their devices but not doing
17 that and driving at the same time.

18 So one of the trends that is a bit worrisome is really
19 how much more we are texting in the younger populations. What I
20 put down here is there are two good data sources, the Pew Research
21 Center as well as the Neilson Group has done some very interesting
22 data analyses on text usage and voice usage, and what we see here
23 on the screen right now is an increase in text usage at the end of
24 2009 and the end of 2010 where we see girls, young women texting
25 at about 3952 text messages a month and boys about 2800 a month.

1 We also see that almost 80% of youth are also active in
2 social networks, which is another area of increased visual/manual
3 interaction with devices, and interestingly, voice is declining
4 over that group as well.

5 And mobile data usage is increasing. Over the last
6 quarter 2010 to the third quarter of 2011, it increased 256%, and
7 that is sort of the downloads from mobile internet, social
8 networking, e-mail, app downloads and so forth. And the males on
9 this side are much more heavy in terms of data users on those
10 Smartphones.

11 So what's promising out there? Graduated driver
12 licensing systems have been shown to be effective. I know that
13 you all have addressed that in previous hearings. Where they
14 essentially provide a protective effect in a protective
15 environment where they can learn through experience and practice
16 is really the key for the younger driver. Driving without
17 passengers, not late at nights, with more supervised driving.

18 We're also seeing that feedback technologies and
19 research that we've been doing for the last 5 years at the
20 University of Iowa with event triggered video recorders as part of
21 coaching technologies, have been shown to be very effective in
22 reducing the number of safety relevant events.

23 Driver agreements, like checkpoints. Professor Fisher
24 presented earlier this morning on a program that he pioneered in
25 RAPT training, Risk Awareness and Perception Training.

1 So there's a number of research needs as well. We also
2 need in addition to naturalistic driving research, we also need to
3 do naturalistic studies on mobile phones as well, and this is
4 really critical to understand youths' patterns, not only as
5 they're being used in general, but as a driver and a passenger, we
6 need to understand group texting. We need to understand how our
7 social communication fabric is essentially changing.

8 We're also seeing many, many notifications. Our phones
9 are buzzing with an update in our LinkedIn, update on Facebook.
10 Updates are constantly buzzing through. We need to understand how
11 those contribute to driver distraction.

12 And then as Jacob mentioned, we really need to
13 understand how we can change those social norms more quickly.

14 And then finally, how do we understand these habits and
15 addictions as they relate to mobile phones. So this is a really
16 big element of understanding how to go forward. Thank you.

17 DR. BRUCE: Thank you, Dr. McGehee.

18 Our third presenter will be Mr. David Teater from the
19 National Safety Council. Mr. Teater leads the NSC Advocacy
20 Initiative to reduce deaths and injuries associated with teen
21 driving and distracted driving. Before joining NSC, Mr. Teater
22 also helped launch a technology company developing solutions to
23 distracted driving.

24 Mr. Teater, I look forward to your presentation.

25 MR. TEATER: Thank you, Dr. Bruce.

1 I think I have some good news to report. I think the
2 business community is maybe leading the way and maybe we can start
3 some culture change there.

4 First, a little bit about the National Safety Council.
5 We are a private, not for profit organization. We're about 100
6 years old. We were formed by businesses 100 years ago, around the
7 turn of the last century when people were getting injured at the
8 workplace right and left. We have 20,000 corporate members
9 representing 8 million employees, and the policy decisions we
10 take, the policy positions we take, are based on member input.
11 Okay. So I'm here representing that group.

12 We decided in 2009, based on that input, that we needed
13 to take a stand on distracted driving. So we called for a
14 national ban on cell phone use while driving. We asked employers
15 to implement policies. We asked individuals to put their phones
16 down, and we recommended that legislators pass laws in that
17 regard.

18 I'm happy to report that we've had a lot of good
19 progress from corporations, and most of those corporations,
20 especially lately as the research has become more available, are
21 putting in total ban policies, policies that include all forms of
22 cell phone use: handheld, hands-free, integrated systems, non-
23 integrated systems, and they're doing this after their own review
24 of the research.

25 Employers have a history of leadership on these issues.

1 Lots of seatbelt requirements were in place in employers long
2 before there was legislation requiring the rest of the public. So
3 we think this is consistent with what we've seen in the past.

4 I was surprised when I first got into this a few years
5 -- I spent almost my entire career in the business community.
6 This is a second profession for me. I've been in it for about 7
7 years. I was surprised to find out how many companies have
8 policies in place.

9 Now, I will tell you, it's much harder to get a list of
10 who has policies than we ever dreamed it would be. They're not
11 necessarily forthcoming with that information. There's all kinds
12 of different policies. Some apply only to certain employee
13 groups. Other policies do allow hands-free, which we don't
14 consider to be a total ban policy, but the companies you see on
15 the board are some of the companies we know of, and this is just a
16 representative list of maybe some companies that you've heard of
17 before.

18 Some of these companies, especially the oil and gas
19 industry, Exxon Mobile, Shell and Chevron have had policies in
20 place since, you know, maybe 10 years ago. They've been in place
21 for a long time. You'll see up there the National Transportation
22 Safety Board. I really respect your leadership on that a couple
23 of years ago when you put in a total ban. You'll see up there the
24 California Office of Traffic Safety. You had Mr. Murphy up here
25 on the last panel. His office has put in a total ban policy. So,

1 you know, there's a role for private employers, there's a role for
2 federal employers, at all levels in this.

3 This is what a typical policy looks like. They aren't
4 real difficult. They can be pretty straightforward. What you see
5 up here is actually from one of the companies that was just on the
6 board. It's from a Fortune 50 company. The policy has been in
7 place for about 7 years, and what they say is that you can't use a
8 cell phone while driving in any way, handheld, hands-free, for any
9 purpose -- texting, talking, e-mailing -- if any of the following
10 five conditions exist: If you're driving a company car, if you're
11 driving your own car but on company business, if you're on company
12 property, if you're using a company cell phone, or if you're using
13 your own cell phone but on company business. Any one of those,
14 you can't do it. And these guys have a very zero tolerance
15 policy. They really look at this the same way they do at impaired
16 driving or drunk driving.

17 Okay. What about, let's talk a little bit about
18 productivity. If you think about it, if you go back in history a
19 little bit, these devices were created for the business community.
20 If you remember -- I had one of the very first ones. We called
21 them car phones. It's the only place you could get them, these
22 big boxes we mounted in the trunk. They cost -- I think the first
23 one I had my company paid over \$3,000 for it. That's what they
24 cost. Very few people using them for very short periods of time
25 because the networks weren't built. You know, this goes to some

1 of the things you heard earlier about risk prevalence and our
2 exposure to risk. That's what's changed so much over the years.
3 Now everybody has one. But we got them for productivity.

4 What we're finding out, and the evidence is still a
5 little bit anecdotal at this point, but what we're finding out is
6 we don't think it's having a negative impact on productivity to
7 put these policies in place. We surveyed 10,000 of our members.
8 We got 2,000 responses. A fourth of those had total ban policies
9 in place and, of that, only 7 companies said they'd had a decrease
10 in productivity.

11 Look at the next stat. This surprised us. Forty-six
12 companies actually reported a productivity increase after putting
13 policies in place. We have some suspicions on why that is. We're
14 trying to confirm that now.

15 We surveyed Fortune 500 companies a year ago. We did
16 not get a large enough response for it to be representative. We
17 had about 180 of the companies responded. Of that, 20% had total
18 ban policies in place. Nineteen percent of those said
19 productivity increased. Only 7% said productivity decreased.

20 We're excited about this because, again, that's really
21 the only pushback you get from companies is what impact is this
22 going to have on productivity. We're doing some case studies with
23 some of the companies you saw up on the board now to check hard
24 measures of productivity, and we think we'll have some answers on
25 that very soon.

1 I want to mention that the vast majority of these
2 companies that have put policies in place, the vast majority, do
3 it because they want to protect the health and safety of their
4 employees, not because they're worried about risk and liability,
5 but it is a real concern, and it's becoming more and more so. You
6 see some settlements up here on the board, some jury awards.
7 We're hearing more about it every day. So there is some very real
8 liability for employers that don't have policies in place.

9 Okay. Let me just summarize a little bit. Employers
10 are leading by example. We're excited about this. Quite frankly,
11 I've had the opportunity to work with some legislatures around the
12 country. It's a lot easier working with the employers. They seem
13 to understand the research much more quickly and take action much
14 more quickly.

15 Risk management is a concern but they're more interested
16 in the safety and health of their employees. It appears that
17 productivity is not negatively affected. Early reports from
18 employers are telling us that crashes are going down. We're
19 really excited about that. That's what we would expect.

20 And then this second-to-last bullet, I'm very excited
21 about. It appears that workplace policies are having a multiplier
22 effect. People are taking it home. They're saying, hey, you know
23 what, I'm getting along just fine driving without a cell phone and
24 I now really understand how great the risk is.

25 And then lastly, I would just like to say that we do

1 need local, state and federal government to lead by example, and
2 again I thank the NTSB for what you've done. I think it's
3 probably time that the rest of the federal government looks at
4 this and puts a policy in place. Thank you very much.

5 DR. BRUCE: Thank you, Mr. Teater.

6 Our final presenter in this afternoon's panel will be
7 Dr. Jeffrey Michael of the National Highway Traffic Safety
8 Administration. Dr. Michael is the associate administrator for
9 research and program development at NHTSA where he oversees the
10 agency's Research Office, Criminal Justice Office, Impaired
11 Driving and Occupant Protection Office, and the Emergency Medical
12 Services Office.

13 Dr. Michael.

14 DR. MICHAEL: Thank you, Dr. Bruce. Thank you, Chairman
15 Hersman and the Board for allowing me to talk about NHTSA's work
16 with driver distraction behavioral strategies.

17 Our focus at NHTSA has been on the use of high
18 visibility law enforcement for reducing driver distraction
19 behaviors and I want to talk to you a little bit about our
20 rationale for selecting that approach and what it involves.

21 Our hypothesis, the hypothesis that led us to conducting
22 the demonstration program that Dr. Chaudhary spoke about this
23 morning, is that cell phone use, cell phone distraction is
24 essentially similar to other driver behavioral problems that we've
25 had some success in dealing with. I mean notably seatbelt use and

1 drinking and driving.

2 It's similar, we believe, in that the behavior is under
3 the driver control. It's similar in that there's a clear safety
4 connection to the behavior, and it's similar in that there's
5 widespread public support for policy in the area.

6 Let me talk a little bit about the seatbelt analogy
7 here. Back in the early '80s, despite aggressive use of the
8 Flintstones and flying pumpkin advertisements, we were unable to
9 get seatbelt use up above 20%. The first state to pass a
10 mandatory seatbelt law was New York State in 1984. Once
11 evaluated, the other states were quickly convinced and came on
12 board very rapidly, and by the mid '90s, every state but New
13 Hampshire had a law.

14 The laws themselves proved to increase seatbelt use up
15 into the 60% range without particularly aggressive enforcement.
16 In the late '90s, following again a successful demonstration led
17 by the Insurance Institute for Highway Safety in North Carolina of
18 high visibility seatbelt law enforcement, we spread that approach
19 across the nation, which drove use from the mid 60s up to the mid
20 80-percentile range.

21 A little bit more about this technique of high
22 visibility enforcement. There's been a number of studies, as were
23 referred to this morning by the first panel, but one particularly
24 clear one was done in 2002 just as the Click It or Ticket Program,
25 as it became known, was spread across the country, an evaluation

1 of states that conducted the full program, which involves
2 aggressive law enforcement, usually check points because of their
3 public visibility, plus paid and earned media that advertise the
4 existence of this enforcement. States that use the full package
5 experienced an 8.6% increase in belt use. States that conducted
6 part of the package, just the enforcement, much less, 2.7. Other
7 states that conducted other approaches, mostly awareness and
8 education got, you know, quite a small, about a half a percent
9 increase in seat belt use.

10 Another analogy can be seen with drinking and driving.
11 Here is also a good example of the effective victim advocacy.
12 About 200 state laws were passed between the early and mid '90s,
13 largely as a result of Mothers Against Drunk Driving's work in
14 states across the country. These laws and some level of continual
15 enforcement resulted in a rather sharp drop in the proportion of
16 fatalities that were related to impaired driving, but once the
17 laws were in place, by the mid to late '90s, the rate of decrease
18 in that proportion slowed and it became fairly stable after that.

19 As I said, there was continual enforcement for drunk
20 driving, but we found the same pattern with regard to high
21 visibility law enforcement. Again, a number of studies were
22 conducted with regard to the effectiveness of high visibility
23 enforcement of drunk driving laws, and they're perhaps best
24 characterized by the Centers for Disease Control's systematic
25 review of studies of sobriety checkpoints, which found them to be

1 20% or more effective in reducing alcohol-related fatalities.

2 So in conclusion, we believe that as part of a
3 comprehensive program that needs to involve everything from
4 education and employer programs to technology development, as part
5 of the comprehensive program, that strong laws and strong law
6 enforcement will play an important role in reducing distracted
7 driving crashes. We plan to pursue this path further, and the
8 next step will be to conduct statewide demonstrations to
9 demonstrate how such a strategy can work on a larger scale. Thank
10 you.

11 DR. BRUCE: Thank you, Dr. Michael.

12 Chairman Hersman, that concludes the introductions and
13 opening remarks. I turn the panel over to you and the Board for
14 questioning.

15 CHAIRMAN HERSMAN: Thank you so much, Dr. Bruce. And
16 thank you to all of you all. You've given us a lot to think
17 about. And, Mr. Teater, it's been a pleasure to work with you on
18 a number of fronts over the years and I wanted to also recognize
19 that you also have a personal commitment to this issue as well. I
20 didn't know if you wanted to share anything about that.

21 MR. TEATER: Yeah, thanks for the opportunity.
22 Unfortunately, I got involved in this because my son was killed by
23 a distracted driver in 2004. So I worked in the business
24 community my entire career and I'm still working with them, but on
25 a different front at this point. So it's rewarding to be able to

1 be here and comment on this issue.

2 CHAIRMAN HERSMAN: Absolutely, and your presentation
3 about the business community is super strong, and we're so excited
4 about that and we look forward to having a continuing dialogue.

5 Member Sumwalt.

6 MEMBER SUMWALT: Mr. Teater, I am sorry for your loss as
7 well as the loss of others who are here, and I think we've all
8 been through some tragedy, and that's what gets us into this
9 business. For me, it was a very best friend who died in a plane
10 crash and then having family members in aviation accidents as
11 well, and to see friends die, it does have a profound effect on
12 what we do. So thank you for your commitment.

13 This whole morning and now afternoon has been
14 fascinating, and there were three things that I wanted to eke out
15 of this, out of today, three points that I felt like I really
16 wanted to squeeze out, and one was the issue about the myth that
17 we talked about before lunch, the myth of hands-free. I think we
18 might have made that point.

19 Another is the productivity issue. The night we issued
20 those recommendations, I think it was on December 13, that we
21 issued the recommendations for ban on wireless devices while
22 driving, I went out with some friends. I think it was Truman that
23 said if you want a friend in Washington, get a dog. And my
24 friends were not friends after we issued those recommendations.
25 They attacked me on the productivity issue. So I want to -- you

1 know, you said that there was some additional information that you
2 could share about the productivity. So why -- you know, that's
3 it. This gal is a business person. Okay, so what are we doing
4 about productivity, and here you have information to show that
5 it's gone up in many cases. So can you talk about that?

6 MR. TEATER: Sure. Well, actually it's gone up in a few
7 cases, but it's gone up in more cases than companies reporting the
8 opposite, that it's gone down. The vast majority of companies say
9 they don't notice any difference.

10 Now, these are what I would call opinion data. We don't
11 have hard measure of productivity, and that's what we're seeking
12 to gain now with companies who are currently putting in bans.
13 What companies will tell you is that when people are trying to
14 multitask, which we know is a myth, but when they're trying to
15 juggle two cognitively demanding tasks like driving through
16 Chicago and closing a business deal on the telephone, when they
17 get out of the car, they're stressed, they're less productive.
18 And then some other things we hear again anecdotally is that the
19 vast majority of the calls by the driver are not critical business
20 calls. They may seem like it to them but they're really just
21 passing time and in many cases they're passing time with somebody
22 back in the office. Now, they may be talking about something, you
23 know, business related. They likely are. But there's no agenda.
24 There's no expected outcome, and so it's a time waster, and so we
25 speculate that's why we see productivity going up.

