

## Comparison of Pennsylvania teen driving laws with other states

March 5, 2008 Brian Newbacher, Director of Public Affairs AAA East Central

Good afternoon Chairman Markosek and members of the Committee. My name is Brian Newbacher and I'm director of public affairs for AAA East Central, a member of the Federation of Pennsylvania AAA Clubs.

Today, I will talk about the dangers young drivers face, what that means for the rest of us, and what AAA believes can be done to better protect Pennsylvania's motorists. I also will highlight what other states have done to reduce the number of crashes involving teen drivers and I will focus on states that AAA believes are worthy of duplication.

But first, I would like to take this opportunity to thank the General Assembly for its leadership in creating Pennsylvania's Graduated Driver Licensing (GDL) program. The Commonwealth's minimum age of 16 years for a junior license, and a six-month holding period before proceeding to the intermediate stage, place it among just a handful of states in the top tier for these requirements. The other states are Kentucky, Massachusetts, New Jersey, New York and Rhode Island as indicated on the chart titled "GDL Laws."

Despite the success of GDL programs thus far, teen crashes remain a major safety issue—and not just for the young person behind the wheel. According to a AAA analysis conducted two years ago, 1,067 citizens lost their lives over a 10-year period (1995-2004) in crashes in Pennsylvania involving a teen driver. Two-thirds of those lives lost were people other than the driver, including their passengers, people in other cars and pedestrians. So it's important to understand this problem potentially affects everyone.

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

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

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

Let's start by looking at passenger limits. They're a key part of all major safety organization's model GDL programs. As of today, 39 other states have already added passenger limits. If you look at the color map provided it might surprise you to know that Pennsylvania is the only state in the Northeast or Mid-Atlantic region without one.

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

For a teen driver, the presence of even one peer passenger almost doubles the crash risk of driving alone. With two or more peers along for the ride, the risk spikes to five times according to research by the Insurance Institute for Highway Safety.

As a result—AAA strongly supports—as a minimum, no more than one non-family passenger under age 21 for at least the first six months. AAA is pleased to see that legislation before this committee proposes a limit beyond the recommended minimum, by calling for no passengers until age 18. This is similar to the laws currently on the books in New Jersey and Virginia.

AAA supports this improvement because the research is compelling. In addition, AAA members, who represent a large percentage of your constituents, resoundingly support them. In fact, 93 percent of Pennsylvania members are in favor of the passenger limit called for in the current proposal.

But passenger limits alone do not counter all of the distractions teen drivers face. Today, it's something of an understatement to say we live in a fast-paced world. Communications technology is everywhere, including the automobile. This is a major distraction, especially for inexperienced drivers. Last July, AAA and Seventeen Magazine released the results of a study on teen driving behaviors. The results, quite frankly, were alarming. More than half of the teens surveyed admitted to risky behavior behind the wheel that involves technology. Of them:

- 51 percent said they talk on a cell phone;
- 43 percent said they read text messages, and;
- 32 percent said they send text messages.

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

If you refer to the chart titled "Teen Cell Ban" you can review the states that have taken steps to address this growing problem. Laws prohibiting or limiting the use of cell phones by teens are now in place in 17 states and the District of Columbia.

As you can see, there's quite a range of remedies and some laws do, in fact, specify a restriction on "wireless communication devices."

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

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

If you look back at the GDL chart, you can see that nine states (beginning with Delaware) have night limits that start at 10 p.m. or earlier. It's also worth noting that a couple of states with some of the most highly regarded graduated licensing systems actually start their night limits at 9 p.m. (New York and North Carolina). AAA encourages Pennsylvania to consider setting night-time driving limits that begin an hour earlier – at 10 p.m.

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

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

## \*The seven key GDL components:

- a minimum age of at least 16 years for receiving a learner's permit;
- A requirement to hold the learner's permit for at least six months before receiving a license that allows any
  unsupervised driving.
- A requirement for certification of at least 30 hours of supervised driving practice during the learner stage.
- An intermediate stage of licensing with a minimum entry age of at least 16 years and 6 months.
- A night-time driving limit for intermediate license holders, beginning no later than 10 p.m.
- A passenger limit that allows no more than one passenger (excluding family members).
- A minimum age of 17 years for full, unrestricted licensure.

As of Feb. 15, 2007, Delaware has all seven components and Kentucky, Rhode Island, and the District of Columbia have six.



