

TESTIMONY
BEFORE THE PENNSYLVANIA HOUSE OF REPRESENTATIVES
TRANSPORTATION COMMITTEE

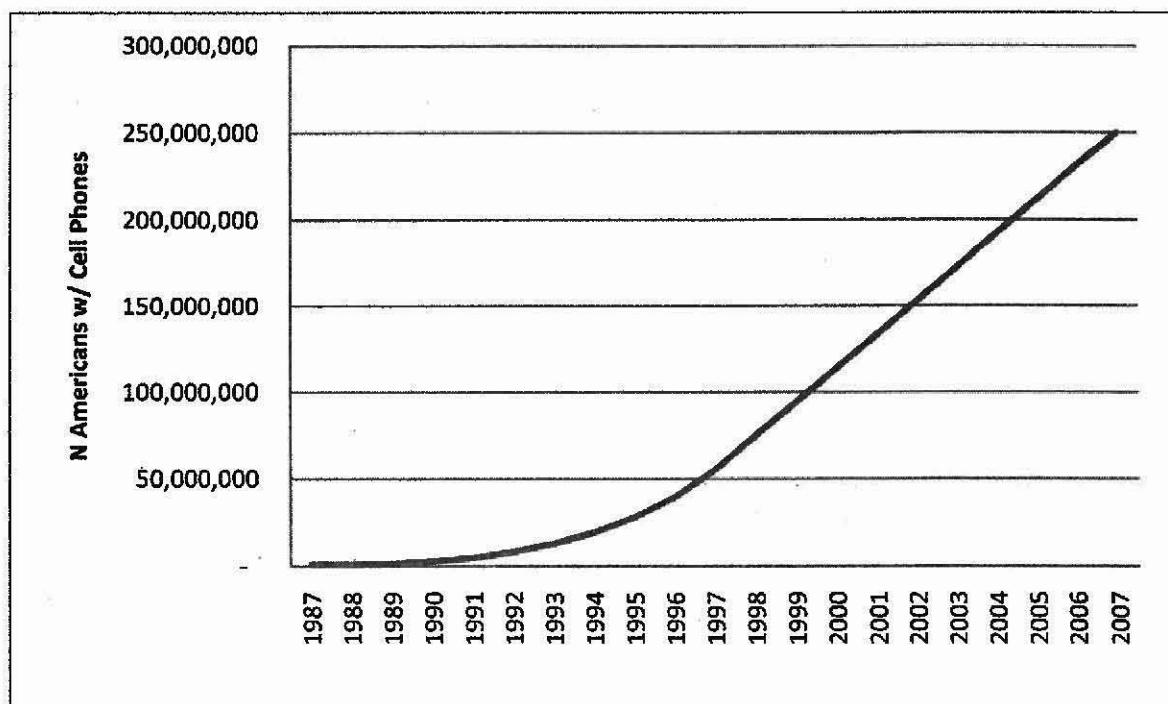
April 13, 2010

David F. Preusser is President of the Preusser Research Group, Inc. with offices in Trumbull, Connecticut and Oxford, Mississippi. Dr. Preusser holds a Ph.D. degree in Experimental Psychology from Yale University. He began working in the area of highway safety in 1971 as a member of the evaluation team for the Nassau County (NY) ASAP and participated in some of the earliest NHTSA research in the area of drugs and driving. He was the Project Director for the Elmira Seat Belt Enforcement and Publicity Program and *Buckle Up and Drive Sober* in Binghamton. He is currently the Principal Investigator for NHTSA projects dealing with: *Click It Or Ticket*; Regional Data Support; Case Studies for Improving Impaired Driving Law Enforcement Data Collection and Reporting and State Traffic Record System Performance Measures. Dr. Preusser is on the Editorial Board of the Journal of Safety Research, is currently serving on NHTSA and TRB research committees.

Distracted Driving

Distraction is a common occurrence for drivers and can have serious consequences on performance. A distracting event is anything that takes the driver's attention away from the primary (i.e. driving) task and results in a delay in recognition of information necessary for optimum driving performance (Stutts et al., 2001; Treat, 1980). Potential sources of distractions are many, such as cell phone conversations, adjusting the radio or climate control devices, eating or drinking, presence of passengers, outside person/object, etc. NHTSA estimates that approximately 25% of police-reported crashes have driver distraction/inattention as a contributing factor (NHTSA, 2003).

Cell phone use while driving has become far more widespread in recent years. As shown on the chart below, less than 1% of our population had cell phones in 1987; it is estimated that 82% had cell phones by 2007; the figure is even higher today.



Cell Phones in the United States by Year

Cell Phone Laws

Cell phone use while driving can divert attention aurally, cognitively, and even visually and physically (Young, Regan, & Hammer, 2003). Dialing and receiving calls are especially distracting since multiple modalities are involved (i.e. hands and eyes); compared to hand-held phones, hands free devices show a slight advantage in driving performance but the conversation itself can be quite distracting, especially if emotionally charged or cognitively demanding (e.g. high information content) (Eby & Kostyniuk, 2003).

Redelmeier and Tibshirani (1997) estimate that cell phone use while driving increases crash risk by a factor of 4. The majority of studies using a driving simulator show a decrement in driving performance associated with cell phone use relative to performance of "normal" driving (i.e. no phone distraction). Drivers using cell phones generally show difficulty maintaining lane position and speed, impaired visual search and decision making, in addition to slowed reaction times (Reed and Green, 1999; Burns et al., 2002 - in Young et al., 2003).

