

## **Harvard Center for Risk Analysis updated study shows higher risk of fatality from driving while using cell phones**

A new evaluation by the Harvard Center for Risk Analysis (HCRA) estimates that the use of cell phones by drivers may result in approximately 2,600 deaths, 330,000 moderate to critical injuries, 240,000 minor injuries, and 1.5 million instances of property damage in America per year. But because the data on cell phone use by motorists are still limited, the range of uncertainty is wide. The estimate of fatalities ranges between 800 and 8,000, and the estimate of injuries is between 100,000 and 1 million.

The study, by Senior Research Scientist Joshua Cohen, Ph.D., revises the findings of work done in 2000 by the Center for Risk Analysis for AT&T Wireless. The new analysis was independently funded by HCRA. It reflects more current data on cell phone use by motorists from the National Highway and Traffic Administration, and accounts for crashes not reported to authorities. It also updates earlier estimates of the economic benefits from cell phone use to account for a larger number of subscribers.

The re-analysis estimates that on average, motorists use cell phones between 300 and 1,200 minutes per year. Assuming a typical usage time of 600 minutes per year, Cohen finds that the risk of death to a driver using a cell phone, the so-called voluntary risk, is approximately 13 per million drivers, though it could range between 4 and 42 per million, per year. The risk of death to other roadway users, known as involuntary risk, is approximately four per million, per year (range, 1-12 per million). “While the risk to any individual driver or passenger or pedestrian is very low,” Cohen said, “because so many people use cell phones now, the overall risk to society raises an important issue for policy makers.”

Cohen’s analysis also compared the monetary benefits and costs of one policy approach, a complete ban on non-emergency cell phone use by drivers. He compared the benefits of such a ban, measured by reduced medical costs, reduced property damage, and estimates of what people would be willing to pay to avoid pain, suffering, and death, against the benefits of cell phone use by drivers, measured by estimates of what subscribers pay to use their phones while driving. The benefits of a ban would be worth approximately \$43 billion (range \$9 billion to \$193 billion). Those savings would be roughly offset by the economic value of the banned calls, also around \$43 billion annually (range - \$17 billion to \$151 billion), or \$340 per cell phone user per year (range - \$130-\$1,200.)

“While there is still a lot of uncertainty, the central values indicate that, in economic terms, a ban on the use of cell phones by drivers would be a wash when comparing the benefit of reducing crashes against the cost of eliminating those calls,” Cohen said.

The analysis has been independently peer reviewed and accepted for publication in the February edition of the journal *Risk Analysis*.

The Harvard Center for Risk Analysis, part of the Harvard School of Public Health, is supported by funds from government, industry, academia and individuals. The Center applies decision science to empower informed choices about health, safety, and environmental risks.

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