1 But we've got now three studies: one by a private
2 company and then two by us, that have looked at this, and all --
3 we've got a convergence of data. They're all saying that there's
4 either no change or a slight increase in productivity. Very
5 little response whatsoever that there's been a decrease.

6 MEMBER SUMWALT: You know, I've sort of suspected as
7 much. If I want to really talk about something that I really need
8 to understand and understand the intricacies of it, like talk to
9 staff, our staff about an accident report or something like that,
10 I've got to devote all of my cognitive energies to that discussion
11 and not try this multitasking which you've just described as a
12 myth. So I would think that you're right. In that sense,
13 productivity could go down if you're trying to close a business
14 deal but you can't devote 100% of your attention to it, then
15 you're not as productive. So I have suspected maybe some of that.
16 Thank you for those data. It's fascinating and now I can go back
17 and use those data to rekindle a friendship, I guess.

18 The other issue that I've really wanted to talk about is
19 the liability issue that companies have, and I've suspected,
20 because I read an article back in about 2005 when I was still in
21 private industry, and the notion of if your company doesn't have a
22 cell phone policy -- let's call it a cell phone policy or a
23 wireless communications device policy, and your employees are
24 conducting business and something happens, how much exposure does
25 your company potentially have? That's what I'm curious about.

1 And you've listed some awards there, so as high as, I think, \$21
2 million or so?

3 MR. TEATER: Well, the exposure is substantial and, you
4 know, if you talk to some plaintiffs lawyers, I've got one
5 gentleman who represented a family against a business and they had
6 a large settlement. He was so moved by the research that he said
7 I hope I never have another one of these cases. And I want to
8 carry this message to employers about why they need policies and
9 why they need to enforce those policies.

10 But the general public attitudes and opinions are
11 changing about cell phone drivers and they're not very favorable
12 today. In fact, I think there's a recent study in California that
13 says that California drivers are more fearful of cell phone
14 drivers than they are of drunk drivers, and it's the first time
15 anything has surpassed the drunk driving concern.

16 So what happens is these people are on juries and they
17 see companies that are, quote/unquote, "profiting" by allowing or
18 sometimes even mandating their employees to work while they're
19 driving, and they're afraid of this activity. By sending a large
20 settlement or large award, they see this as a way to discourage
21 the behavior and thus protect their family.

22 MEMBER SUMWALT: That's fantastic, and I think that's a
23 real take home there, that if you are encouraging or allowing or
24 promoting your employees to use wireless communications devices,
25 you are really opening your organization up to some legal

1 exposure. Thank you.

2 CHAIRMAN HERSMAN: Member Weener.

3 MEMBER WEENER: Well, thank you. This morning we had
4 panelists who described younger drivers as having the most
5 difficulty managing distractions, and we have heard from
6 Dr. McGehee that young drivers, the largest cause of death is
7 traffic, motor vehicle crashes. But you also used a word which I
8 thought was fascinating. You said they're addicted to cell
9 phones. Can you describe what you mean by addicted to -- I think
10 you said cell phones and social media?

11 DR. McGEHEE: Well, I used the term loosely in the sense
12 that it's a gap in the general research, is that when you take a
13 look at the sheer volume of interaction with the phone where we
14 see adolescent girls now, you know, texting 4,000 times a month,
15 and we look at the number of Facebook interactions and other
16 social media and the number of notifications that are coming
17 through, one of the gaps is that we know that people respond very
18 quickly or feel compelled to answer very quickly, and in the
19 context of driving, they're still willing to peek at that phone or
20 answer back because a delay in response sometimes can have a
21 social meaning as well. Is that person ignoring me? That delay
22 might only be 15 seconds. These are the kinds of things that we
23 need to learn much more about.

24 MEMBER WEENER: So effectively, it's a conversation, not
25 just texting?

1 DR. McGEHEE: Exactly.

2 MEMBER WEENER: Are there, in your opinion, any
3 particularly effective countermeasures for this?

4 DR. McGEHEE: Well, I think, you know, as has been
5 mentioned several times, that parents, you know, they lead the
6 example, and changing the social norms is really the first place
7 to start. Certainly there are a number of technologies that can
8 lock out your phone while driving. So parents can have that
9 conversation. Communication is key and one of the elements of the
10 coaching technologies is it brings the conversation of the parent
11 and the teen together about driving, this very highly risky
12 activity. So if you pair that with some of these intervention
13 technologies that might lock out your phone while it's moving,
14 that furthers that conversation.

15 MEMBER WEENER: But a lockout is kind of a mechanical
16 way to do it. Are there other behavioral changes other than
17 forcing somebody to not use it? Because, you know, tendency is
18 when you force somebody to do something, the game has started.
19 You'll figure out a way to get around that, especially if your
20 parents did it to you.

21 DR. McGEHEE: Yeah, I think there's certainly an element
22 of that, and that's really why a comprehensive sort of change of
23 behavior is called for here in terms of learning what the limits
24 are of drivers. Graduated driver licensing has been shown to be
25 very effective. In terms of one element is a texting ban or

1 electronic media ban for the first 6 months, and some states vary
2 on that. So collectively all those kinds of things can, I think,
3 work and that's where we really need to take a look at outcomes,
4 and crash data are notoriously difficult to understand how each
5 individual behavioral change technique might be affected.

6 MEMBER WEENER: Do you see the younger population as
7 being receptive to this message?

8 DR. McGEHEE: I think it's something that's certainly
9 very much on the minds of people now. We see people texting. We
10 see people talking on the phone while we drive, and what we see in
11 our own naturalistic driving data is that people point those
12 things out. We see them saying, hey, that person's on the phone.
13 So it's much more salient to us now. As Dave Teater mentioned in
14 California, you know, people are more fearful of distracted
15 drivers, and that's really a message that's coming through now.

16 MEMBER WEENER: Earlier today somebody mentioned an
17 anecdote about their children reminding them to put the seatbelts
18 on. How far are we away from having the children remind the
19 parents not to use a cell phone or text?

20 DR. McGEHEE: That's a great question. It's something
21 that I've thought about a lot in the progression of our own family
22 and how the safety belt has been an important part of that. I've
23 been reminded, even though I'm a very dedicated safety belt
24 wearer; that kids will remind adults.

25 I think if you start off in your family being that way

1 and that's a message that's consistent, then I think the teens, or
2 rather the kids will talk to their parents about that.

3 MEMBER WEENER: All right. Thank you.

4 CHAIRMAN HERSMAN: Member Rosekind.

5 MEMBER ROSEKIND: We should actually differentiate that
6 we're talking about two different areas that we need to change.
7 One is the individual's behavior change, attitudes and behavior
8 specifically, and that one literally the decision is in their
9 hands. I mean, literally you have control over whether you
10 answer, return the message, the text, et cetera. Besides the
11 individual, there's what everyone's referring to as the societal
12 or cultural change, and really so you're talking about the
13 attitude and behavior change at both those levels.

14 Can you tell us -- let's get explicit here. What are
15 the attitudes that we're really trying to change that people, that
16 teenagers, everyone has about being able to drive with phones and
17 how is that disconnected from the behavior that we now know from
18 research is risky?

19 MR. NELSON: I'll take a stab at that. I think a lot of
20 that is unknown, the specific sort of risk, you know, protective
21 factors and risk factors relative to this issue, and it's going to
22 vary depending on your audience. Our Foundation For Traffic
23 Safety, a few years back, did some research looking at messaging
24 that would encourage behavior change among a very specific group
25 of people. In this case, it was drivers ages 17 through 26. And

1 we peeled back sort of their value system relative to this issue
2 to try to get at what is the fundamental sort of issue with
3 distracted driving, texting in particular, that will really sort
4 of drive you to make a change in your behavior. And as we peeled
5 back those layers, what ultimately we found was that it was guilt.
6 It wasn't sort of fear of themselves being hurt. There's that
7 invincibility factor among young people that we're all well aware
8 of, you know, relative to a variety of areas, but it was the fear
9 of guilt, having hurt or killed somebody else when you knew
10 better.

11 These people knew that texting was dangerous. They knew
12 that they shouldn't do it. They knew that there were risks
13 involved. They knew the data, but they did it anyway. And when
14 we got to the messages that would lead to a change in behavior, it
15 was that while I would feel stupid, in their own words, "I would
16 feel stupid to have hurt or killed somebody when I knew better.
17 It wasn't worth it." So that may differ for different age groups,
18 but in that particular segment of the population that's what
19 really seemed to really resonate with them, at least in our
20 research.

21 DR. McGEHEE: I think the general challenge in driving
22 in general is that individuals overestimate their abilities and
23 think that everybody else is the bad driver, which clearly the
24 crash data show otherwise.

25 DR. MICHAEL: A further comment, it's I think difficult

1 to diagnose individual behavior, let alone group behavior, but one
2 theory is that drivers behave to a large extent the way they
3 perceive that those around them expect to behave. And that's a
4 way that community expectations can affect individual driver
5 behavior and that's a way that we believe that strong laws and
6 strong law enforcement can affect an individual, that there is a
7 statement by the community of intolerance for this specific
8 behavior, and individuals tend to respond to that statement of
9 intolerance.

10 MR. TEATER: I'll just add that I really believe it's
11 important that we as a society say what's acceptable and what
12 isn't. I think there has to be a start at the top before we can
13 expect people to take the appropriate personal responsibility, and
14 that comes from legislation, comes from corporate policies. It
15 comes from rules by parents. But it can be difficult to implement
16 policies and enforce policies. It can be difficult for a parent
17 to say this is what you can or can't do when the state says it's
18 perfectly fine to do it. How would we have ever gotten to where
19 we got on drunk driving in this country if it was never illegal,
20 for example?

21 So, you know, I think we're just at the beginning of
22 culture change, and it's got to start with society saying this is
23 okay or it isn't. We've got a ways to go on that.

24 MEMBER ROSEKIND: Boy, if we had you talk to the earlier
25 panel about legislation, right, where we were talking about

1 politics and emotion as opposed to yes or no. And I'm just about
2 out of time, but I want to put this in because we went from the
3 individual, which is great, because it's not just about I'm
4 invincible, but all kinds of other levels to the societal,
5 cultural part, and that was actually the next piece because I'm
6 going to be quiet after this. You're going to finish and make it
7 quick. What about role models? You know, again, we can talk
8 about the companies, great data. What about the role models?
9 It's come up before, but parents, high visibility individuals,
10 pledges, et cetera, what role do those sort of opportunities have
11 in changing behavior at the individual or societal level?

12 MR. NELSON: I'll take a first shot at this one. I
13 think role models matter. I think role models will be different
14 for different people. I think really what we're talking about
15 here is peer pressure, and I would suggest that -- actually the
16 Chairman kind of spoke to this before the break, about taking the
17 initiative in your own lives. We all have social networks, and
18 I'm not referring to Facebook or Twitter. We all have
19 relationships in our communities, with our friends and family and
20 whatnot, and sort of standing up to be an ambassador in your own
21 social network is the first step. We need to reach the point
22 where we're doing that type of thing.

23 If you hear a PSA on TV about distraction, and then you
24 hear it from somebody you love and respect, it's going to hold
25 more weight with you. So I think it starts with individuals. I

1 think that helping to shape society, you know, social norms at the
2 highest levels, that's where policy is really important obviously,
3 and I think we need to have some credibility and consistency in
4 the enforcement of those policies for that to work, but
5 ultimately, if we want to really get at the peer pressure aspect
6 of changing social norms, we need to walk the talk. It's one
7 thing to say that safety is a top priority; it's another thing to
8 live it every day.

9 MEMBER ROSEKIND: Thank you.

10 CHAIRMAN HERSMAN: Vice Chairman.

11 VICE CHAIRMAN HART: Thank you. We've heard about two
12 programs that have made a lot of progress. I'm not sure I would
13 call either one of them successful yet, but they've certainly made
14 a lot of progress: drunk driving and seatbelt use.

15 Now drunk driving -- I can remember as a kid, the TV
16 characters. I remember Jackie Gleason had this guy who was always
17 drunk and everybody, boy, that was great. He's the life of the
18 party. That's really funny, ha, ha, ha. Whereas now that whole
19 social norm of drunk is funny is gone, and that's a huge success
20 story which I have to say has helped bring down the drunk driving
21 fatality rate, and that apparently was a grassroots effort. It
22 was a MADD type effort and lots of things like that.

23 And then there's the seatbelt use. I don't think that
24 was a grassroots effort. That might have been the National Safety
25 Council because of the corporate need to stop losing their

1 employees because they didn't have seatbelts. But, you know,
2 again as a kid, Starsky and Hutch never wore seatbelts but now
3 they do.

4 And so, you know, I'm just thinking those are two very
5 different examples of huge progress. What can we learn from those
6 two examples that it won't take us 30 years to have that level of
7 progress in this arena? I open that to anybody who might answer
8 that.

9 DR. MICHAEL: Well, one thing I'd like to mention again
10 is the role of victim advocacy. That's certainly a lesson we
11 learned in the drunk driving field. There's no doubt in my mind,
12 and I don't think I'd get any argument, that Mothers Against Drunk
13 Driving played a major role in the cultural change with regard to
14 drinking and driving. They are very convincing spokespeople,
15 clearly passionate about their cause and they are in every state.

16 We see the beginnings of a similar movement for
17 distracted driving, and I think that that is a very important part
18 of the cultural change that we need in this area.

19 MR. TEATER: I'll just echo what Jeff said. There's
20 been a lot of victims, unfortunately, of distracted driving, and
21 I've had the opportunity to meet and get to know many of them over
22 the years and there's a whole lot of them in here who have
23 dedicated their lives to trying and make sure this doesn't happen
24 to anybody else.

25 An organization called FocusDriven, advocates for cell-

1 free driving, has been formed with some help from MADD, and
2 there's a lot of other folks in here. Jennifer Smith has
3 dedicated her, what, last 7 or 8 years to this effort. Elisa's
4 here. There's lots of people out here who have lost loved ones
5 and go out and talk about it every day, and it has a huge impact.

6 You know, one of the problems with crashes, I believe
7 people don't understand the gravity of it. I do a lot of speaking
8 on this, and I always start by setting up the problem by saying we
9 lose 100 people every single day and that's been going on for 40
10 years. You're more likely to die in a car crash than any other
11 form of accidental death. You're more likely to die in a car
12 crash than any form of death if you're between the age of 5 and
13 35, I think.

14 So people don't understand that, and when victim
15 advocates can bring that to the forefront and share stories, we
16 all believe it can never happen to us, but then it does. I think
17 that helps people listen to some of these other stats and say I
18 need to make a change.

19 And, I know time's short, but let me just say real
20 quickly, another thing that I think all of us who are in this
21 business need to understand is this problem may be different than
22 some of the others we face because of the compelling nature of the
23 activity. And it was touched on a little bit earlier but, you
24 know, we called these things crackberrys, what, 5, 10 years ago,
25 and there is something compelling, maybe even addictive about our

1 need to be connected, which means laws, policies, parents' wishes,
2 even a well meaning person, may have difficulty putting it down.
3 You know, I had every motivation in the world to stop using my
4 cell phone after I lost my son, but it was hard to do for a while.
5 I mean, I had to end up putting it in the trunk for a while. It's
6 a hard thing to learn. So we need to be aware of that. You know,
7 maybe that means technology solutions play a bigger role in this.

8 VICE CHAIRMAN HART: To what extent can we enhance the
9 effort with media outreach, because I have to think a lot of these
10 stories we've heard about kids telling their parents to do it is
11 because Sesame Street had it on there and they saw it on Sesame
12 Street, and like I gave the Starsky and Hutch example, today you
13 look at TV and everybody's got their seatbelts on. So to what
14 extent have we engaged in a media outreach to try to help this
15 change in the cultural norm?

16 MR. TEATER: I'll just say, I'm not aware that it has
17 been done and, you know, I've seen a little bit of improvement but
18 we still frequently see, you know, actors in series talking on
19 phones while driving. You see a little bit more hands-free usage
20 than you used to, but I think that's an area we have a long way to
21 go in.