Cell phone laws typically prohibit the use of hand-held devices. Studies show that hand held phone use drops significantly in the months after such laws go into effect. For instance, use of handheld devices dropped from 6.1% to 3.5% a few months after a law was passed in Washington, DC (McCartt, Hellinga, & Geary, 2006). Yet this immediate reduction may not be sustained over time. In NY, which had passed a similar law some years earlier, use of hand held phones slowly returned over time to their pre-law levels (McCartt et al., 2003; McEvoy et al., 2005).

Perhaps a more serious problem with cell phone laws is the fact that a large number of studies found the use of hands-free devices to be only slightly safer than regular hand-held phones (Redelmeier & Tibshirani, 1997, Matthews et al., 2003, Regan et al., 2003, Tornros & Bolling, 2005). Thus the distraction may not lie with the manipulation of the device as much as in the conversation itself. Crundall et al. (2005) suggest that cell phone conversations differ from driver-passenger conversation in one crucial way: conversational suppression. That is, when both parties can see the road, the conversation will slow or cease completely under high road demands and will pick up again when it is safe to do so.

Overall it appears as though cell phone laws are effective in reducing the use of hand-held devices, at least in the short run. Such laws are currently in effect in New York (2001), DC (2004), Connecticut (2005), Utah (2007), California (2008), Washington (2008) and Oregon (2010). Recently implemented NHTSA/State initiatives in Syracuse, New York and Hartford, Connecticut will determine whether or not hand-held cell phone use can be reduced using high visibility enforcement of these laws and whether an actively enforced ban on hand-held devices will reduce crashes.

Seat Belt Laws

Every state, except New Hampshire, has a seat belt use law for all front seat passenger vehicle occupants. Some state laws are Primary (officer can stop for an observed belt law violation alone) and some are secondary (officer must observe some other violation before a belt use ticket may be issued). Pennsylvania has what I have referred to as a tertiary law. Not only must the officer observe some other violation but the officer must write that violation. Then, and only then, can an officer issue a ten dollar belt violation ticket.

Pennsylvania's tertiary seat belt law is one of the weakest in the nation. In fact, it is virtually unenforceable in its own right in any meaningful way.

Previous speakers have highlighted the virtues and benefits of a primary versus a secondary law. But, what happens when the law is tertiary? The result in Pennsylvania has been catastrophic.

The Table below shows belt use among fatally injured passenger vehicle occupants for Pennsylvania, the NHTSA Region in which Pennsylvania resides, and the US for each year 2004 through 2008. Belt use in Pennsylvania was 34%, 32%, 32%, 32% and 33% for this period as compared with 42%, 41%, 41%, 42% and 42% nationally. Regional belt use, including New Jersey, New York, Pennsylvania and Puerto Rico tracked the national average. Regional belt use would have been substantially higher than the national average had Pennsylvania not been included. It is believed that hundreds of lives and hundreds of millions of dollars, literally, would have been saved during this period had Pennsylvania adopted a primary law in 2004.

Restraint Use of Fatally Injured Passenger Vehicle Occupants

	2004	2005	2006	2007	2008
Restraint Used					
Pennsylvania	34.1%	31.8%	31.6%	32.2%	33.2%
Region	43.5%	41.2%	40.5%	42.7%	42.0%
U.S.	41.6%	41.4%	41.4%	42.4%	42.0%

Who is dying in Pennsylvania? The answer, as shown in the Table below, is young adults. Belt use is lowest for persons ages 21 to 34. Belt use is slightly higher for teenagers; higher still for older persons. The young adult problem is particularly severe for males in pickup trucks.

**Pennsylvania
 Fatally Injured Passenger Vehicle Occupants*
 Restraint Use by Age Group: 2004-2008**

Age Group	Occupant Restraint Usage			
	N	Used	Not Used	Unknown
<5	42	83.3%	4.8%	11.9%
5-9	27	51.9%	37.0%	11.1%
10-15	79	29.1%	57.0%	13.9%
16-20	876	28.0%	58.4%	13.6%
21-24	660	23.8%	63.8%	12.4%
25-34	817	21.4%	65.7%	12.9%
35-44	670	28.7%	57.3%	14.0%
45-54	630	28.9%	55.1%	16.0%
55-64	510	38.2%	48.6%	13.1%
65-74	403	41.7%	40.7%	17.6%
75+	703	53.8%	33.6%	12.7%
Pennsylvania	5,290	33.3%	54.9%	11.7%

* Automobiles, SUVs, and Pickup Trucks

Pennsylvania has reported that their belt use observation study showed a statewide belt use rate of 85 percent in 2008. This is a very strong number, above the national average. Unfortunately, there is conflicting data:

- FARS crash data shown above suggests that belt use in Pennsylvania is somewhere in the low seventies, ten points below the national average.
- As previous speakers have demonstrated, weak belt law states tend to have belt use rates which are well below the national average. Pennsylvania has one of the weakest belt use laws.
- Preusser Research Group has been observing passenger vehicles in Pennsylvania over the last few years in support of three different "buckle up" evaluations covering most of the state. Average observed belt use has been in the low to mid seventies.

I encourage Pennsylvania to consider this conflicting information and take appropriate action before more lives are lost. Specifically, I hope that you will adopt a Primary Seat Belt Law. Thank you for the opportunity to provide this Testimony.