# Teen Cell Ban Chart

- New York, New Jersey, Connecticut the District of Columbia have enacted bans on driving while talking on a hand-held cellular phone. California and Washington have bans that will take effect July 1, 2008.
- for emergency calls. Twenty-nine states introduced legislation prohibiting the use of cell phones by learner's permit holders and provisional licensees, except
- In 2007, Washington became the first state in the nation to enact a ban specifically on text messaging while driving. New Jersey also moved to expressly ban text messaging while driving as well.
- Laws prohibiting the use of cell phones by teens are now in place in 17 states and the District of Columbia.

\*Italics: Indicates a state with an all-driver hand-held cell ban but without teen specific ban \*Bold: Indicated a state-wide hand-held ban is in place

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STATE	"HANDS-	TEXTING	TEEN CELL	CEALCO
	FREE"	PERMITTED?	PRIMARY OR	
	DEVICES		SECONDARY	
	<b>ALLOWED?</b>			
Colorado	No	No	Secondary	Drivers with a learner's permit - regardless of age - may not operate a cell phone.
California	No	No	Secondary	Prohibits a person possessing a valid instruction permit, student license, or
	427000			provisional license, from driving a motor vehicle while using a wireless
				telephone or a mobile service device, including a handset equipped with a
				hands-free device. (Effective 7/08)
				Effective 7/2008, all drivers must use hands free devices.
Connecticut	No	No	Primary	Drivers under 18 years of age may not use any hand-held cell phone
				(including hands-free) white operating a motor vehicle. All drivers are
		(600)		banned from using a hand-held cell phone while driving.
Delaware	No	No	Primary	Drivers with any graduated license may not use a cell phone while driving (even
			500	"hands-free").
District of	Yes	No	William Will	Persons holding a learner permit may not operate a motor vehicle white
Columbia				using a cell phone.
Illinois	oN	No	Primary	Drivers in learner or intermediate licensure stage prohibited from using cell
		0.00		phones.
Maine	Yes	ON	Primary	Instructional permit holders or restricted licensees under 18 may not use a cell
			355	phone while driving.
Maryland	No	No	Secondary	Drivers under 18 holding a learner or intermediate permit may not use a wireless
				communication device.

STATE	"HANDS-	TEXTING PERMITTED?	PRIMARY OR	UELAILS
	DEVICES ALLOWED?		SECONDARY	
Nebraska	No	S	Secondary	Learner's permit and intermediate license holders younger than 18 may not use a
				cell phone or other wireless communication device (effective 1/1/08).
New Jersev	Yes	No	Primary	Use is prohibited for drivers under 21 while operating a moving vehicle
				(except in an emergency situation) on a Graduated License permit or
				provisional license.
New York	Yes	No	Primary	Hands free cell phone devices are required while operating a vehicle for all
,			•	drivers.
North	No	No	Primary	Cell phone use prohibited for drivers under 18 years of age.
Carolina			95.00	
Oregon	No	No	Secondary	Prohibits the use of cell phones and other wireless communication devices by
				drivers under 18 years of age. The new law carries with it a \$50 tille, is enjoyed and will take effect January 1, 2008.
Rhode Island	No	No	Primary	Drivers younger than 18 may not operate a cell phone.
Tennessee	Vas	Z	Primary	Learner's permit and intermediate license holders shall operate a motor vehicle in
	4	·	•	motion on any highway while using a hand held cellular telephone.
Texas	Yes	No	Primary	Drivers under 18 may not use a wireless handheld communication device in
			B CONSTRUCTOR	learner or intermediate stage.
Virginia	No	No	Secondary	Drivers holding an intermediate license may not use cell phones, including hands-
				iree devices.
West Virginia	No	No	Primary	Drivers may not operate a cell phone in the learner and intermediate stages.
Washington	Yes	No	Secondary	Hands free cell phone devices are required while operating a vehicle. Drivers may



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	State	Alabama (CCF)	Alaska (CCF)	Arizona	Arkansas (CCF, DE. SEAT)
Learner Stage	Minimum Age	15	14	15 and 6 mos. (eff. 6/30/08)	14
Stage	Holding Period (Months)	თ	σ.	6 (eff. 6/30/08)	σ
	Minim um Age	16 <sup>1</sup>	16	16	
Intermediate Stage	Nighttime Driving Restriction	Midnight to 6 a.m.	1 a.m. to 5 a.m.	Midnight – 5 a.m. (unless with parent/legal guardian) (eff. 6/30/08)	No intermediate license stage.
te Stage	Passenger Restriction	No more than four passengers (three teens plus a parent/guardian).	No passengers under 21 (siblings exempt).	First 6 months, no more than one passenger under age 18 (unless with parent or legal guardian; family members exempt) (eff. 6/30/08)	license stage.
	Minimum Age GDL Restrictions Lifted	17	16 years and 6 mos.	18	16
Certified Driving	Number of Hours (indicated hours required at night)	30 (waived for students enrolled in driver's ed.)	40 (10)	30 (10)	None

<sup>&</sup>lt;sup>1</sup>Teens must be 16 to be eligible for an intermediate license.