22 MR. NELSON: I think that we can do all the mass media
23 that we want, and for those who buy into the dangers and risks
24 associated with distraction, it will have an impact for them, but
25 for those for whom the facts bounce off, the data bounce off, I

1 think we have a problem. And what I was going to share with you
2 relative to your last question was, a key difference between belts
3 and booze and distraction that we've seen at AAA has been the
4 ambiguity in the issue relative to the data and the research, in
5 particular to the issue of cognitive distraction.

6 It's easy to understand how you're distracted if your
7 hands aren't on the wheel and your eyes aren't on the road, but
8 people, and we've talked about this all day, people don't buy into
9 the notion of cognitive distraction. It's hard to describe. It's
10 not tangible and it's easy to argue, how can you tell me, if my
11 hands are on the wheel and my eyes are on the road, that I'm
12 unsafe behind the wheel? You're either wearing your seatbelt or
13 you're not. You're either drunk or you're not. And that's a key
14 difference between this issue and the others, and so I think Jeff
15 is right that, you know, there is a difference here on the issues
16 where we've been successful and the one that we're trying to
17 tackle today.

18 VICE CHAIRMAN HART: Okay. Thank you. That's very
19 informative. I appreciate it.

20 CHAIRMAN HERSMAN: I have a lot of questions, but our
21 staff have also worked very hard on this and I know they have a
22 number of questions and so I'd like to pass my time to them.

23 Dr. Bruce.

24 DR. BRUCE: Thank you. Dr. Price.

25 DR. PRICE: Thank you. I'd like to ask a question to

1 Dr. Michael about the high visibility enforcement projects. Does
2 NHTSA have any plans to study police reported accident reports or
3 other accident data to see if the high visibility enforcement
4 projects were successful in reducing accidents?

5 DR. MICHAEL: Yes. We're going to try to do that at the
6 next level, at our statewide demonstrations. When we were working
7 in small cities, Syracuse and Hartford, the population base wasn't
8 large enough to get a good indication from police crash reports,
9 but we hope to be able to get that when we go statewide.

10 DR. PRICE: Thank you.

11 DR. BRUCE: Dr. McGehee, I'm interested in talking about
12 young teens and their safety. Mr. Nelson mentioned that peer
13 pressure is a big factor, and I'm curious what things you think
14 work in influencing their opinion, but I also want you to add in
15 what you might know about what does not work, and as a close, I'm
16 curious about whether you would suggest that distraction
17 abstinence is a more appropriate approach to dealing with teens or
18 whether we want to teach them to manage distractions.

19 DR. McGEHEE: Well, I think what we talked a little bit
20 about in terms of, you know, what role models there might be and I
21 think it is very important that the peer role models be -- you
22 know, it really starts -- you can start a trend within small peer
23 groups, and what we see within the social networks and driving,
24 when you have multiple teens on board, it really just takes one to
25 say, hey, I'm not going to be texting and driving.

1 Checkpoints is one program that essentially the teen
2 signs a contract, and that's something that they have to do
3 themselves, and I think just bringing that up, we found with
4 technology, with some of the coaching technologies, with video, it
5 gives the driver an excuse to say, hey, you know, if I'm texting
6 and driving and that goes off because you have to brake abruptly
7 or I have to steer back on the road, I can't do that. So I've got
8 to -- you know, they point to that and say, don't distract me and
9 so forth. So I think those are a couple of things.

10 In terms of the abstinence to distraction or texting,
11 rather, I think that's one of the areas that I think is really
12 critical is that there is basic research that goes into looking at
13 programs that are theoretically equivalent, and that might be how
14 we look at drugs and other risky activities that are done by
15 adolescents. That's one area.

16 Also looking at sort of the history of really the core
17 theory of changing social norms, I think there's really not enough
18 basic research out there to take a look at how that might be able
19 to change more quickly. We see, for instance, smoking in
20 restaurants was a very quick social norm change, where we're
21 quickly assaulted if we smell cigarette smoke in a restaurant.
22 How is that different than some of the other areas?

23 DR. BRUCE: Dr. Braver.

24 DR. BRAVER: Well, this is a question that's directed
25 toward both Dr. McGehee and Dr. Michael. First, I'm thinking

1 about this whole matter of parents using technology to reduce
2 their teen's risk. So for Dr. Michael, I'm interested in what he
3 sees as the future of the software that blocks cell phone use by
4 drivers, because this is something that parents who are paying for
5 the cell phones can install in their teens' phones. So I'd be
6 interested in your take on that and whether you think that's
7 something that's likely to become successful and widespread.

8 For Dr. McGehee, I'm interested in your thoughts on
9 whether there's a possibility of parents monitoring teen driving
10 through systems such as DriveCam as an effective means of reducing
11 distracted driving.

12 DR. MICHAEL: With regard to the first part of your
13 question, I think we need to look at every possible avenue, and
14 this is a possible avenue, and we've begun to take a look at such
15 technologies. It's clear that they need to be easy and efficient
16 to use to gain popularity. It's also clear that parents need to
17 be motivated to use them, and we need to look at parental
18 motivation as well as technology.

19 DR. McGEHEE: Yes, I would agree that parental
20 motivation is critical to all of these aspects. We have used
21 coaching technologies to enhance that communication, to really
22 sort of laser in on what the driver errors and the safety relevant
23 issues are.

24 You used the term monitoring. It's really critical that
25 we develop technologies that help mentor our teens to be better

1 drivers. Monitoring technologies like GPS tracking and so forth,
2 is not a technology that helps a teen drive better. So we want to
3 really utilize technology to enhance their driving abilities.

4 DR. BRUCE: Thank you. Mr. Collins.

5 MR. COLLINS: Mr. Teater, I'm curious as to how
6 companies are enforcing their policies banning cell phone use by
7 their drivers and whether or not you think the approach being used
8 by companies could be used to affect other groups, mostly notably
9 teens?

10 MR. TEATER: That's a good question and it comes up
11 relatively frequently. Companies are enforcing policies in
12 several ways. Some people actually do observations at entrances
13 to the property. Some are employing some of these technologies
14 we've just discussed. A lot of them are being rolled out to
15 businesses to block cell phone use while driving. Most of it
16 though I believe is peer to peer, and when a company introduces a
17 policy and gets buy-in from employees, which is the right way to
18 do it. In other words, they present a lot of the things we've
19 talked about today. They just don't say, here's a new policy, go
20 do it. They get buy-in from employees. Well, we believe that,
21 you know, probably somewhere between 60 and 100% of most of the
22 business calls are with colleagues, and you can't really do that
23 anymore if everybody buys into the policy.

24 Secondly, and it's a real simple thing, but most
25 companies and we recommend that people change their no answer

1 greeting. If you call me, and I don't answer, it'll say, hi, this
2 is Dave, I'm either away from my phone or I'm driving. So it
3 tells people who are calling that I don't talk on my cell phone
4 while driving, and it keeps me accountable. It's not hard then to
5 call a customer later on if that's my standard no answer greeting.
6 So it really is easier to enforce than you might think.

7 As far as how that might apply to teens, I'm not sure,
8 and the rest of the population, but it seems to be working pretty
9 well with companies.

10 DR. McGEHEE: If I could add real quickly, I think your
11 rolling to a voicemail, I really think there should be two
12 different kinds of voicemail: one where the phone knows that its
13 moving and rolls to a separate voice message that's very specific
14 that says, I'm driving right now, and then a second voicemail that
15 rolls when you are stationary.

16 DR. BRUCE: Chairman Hersman.

17 CHAIRMAN HERSMAN: Thank you. Member Sumwalt.

18 MEMBER SUMWALT: Thank you. I'll just ask one question
19 and, Mr. Teater, on slide 3, and you don't have to pull up the
20 slide, but on slide 3, it says companies with policies: Exxon
21 Mobile, DuPont, Halliburton, Shell, Chevron, BP, et cetera and so
22 forth. Are those policies a variety of policies or are they total
23 ban on wireless communication devices?

24 MR. TEATER: We believe they're all total ban wireless
25 communications, although again, as I alluded to, I thought this

1 would be kind of easy information to collect, and it's not. We'll
2 call companies and they're always nervous about why you're calling
3 and are you a lawyer calling for this, and there's really no
4 incentive for a company to report that information.

5 Then secondly, there's confusion even at the corporate
6 level. You know, a lot of people will think a ban for commercial
7 drivers is a ban for the company, yet executives and sales people
8 are still using cell phones.

9 I believe the companies on this list all fall under the
10 category of total ban companies. Now, you know, it wouldn't
11 surprise me if there might be a mistake or two, but I think it's
12 probably pretty accurate.

13 MEMBER SUMWALT: Well, thank you. And, you know, like
14 Exxon Mobile, they're one of the most profitable companies in the
15 United States, if not the world, and so there's an example right
16 there that you don't have to -- I mean that you don't go broke if
17 you implement wireless communication devices polices.

18 And I'd like to sit here and offer a challenge, a
19 challenge to the companies that are out there, the agencies,
20 companies. If you're really serious about safety -- and most
21 companies will say that safety is their top priority, and so I'm
22 going to challenge those organizations. If you are really serious
23 about safety, adopt a wireless communications device policy,
24 really mean it, lead by it. Like you say, we see the CEOs
25 sometimes out there driving around, but they expect everybody else

1 to abide by it. So mean it and enforce it. So there's my
2 challenge right there to companies is live by this and by living
3 by it, you'll actually save lives. Thank you. I yield the
4 balance of my time.

5 CHAIRMAN HERSMAN: Member Weener.

6 MEMBER WEENER: I'd just like to follow that up for a
7 moment. As far as corporate policies, is it focused just on
8 wireless communication devices or is it focused on all
9 distractions?

10 MR. TEATER: Yeah, that's a good question. I think most
11 of the policies have started with a focus on distractions, but
12 they've come to realize that wireless communication devices are so
13 prevalent and such a unique distraction, that they made the
14 determination that they need a special clause, like the one you
15 saw here, that focuses strictly on wireless communication devices.

16 MEMBER WEENER: Okay. Then going back to the data,
17 we're missing a big opportunity to reduce accidents by focusing on
18 the total distraction.

19 MR. TEATER: Well, you know, I would say yes and no to
20 that. I mean, there's two things that cause crashes. One is the
21 risk of the distraction, but the other is our exposure to that
22 risk, and cell phones as a single distraction are off the charts
23 as far as risk exposure, you know, approximately 10% of all people
24 at any given time, and that's the part of this that is kind of
25 forgotten. As far as other distractions, it would be great if we

1 could get rid of all. I think most people in the traffic safety
2 industry will say, as long as we will still need to operate cars,
3 there's always going to be some distraction involved. Cell phones
4 are something we can specifically focus on that we believe is a
5 huge number. By far the majority of distracted driving crashes
6 are related to that because of the prevalence, not necessarily
7 because of the risk itself.

8 MEMBER WEENER: I think the data would show otherwise
9 but let me move on.

10 I noticed in the AAA presentation, you talked about
11 safety culture, and I'm just curious what safety culture means in
12 this context. I mean, we've talked about safety culture in
13 aviation, in marine, in rail. In this particular case -- well, in
14 those cases, safety culture usually comes along with an
15 organization, an organization that has a safety commitment at the
16 top, that pays close attention to their performance safety-wise,
17 that does some level of risk management or risk assessment, and
18 that leads to a safety culture, at least is my understanding and
19 my experience. What do you mean by safety culture in this
20 context?

21 MR. NELSON: Defined broadly, a safety culture that
22 we're seeking would be one in which traffic safety is highly
23 valued and rigorously pursued within the country, and so that
24 requires policymakers to have the will to act. It requires all of
25 us to be ambassadors in our daily lives. It requires that sort of

1 high level social norms change in society relative to the injuries
2 and lives lost in motor vehicle crashes.

3 And there are a lot of reasons why we don't have that
4 yet. One of probably the most significant would have a lot to do
5 with how frequent traffic crashes happen, that they happen usually
6 one to two lives lost at a time, and generally are pretty stable.
7 And so society has become comfortable with the level of injury and
8 death relative to traffic crashes in this country, and we have to
9 change that. We have to communicate about it in a different way.

10 MEMBER WEENER: So this is in some sense an opportunity
11 to take some of the principles of safety management systems and
12 inculcate them at a grand policy level for all drivers. Is that
13 what you were kind of thinking?

14 MR. NELSON: I mean, we could learn from safety culture
15 in other industries. You know, safety culture is something that's
16 been around for a long time. Traffic safety culture is something
17 relatively new. You know, just referring to a traffic crash as an
18 accident, it sends a message that it's an accident, that it
19 couldn't have been prevented, when they are preventable. So I
20 mean, even small things contribute to the way in which society
21 reacts to the issue that we're talking about today, distraction
22 just being one component of many in the area of traffic safety.

23 So we have a long way to go. Certainly it's possible.
24 We've seen it happen with, you know, certain areas within traffic
25 safety, drunk driving, occupant protection. We've seen it in a

1 variety of other public health areas, smoking cessation and
2 others. So we know it's possible. We know it's difficult. We
3 know it takes time. We have lessons learned from other examples
4 within traffic safety and from public health at large. So I think
5 we need to sit down and really think carefully about what we can
6 learn from our other experiences and make a commitment to
7 implementing those lessons learned rather than just talking about
8 them.

9 MEMBER WEENER: Great. Thank you.

10 DR. McGEHEE: I'd like to just add one more thing.
11 Crashes have causes, and you all know that very well. And I think
12 the public when we talk about accidents sort of diverts, this was
13 an act of God; accidents just happen. I think it's critical that
14 we focus on talking about crashes and their specific causes in the
15 broader context.

16 CHAIRMAN HERSMAN: Member Rosekind.

17 MEMBER ROSEKIND: Actually semantics are critical,
18 right? I mean, how we label this is absolutely critical. You're
19 talking about attitudes and behaviors of humans, the semantics are
20 critical.

21 Two questions. One is I'm riding -- what's the
22 carryover effect from work to home and then you've got a bullet on
23 your slide. Tell us a little bit more about that. Is that
24 anecdote? Is there data? Is there anything formal about how that
25 might actually be structured to enforce that even more maybe?

1 MR. TEATER: Well, it's really anecdotal at this point.
2 We have one company that surveyed 1,000 field engineers a year
3 after putting a total ban policy in place. Ninety-seven percent
4 of those employees did not think it had impacted their
5 productivity, and I want to say 83% said they had carried this
6 practice into their home.

7 We hear it from company employees all the time that this
8 is great information, why didn't we know this? We're going to
9 take it home. We're going to share it others. So it's purely
10 anecdotal at this point, but I think it's probably consistent with
11 some of the things we've seen in the past when corporations put in
12 seatbelt policies. It wasn't just the employee who was buckling
13 up when they went out somewhere.

14 MEMBER ROSEKIND: Which is why I'd actually encourage
15 you to tease that out a little bit, because when you think about
16 the big -- for this cultural change, there's that individual
17 that's got to put it down, we can get to them through schools, we
18 can get to them through the workplace. If you already have that
19 anecdotal data, that could be a whole new pathway for change.

20 The other one, I'm interested in anybody's thoughts,
21 there's a lot of, you know, you want to change human behavior.
22 We've got positive and negative reinforcers. There's a lot about
23 enforcement that's the negative side, and I'm wondering, what are
24 the positive incentives maybe that are out there that we aren't
25 using yet related to insurance or are there good things that we

1 could be giving to help shape positive behaviors? Really kind of
2 our focus is on the negative ones. Any ideas across the board
3 here?

4 MR. NELSON: I mean, I can give you anecdotal examples
5 of some things that are happening on the ground. These aren't
6 thing that obviously we can do across the United States, but
7 interesting case studies of the use of incentives, in particular,
8 working with young people relative to the issue of distraction.
9 One of our clubs, AAA Michigan, has established a partnership with
10 Ford Motor Company and some others in their area, other
11 stakeholders, and they essentially do, you know, an educational
12 forum with, you know, high school students. They sign a pledge.
13 It's a close relationship with law enforcement. Of those kids who
14 signed a pledge to drive distraction free and safely, at the end
15 of the year, their driving records are checked, and if they have a
16 clean record since the time of the pledge, they're entered into a
17 drawing for a brand new car. Obviously that's a highly motivating
18 incentive for young people. So not realistic for widespread
19 distribution, but an interesting case study of sort of turning
20 this issue on its head, talking about leading causes of life
21 rather than leading causes of death. Again semantics matter.

