

# ERGONOMICS IN DESIGN

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## **Traffic Safety**

BY LEONARD EVANS

2004, 425 pages, \$99.50

Bloomfield Hills, MI: Science Serving Society

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MOTOR VEHICLE fatalities are a grossly underemphasized problem, and Leonard Evans wants to get our attention on the matter. Traffic crashes kill more than 1 million people around the world each year, and that number is projected to double in 15 years.

Evans recently published *Traffic Safety* through an organization he founded in 2000, Science Serving Society. Known for his 1991 book, *Traffic Safety and the Driver*, and many research contributions to the literature of highway safety, Evans also developed the double pair comparison method to determine how occupant characteristics affect fatality risk.

*Traffic Safety* covers a wide range of safety issues: vehicle factors, environmental influences, driver characteristics, occupant protection, and driver behavior. The facts are well referenced, with dozens of footnotes arranged by chapter and a comprehensive index. Each of the 16 chapters includes a useful summary.

The material in this book will be familiar to those working in highway traffic safety and to those familiar with such U.S. data sources as the Fatality Analysis Reporting System (FARS), Crashworthiness Data System/General Estimates System (SDC/GES), and National Automotive Sampling System (NASS). Most of the

many analytical examples in the book use 2001 FARS data. In addition to well-explained group comparisons, Evans does a good job of bringing the concept of risk into the discussion. This is particularly well done for older drivers with the distinction between the threats they pose to other road users and the risk those drivers themselves face. He clearly states that age alone is not a reason to deny a driver's license to older drivers.

One aspect of the book that distinguishes it from most others is Evans' knowledge about traffic policy and statistics in other countries. In 1960, the United States ranked first in highway traffic safety compared with other countries. By 2002, the U.S. dropped to number 16. Evans takes a look at Australia, Canada, and Great Britain to explain our decline and notes there are two ways to reduce risk: improve either crashworthiness or crash prevention. He makes a compelling case that U.S. policy should focus on avoiding crashes rather than surviving them.

The book advocates graduated licensing, photo radar, red light cameras, and reduced but more pervasive traffic fines. Evans acknowledges that these measures would require local governments to abandon their reliance on traffic enforcement to raise revenue. One notable omission in his discussion of good driving behavior is the use of vehicle data recorders to monitor or enforce good driving behavior.

Evans has included a wealth of information based on his perspective of more than three decades of work for General Motors. Although this book is not an entry-level text, its logical arguments and readability are suited to a wide audience of regulators, business leaders, and new scholars. The book could serve as good academic text, but educators should be aware that Evans takes a provocative stand about U.S. traffic policy and in some cases personalizes his criticism.

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