CELL – States with Cell Phone Prohibitions for Teen Drivers
CCF – States with Crash Conviction-Free Provisions
DE – States with Driver Education Requirements
BELT – States with Seat Belt Provisions
TEXT – States with Text Messaging Ban



50	2				-						(CELL, DE, BELT)	Colorado						(CELL, CCF, DE)	California
16 (w/out formal ed.)	course)	driving	(w/defensive	mos.	15 and 6	20,000	course)	wheel	behind-the-	classroom &	ed.,	15 (w/driver						mos.	15 and 6
												12	Ö						6
							7					16							16
											a.m.	Midnight to 5						a.m.	11 p.m. to 5
						exempt).	21 (family members	passenger under age	months only one	age 21. Second six	passengers under	First 6 months no	exempt).	(family members	year-old driver.	supervised by a 25-	than 20 unless	passengers younger	First 12 months, no
												17							17
												50 (10)							50 (10)

<sup>&</sup>lt;sup>2</sup> This law is secondarily enforced.

CELL – States with Cell Phone Prohibitions for Teen Drivers CCF – States with Crash Conviction-Free Provisions DE – States with Driver Education Requirements BELT – States with Seat Belt Provisions TEXT – States with Text Messaging Ban



			a.m. (Age 17)				
			a.m. (Age 16)				(CCF)
	18	None	11 p.m. to 6	16	12	15	Florida
		exempt).					44
		(family members	6.a.m.				
		passengers under 21	midnight to				
		no more than 2	July – Aug.				
		exempt). Thereafter,	Ends 6 a.m.		,		
		(family members	Fri-Sat nights),				
		year-old driver	and midnight				
		supervised by 21-	(Sun-Thurs)				
		passengers unless	Starts 11 p.m.	mos.			(CELL)
	18	First 6 months no	Sept June:	16 and 6	6	16	D.C.
			activities)				
			related				
			work,school				
		members exempt).	(exceptions for				
		passengers (family	a.m.	mos.			(CCF, CELL, DE)
	17	No more than 1	10 p.m. to 6	16 and 6	6	16	Delaware
		members exempt).			driver ed.)		
		passengers (family			6 (w/out		
		3 months no			ă		
		passengers. Second	a.m.	mos.	ed.)		(CELL)
	18	First 3 months no	Midnight to 5	16 and 4	4 (w/driver	16	Connecticut
1	The state of the s				The second secon		

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		than 20 (family members exempt).	Sat night. Ends 6 a.m.				
50 (10)	17	First 12 months no more than 1	Starts 10 p.m. Sun-Thurs,	16	9	15	Illinois (CCF, CELL, BELT)
		more than one passenger under age 17 (with family exemptions)	Sunrise			mos.	(CCF, BELT)
50 (10)	16	First 6 monhts, no	Sunset to	15	6	14 and 6	Idaho
None	17	No more than 1 passenger under the age of 18 (household members exempt).	11 p.m. to 5 a.m.	16	δ	15 and 6 mos.	Hawaii (BELT, CCF, DE)
40 (b)	18	First 6 months no passengers (family members exempt). Second 6 months, no more than 3 passengers younger than 21 (family members exempt).	Midnight to 6 a.m.	16	12	15	Georgia (CCF, DE)

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Louisiana (CCF, DE)	Kentucky (CCF, DE)	Kansas (BELT, DF)	Iowa (BELT, CCF, DE)	Indiana (BELT, DE)
15	16	14	14	15
6	6	6	6	2
16	16 and 6 mos.	Z	16	16 and 1 month
11 p.m. to 5 a.m.	Midnight to 6 am	No Intermediate license stage.	12:30 a.m. to 5 a.m.	Starts 11 p.m. Sun-Thurs, 1 a.m. Fri and Sat night Ends 5 a.m.
None	No more than one passenger under 20	ense stage.	None	First 90 days no passengers unless supervised by 21-year-old driver (family members exempt).
17	17	14 and 6 mos.	17	Night: Passenger: 18 16 and 4 mos.
None	60 Hours (10 at night)	50 (10)	30 (4) (10 hours including 2 at night that must occur in the intermediate license stage.)	None