22 MEMBER ROSEKIND: Great example.

23 DR. MICHAEL: One further point there. You used law
24 enforcement as an example of perhaps a negative approach, and I
25 just wanted to comment that there is more to it than that, and our

1 experience with law enforcement is that they can have a very
2 positive effect upon the community. These law enforcement
3 officers truly care about their communities. That's why they
4 enter that profession. And their leadership, I think, has a very
5 positive effect. Now, of course, occasionally they have to use
6 the negative side, but they have a very positive effect on the
7 community.

8 MEMBER ROSEKIND: And just to be clear, you know,
9 earlier in the panel, we're talking about negative reinforcers are
10 very powerful and the whole idea that you can get off with 20
11 bucks, as opposed to California, which had 157 the first time,
12 270, I mean now we're talking meaningful in some way, and that's
13 sort of critical there.

14 Any other positive incentives? Clearly you have that in
15 the business realm when you look at some of that risk management.

16 MR. TEATER: Yeah, we think, you know, a lot of these,
17 especially larger companies have individual underwriting based on
18 crash experience. So I think we're going to probably see
19 favorable insurance rates in the future. I've had some insurance
20 companies privately share with me that as some of these mitigation
21 technologies become more, I want to say, hardened, more robust,
22 more reliable, they will consider offering insurance discounts to
23 people who install them either on their phones or in their
24 vehicles. So I think there's going to be some financial
25 incentives as we move forward.

1 MEMBER ROSEKIND: You know, I think just for the moment,
2 the initial healthcare parallel was really great because in
3 transportation safety, we so often go to seatbelts and drinking
4 and driving, et cetera. The health one is really fascinating that
5 way because it's a little bit different for us, and there the
6 positive reinforcers are clear to people. If I stop smoking, I
7 can breathe again. If I get exercise and I lose the weight, et
8 cetera. It's harder here trying to prove the negative, wear your
9 seatbelt, get off the phone, you'll stay alive, and that's really
10 been part of the problem here is making that connection for
11 people.

12 So I just think the more positive incentives we can get,
13 like that car example -- the Chairman and I were talking about the
14 Text No More, you know, put it on there and basically if you text
15 somebody, it comes back and says, nope, I'll talk to you later,
16 but you get a freebie and basically get a coupon for a free, you
17 know, taco, pizza, whatever it is. And again, you're talking to
18 teenagers, that's a very positive incentive every time they decide
19 not to respond. You're actually positively reinforcing the good
20 part.

21 And again, it just seems like the business work to home
22 is a great untapped source that we could really formalize as are
23 the positive incentives either for individuals or at the corporate
24 level, for insurance, et cetera. So we are actually reinforcing
25 doing the right thing instead of always punishing the negative.

1 Thank you.

2 CHAIRMAN HERSMAN: Vice Chairman.

3 VICE CHAIRMAN HART: Just one question to follow up on
4 your point about the insurance because I was interested this
5 morning to hear the Institute for Highway Safety saying that they
6 did not see a statistically significant reduction in the number of
7 claims in the states that had passed some legislation or other,
8 and I guess there could be lots of reasons for that. It could be
9 some of it is secondary as opposed to primary and the difficulties
10 of enforcement and all those kinds of things.

11 But I'm just wondering now -- it sounds like you've got
12 a relatively good success story in the corporate community. I'm
13 wondering to what extent has the insurance community, the
14 Workmen's Comp community engaged in that, and are they seeing a
15 success that is really showing a measurable difference?

16 MR. TEATER: It's really too early for that. We've got
17 some initial reports that crash rates are going down, but they're
18 very early on. I think that's yet to be seen in the next, you
19 know, in the next couple of years as policies have been place for
20 a while, and we've been able to look at crash rates.

21 You know, I think crash reduction is something we just
22 don't know yet. The two studies done by the Insurance Institute
23 were great studies, but one looked at handheld and, as Anne
24 mentioned, if people switch to hands-free we wouldn't expect to
25 see any difference. The other one looked at texting, and they

1 looked at it at a time where we think texting was about a half a
2 percent of drivers. So there could have been a significant
3 decrease, but they looked at all insurance claims, not just those
4 from texting crashes, and it wouldn't have showed up as much.

5 So it's real early research. We just don't know. Crash
6 statistics in distracted driving are very, very difficult. You
7 know, we don't have a blood alcohol content test for cell phone
8 use while driving. All an officer can do is ask somebody if they
9 were on the phone. And, you know, in the old days they might have
10 been honest about it, but the way society looks at that behavior
11 today and the fact that it's illegal in some places, they aren't
12 getting honest answers. In many states the activity isn't illegal
13 so there's no incentive for them to pursue it other than reporting
14 purposes.

15 So it's a real challenge right now. Crash statistics, I
16 personally believe are a long way away from having any real
17 reliable crash statistics on distracted driving. It doesn't mean
18 the problem doesn't exist. It just means we can't measure it real
19 well yet.

20 MR. NELSON: I just want to add one thing to Dave's
21 commentary there. Something that I just want to underscore is the
22 data. You know, if we were to heed the advice that we've received
23 from all the panels today and use theory and research to build our
24 interventions and to try to make a difference, and we do all of
25 the right things and we're successful, it's still going to be very

1 difficult for us to show that we've been successful, and it's just
2 something to keep in mind. I don't mean to imply that we
3 shouldn't try, that we shouldn't move forward, because we should,
4 but I think we need to just keep in mind the limitations that we
5 face in terms of showing the impact that we're making and showing
6 trends in distraction-related crashes. Cell phone present in
7 vehicle at time of crash does not mean that that person was
8 distracted, and a lot of the FARS data is coded in just that way.
9 Something to keep in mind.

10 DR. McGEHEE: And I might add, too, that I think law
11 enforcement is getting much better at asking questions about
12 distraction. It's routine now for fatal crashes, for cell phones
13 to automatically be included in the technical investigation. So I
14 think -- you know, some law enforcement forms still don't have any
15 information regarding distraction or cell phones and so forth.
16 Those things are going to be changing in the next couple of years,
17 and so those kinds of data are going to just get better.

18 VICE CHAIRMAN HART: Okay. Thank you. And we have
19 also, as a routine matter, now in highway crashes started going
20 for cell phone records as well.

21 I'll yield the rest of my time to the Chairman, who so
22 kindly yielded her time before, to complete the session.

23 CHAIRMAN HERSMAN: Thank you very much.

24 Since you all really are kind of helping us focus on how
25 to change behaviors and attitudes and societal norms, I want to

1 talk to you about what you think are the biggest drivers to
2 actually make people behave differently, because clearly most
3 people think it won't happen to them, and so let's talk about just
4 some very specific things.

5 Mr. Teater, you mentioned insurance. Do we have any
6 insurance companies who are giving discounts to companies that
7 have an all device ban in place?

8 MR. TEATER: Not discounts in advance, but those
9 companies have individual underwritings so their claims are looked
10 at every single year, and if their crashes are going down, then
11 their insurance rates are going to go down, and the people in the
12 companies making those decisions know that. So there is a
13 financial incentive for them to move forward.

14 CHAIRMAN HERSMAN: Okay. So there's an incentive for
15 companies to put these bans in place because they might have
16 financial savings in addition to improved productivity, those
17 kinds of things.

18 Let's talk about for the employees. How are employers
19 monitoring to see that employees are complying with the policy?
20 Where's the behavior kind of change there? Are they checking up
21 on their employees? Are they disciplining them? Like is there a
22 penalty structure or reward structure?

23 MR. TEATER: It varies company to company. Typically
24 new policies do not have a really severe penalty but more mature
25 policies, some of those companies you saw listed have had policies

1 in place since 2004, and as I mentioned, the one policy example I
2 gave you, that company looks at it, I think one strike and you're
3 out. It's the same as a drunk driving offense. So it tends to
4 mature as the company has a policy in place longer.

5 Enforcement is handled mainly peer to peer. All
6 crashes, cell phone records are pulled. So that's kind of an
7 after-the-fact enforcement, but that's the way they look at --
8 that's part of their normal crash investigation.

9 And then many companies are moving towards implementing
10 technologies on the wireless devices that prevent them from
11 operating while the vehicle is in motion.

12 CHAIRMAN HERSMAN: Right, and we've got some of those
13 technologies on display out in the foyer, and so people can take a
14 look at those, individual technologies for households, but also
15 fleet technologies.

16 Let's talk about what makes people change their
17 behavior. Is it criminal punishment, civil penalties, lawsuits?
18 You mentioned, you know, the threat of lawsuits. For kids, is it
19 losing their license? You know, what are the motivators? What do
20 we need to change here?

21 DR. MICHAEL: At the risk of sounding like I'm focused
22 on one thing, from our perspective, I think it's strong laws and
23 strong law enforcement. Strong laws I think have a tremendous
24 influence on community expectations, and those expectations have a
25 tremendous influence on individual behavior. Strong enforcement

1 of those laws is a further statement of community intolerance on
2 that topic. So if there's one thing, that's the one I would like
3 to stress.

4 CHAIRMAN HERSMAN: And, Dr. Michael, let me follow up on
5 that just because we touched on that a little bit this morning.
6 There is a wide range of penalty when we look at strong laws.

7 DR. MICHAEL: Yes.

8 CHAIRMAN HERSMAN: And so this morning I talked a little
9 bit about what we see on the passenger car side for some of these
10 violations. They may be \$20, \$150, but we saw in the commercial
11 carrier side, for a commercial driver who gets caught texting on a
12 handheld, it can be up to \$2,750, and if they have a multiple, if
13 they have sequential violations, they can lose their license.
14 That's their livelihood. And so, as far as a deterrent effect,
15 when you talk about strong laws, where is the deterrent effect?

16 There was a discussion this morning about paying the
17 fine and, you know, it's like a parking ticket, you know, I'll
18 just pay it, but it's more important for me to be able to do this
19 behavior or perform in this way. Are the laws strong enough?
20 When you say strong laws and strong enforcement, what's a strong
21 law?

22 DR. MICHAEL: Again, from our perspective, I think there
23 has to be some incrementalism here; that is, what is viewed as a
24 strong law this year may be viewed as a weak law 5 years from now.
25 I think as communities enact laws, as states enact laws, they need

1 to be sensitive about where the public is on that topic at that
2 time. If they go too far, too fast, they may have trouble
3 enacting the law or they may get pushback, but they may find that
4 some years down the road that they need to increase the penalties,
5 as has been done with drunk driving over the years, to reinforce
6 the fact that the community does not tolerate this behavior any
7 longer.

8 CHAIRMAN HERSMAN: Mr. Teater, you talked about
9 liability concerns for the employer. Are there other liability
10 concerns for the manufacturer of the device? Have you seen that?

11 MR. TEATER: No, I haven't, and I think there probably
12 isn't. This is the way the device is used, not the device itself.
13 So I don't think that's a driving factor in that regard.

14 CHAIRMAN HERSMAN: Okay. Even though they have warnings
15 and guidance not to use it while you're driving, even the GPS, the
16 Garmin GPS in the box, the instructions say don't use it while
17 driving.

18 DR. TEATER: You know, I've had the opportunity to work
19 with the wireless industry pretty closely for the last 4 or 5
20 years. I think in my introduction it mentioned that I was
21 involved in a company that had a technology. And the wireless
22 industry is pretty much in sync with everything we've talked about
23 today. You know, there was a time several years ago where they
24 were kind of fighting some of these laws, and they're really not
25 doing that anymore. In fact, at least two of the three largest

1 carriers in the country have introduced themselves some of these
2 technologies we're talking about. I have one on my phone. It
3 works pretty good. So I think they're moving in the right
4 direction with us.

5 CHAIRMAN HERSMAN: Okay. My last question is about
6 little kids. I have three children. They're not of driving age
7 yet, but we've grown up with a package in our minivan which I
8 attribute to less distraction for me because it has an
9 entertainment system and they can watch movies and things like
10 that while we're on long trips, and so they have wireless a
11 headset. I don't even have to hear it if I don't want to. And so
12 that raises the question of how we're socializing our children
13 with multimedia things in the car. So have there been any studies
14 done for the kids who have all their DSs and all their things. I
15 mean, there's an outlet to plug things in, in the backseat, and so
16 they can always stay connected and play their games. What are we
17 doing to our kids? Do we expect them to, say, plug in and play
18 from 0 to 15, but once you turn 16, don't touch anything and don't
19 think about it. What are we doing there?

20 DR. McGEHEE: I think it really goes towards the overall
21 culture of really never being offline. And it's a challenge
22 because we also want to teach teens to be good passengers as well,
23 and good passengers, as we heard earlier today, provide that extra
24 set of eyes. And so that's a really important feature about the
25 online generation, in general, is that it's good for them to look

1 around and be aware of traffic and so forth so that later on when
2 they become an adult passenger or a teen passenger, when they
3 finally get into the front seat, the first day they're going to
4 ride in the front seat with you, they have a new job. They're
5 going to help you, help you be a better driver.

6 CHAIRMAN HERSMAN: Well, unfortunately I think for some
7 of us, they already help us quite a bit. I feel like sometimes I
8 have some backseat drivers that don't even have licenses yet. So
9 they do tend to pay a lot more attention than we think they do,
10 and so that is exactly why we have to model the right behavior
11 because they are always watching us.

12 And so I thank you all so much. I think this panel is
13 the one where really we all have to take on that responsibility to
14 some extent ourselves, and in the business world, in the
15 regulatory world, in the safety advocacy world, we have to figure
16 out how to get this message to penetrate. And you know what? I
17 have every confidence that one day we will be successful in moving
18 this forward.

19 I have often used the example of when my siblings and I
20 would go on car trips, we didn't wear our seatbelts and there
21 weren't child seats, and I remember my baby sister sitting on the
22 front seat, on the armrest in between my mom and dad. That was
23 her perch on long trips. I could never fathom allowing any of my
24 children to be anything but properly restrained, and that's a
25 generation. We've changed. We've changed behaviors and we've

1 changed attitudes. I sure hope we can make some difference in
2 this area.

3 Thank you all for your help, and we will take a break
4 and we will be coming back at 3:15.

5 (Off the record at 3:00 p.m.)

6 (On the record at 3:15 p.m.)

7 CHAIRMAN HERSMAN: Welcome back, and we will now finish
8 up with our fourth and final panel of the day.

9 Dr. Bruce, will you please introduce our panelists?

10 DR. BRUCE: I will. Our fourth and final panel of the
11 day will address technology and design countermeasures. Our goal
12 will be to examine those vehicle safety systems that may mitigate
13 distraction or its effects and look at design guidelines for
14 driver vehicle interfaces to assess the safety of in-vehicle
15 systems use while driving.

16 Our first presenter will be Mr. John Maddox of the
17 National Highway Traffic Safety Administration. Mr. Maddox is the
18 associate administrator for vehicle safety and research where he
19 and his team are implementing safety initiatives concerning
20 numerous topics, including vehicle-to-vehicle communications,
21 distraction and crash avoidance technologies, crashworthiness and
22 motorcoach safety.

23 Mr. Maddox, I invite your presentation.

24 MR. MADDOX: Thank you, Dr. Bruce, for that invitation,
25 and thank you to the Board for organizing this event and inviting

1 us. We are always appreciative to have a chance to talk about
2 distraction.

3 As I think you know, NHTSA has been working on
4 distracted driving for the past number of years. Distracted
5 driving is unsafe. It's irresponsible. It can have very deadly
6 consequences as we all know. In 2010 alone, more than 3,000
7 people in the United States lost their lives in crashes in which
8 distracted driving was a factor.

9 Increasingly, as technology evolves and changes, the
10 potential for distraction in vehicles will rise, and drivers, when
11 they're dialing a cell phone, texting, and perhaps in the future,
12 surfing the Internet or worse, their eyes, hands and their focus
13 are diverted from their primary task which is operating the
14 vehicle safely.

15 So in 2010, NHTSA established and published its
16 distraction plan, and I'm going to talk a little bit today about
17 what is the most significant output in our initiative number two,
18 which is our distraction guidelines. Dr. Michael already talked a
19 fair amount about our behavioral aspects and initiatives.

