Mandatory Life Jackets Could Cut Odds of Recreational Boating Deaths 80 Percent, Experts Say

Scientists conclude that increasing life jacket wear by only 20 percent would have saved 1,721 out of 3,047 boaters involved in accidents between 2008 and 2011, a finding that could be used to argue for regulations requiring use of the safety devices.

Washington, D.C. – Requiring recreational boat operators to wear life jackets would increase the odds of surviving a boating accident by 80 percent, according to a new study that uses recent data from a key U.S. Coast Guard database to conclude that life jacket use is one of the most important factors in determining whether boaters die as a result of accidents.

The study contributes to the research that would be necessary to implement what would be a far-reaching and controversial policy of mandating life jacket use.

Although watercraft are required by law to carry life jackets, boaters often fail to use the flotation devices because they find them uncomfortable or believe that wearing one suggests inexperience as a boater or limited swimming ability. Many boaters will use life jackets only when conditions on the water are poor. Survey participants have suggested that manufacturers design better-fitting, more appealing devices, but the new study raises the question of whether mandatory life jacket use may be needed to change boaters’ habits.

The study—“An empirical analysis of life jacket effectiveness in recreational boating”—was conducted by Christelle Viauox of the University of Maryland–Baltimore County’s Department of Economics and Ali Gungor of the U.S. Coast Guard’s Standards Evaluation and Analysis Division. The study appeared in the online version of Risk Analysis, a publication of the Society for Risk Analysis.

Using data for the years 2008 to 2011 from the U.S. Coast Guard’s Boating Accident Report Database (BARD), the researchers explain the number of fatalities and their variation across types of vessels. They compare life jacket use relative to other significant environmental and individual factors affecting fatalities in recreational boating.

Viauox and Gungor predict, based on their analysis, that if boaters wore life jackets, the number of deaths from boating accidents could be cut by about 80 percent. In addition, they
conclude that the odds of dying are 86 percent higher than average if the accident involves a canoe or kayak, but 80 percent lower than average when more than one vessel is involved in the accident and 34 percent lower than average when the operator involved in the accident has more than 100 hours of boating experience.

A primary objective of their study was to assess the impact of a life jacket policy on the recreational boating fatality rate. “However, such a major and controversial policy cannot be implemented without a thorough investigation of life jacket effectiveness. A lot of the work focusing on reducing recreational boating fatalities lacked the availability of life jacket use data,” the authors write, indicating that their study rectifies that deficiency.

Through their research, the authors found that between 2008 and 2011, a life jacket regulation requiring all operators to wear their devices—representing a 20 percent increase in wear rate—“would have saved 1,721 (out of 3,047) boaters or 1,234 out of 2,185 drowning victims. The same policy restricted to boats 16 to 30 feet in length would have saved approximately 778 victims.” Finally, such a policy “would reduce the percentage of drowning victims compared to other causes of death,” the authors conclude.

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Contact David Clarke at delarke@scgcorp.com to arrange an interview with the author(s). Note to editors: The complete study is available upon request from David Clarke or at: http://onlinelibrary.wiley.com/doi/10.1111/risa.12449/abstract

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