

# Graduate students find no match in evening cell phone use spike and crash data

**It's conventional wisdom that talking on cell phones while driving is risky business, but two University of California, Berkeley, graduate student economists report that a spike in cell phone use in recent years and on weekday evenings is not matched by an increase in fatal or non-fatal car crashes from 2002-2005.**

Their findings, published on the Web site of the American Enterprise Institute-Brookings Joint Center for Regulatory Studies, run counter to the conclusions of more than 125 other studies, 70 percent of Americans in a 2003 Gallup Poll who said drivers on cell phones cause accidents, and the reasoning behind complete or partial bans on using cell phones in at least 14 states. The issue is on the agenda in several foreign countries as well.

"We were quite shocked," admitted Saurabh Bhargava, who with co-author Vikram Pathania set out to satisfy a curiosity about drivers who use their cell phones despite the commonly perceived perils.

The students point to data revealing that the average amount of time a cell phone subscriber spends on calls has surged from 140 to 740 minutes a month since 1993. In addition, about 40 percent of drivers acknowledge using their cell phones at some point while driving, and cell phone ownership is skyrocketing, up from about 2 percent in 1990 to more than 75 percent in 2006.

The researchers also found - not surprisingly - that calls made just after 9 p.m. on weekdays, the point when off-peak, "free minutes" kick in on many cell phone plans, have increased by 20 to 30 percent. In a 2006 Pew Research Survey, 44 percent of cell phone-using respondents said they wait until after 9 p.m. on weekdays to make non-urgent calls.

Pathania said the jump in call volume just after 9 p.m. on weekdays should have translated into a jump in the number of crashes, too.

Yet, when the UC Berkeley researchers examined the number of fatal vehicular accidents from 1987 to 2005 in all states, as well the number of all crashes in seven states in roughly the same period, they found the crash rate had remained flat or had fallen. Plus, the crash rate declined steadily over the course of a typical weekday evening, even after 9 p.m., reflecting a pattern almost unchanged since the early 1990s when few people owned cell phones, they say in their report, "Driving Under the (Cellular) Influence: The Link Between Cell Phone Use and Vehicle Crashes."

In what is probably the best-known and widely cited study on accidents and cell phones, researchers at the University of Toronto and Stanford University in 1997 concluded that using a cell phone while driving increased the odds of an accident four-fold, comparable to driving under the influence of illegal levels of alcohol.

So what might explain the lack of a link between vehicular mishaps and drivers on their cell phones?

"Maybe drivers aren't as irrational as we think they are," said Bhargava. "In real life, people may be aware of the risks of cell phones, and they may adjust their driving behavior."

The researchers said drivers on cell phones may move into slower traffic lanes, increase the distance between their cars and others, or pull over to the side of the road to talk. They may also "substitute" across sources of risk by talking on the phone instead of, for example, fiddling with the radio or conversing with a

fellow passenger. Maybe cell phone use helps to keep some drivers, such as long-distance truckers, awake and alert, Bhargava and Pathania said. They also theorized that cell phone use is more problematic when driving in poor weather conditions or for drivers in certain demographic groups, such as teenagers.

Bhargava and Pathania compared trends in cell phone ownership and crashes over time, sought out possible differences in urban versus rural crash rates related to varying rates of cell phone ownership in those regions, and estimated the impacts of laws restricting cell phone use. "None of the additional analyses produces evidence for a positive link between cellular use and vehicular crashes," they concluded.

The economists don't dispute that using cell phones while driving can be dangerous. Bhargava conducted his own personal experiment, talking on his cell phone while driving in Minnesota this summer. Acknowledging that he doesn't often drive, much less drive and talk on the cell phone at the same time, Bhargava said he almost crashed twice on that trip.

"Our research should not be viewed as an endorsement to use cell phones in a negligent way," he said. "It certainly may be risky for a marginal user."

Pathania added another cautionary note: "Since we know that certain demographic groups such as teenagers frequently call and text while driving, and that they are also risky, inexperienced drivers, further research is needed in this area. Laws banning cell phone use in cars for such groups may well have some merit."

UC Berkeley economist David Card said the researchers' study supersedes existing ones and uses "more reliable methods that cleverly overcome the problem of making inferences about the 'causal effects' of cell phone use by focusing on the surge in use at the time when rates fall."

The report is online at: <http://www.aei-brookings.org/publications/abstract.php?pid=1210> .

Source: UC Berkeley

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