20 I also would mention, and I know there was some
21 conversation earlier in the day around what can other technologies
22 do to mitigate distracted drivers, and we have an initiative
23 number three which I won't go into, but where we are looking in
24 deep detail on the benefit of crash avoidance features and other
25 features that could help an already distracted driver.

1 I should say that Phase I of our guidelines are focused
2 on visual-manual distractions, and starting with those systems
3 that are integrated into the vehicle. As Member Weener mentioned
4 earlier, we want to knock down the tall towers, and we think that
5 visual-manual distraction is that first tall tower.

6 Okay. I'm going to go through, very, very quickly, just
7 an overview of what's in our distraction guidelines, and start
8 with some basic, common sense, if you will, requirements.

9 Our guidelines ensure that devices are placed where the
10 drivers can easily see and reach them. Our guidelines would limit
11 the device operation one hand only, leaving the other hand for
12 steering, and limit the amount of manual inputs required to
13 operate a device, and limit the unnecessary visual information in
14 the driver's field of view.

15 But perhaps the power of the guidelines comes in the
16 concept of a lockout, and a lockout is something, by our
17 definition anyway, that prohibits a function or task from being
18 operated unless the vehicle is in park or at zero miles per hour.
19 And there are two types of lockouts. The first on this slide,
20 what we call the per se lockouts, and these are things that are
21 based either on law or policy or common sense policy approaches,
22 things like video -- and it's a relatively short list, and this is
23 the entire list. Video images are prohibited, static images not
24 related to driving, manual text entry. We know that that's a very
25 bad actor. Displaying more than 30 characters of text, and this

1 one has got a lot of conversation going since we've published our
2 guidelines for comment. And then lastly, displaying automatically
3 scrolling text.

4 But the second type of lockout, and this is the one that
5 would apply across the board, if you will, is really based on task
6 performance. It's based on data. It's based on measuring and
7 assessing how quickly a task can be done, and I know it sounds
8 like there was a lot of conversation this morning that I may have
9 missed on 2 seconds, but we have basically adopted that as our
10 base metric, at least to start, and we have also accepted the 2
11 second eyes off road which we see as close to an accepted standard
12 as there is one with regards to distraction. So we've adopted
13 that 2 seconds eyes off road limit.

14 But also we have put an upper limit on the total time
15 that it would take to do a task, and that's 12 seconds. So any
16 task that's longer than 2 or longer than 12 would be locked out
17 and unavailable to the driver unless the vehicle is in park.

18 Okay. So what do we think are the expected practical
19 effects of our guidelines? Well, we believe the guidelines will
20 deter manual texting, 10 digit dialing, navigation destination
21 manual entry while driving, manual social media communications,
22 Internet surfing and many other functions and features that are
23 longer than 2-12.

24 The guidelines would not deter, and I know there was a
25 lot of conversation throughout the day on hands-free versus

1 handheld, but the guidelines would not deter integrated hands-free
2 phone use, nor would they deter communication and control through
3 voice interaction.

4 So what are our next steps? Well, of course, we have
5 published our guidelines draft for comment and we are actively
6 receiving comment. We've had a number of public hearings and a
7 technical workshop and we certainly are starting to get many, many
8 comments from interested stakeholders. We, of course, value
9 greatly a full written comment to the docket. The comment period
10 ends April 24.

11 So after that comment period ends, we will review all
12 those comments, incorporate changes as we see fit, and then
13 publish the guidelines as final sometime this summer.

14 But in addition, I mentioned this is Phase I on
15 integrated visual-manual. We are already beginning work on Phase
16 II, which is visual-manual for nomadic or portable devices. We've
17 already started that work. That research has been going on for
18 about a year, and we are now actively in the phase of writing,
19 drafting those guidelines.

20 And then we will, of course, continue into Phase III
21 where will look at voice interface and try to address the topic of
22 cognitive distraction. So with that, that ends my presentation.

23 Thank you very much.

24 DR. BRUCE: Thank you, Mr. Maddox.

25 Our second presenter will be Dr. Linda Angell.

1 Dr. Angell is a research scientist at the Virginia Technical
2 Transportation Institute and the co-founder of Touchstone
3 Evaluations, Inc., with 30 years of experience focused primarily
4 on driver behavior, particularly driver attention and safety. Her
5 experience spans both the academic and industry settings with 27
6 years at General Motors where as a Technical Fellow, she
7 participated in industrywide efforts to develop methods for
8 assessing driver distraction and assisted in establishing industry
9 guidelines on distraction.

10 Dr. Angell, I invite your presentation.

11 DR. ANGELL: Thank you, Dr. Bruce, and good afternoon.

12 In the next few minutes, I'd like to convey a simple
13 theme, and that is that technology offers one promising source for
14 preventing and mitigating distraction, but if we're going to
15 realize the promise that it offers, we need to work hard to
16 develop those technology countermeasures to evaluate where their
17 benefits lie and to integrate them with the vehicle, and most
18 importantly with the driver and driver's tasks.

19 One key here is integrating technology properly with the
20 driver and the driver's tasks. This is really critical. It's
21 really a matter of choreographing the driver's attention to the
22 forward road and doing that properly. This is a non-trivial task
23 but it can be done well, and on the left here, is a good example
24 of where it's been done properly, and on the right, a poor example
25 of where technology has not been integrated into the vehicle. I

1 don't have time to go into these examples well. I offer them only
2 to underscore the point that integrating technology is a huge key
3 in terms of whether it works or does not work to help us prevent
4 distraction.

5 As we think beyond the basic design of the conventional
6 human-machine interface and how we integrate technology and think
7 forward to the role of emerging technologies that are more
8 advanced, perhaps the most promising role they have is to
9 safeguard and actively support what I would characterize as the
10 target behaviors of drivers that are central to attentive driving,
11 and we know from the research that has been accumulated in the
12 scientific literature, what it is that attentive drivers do well.
13 They make frequent glances to the forward roadway. Those glances
14 away from the road, when they happen, are well timed and very
15 short. They actively scan the forward roadway, and a healthy
16 percentage of the glances that they make are centered on the
17 forward road center and they actively maintain and use situational
18 awareness.

19 And what we can do with technology is nudge the driver
20 toward this attentive behavior when they're distracted. So
21 technology can be used to give these little nudges, and the
22 variety of technologies I'm going to very briefly show up here,
23 are all based on this notion of or this philosophy of supporting
24 attentive driver behaviors.

25 The four that I'm going to show you on this slide are

1 strategies that can be used in normal driving before conflict
2 develops. The first are decluttering techniques. Their purpose
3 is to improve driver focus on key information. They have been
4 deployed in at least one vehicle that has been on the road.

5 A second category is embedded training and safety
6 coaching. You've already heard a good deal about it. It would be
7 possible to incorporate in production vehicles and its purpose is
8 to teach smart choices during driving and to sustain them through
9 feedback to drivers.

10 The third category are lockouts. There are two types,
11 hard lockouts and soft adaptive lockouts. Their purpose is to
12 block the usage of certain tasks or devices or third-party apps
13 during driving, and these are already employed.

14 The fourth category is simple driver workload and
15 dialogue managers. They use a variety of different techniques to
16 monitor driver workload and manage and control the flow of
17 information to the driver, and these too have been used in a
18 couple of different vehicles that have made it onto the road
19 already.

20 The next category of potential technology
21 countermeasures that could help us prevent and mitigate
22 distraction are more advanced and are really in the R&D stage.
23 They need a lot of evaluation still for us to know how effective
24 they are, and these are ones that can actively assist the driver
25 during pre-conflict, conflict and imminent crash situations.

1 They use two coupled approaches. The first part of them
2 actively monitors where the driver's attention is and tracks where
3 the driver is looking, cues them to shift attention, and then if
4 they do not shift attention, the second component engages active
5 safety systems to help prevent a crash or to assist the driver in
6 preventing a crash, for example, lane departure warning or
7 collision imminent braking. There are a couple of great examples
8 that I don't have time to go into.

9 So to wrap up, we have three steps really that we need
10 to devote effort to, to properly harness technology
11 countermeasures. Let me just emphasize that beyond investing in
12 the technology and developing it and integrating it well, we need
13 also to educate drivers in their choice and use of technology
14 because even the best technology can only be a partner with
15 responsible drivers in trying to partner towards safe outcomes.

16 Thank you.

17 DR. BRUCE: Nice close. Thank you.

18 Our next presenter is Dr. James Sayer from the
19 University of Michigan Transportation Research Institute.
20 Dr. Sayer has conducted human factors in transportation related
21 research in UMTRI since 1993, including research in driver
22 assistance and advanced safety systems, naturalistic driving
23 behavior, driver vision and pedestrian conspicuity. He has
24 contributed to the development and evaluation of adaptive cruise
25 control, collision warning and collision avoidance systems in both

1 passenger and commercial vehicles.

2 Dr. Sayer, I invite your presentation.

3 DR. SAYER: Thank you very much, and good afternoon.

4 I want to talk a little bit this afternoon about
5 integrated in-vehicle safety systems of the likes of forward crash
6 warning, lane departure warning, those types of systems.

7 There have been a variety of naturalistic studies
8 evaluating these types of systems, have been performed. I've been
9 involved in about six of them myself. And one thing we have found
10 pretty consistently is there are situations where a distracted
11 driver can be alerted and a crash prevented as a result. Most
12 often we see rear-end crashes avoided from a forward crash warning
13 system, but also the risk of departing a road from a lane
14 departure warning.

15 Some of the issues associated with the wide scale
16 deployment of these kinds of systems is that initially their
17 initial cost, the maintenance and repair are still relatively
18 high. It would also take us quite a while to get these systems in
19 wide scale deployment throughout the U.S. fleet.

20 So in the short term, are they an approach to a
21 distracted driving problem? No, not a large scale approach.
22 Certainly we can benefit from them, but it would take a number of
23 years before the current fleet would, you know, actually be able
24 to have these kinds of systems on board.

25 So as a result, in part because of the expense of the

1 individual systems, but also maintenance costs and repair costs, a
2 number of manufacturers and the U.S. Department of Transportation
3 are engaged in looking at the use of wireless connectivity,
4 vehicle-to-vehicle technology, and John Maddox mentioned that also
5 a few minutes ago as a less expensive alternative to again still
6 provide warnings to drivers.

7 One thing we haven't looked at very closely that was a
8 major concern when we first introduced these kinds of driver
9 assistance crash warning systems was whether or not drivers would
10 begin to compensate and use the system as a crutch. Essentially,
11 would they adopt new types of behavior that are risky? Would they
12 do things that they ought not do, what I'll call secondary tasks,
13 tasks which are not primary from getting from point A to point B,
14 not traditionally what we would think of as a driving task; would
15 drivers take on these additional tasks? Would they risk
16 compensate?

17 At least to the degree that we've studied, both in
18 passenger cars and commercial trucks, we have yet to see any
19 evidence of risk compensation. That's good news. The bad news is
20 most of the work that we've done has really been over short
21 periods of time so there still remains questions to be answered on
22 that. I know the USDOT is actively considering a project that
23 would look at a longer scale exposure and so therefore might you
24 see risk compensation associated with that. Having said that
25 though, again at least initially, we've not.

1 Next, in-vehicle systems as countermeasures to
2 distraction, I think it's again really critical that we understand
3 what is the nature of the distraction. If we want to design
4 systems, technologies to help undertake and address these issues,
5 we have to understand them in really excruciating detail.

6 When we look at the 2008 GES data, we see that almost
7 22% of all crashes are associated with some form of distraction.
8 Granted, there are issues associated with coding. If you just
9 look strictly at the coding in the GES, I would say it's about 1%.
10 Analyses we've done at UMTRI would say it's something closer to 3½
11 percent are due to cell phone-related distraction. It may be a
12 little bit higher. It might be a little bit lower.

13 But, you've still got a whooping percentage of
14 distraction related crashes that are not due to cell phones, and
15 so I want to focus on again of trying to knock down, you know, the
16 high bars. The high bars, there's a lot out there, and so I don't
17 want us to lose sight of the fact that there are all these other
18 distractions, and I think that that, in fact, is part of the
19 problem. If we focus too much on the cell phones, are we sending
20 the wrong message that some forms of distraction are okay, but
21 others are not? And so I think we have to be really careful about
22 that.

23 Distraction is not new. As I think the Chairman
24 mentioned this morning, distraction has been an issue probably
25 ever since the Model T. I'd say probably even before that,

1 probably when people, you know, were pulling buggies with horses.
2 So it's not something that's going to go away overnight, and I
3 don't think that we should just simply accept the fact that there
4 are these distracting behaviors that we seem to have for decades
5 looked the other way and assumed were okay, the eating, the
6 drinking, the reading a map, the reading a newspaper. I think
7 that these have to be tackled as well.

8 So if we're going to do work on designing in-vehicle
9 systems to address driver distraction, I think we have to be very
10 careful to take into consideration all forms of distraction, not
11 just cell phones, not just nomadic electronic devices, but kind of
12 those horses that have left the barn: you know, the dog riding on
13 your lap, handing the bottle back to the kid in the back seat, you
14 know, engaging in an argument with your spouse. Okay, these are
15 all distractions that for lack of a better term have been
16 generally accepted by society.

17 Just quickly, some things that can be done. I think
18 there's a lot that can be done from a technological perspective to
19 improve these integrated systems. I think we're getting a lot of
20 information off of the CAN area network bus. So there's a lot of
21 information that can be garnered that could be used to understand
22 when a driver is engaged in a potentially distracting task,
23 whether they're adjusting the HVAC, whether they're adjust the
24 radio, whether they're inserting CDs. I think that that is an
25 area ripe for opportunity.

1 And to wrap up, I just wanted to say in summary, you
2 know, in-vehicle safety systems do hold promise. Crash warning
3 systems have prevented distraction related crashes. I've seen
4 them. I'd be happy to show you videos of examples where that has
5 happened, but they can't address all forms of driver distraction,
6 at least not yet, and I think future envisionments of them can.

7 New approaches that are lower in cost are underway.
8 Increased levels of integration could certainly increase their
9 ability to prevent distraction related crashes, but again the
10 distraction debate needs to go further than just cell phones
11 and/or nomadic electronic devices. I think we have to look at it
12 from a wholesale perspective. Otherwise, we run the risk of
13 sending the wrong message.

14 DR. BRUCE: Thank you, Dr. Sayer.

15 Our next presenter is Mr. Robert Strassburger, Vice
16 President of Vehicle Safety and Harmonization for the Alliance of
17 Automobile Manufacturers. Since joining the Alliance in 2000, he
18 has directed the development of several voluntary industry
19 standards to enhance motor vehicle safety. Mr. Strassburger also
20 oversees the Alliance safety research which includes developing
21 new crash test dummies and conducting crash investigations and
22 fundamental injury causation studies.

23 Mr. Strassburger, I welcome your remarks.

24 MR. STRASSBURGER: Thank you, Dr. Bruce, Chairman
25 Hersman and Members of the Panel of Inquiry. Thank you for the

1 opportunity for being here today.

2 Digital technology has created a connected culture that
3 has forever changed our society. Managing these technologies in
4 the driving environment is an important component in any
5 comprehensive strategy to address distracted driving concerns.
6 That's why the Alliance developed its driver focus guidelines over
7 a decade ago. The guidelines are now in their third iteration,
8 and they help promote an environment in which drivers can better
9 keep their eyes on the road and hands on the wheel.

10 We've heard a lot today about the so-called 2-second
11 rule. The core metric in the Alliance guidelines is that 2-second
12 rule. Alliance members have been applying these guidelines to
13 help design connectivity technologies that are no more distracting
14 than common manual radio controls.

15 Unlike portable devices brought into a vehicle, vehicle
16 integrated systems are designed for use in the driving
17 environment. When a device or feature is integrated into a car's
18 driver vehicle interface, and that includes both the visual
19 display and the speakers, it is designed to be used in a way that
20 helps the driver keep their eyes on the road and hands on the
21 wheel. It helps promote an attentive driver.

22 For example, the Alliance guidelines specify that
23 displays must be mounted high enough in the vehicle so that
24 drivers can continue to see the roadway with their peripheral
25 vision even while glancing at the display. That's not possible

1 when you're trying to manipulate a portable device in your lap.