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			(family members exempt).					
training course)			supervised by 21- year-old driver					**
40 (30 hours if completed advanced driver	Passenger: 17	Night: 18	First 6 months no passengers younger than 18 unless	12:30 a.m. – 5 a.m.	16 and 6 mos.	Q	16	Massachusetts (CCF, DE)
	IIIO3.	y 11105.	(family members exempt and secondarily enforced)	(Under 18)				
60 (10)	Passenger: 16 and 8	Night: 17 and	First 5 months no passengers under	Midnight to 5 a.m.	16 and 3 months	6	15 and 9 mos.	Maryland (CCF, CELL, DE)
			passengers unless supervised by licensed driver with two consecutive years of full licensure (family members exempt).	5 a.m.			į	(CELL, DE)
35 (5)	16 and 6 mos.	16 an	First 180 days no	Midnight to	16	6	15	Maine <sup>3</sup>

<sup>&</sup>lt;sup>3</sup> 24 months or until age 21.

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Montana (BELT, CCF, DE)	Missouri (CCF, BELT)	Mississippi (CCF, DE)	(CCF, CELL, DE, BELT)	Minnesota	Michigan (CCF)
14 and 6 mos.	15	15	,	15	14 and 9 mos.
6	12	6		12	6
15	16	15 and 6 mos.	16	Interme	16
11 p.m. to 5 a.m.	1 a.m. to 5 a.m.	10 p.m. to 6 a.m.		diate license stage	Midnight to 5 a.m.
First 6 months, no more than one passenger under age 18. Second 6 months, no more than three passengers under age 18.	First 6 months, no more than 1 passenger under age 19 (family members exempt). Then, no more than three passengers under age 19.	None	,	Intermediate license stage has no restrictions	None
16	18	16		18	17
50 (10)	40 (10)	None	(10 hours in the intermediate license stage.)	40 (10)	50 (10)

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New Jersey (CELL, CCF, DE, BELT, TEXT)	New Hampshire (BELT, DE)	Nevada (CCF, DE)	Nebraska (CELL, DE)
16	15 and 6 mos.	15 and 6 mos.	15
o	None	6	6
17	16	16	16
Midnight to 5 a.m.	1 a.m. to 5 a.m.	10 p.m. to 5 a.m.	10 p.m. to 5:00 a.m.
No more than 1 passenger (family members exempt).	First 6 months no more than 1 passenger younger than 25 (family members exempt).	First 6 months, no passengers younger than 18 (family members exempt).	No more than 1 passenger under 21 (immediate family exempt)
	Night: 17 and 1 month	Night: 18	
18	Passenger: 16 and 6 mos.	Passenger: 16 and 3 mos.	17
None	20	50 (10)	60 (10)

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		EVICTOR & CORP. (CORP.) (CORP.	
North Dakota (CCF, DE)	North Carolina (CELL, CCF, DE, BELT)	New York (CELL, DE, BELT)	New Mexico (CCF, DE)
14	15	16	15
6	12	Up to 6 mos.	6
	16	16 and 6 mos.	15 and 6 mos.
No intermediate license stage.	9 p.m. to 5 a.m.	9 p.m. to 5 a.m.	Midnight to 5 a.m.
ænse stage.	No more than one passenger younger than 21 (family members exempt). If a family member younger than 21 is a passenger, then no other passenger, then no other passenger than 21 who are not family members.	No more than 2 passengers younger than 21 unless supervised by 21-year-old driver (family members exempt).	No more than 1 passenger under 21 (family members exempt).
14 and 6 mos.	16 and 6 mos.	18 (17 w/driver ed.)	16 and 6 mos.
Notice	None	20	50 (10)

