



Society for Risk Analysis

Secretariat * 1313 Dolley Madison Blvd., Suite 402, McLean VA 22101 * Telephone (703) 790-1745 ext. 23
FAX (703) 790-2672 * Email: SRA@BurkInc.com * Web Site: www.sra.org

Social Scientist Confirms “indirect damage” from 9/11 Terrorist Attacks

“Indirect damage” can reach far beyond the immediate victims of terrorism. That’s the take-home message from new research at the Max Plank Institute (Berlin).

Shortly after the September 11, 2001 airplane hijackings and crashes in the U.S., Dr. Gerd Gigerenzer observed that “Americans reduced their air travel...[and] a proportion of those who did not fly instead drove to their destination.” An article published this week in *Risk Analysis*, Gigerenzer theorized that more miles-driven (especially on high-speed highways that are used for long distance travel) would probably lead to an increase in deaths from traffic accidents. That’s the “indirect damage.”

Indeed, U.S. consumers reduced their air travel by between 12 and 20% in the 3 months after 9/11. And, they increased their highway travel. Since the total of miles-driven tend to increase year-after-year, that “background increase” had to be taken into account. Even with adjustment for year-to-year growth in miles-driven, post-9/11 traffic on high-speed highways was substantially greater than in previous years. In the year that followed the terrorist attacks, the increase in miles-driven was about 3% per year...3 times more than the trend over the previous 5 years. Finally, the increases in miles-driven were accompanied by greater numbers of traffic deaths. In the year following 9/11, some 1,500 more Americans died on the highways than would have been expected, based on highway accidental death statistics from the previous 5 years.

Gigerenzer summarized, “My point...is not to provide an explanation for the tendency to avoid...risks, but rather to draw attention to avoidance behavior as a potential cause for the indirect damages of terrorism....” Gigerenzer’s data confirm a basic principle of behavioral psychology,

namely that strong emotional forces – such as fear and anxiety – can lead to dramatic behavioral changes, with unintended consequences.

In this case, the choice to drive rather than to fly was accompanied by greater numbers of traffic accidents and deaths. While we can't be sure of the reasons and motives for changes in American consumer behavior, the facts remain. Following 9/11, American consumers did change their travel habits, and those changes were accompanied by “indirect damage.”

The research provides an interesting side-note on the possible differences between European and American attitudes and reactions to terrorist attacks. Gigerenzer reports on a companion study in Spain following terrorist attacks on passenger trains. The results showed a dramatic contrast between the behavior of Americans and Spaniards. Spanish consumers showed less-or-no sign of the “risk avoidance” behaviors that were more typical of Americans. He offered the explanation that cultural differences between Europeans and Americans may be responsible for the differences.

A copy of the full article “Out of the Frying Pan into the Fire: Behavioral Reactions to Terrorists Attacks”, is available from the Managing Editor of *Risk Analysis*, Dr. Rick Reiss, at rreiss@sciences.com

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