2 With respect to the NHTSA proposed guidelines, the
3 Alliance believes that implementation of guidelines over
4 regulation is an appropriate and preferred approach given, (1) how
5 rapidly technology is evolving; (2) the evolving state, and we've
6 heard some about this today, about the state of knowledge of
7 drivers' behavior behind the wheel; and (3) the federal
8 government's lack of authority to regulate portable devices for
9 the aspects of performance at issue here today.

10 It is also appropriate to limit or prohibit certain
11 functions or features that are determined by testing, pursuant to
12 the performance-based metrics in the guidelines, to be
13 incompatible with the driving task.

14 As we move forward, the Alliance believes it is
15 important to keep the following in mind. First, further
16 development and evolution of guidelines should continue to be data
17 driven and science based. Second, guidelines for in-vehicle
18 systems and those now under development by NHTSA for portable
19 electronic devices should be finalized as a single package. Work
20 to complete the guidelines for portable systems should be
21 expedited therefore.

22 Consumers have options. If the use of one option is
23 curtailed, drivers will migrate quickly to others that are not
24 restricted.

25 Vehicle manufacturers are providing ports, either

1 hardwired or electronic for connecting portable electronic devices
2 to in-vehicle systems, to manage access to these devices in a
3 manner that's appropriate for the driving environment, such as by
4 a voice activation or by placing limits on the driver inputs.

5 Which brings me to my final point, and that is,
6 integrating a portable or carry-in device into the vehicle allows
7 the vehicle to serve as the safety filter, and that means then
8 that we also need to have all the parties at the table. Today our
9 focus has been on in-vehicle systems. We also need to have the
10 makers of portable devices at the table as well. We need to be
11 able to work with them to design not only our in-vehicle systems
12 but make them compatible to work with portable systems, and that
13 is how we're going to drive the ball forward.

14 So if we're to further reduce traffic fatalities, we
15 need to take a holistic approach. We need to have all the parties
16 at the table, so that we're making design decisions and making
17 design changes that are data driven, performance based and will
18 drive the numbers lower. Thank you.

19 DR. BRUCE: And our last presenter on this panel will be
20 Michael Cammisa, Director of Safety for the Association of Global
21 Automakers. Mr. Cammisa provides information and analysis on
22 legislative and regulatory activities affecting vehicle safety and
23 also serves as a liaison member of the National Academy of
24 Sciences Strategic Highway Research Program 2, fondly known as
25 SHRP2, Safety Technical Coordinating Committee.

1 Mr. Cammisa.

2 MR. CAMMISA: Thank you, Dr. Bruce, and thank you
3 Chairman Hersman and Members of the Board for inviting me to
4 participate in this forum.

5 Just a quick slide on who we are. The Association of
6 Global Automakers represents international motor vehicle
7 manufacturers, original equipment suppliers and other automotive-
8 related trade associations. We work with industry leaders,
9 legislators and regulators to create public policy that improves
10 vehicle safety, encourages technological innovation and protects
11 our planet.

12 Global Automakers agrees that distracted driving is an
13 important issue, and we thank the Board for having this forum. I
14 think it's been very interesting and informative to hear all the
15 different perspectives that have been brought out today. We've
16 had some approximately 20 different organizations up here bringing
17 their knowledge and their concerns and their perspectives on how
18 to deal with distracted driving. I think we're all in agreement
19 that it's an area that we can maybe make some progress on, and
20 we're all trying to work together on that.

21 In that vein, our association supports state laws for
22 primary enforcement bans on use of handheld devices for texting
23 and phone calls while driving.

24 The focus of this particular panel is technology and
25 design countermeasures, so I thought I'd spend a moment just to

1 talk about that. When designing a vehicle and deciding what
2 features to include and how to design them, automakers take a
3 measured approach. Now, the specifics of the process vary by
4 manufacturer but, in general, there are several common elements.

5 For in-vehicle information systems, automakers look at
6 what drivers are currently doing in their vehicles and see if they
7 can devise a better way to assist the driver to perform these
8 tasks in a manner that is designed with the driving environment in
9 mind. Usability, comprehension and safety are all considered, and
10 existing laws, regulations and industry standards and guidelines
11 are also reviewed for applicability to the design of the system.

12 When evaluating these systems, it's useful to consider
13 what is the alternative to this system. For example, navigation
14 systems provide an integrated means of helping the driver find
15 their destination, and it offers many advantages over paper maps
16 or handwritten directions. A well designed navigation system can
17 relieve the driver of stress and reduce sudden lane changes and
18 other abrupt maneuvers, and the system can help the driver focus
19 on the road and traffic instead of looking at maps, handwritten
20 instructions and passing street signs.

21 In addition to the in-vehicle navigation systems and
22 other in-vehicle systems, we also want to point out that consumers
23 are demanding safety and the automakers are striving to deliver
24 that. So automakers compete to achieve high ratings in vehicle
25 crash tests and to offer advanced driver assistance systems and

1 crash avoidance systems.

2 In December, the DOT announced that highway fatalities
3 in 2010 had reached their lowest level in over 60 years, and this
4 achievement is due in part to the efforts of automakers to improve
5 the crashworthiness of vehicles and to develop and install
6 advanced vehicle safety features such as electronic stability
7 control.

8 But despite those encouraging numbers, there is more
9 that needs to be done and automakers continue to research and
10 develop the next generation of safety and driver assistance
11 systems and introduce innovations such as lane departure warning
12 and forward collision mitigation systems.

13 And that concludes my opening remarks. I look forward
14 to our discussion, and again thank you for hosting this forum and
15 bringing us all together.

16 DR. BRUCE: Chairman Hersman, that concludes the opening
17 remarks for our last panel. I turn the panel over to you and the
18 Board for questioning.

19 CHAIRMAN HERSMAN: Thank you. Member Sumwalt.

20 MEMBER SUMWALT: This entire day has been fascinating,
21 and I think it's appropriate that we are ending on the note of
22 technology, and Dr. Rosekind has already alluded to this, he's
23 already said it in clear words, in plain English, but when we made
24 our recommendation, we came out in favor of laws, enforcement and
25 communication campaigns and each of those are, to use a term that

1 Mr. Strassburger used, they're safety filters or layers of
2 defense, and I think that technology is yet another very important
3 layer of defense. And the technology I'm referring to, by the
4 way, is the crash mitigation technology, is the crash avoidance
5 technology, not the additional gadgets in the car to further
6 distract people, but which -- we're really talking about two
7 different things here.

8 Dr. Angell talked about more electronics in the car,
9 which in my opinion are just more distracters if we're not careful
10 with it. But the type of technology I'm talking about now is
11 again the crash avoidance technologies, and that can be a primary
12 layer of defense and it can be a final layer of defense, and we
13 have to use that technology effectively.

14 And the technology again I'm talking about, things like
15 adaptive cruise control, lane departure warning systems,
16 electronic stability control, collision warning systems, heads up
17 displays, all of these things can help to prevent the accidents,
18 and I want the industry to continue developing and implementing
19 that technology. It's already here and it just needs to be
20 implemented in a more widespread fashion, I think.

21 Dr. Weener, Member Weener brought up a great point and
22 then Dr. Sayer again repeated it, and it finally sunk in, and that
23 is, you're right, we've got to be going for the high bars. You
24 were so successful, Dr. Weener, in your efforts in looking at the
25 high bars in aviation, and as a result, coming up with mitigation

1 measures to lower those. And so if we do only focus on the cell
2 phones and texting and that sort of stuff, then we're hitting a
3 small portion of it, but 22 to 25% of total distractions -- well,
4 only 22% of all accidents involve some form of distraction and by
5 your figures, Dr. Sayer, I think you said only about 1 or 2%
6 relate to cell phones. Is that correct?

7 DR. SAYER: We estimate 3½ percent.

8 MEMBER SUMWALT: Yeah, okay. So the technology if
9 employed correctly can help protect us and guard us against those
10 other non-cell phone related accidents.

11 So I think it's just kind of a diatribe to say that we
12 need to continue moving forward in developing those safety
13 filters, the technology that's going to keep us from having the
14 accident. I do also worry, Dr. Sayer, that people might begin to
15 become reliant on that and the trick is to figure out how do we
16 keep them actively engaged in the control loop instead of being
17 passively engaged, and that continues to be a problem, but I am
18 encouraged that that technology is there. The Board has come out
19 in a number of accidents and recommended adaptive cruise controls
20 and lane departure warning systems, and we continue to support
21 that.

22 So really just sort of a wrap up there, I just wanted to
23 make those comments, and I yield the balance of my time. Thank
24 you.

25 CHAIRMAN HERSMAN: Member Weener.

1 MEMBER WEENER: Well, thank you. It's good to hear,
2 after listening to all of the panels today to hear what the
3 potential for technology is. I've heard a number of things that I
4 like to hear and one is the term data-driven approach because that
5 helps focus where the biggest bang for the resources can really
6 happen.

7 By analogy, in the aviation industry, if we look at
8 safety of the large transports, you can see with technology
9 implementation of certain things, you can see the safety increase,
10 the accident rate go down.

11 As Member Sumwalt pointed out earlier today, there's a
12 number of ways to handle safety but the last thing you want to try
13 to do is behavior modification if you can do something else
14 upstream. So technology in my experience can be very valuable in
15 making safety advances and to keep the advances. If you're doing
16 behavior modification, you have to keep modifying the Mark I human
17 being over and over again because he tends to want to go back to
18 some initial conditions.

19 But one of the things we have found in the aviation
20 business is safety systems are great but dependency often
21 accompanies a safety system, and I guess my concern is, when we
22 put a safety system on board, it has to work really reliably and
23 dependably. In fact, there's a real hazard in a safety system
24 that works right almost all the time because it lolls people into
25 depending on it. We have plenty of examples in the aviation

1 industry where we've put on safety systems like configuration
2 warning systems, which were initially intended as simply warning
3 systems so they were single thread. But flight crews got to
4 depend on them and, since they were only single thread, they
5 didn't have the reliability or the integrity to be relied on.

6 So in terms of the technology, how do you approach, how
7 do you analyze that aspect? When you put a safety system on
8 board, the safety system has to address some systemic issues and
9 how do you make certain that when you do that, you don't create a
10 situation where undue dependency creates problems by itself?

11 DR. SAYER: So some of the different ways that we look
12 at that are, first, we look to see if the types of crashes that we
13 intend to warn the drivers against are, in fact, is the system
14 working as is intended, are drivers warned appropriately, and do
15 they therefore avoid the crash. Then what you start to look for
16 is what's the relative frequency of those warnings. In other
17 words, are they allowing themselves to get into a situation that
18 leads up to that type of a threat to begin with, and if you start
19 to see an increased rate of warnings, then you would start to be
20 concerned. So they're relying on it as opposed to their own eyes
21 to make determinations about I shouldn't get in that situation to
22 begin with. That's typically not something that we've seen in
23 vehicle-based systems. Typically the crash warning rate is fairly
24 stable or, if anything, it drops off. The drivers actually learn
25 something from having experienced the warnings. They learn to

1 slow down, drive a little further back, for example.

2 And as I mentioned earlier in my opening statement, one
3 of the other things we look at is do we see drivers engaging in
4 other kinds of tasks at a higher rate than they would have
5 otherwise? Are they on the cell phone more? Are they eating
6 more? Are they engaging in conversations with passengers more?
7 Do you see those kind of behaviors change? And again, at least to
8 the degree that we have been able to study it for the periods that
9 we have, we've not seen evidence of that.

10 MR. MADDOX: I wonder if I could add to that. What Jim
11 didn't mention but I think was implied in his answer, the study,
12 you really need to look at naturalistic driving studies for
13 significant periods of time and, of course, in the past, and even
14 today, those are rather expensive and very difficult to do.

15 So we at NHTSA are concerned about that as one of the
16 potential, unintended negative consequences of these safety
17 systems, and we are going to be looking at opportunities to use
18 naturalistic driving data to assess that at significant lengths of
19 time. So we don't have the answer to that yet, but we are
20 definitely looking at it.

21 MEMBER WEENER: All right. Thank you.

22 CHAIRMAN HERSMAN: Member Rosekind.

23 MEMBER ROSEKIND: Some pretty quick observations before
24 I have some questions. One is, that I'm noting at the end of the
25 day, nobody tried to define distraction for us. I'm sitting here.

1 I can't think of one slide today that actually said here's how I
2 or the field accepts, you know, what distraction is, and I think
3 that's important because just to be provocative, I would challenge
4 things like the 2-second rule with the eye gaze. To me, it's
5 actually kind of at the level of leeches in medical treatment.
6 It's like we can measure it, it's the one thing we've got, but
7 consider the universe of distractions everybody's talking about,
8 that's like way over here.

9 I also want to acknowledge the semantics, and I think
10 we've really got to credit the Chairman's leadership and the
11 organizing group. This is a focus on attentive driving, and it's
12 kind of going from the illness to the health and wellness view,
13 sort of what's going on here, because the issue, however we want
14 to define it, really is about paying attention to the driving
15 task. It's complicated enough. How do we make sure -- it's not
16 just keeping your eyes, but your head and everything else in the
17 game, about that.

18 The third is Mr. Strassburger was the first one that
19 sort of mentioned, it's not just the auto manufacturers. The
20 Chairman asked a previous question, what about the wireless and
21 all those other things that are coming in, and another group
22 that's not here is the social media crowd, you know, all the stuff
23 that's getting us addicted and engaged, they're not here at the
24 table either, which I think would be an interesting perspective to
25 bring up.

1 My first question is, you know, in health care you can't
2 put a medication on the market without going through clinical
3 trials, and I'm not suggesting you need a FDA in this arena. In
4 fact, I would suggest maybe industry could even get ahead of the
5 government on these things, but I'm kind of wondering, you know,
6 what is there that you could work to, rather than guidelines that
7 say design to this? Given that I'm sort of provocatively saying
8 you're at the leech level, what could you actually be studying
9 that you could set criteria for defining what should be the safe
10 characteristics of what you want to put in cars rather than just
11 saying, oh, let's put it in there and then later we'll decide, oh,
12 it's too dangerous, we should pull it out.

13 So again, I'm kind of flipping it on its head. Health
14 care is, you want to put it on the market, you've got to go
15 through a set of trials that meet criteria. Is that possible
16 here? Create the criteria, create the ratings, you know, have
17 some way internally that you're trying to set the standards for
18 what promote attentive driving rather than us trying to prevent
19 just the distractions.

20 DR. ANGELL: I'm going to take a quick stab at it, and
21 them maybe John and Rob will both want to. But 27 years I spent
22 at General Motors, and I believe that that's what the car
23 companies that are part of the Alliance are doing is exactly that.
24 With each new model, those companies that are part of the Alliance
25 made a commitment to NHTSA to test each of their new products and

1 agreed that they would adhere to the 23 principles and each of the
2 criteria underneath those principles. And so each of those new
3 models are tested in the laboratory or on the road, data are
4 collected and decisions are made about whether tasks need to be
5 redesigned or locked out before those products are released.

6 Now, it's just those companies. We don't have portable
7 device manufacturers on the same page. We don't have apps
8 developers on the same page. You know, those folks, as Rob
9 mentioned, need to be engaged here, but I think that there has
10 been a very concerted effort to do exactly what you're calling for
11 since 2003.

12 MEMBER ROSEKIND: Now, just as you're ready to respond,
13 make that public. I'm thinking, just like everybody buys cars
14 now, you know, for an IIHS rating, it's kind of like if that's
15 been going on, you know, get your stars up there.

16 MR. STRASSBURGER: I'll take that suggestion back,
17 Member Rosekind. We often don't toot our own horn often enough.
18 But let me just supplement Dr. Angell's comments about the
19 guidelines.

20 There actually are 24 principles, but they begin with a
21 statement of high level intent. And what is different about our
22 guidelines as opposed to the European Statement of Principles or
23 the Japanese guidelines from which they were derived in part, is
24 we also established performance-based performance criteria and a
25 verification procedure. So you know if you're doing good. You

1 know if your system is meeting the criteria. And that really is
2 consistent with the self-certification process that we follow with
3 the NHTSA Federal Motor Vehicle Safety Standards and each
4 individual member's internal design guidelines for their vehicles.

5 MR. CAMMISA: If I might just add, you know, all
6 automakers look at the existing guidelines that are out there and
7 evaluate their systems, and in addition to that, we're going to
8 the next level and continuing to look at research like the 100-car
9 study and now the new SHRP2 study to see where we can learn more
10 and develop the guidelines further.