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Pennsylvania (CCF, DE, BELT)	Oregon (CELL, CCF)	Oklahoma (DE)	Ohio (DE, BELT)
164	15	15 and 6 mos. (w/driver's ed.) 16 (w/out driver's ed.)	15 and 6 mos.
6	6	6	6
16 and 6 mos.	16	16 (w/ driver's ed.) 16 and 6 mos. (w/out driver's ed.)	16
11 p.m. to 5 a.m.	Midnight to 5 a.m. (passengers over 25 with licenses are exempt).	11 p.m. to 5 a.m. (exempts work, school & church)	Midnight to 6 a.m. for 16- year olds. 1 a.m. to 5 a.m. for 17- year olds.
None	First 6 months no passengers under 20. Second 6 months no more than 3 passengers under 20 (family members exempt).	No more than 1 passenger (exempts parents, guardians or a licensed driver over age 21)	No more than 1 passenger for 16-year-old drivers (family exempt)
17 and 6 w/out		16 and 6 mos. (w/driver's ed.) 17 and 6 mos. (driver's ed.)	Night: 18
17 and 6 months (18 w/out driver ed.)	17	16 and 6 mos. (w/driver's ed.) 17 and 6 mos. (w/out driver's ed.)	Passenger: 17
50	driver ed.)	40 (10)	50 (10)

<sup>&</sup>lt;sup>4</sup> Pennsylvania has a nighttime restriction in the permit stage from 11 p.m. to 5 a.m..

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		(family members exempt).					
		supervised by 21- vear-old driver					
		passenger unless	a.m.	ļ	84	ļ	(CCF, CELL, BELT)
50 (10)	17	No more than 1	11 p.m. to 6	16	6	15	Tennessee
				ed.)			
				w/driver			
			~~	months			
<i>16</i>				(14 and 3	_		
			6 a.m.	months	driver ed)		(CCF)
None	16	None	10 p.m. to	14 and 6	6 (3 with	14	South Dakota
		school exempt).					
		students to and from					
		members and					
		at least 21 (family	a.m. EDT				
		supervised by driver	8 p.m. to 6				2.
		passengers unless	a.m. EST	mos.	2000	ļ	(CCF)
40 (10)	16 and 6 mos.	No more than 2	6 p.m. to 6	15 and 6	6	15	South Carolina
		exempt).					
		family members					
		21 (immediate			•		
	_	passenger under age					BELT)
		more than one	5 a.m.	mos.		eminor do carros	(CELL, CCF, DE,
30 (10)	17 and 6 mos.	First 12 mos. No	1 a.m. to	16 and 6	σ	16	Rhode Island
「つ こ O							

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			exempt).					41-
			(family members					
	2	00	passengers under 18					
		)	more than 3					
		-	Until age 18 no					
			passenger under 18.	-	4.00			,
			more than 1	a.m.	mos.		mos.	(CĒLL)
40 (10)	18		First 12 months no	Midnight to 4	16 and 3	9	15 and 6	Virginia
			exempt).					
			(family members					
			first 3 months					
		-	3 months same as					37 23
		<b>a</b> .	passengers. Second				(8)	(CCF, DE)
40 (10)	16 and 6 mos.		First 3 months no	None	16	12	15	Vermont
			exempt).					
	mos.		(family members		100000	*		
	7 16 and 6	1 17	passengers under 21	5 a.m.				(DE, BELT)
40 (10)	ים	Z	First 6 months no	Midnight to	16	6	15	Utah
			exempt).					
			(family members					
		-	passenger under 21	5 a.m.		100		(CCF, CELL, DE)
None	16 and 6 mos.	-	No more than 1	Midnight to	16	6	15	Texas
77)		-						

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	17 (w/out driver's ed.)	members exempt).					
		than 18 (family	200				
	(w/driver's ed.)	passenger younger	a.m.				(DE)
50 (10)	16 and 6 mos.	No more than 1	11 p.m. to 5	16	10 Days	15	Wyoming
		members exempt).					
		passenger (family	a.m.			mos.	(CCF, DE)
30 (10)	16 and 9 mos.	No more than 1	Midnight to 5	16	6	15 and 6	Wisconsin
1000 TO		than 19.				d de la companya de l	CELL)
w/driver ed.)		passengers younger	5 a.m.				(BELT, CCF, DE,
30 (none	17	No more than 3	11 p.m. to	16	6	15	West Virginia
		under 20.					
		than 3 passengers					
	S	months no more					
		exempt). Second 6					
		(family members					TEXT)
		passengers under 20	5 a.m.				(CELL, CCF, DE,
50 (10)	18	First 6 months no	1 a.m. to	16	6	15	Washington

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Why just listening on a cellphone degrades driving performance:

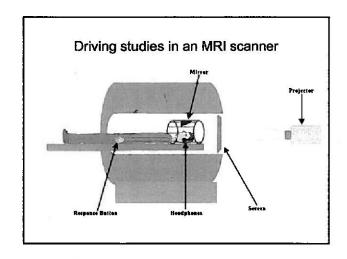
Brain imaging studies of multitasking while driving