11 MEMBER ROSEKIND: Thank you.

12 CHAIRMAN HERSMAN: Vice Chairman.

13 VICE CHAIRMAN HART: Thank you. I'm just curious how
14 much exchanging of notes and general review of other industries
15 that are struggling with some of these same issues. In particular
16 I'm thinking of aviation -- we heard Dr. Weener talk about that --
17 and also nuclear power. And in particular, they go a lot into
18 automation and safety is huge for both of them obviously. So I'm
19 wondering to what extent -- I don't suggest that one size fits
20 all, and I know the environments are very, very different, but it
21 would seem to me that there still could be a lot to be learned
22 from other industries like that. I'm just curious how much of
23 that sort of sharing of notes goes on.

24 MR. MADDOX: I'll just start on that, not on the
25 industry side, but on the Government side. We are doing that

1 exact thing especially as it relates to human factors for
2 automated for semi-automated or driver support or flyer support
3 control systems. We are actively engaging our counterparts on the
4 aviation side, the defense side, and others because we think there
5 is a lot to learn there. We don't need to reinvent the wheel.

6 VICE CHAIRMAN HART: Any others on that one?

7 MR. STRASSBURGER: I would, one, simply agree with John
8 but also the human factors experts that our members employ, I
9 think have broad expertise, and they're bringing that expertise to
10 bear in the development of the guidelines and just generally in
11 the development of the vehicle systems themselves.

12 So are there other things that we can learn from other
13 sectors? Absolutely. The two that you mentioned are a couple,
14 although I would observe there that there are probably highly
15 trained operators that you have a little bit more control over
16 than you do with somebody that's driving a vehicle every day, day
17 in, day out for 20 years.

18 MEMBER ROSEKIND: And on the lessons learned, I'm just
19 wondering, given the cost and time it takes for naturalistic
20 driving experiments, if you will, I'm just thinking of the example
21 with the introduction of antilock brakes where that was viewed as
22 a huge potential safety device, but that the unintended
23 consequence that occurred was that now instead of losing control
24 because you've lost traction with the road, now you're skidding;
25 you're maintaining control but now you can do that sharp turn that

1 you couldn't have done when you had no traction, and now you're
2 doing the sharp turn and going off the edge of the road and
3 rolling over and, you know, if you don't have your seatbelt on or
4 if you don't have a strong roof, then you get killed by the
5 rollover. So the unintended consequence was that it reduced the
6 impact, but it created a lot more rollovers and I think that's why
7 IIHS wasn't big on, you know, insurance reductions for antilock
8 brakes because there was unintended consequences that resulted in
9 a net worsening perhaps even; not an improvement, maybe even a
10 worsening. So I'm just wondering if there are procedures for
11 looking at the unintended consequences have become any more robust
12 as we learn over time with some of the new technologies?

13 MR. STRASSBURGER: We have definitely learned from that
14 experience, and I think that experience, number one, highlights
15 the importance of robust design. I mean, there was discussion
16 earlier with Dr. Sayer about crash avoidance systems. You don't
17 want the operator to become comfortable that the system is going
18 to intervene on their behalf, and so that's taken into
19 consideration into the system's design.

20 I think the ABS experience also highlights the
21 importance of education. We need to be educating consumers about
22 what these systems can and cannot do and how they should be using
23 them when they're driving. And so we've taken those lessons to
24 heart.

25 MEMBER ROSEKIND: Okay. My last question is how soon

1 before I can get in my car, say "Go to work" and then sit back and
2 read my iPad, read the morning paper on my iPad and have it take
3 me to work?

4 MR. MADDOX: Three weeks.

5 MEMBER ROSEKIND: Great.

6 MR. MADDOX: One problem at a time, please.

7 MEMBER ROSEKIND: Thank you very much.

8 CHAIRMAN HERSMAN: I think the suggestion is to ride the
9 Metro if you'd like to do that. (Laughter.)

10 Dr. Sayer, when you were having a dialogue with Member
11 Weener about the percent of accidents that were attributed to
12 distraction, you came up with a number and then which percent were
13 attributed to cell phone use. I think it was Member Weener or
14 maybe it was Member Sumwalt, that -- you know, there was the
15 dialogue was between 1½ and 3½ percent.

16 Mr. Maddox, what percentage of accidents would you
17 attribute to distraction and then, of those, which one would be
18 attributed to cell phone use?

19 MR. MADDOX: I'm going to have to first say that I don't
20 remember the numbers exactly but I believe we're in the same
21 ballpark. I think our latest NTSA research report was in the 6%
22 range, although I can't quite really remember that for sure. I
23 can get back to you with an exact number.

24 CHAIRMAN HERSMAN: Are you talking about for cell phones
25 or distraction?

1 MR. MADDOX: I believe that was the cell phone number.

2 CHAIRMAN HERSMAN: Okay. And --

3 MR. MADDOX: But I would like to get back to you for the
4 record.

5 CHAIRMAN HERSMAN: Right. I think one of the challenges
6 is depending on which panelist we talk to in which panel,
7 everyone's using little bit different numbers to talk about
8 things, and I think that's part of the challenge that we have
9 talking about this issue is having some common understanding of
10 what we're talking about. Is it a naturalistic study? Is it the
11 FARS data? You know, what are we talking about, about what's
12 attributed to distraction? So I think that that is creating
13 problems to even have a dialogue about this because in many cases
14 we might agree with each other but we're talking past one another.
15 I mean, I can watch it as it's happening. But I think that goes
16 back to some of the earlier panels where we talked about the data
17 collection, the forms, the enforcement, you know, how do you
18 attribute these things, and that becomes even more muddied.

19 You know, we have a gentleman in the audience who is
20 featured in one of our videos. He lost his granddaughter. He's
21 former law enforcement. The civil case has gone through,
22 attributed the accident to portable device use, but the police
23 report doesn't say anything about it, and so I think we just
24 really have kind of disconnect on the data side, and I'm not
25 really sure kind of how we break through that issue because

1 everyone wants to come back to putting decisions and policy based
2 on data, but it really is a moving target depending on which data
3 set you're using. And so I think that's kind of the first area we
4 have to get some consensus and some agreement on.

5 Then the second part of it is kind of, I want to go back
6 to something that Dr. Sayer mentioned, and this was with Member
7 Weener about addressing distractions that are not cell phone based
8 or portable electronic based. And certainly we've all agreed that
9 there are other distractions out there, but I think many of these
10 distractions have been around for a long time. What have we done
11 as a society to address those? I think, Dr. Sayer, you used the
12 dog in the lap and the kids in the back and eating the Whopper or
13 whatever. What are we doing as a society to address those? And
14 are the solutions to addressing those problems ultimately, are
15 they almost the same as the solutions to address distraction or
16 are they different? Because you talked about in-vehicle
17 technology prevention tool.

18 DR. SAYER: Yeah. I think they're very similar. They
19 may not be identical. Some of the things related to text
20 messaging, cell phone use, may have technological approaches that
21 can be applied to them more easily than keeping the dog off of
22 someone's lap or keep the Wendy's triple out of their hand.

23 Nonetheless, I think we have the opportunity to address
24 the distraction problem head on, and again I feel like just
25 singling out certain aspects of distraction may very well send the

1 wrong message. It gives a mixed message. It says that certain
2 types of distraction are okay and will be accepted, and I think
3 probably for the panel earlier talking about law enforcement, I
4 think it makes law enforcement's job even more difficult.

5 You know, if you want to change the norm, the drivers
6 need to understand what inherently is the problem. The problem is
7 their eyes are not on the road. Their head is not in the game.
8 And it doesn't matter whether it is because they're on the cell
9 phone or it's because they're eating, or it's because they're
10 reaching around to hand the kid a bottle. Their eyes aren't on
11 the road. Their head isn't in the game. And that's where I
12 think we are right now as a society.

13 We have the opportunity to get that message across, and
14 I think the most effective way to get it across is to do it
15 wholesale, not bits and pieces. Because if we go bits and pieces,
16 what is going to happen is it might be cell phones, you know,
17 today or text messaging, and then it's social media. What is
18 going to be the next issue du jour 2 years from now that I hope
19 we're not back here discussing at that time.

20 CHAIRMAN HERSMAN: But I think kind of the question is
21 how do we do it wholesale?

22 DR. SAYER: I think, you know, the last panel talked a
23 lot about, you know, the social norm, you know, really trying to
24 convince people. You've got to get the message out. You've got
25 to educate them. You have to convince them that driving while

1 distracted is wrong and you can't tolerate it. Just like driving
2 while drunk is wrong, we don't differentiate whether you're drunk
3 because you drank wine or you drank beer; you're drunk. So if
4 you're distracted, you're distracted.

5 CHAIRMAN HERSMAN: Okay. So if the premise is your eyes
6 aren't on the road and their head isn't in the game, what is going
7 on with what people want? And I think kind of for the auto
8 manufacturers, my question is, do people want to drive or do they
9 want to exist in an iPad on wheels? I mean, because if their eyes
10 aren't on the road and their head isn't in the game when we're
11 handing the baby the bottle and we're doing these other things,
12 what additional things are we creating in that environment where
13 we've already got these drivers who are incredibly non-attentive
14 to begin with? Do you all see that they want to do everything but
15 drive when they're in the car? Can you sell a car if it's
16 completely stripped down and has just a steering wheel and a gas
17 pedal and a brake?

18 MR. STRASSBURGER: Chairman Hersman, I think that's over
19 simplifying the issue way too much. I think our whole approach
20 with the guidelines has been to mitigate and manage behavior that
21 we're seeing occurring in the vehicle. We start from day one,
22 square one, with the design of the -- we actually design vehicles
23 from the inside out and we start day one, square one with the
24 placement of controls, doing everything we can to make sure that
25 they're in sight of the driver, that they can reach them easily,

1 that they can still maintain peripheral vision on the road even
2 when they're glancing away to activate a control or a function.

3 You know, people want to do a lot of things in their
4 cars, and we're trying to manage and mitigate that activity to
5 make sure that that activity is safe for the driving environment,
6 and so --

7 CHAIRMAN HERSMAN: Okay. So kind of going to that
8 question, you've talked about your guidelines and how they're
9 tested and things like that. I think one of the challenges that
10 we heard when we talked about this with the research panel this
11 morning, we don't have a lot of transparency into the evaluation
12 and the testing and the research that goes on in what's actually
13 being done now in vehicles, because this morning we were talking a
14 lot about glancing away and focusing on that. There isn't really
15 a lot of research on voice activated and voice command and the
16 cognitive load. What do we have on that, that is saying that
17 we're keeping drivers attentive by putting these additional
18 features in the vehicle?

19 MR. STRASSBURGER: For me or for Dr. Sayer?

20 CHAIRMAN HERSMAN: For anyone who can answer because I
21 think that's where we kind of have a little bit of a gap in the
22 research and what we know, and we continue to struggle with this
23 cognitive distraction.

24 MR. STRASSBURGER: And let me say that we'll never have
25 enough research and we'll never have enough data. We need to act

1 on the data that we have available now, and that is what we're
2 doing with the guidelines. They are best practices based on the
3 best available data that we had at the time that they were
4 developed. We continue to review the data and the analyses as it
5 emerges and update the guidelines as appropriate when we have that
6 new information.

7 DR. ANGELL: May I add? There has been a lot of work
8 done. A lot of it was proprietary to the industry. Early in
9 2000, the decade of the 2000s -- and much of it was made public in
10 a docket for NHTSA in January of 2007; that's Docket NHTSA-2007-
11 28442. Both Ford and General Motors shared a great deal of the
12 research they had done on voice-based interfaces, on conversation,
13 and the extensive research that they had done, both laboratory, on
14 the road, on the track, and including investigation of crash for
15 the OnStar system, and it is extensive and it's available to you
16 if you should want to look into that, and that was in response to
17 a petition that the Center for Auto Safety had submitted to NHTSA
18 at that time.

19 There's also published work that those companies have
20 made available, and at the Transportation Research Board meetings
21 of January, Louis Tijerina did a very nice overview of the work on
22 voice-based interfaces, and he summarized that work, not just the
23 work on conversation, hands-free conversation, but the use of
24 voice based interfaces for other types of interaction and the fact
25 that it is an improvement over visual-manual interfaces. So

1 that's another place to find that data if you're wondering where
2 it is.

3 MR. CAMMISA: And if I could add to that, also I think
4 naturalistic driving is going to give us more data as well.
5 Instead of just looking at glances, you can match the glances to
6 the driving behavior, and one of the earlier panelists with Member
7 Rosekind was talking about, we know where their eyes are looking
8 but we don't know where their heads are at, and by seeing how
9 they're controlling the vehicle may give us some insight even
10 where their eyes are as to also where their heads are at. So I
11 think that's going to be helpful and there's a lot of research
12 going into research tools to analyze that data, and I think that's
13 sort of a new frontier, but I think that will help.

14 MR. MADDOX: I would also add that we are conducting
15 what we call a small scale naturalistic driving study to partially
16 get at some of the cognitive effects. We're specifically looking
17 at 180 cars here in Northern Virginia and Southern Virginia/North
18 Carolina, and we are assessing or comparing cell phone
19 conversations on a handheld, a, quote, "hands-free" device, and an
20 integrated device. And that was started to get us some basic
21 information on our Phase II guidelines on nomadic devices, but
22 also where we think, if there is a difference, we might be able to
23 also assess cognitive effects of truly hands-free operation. That
24 will be done -- the data collection is done. We're getting into
25 the analysis phase. Of course, the results will be public, and

1 we'd be very happy to brief you on that.

2 DR. ANGELL: And if I could just add very quickly, this
3 morning, Dr. Rosekind, you asked about brain-based research and
4 there is a lot of activity on that as well. Dr. Richard Young at
5 Wayne State University has done quite a bit of work with his
6 colleagues, sponsored also by the Collaborative Safety Research
7 Center at Toyota. MIT is engaged in some. Virginia Tech
8 Transportation Institute is engaged in some, and there's a lot of
9 activity using fMRI, EEG, and other methods. So there's a lot
10 going on in that topic.

11 CHAIRMAN HERSMAN: Okay. Member Weener.

12 MEMBER WEENER: This really is a question for
13 Mr. Strassburger and Mr. Cammisa. Both within your organizations,
14 because each of you represents a large number of automakers, both
15 within your associations and between your associations, would you
16 characterize what you do in regards to safety as you're
17 collaborating on safety or do you compete on safety?

18 MR. STRASSBURGER: Both. I think our members in the
19 marketplace compete on safety, and that's a good thing, and behind
20 the scenes with advanced research and efforts like the guidelines,
21 et cetera, we're collaborating.

22 MR. CAMMISA: I agree. I think it's an issue where we
23 collaborate to raise the floor and we compete to push the ceiling,
24 and it's like the standards versus the crash test ratings where we
25 all meet the standards, of course, but then we compete beyond that

1 to get the highest ratings in the various crash tests.

2 MEMBER WEENER: All right. One last question. In terms
3 of technology related to the issue of distraction, what do you see
4 as the next advances, let's say in 3 years and in 10 years? You
5 know, what's your crystal ball? What technologies are going to be
6 able to be matured in 3 years or in 10 years?

7 MR. CAMMISA: That's a tough one to use a crystal ball
8 on. You know, we're seeing the driving assistance features coming
9 in. We'll probably see more of those in the shorter term. Longer
10 term technology, you know, I just don't know how to project for
11 that.

12 MR. STRASSBURGER: I don't know that I have any further
13 supplement to Mike's answer on that point.

14 MEMBER WEENER: All right. I guess one reflection, have
15 we made driving too easy so that people are willing to take on
16 secondary tasks like portable electronics usage?

17 MR. CAMMISA: I don't think that's necessarily the case.
18 I think, you know, we're seeing that driving is becoming safer,
19 and I think that's a good thing. I don't think we want to step
20 backwards in order to address this problem. So we have to kind of
21 address both of the issues at the same time. So to keep improving
22 driving, making it safer, we've got to attack these new issues
23 that come up.

24 MR. STRASSBURGER: Yes, and as a supplement to that, I
25 don't think we're making driving too easy. I mean, our whole

1 approach is to help the driver perform their tasks to the best of
2 their ability. So I think it's really a question of different
3 factors in the environment that are changing that are pushing them
4 to want to do more behind the wheel, congestion, busy lifestyle,
5 et cetera. You know, the bigger challenge is the autonomous
6 vehicles that were alluded to just a little while ago. Those are,
7 I think, really why we need to pay attention at this point in time
8 now with respect to the human factors issues and the warning
9 systems that we would be giving the drivers, et cetera, which are
10 effective, which aren't, et cetera.

11 MEMBER WEENER: Very good. Thank you.

12 CHAIRMAN HERSMAN: Member Rosekind.

13 MEMBER ROSEKIND: One question. Member Sumwalt brought
14 this up at our December 13 Board meeting where we made a
15 recommendation about the ban, and Dr. Michael showed the slide.
16 It took us 30 years to get 85% seatbelt use, and I love to point
17 that out. It took 30 years and we're only at 85%, and that had to
18 do with the human behavior side.

19 A group of us had a chance to go see a crash test at
20 IIHS, and we had a fascinating discussion afterwards about even
21 when you come up with new technology, it could be 30 years before
22 that technology actually comes into the fleet.

23 And so my question -- in fact, the NTSB's great at this,
24 you know, do more faster. More which I like about this panel
25 discussion, it's not just about the cell phones, but it's all the

1 other technology: forward collision systems, lane departure, et
2 cetera, all that technology, that's the more. How do we get it
3 faster? I mean, if we're still talking about this research and
4 everything else, but it's going to take, you know, 30 years for
5 the behavior part, and then 30 years for the technology, what do
6 we do about that?

7 MR. STRASSBURGER: Well, first of all, with respect to
8 seatbelt use, yes, it took 30 years and, by the way, 30 years and
9 considerable effort by a number of different parties, and even now
10 we don't have primary enforcement laws in all 50 states. We're up
11 to like 32 or 33. So absolutely there's a lesson there. And
12 likewise with the average age of a passenger car on the road
13 today, being about 11 years old, again that feeds into a 30-year
14 cadence for the fleet to turn over.

15 The good news is, number one, I think again safety
16 sells. Our members are motivated to distinguish themselves in the
17 marketplace on the basis of safety performance. That helps get
18 the technology out there quicker than it might otherwise.

19 Secondly, we need to look at -- I mean, actually, Member
20 Rosekind, it was you in an earlier question -- we should be
21 tooting our own horn more ourselves, talking about what we can do
22 and maybe there should be others. Consumer information has been a
23 great way of motivating manufacturers to accelerate the pace of
24 their development and introduction of technologies also.

25 MEMBER ROSEKIND: Anyone else? I've only got one

1 question.

2 MR. CAMMISA: I was just going to say, those 30 years on
3 the seatbelt use helped also lay the groundwork so hopefully we
4 don't have to take 30 years for the next thing. We've already
5 raised awareness of safety and interest of safety, and as Rob
6 alluded to, now safety is a competitive interest of consumers
7 looking to buy a car and so they will look for all the safety
8 information that they can find.

9 MEMBER ROSEKIND: So, very often when we make
10 recommendations, say -- we had a rail accident that had to with
11 design of tank cars, for example, what was interesting is we
12 focused not just on future design, but how do you retrofit. So
13 one of the faster issues on the technology that probably has to be
14 confronted at some point is not just the new cars that are coming
15 out, but is there some element of retrofit that needs to go in, in
16 some way, to accelerate that 30 years. Thank you.

17 CHAIRMAN HERSMAN: Thank you. We're going to go to the
18 Tech Panel now.

19 DR. BRUCE: Thank you, Member Hersman. I've got a
20 question about the NHTSA guidelines that recently came out. The
21 Phase II guidelines would be for nomadic devices, and setting
22 aside whether you have oversight authority for that, which I think
23 will make that a complicated story to write, but the Phase III for
24 2014 are the auditory systems, and I'm looking at ads here for
25 Mercedes has a 7-inch screen, Cadillac has a 8-inch touch screen,

1 Lexus has a screen that adapts to 18 apps. So what we're seeing
2 is an acceleration of the technology entering the car market. So
3 I'm wanting you to put in sync for me where the development of the
4 guidelines are going in comparison to what they're going to be
5 providing guidance to.

6 MR. MADDUX: I think from our perspective, you talk
7 about those new screens and therefore the contents that can be
8 offered to the driver on those larger screens, we believe that
9 that's primarily a visual-manual -- I'll use the word problem, but
10 a visual-manual situation. So we think clearly our Phase I
11 guidelines would address those types of things.

12 Certainly we agree with you that the technology is
13 changing rapidly, and we probably today can't picture where we
14 might be 5 years from now, and so we're trying to establish
15 guidelines that include minimum basic functional aspects. It's
16 not necessarily tied to one given technology or one give way of
17 doing things or the name for something called texting, it's not
18 tied to that. It's more the basic function of looking and
19 touching and listening.

20 So we think we've got it right starting with visual-
21 manual. We think that clearly we need to get visual-manual
22 guidelines for these portable devices out in the near term because
23 we also think that's another one of the tall towers, and the voice
24 recognition or the voice activation, we are -- frankly, haven't
25 concentrated on yet because we need to get the first two done.

1 DR. BRUCE: Dr. Price.

2 DR. PRICE: Thank you. As an accident investigator, I
3 could commiserate with Sgt. Oberdorf when he was talking about the
4 difficulty in determining whether drivers are using cell phones or
5 texting at the time of a crash.

6 So I have a question for Mr. Strassburger and Mr.
7 Cammisa. With the advent of in-vehicle communications
8 technologies, what kinds of features might you add so that police
9 investigators will be able to know whether those systems are being
10 used at the time of a crash?

11 MR. STRASSBURGER: I think on one level, that's probably
12 a fairly straightforward question. I don't know that there's any
13 technological hurdles that would necessarily prevent or keep us
14 from doing that relatively quickly. I think that question though
15 hints at a much broader issue and that is we already have event
16 data recorders on vehicles today. There are thoughts to expand
17 the data collection made by those event data recorders.

18 That raises and has raised already a number of privacy
19 concerns, and so our recommendation has been that we should be
20 studying what data should be collected, how it will be used, how
21 do we think safety would be enhanced by that data collection, and
22 how might it compromise one's privacy? So I think that's a much
23 broader, bigger questions than just simply can you record certain
24 information because I think, frankly, the answer to that question
25 is, yes, we can.

1 DR. PRICE: I'd be interested to hear Mr. Cammisa's
2 response, too, but I can certainly offer that at NTSB we have
3 found that over the years, having recorded data, especially in the
4 aviation arena, has done a lot towards helping us understand
5 safety problems.

6 MR. CAMMISA: I think Rob made a good point there, and I
7 think you may have run into the same issue from your perspective
8 when you try to get the cell phone records, and it's sort of the
9 same issue of privacy and the consumer's expectation of that,
10 which is different than in the aviation industry with commercial
11 pilots. And also, if you are recording it, using the in-vehicle
12 interface, would people be trying to circumvent that by using a
13 different phone or something. So that would be another concern or
14 consideration.

15 DR. BRUCE: Thank you. Nicholas, do you have a
16 question?

17 MR. WORRELL: Yes, I do. My question would be addressed
18 to Mr. Cammisa or Mr. Strassburger. How do the automobile
19 manufacturers plan to communicate to drivers how to use in-vehicle
20 technology correctly? It's a two-part question that I'm going to
21 ask you, and this may answer it somewhat, but is there any
22 evidence that drivers are paying attention to what's written in
23 the manuals, in materials for the drivers to utilize?

24 MR. CAMMISA: Well, I think this goes back a little bit
25 to the issue of social media that was raised. There are some

1 benefits to some of these things, too, and getting information
2 from the company's websites or from social media apps that provide
3 the instructions is one way that can get people's attention,
4 perhaps more so than reading through the pages of a manual.
5 Typically also when you purchase the vehicle, the dealer will go
6 through some of the issues with you and a lot of the vehicle
7 manufacturers have sort of shorthand guides that highlight the
8 main points of how to use the system safely. So there are several
9 things that are being done.

10 MR. STRASSBURGER: We're doing all those things. We're
11 constantly looking for ways to communicate with owners and
12 operators about how their vehicles function, what features they
13 should use, when they should use them, et cetera. It's always a
14 challenge. I personally at least flip through my owner's manual
15 cover to cover when I get a new car, but I will readily admit that
16 I'm an outlier. I expect most people don't do that.

17 MR. WORRELL: Okay. Thank you.

18 DR. BRUCE: Dr. Braver.

19 DR. BRAVER: This is a question for Dr. Angell. You've
20 been talking about the research that's being done to ensure that
21 technologies are being installed are safe. So what does the
22 research show about the safety of hearing e-mails read aloud as
23 well as composing e-mails and sending them via voice?

24 DR. ANGELL: Well, you sent me a tough question there.
25 Actually, you know, I'm no longer at an automaker. So, you know,

1 the testing that they do on their systems is proprietary to them,
2 but I can tell you that a company that's part of the Alliance has
3 made a commitment not to release a product unless it meets the
4 guidelines, and so they're testing to the guidelines. So I think
5 that what I infer from that when I see a new product that might be
6 made by GM, Ford or Toyota, for example, if it has content in it
7 like that, I know that it's been tested to those guidelines and
8 that it's passed, that it's met the guidelines, based on my
9 knowledge of how they test and that they test according to the
10 Alliance guidelines. And I would therefore infer that advertised
11 functions in released products have met the Alliance guideline
12 tests. You know, we'll have to see now with the new NHTSA
13 guidelines what happens with those.

14 So what that would mean specifically is that, you know,
15 each of the principles and criteria that are in the Alliance
16 guidelines, there would be some kind of verification procedure
17 that's carried out with a certain number of subjects. And if we
18 use the glance testing, there is a test that would be conducted
19 with subjects, participants, test participants who are not
20 employees, who are normal drivers that are brought in who go
21 through all the tasks that would be performed on a new product,
22 and then data are collected. They would watch a driving scene.
23 They would perform the task. Their eye glance movements would be
24 monitored and then the data would be collected, and General Motors
25 or Ford or whomever would determine how long the glances were, and

1 what the total glance time to the task was and whether it met the
2 criteria on glances, as well as all the other ones in the Alliance
3 document.

4 So if it's released, the assumption I make, now that I'm
5 no longer part of the automakers, is that it meets the criteria.
6 That's how it worked when I was there. That's what I would say.

7 DR. BRUCE: Thank you, Dr. Angell.

8 Member Hersman, would you indulge me with one more
9 question? That leads me to ask sort of a piggyback question on
10 Mark Rosekind's earlier question, and this is just a simple yes or
11 no from each of you, but you are now seeing a proliferation of
12 systems entering the car, electronic systems, automated systems.
13 We have developed evaluation tests not done at the manufacturer
14 but post-production evaluation tests of the safety of vehicles,
15 and as these systems become more complex and as they become more a
16 differentiation about which vehicle I'm wanting to buy -- I only
17 want to buy one that is a safe vehicle, and I really can't judge
18 that as a buyer. So a yes or no, could you foresee in any time,
19 and I'm saying near future being in the next 5 years, that we
20 would develop a system not unlike the IIHS test or NCAP testing
21 that would do a safety usability test on vehicles? Michael?

22 MR. CAMMISA: I could see that being a possibility. If
23 I might just add a little something to there?

24 DR. BRUCE: Yes.

25 MR. CAMMISA: You mentioned vehicles getting more and

1 more complex. I think from the customer's point of view, they're
2 going to want cars that are simpler. So the more complex we make
3 some of these devices, the less consumers will be inclined to use
4 that system rather one that's easier to use. So hopefully that's
5 the direction we go.

6 DR. BRUCE: Thank you. Mr. Strassburger.

7 MR. STRASSBURGER: To the question, do I foresee it in
8 the 5 years' time, yes. I'm aware that there are some working on
9 that already. In fact, more than one entity might end up rating
10 in-vehicle systems.

11 DR. BRUCE: Thank you. Dr. Sayer.

12 DR. SAYER: I would also say yes.

13 DR. BRUCE: Okay. Dr. Angell?

14 DR. ANGELL: Me, too.

15 MR. MADDOX: Yes.

16 DR. BRUCE: Okay. Thank you. I return the panel to
17 you. Thank you.

18 CHAIRMAN HERSMAN: Thank you very much, Dr. Bruce, and
19 on behalf of my fellow Board Members, I want to thank our
20 panelists on this panel for appearing, as well as all of the
21 panelists who have been here throughout the day. Thank you all so
22 much for your time to prepare informative presentations for us and
23 to be so responsive to our questions. We really appreciate it.
24 We have learned a great deal.

25 And to our advocates who are here in the audience, thank

1 you so much for sharing your personal stories and your personal
2 journeys. For those of you, like Ross, who are doing new things
3 and speaking up and sharing their experiences with their peer
4 groups, and the family members who have lost so much who have
5 really turned their tragedy into a lesson to share with all of the
6 rest of us, we thank you for what you're doing, and putting a
7 human face on it is so important.

8 To our magnificent staff, Dr. Bruce, your team, our OC
9 team, everybody who has worked so hard to make this day fruitful,
10 and I think it's been a great success. We really appreciate your
11 hard work and your preparation.

12 I think that one thing that we've all heard today is
13 that we've got to really change the dialogue from discussion to
14 action. We have to figure out how to address distractions, and I
15 know when we talk about distraction, we have to talk about all
16 distractions, and we're hearing a lot of that from the information
17 in the research from the concerns of our Board Members, and so we
18 really do need to look at how to address all distractions and
19 focus really on attentive driving and what the countermeasures to
20 distractions are and how we move this into a positive conversation
21 rather than a negative conversation.

22 You know, the thing that's concerning is, I think in the
23 past, the norm was an attentive driver with occasional
24 distractions and we recognize that there were occasional
25 distractions, but I think what the challenge is now is that we

1 have got those distractions really competing full-time for a
2 driver's attention, and there's really just no limit as to what
3 can be brought into the vehicle or what can be put into a vehicle
4 now.

5 We've got to get a renewed respect, I think as Member
6 Sumwalt said earlier, for the driving task and for our
7 responsibilities as a driver and the privilege that we have to
8 drive. I think Americans certainly think of their cars as tools
9 for mobility and for freedom, but we know that we see over 30,000
10 fatalities every year on our nation's highways, and driving a 2-
11 ton vehicle at highway speeds is not a task to take lightly. It's
12 something that has to be taken very seriously. And so that's a
13 lesson to be drawn from today's forum. Taking driving seriously
14 and putting attention back into the driver's seat where it
15 belongs.

16 Adlai Stevenson once said, "All progress has resulted
17 from people who took unpopular positions." And I think it's
18 important to think about the things that we're asking people to
19 do. Pay attention when you're driving, and it may be unpopular to
20 ask people to put their phone down or hang up, stop talking and
21 stop texting and driving, but it can be done and this change needs
22 to happen at the grassroots level, in the board room, in
23 legislatures, and at the family dinner table. We have got to
24 change behavior one company, one community, and one person at a
25 time, and I think we can all start right now.

1 I'm pretty sure every single person in the audience
2 raised their hands earlier when I asked if you had at least one or
3 more cell phone, BlackBerry, Smartphone. For you all, I want to
4 ask you, what will it take for you to do something to change
5 behavior? If it's your own -- and I know the panel before this,
6 we talked about this in terms of a public health issue. If this
7 is your addiction, and we talked about it as smoking, look into
8 some technology that might be your patch to help you get through
9 this. If you are able to hang up and drive, what can you do to
10 advance this issue? And everyone is coming from a different place
11 to figure out what they can do to advance this issue. So as I've
12 said before, and I think unfortunately the statistics show that we
13 will say again, no call, no text, no update is worth a human life.

14 We stand adjourned.

15 (Whereupon, at 4:50 p.m., the hearing was adjourned.)

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CERTIFICATE

This is to certify that the attached proceeding before the

NATIONAL TRANSPORTATION SAFETY BOARD

IN THE MATTER OF: ATTENTIVE DRIVING - COUNTERMEASURES
TO DISTRACTION FORUM

PLACE: Washington, D.C.

DATE: March 27, 2012

was held according to the record, and that this is the original,
complete, true and accurate transcript which has been compared to
the recording accomplished at the hearing.

Timothy J. Atkinson, Jr.
Official Reporter