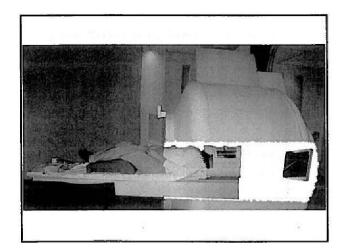
Marcel Adam Just Tim Keller, Sharlene Newman

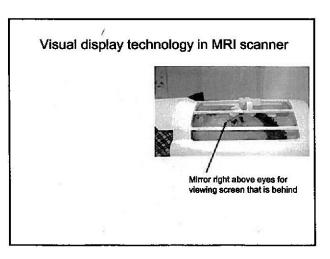
Carnegie Mellon Center for Cognitive Brain Imaging

Research Supported by the Office of Naval Research (ONR)









# The New York Times

## Car Calls May Leave Brain Short-Handed

By SANDRA BLAKESLEE

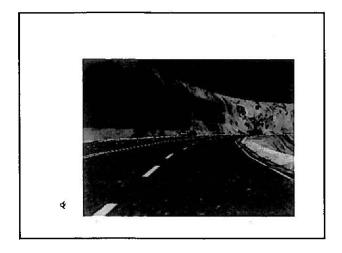
Scientists have bad news for people who think they can defily drive a car while gabbing on a cell phone.

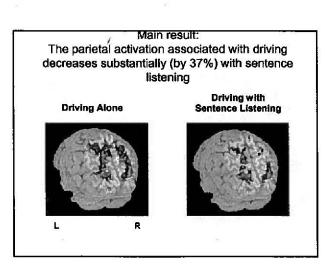
The first study using magnetic resonance images of brain activity to compare what happens in people's heads when they do one complex task, as opposed to two tasks at a time, reveals a disquicting fact: the brain appears to have a finite amount of space for tasks requiring attention.



The study, published in the Aug. 1 issue of the journal NeuroImage, was led by Dr. Marcel Inst, a psychology professor and co-director of the Center for Cognitive Brain Imaging at Carnegie Mellon University in Pittsburgh... fMRI study of driving while listening to sentences

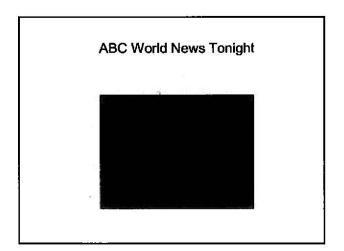
- Steering a car along a winding road in a driving simulator
  - > steering car with a mouse
- Concurrently listening to sentences and judging them as true or false
- Try it yourself
  - > Imagine steering and answering T/F to each sentence





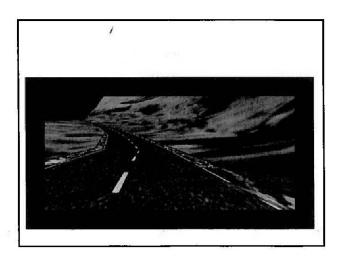
## Increase in driving errors in the driving-withsentences condition

- 1. Reliable increase in hits of the side of the road
  - from 8.7 hits in the driving alone condition to 12.8 in driving with sentences
- Reliable increase in deviation (weaving) from an ideal path in the driving with sentences condition
- Participants were 29 students (licensed drivers) from Carnegie Mellon and the University of Pittsburgh



## Biological account of the results

 In dual task mode, a resource constraint becomes applicable, reducing the available resources for each component task



## Take-home messages

- Just listening to someone talk is distracting; don't have to hold or dial the phone
- · Listening while driving: .
  - decreases the brain processing allocated to driving
  - Increases driving errors (hitting simulated guardrail)
  - > Increases weaving in lane

# Processing of spoken language is automatic; it can't be "tumed off" or ignored

- Spoken language inexorably works its way into a listener's brain
- You can't block it out willfully
- The language processing then takes away resources from another concurrent task

# Other distractions also impact driving but cell phone conversations are insidious

- The conversation partner doesn't know when to keep quiet in tense driving situations
  - > Passengers know when to shut up
- The content of the conversation could be emotionally or cognitively difficult and especially challenging

## List of possible remedies

- Insurance penalties or incentives
- · Electronic workload monitor that disables cell phone
- · Legislation limiting cell phone use?

Public education & drivers' ed courses regarding divided attention

divided alternion

## Conclusion:

Cell phone use during driving is a risky choice,

not just for commonsense reasons,

But because of the compromised performance imposed by neural limitations

## **Contact Information**

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