

Return to [List of Publications](#)

Google Search

Latest Traffic Safety  
YouTube

**Reference:** Evans L. "Evans responds to letters on roles of litigation and safety belts". *AJ PH*: 2004;94:171-172. (the letters to which it responds are on p. 170-1 of same Feb. 2004 *AJ PH*).

## LETTERS

### EVANS RESPONDS

(Note: Complete details of the author's calculations and references to source data not referenced here are given in the links at <http://www.scienceservingsociety.com/ajphLetter.htm>.)

Vernick and Teret are quite correct in stating that in the 35 years from 1966 to 2001 the US fatality rate (number of traffic deaths per million miles) declined by more than 70% (72%, in fact). In the first 35 years for which data are available (1921 to 1956), the rate declined by 75%. How can litigation and vehicle regulation be important factors in recent declines when somewhat larger declines occurred before the emergence of such factors?

Vernick and Teret state that the performance of the United States from 1966 to 2001 "is one of the major success stories of public health and injury prevention." In fact, it is a public health disaster of almost incomprehensible magnitude. In Britain from 1966 to 2001 the traffic fatality rate declined by 84%. If our rate had declined by 84% instead of 72%, the number of traffic deaths in 2001 would have been 24947 instead of 42195. Thus 17249 Americans died in 2001 because we failed to match British progress. The corresponding differences for previous years show that if our rate had declined in step with Britain's, more than 300000 fewer Americans would have died between 1966 and 2001.

A simple count of traffic deaths supports a similar conclusion. From 1966 to 2001 US traffic deaths declined by 17%, British traffic deaths by 57%. The British performance is not aberrant but is in fact similar to that in many other countries. It is the performance of the United States that is aberrant.

Disagreements over which factors are most important can be resolved using data and analysis. Instead, Vernick and Teret focus on my previous affiliation with General Motors.

In the 24 countries outside the United States in which I have spoken professionally on traffic safety, my 33 years of scientific research at General Motors has never been viewed as anything other than a valuable and relevant qualification. Currently I am a member of the National Academy of Engineering, president of the International Traffic Medicine Association, and an elected fellow of the Society of Automotive Engineers, the Association for the Advancement of Automotive Medicine, and the Human Factors and Ergonomics Society.

In my editorial I noted that prior to the 1970s we had the safest traffic in the world but that, as measured by the number of deaths per million vehicles, we had sunk to 13th place. We are now in 15th place, behind Australia, Austria, Great Britain, Canada, Denmark, Finland, Germany, Iceland, Japan, the Netherlands, New Zealand, Norway, Sweden, and Switzerland. McKay is quite correct that greater emphasis on drunk driving and use of safety belts contributes to superior safety in other countries, although other law violations, especially speeding, are similarly important.<sup>1-3</sup>

If the United States had appointed safety officials disposed to consider safety belt laws, which soon became widespread in other countries after Australia's 1971 success, many of the additional 300000 Americans killed would have lived. The ideologically driven antitechnical lawyers directing US safety policy did not merely not support safety belt laws—they even denied the effectiveness of safety belts. One of the justifications Joan Claybrook (National Highway Traffic Safety Administration administrator, 1977–1980) offered to support mandating airbags was that their installation cost would be partially offset by cost savings from removing seat belts!<sup>4</sup> In a 1983 television interview, Claybrook stated that airbags were "much better than seat belts" and that seat belts were "the most rejected technology we have."<sup>5(p109)</sup> By the early 1970s the technical literature documented that airbags could not approach the effectiveness of belts.<sup>1</sup> Belts reduce driver fatality risk by 42%,<sup>1</sup> airbags by 8%.<sup>6</sup>

The core of our safety failure is that the rhetoric and advocacy of lawyers had more influence in determining technical matters than the data and analysis of scientists. The

most tragic aspect of this is that we refuse to learn. Those responsible for our disaster are not discredited—indeed, in an extraordinary irony, the media refer to them as "safety advocates." What is worse still, the most important elected official with safety responsibilities, Senator John McCain, has his door open to Claybrook<sup>7</sup> but closed to science.

Vehicle factors play a role in traffic safety, but driver behavior plays a vastly more important role. US policy, with its obsessive focus on vehicle factors, has already killed hundreds of thousands of Americans. Until we, like other nations, develop policies that seriously address driver behavior, additional thousands will be needlessly killed. ■

Leonard Evans, DPhil

### About the Author

The author, a researcher with General Motors Corporation from 1967 to 2000, is now with Science Serving Society, Bloomfield Hills, Mich.

Requests for reprints should be sent to Leonard Evans, DPhil, Science Serving Society, 973 Satterlee Rd, Bloomfield Hills, MI 48304-3153 (e-mail: [le@scienceservingsociety.com](mailto:le@scienceservingsociety.com)).

### References

1. Evans L. *Traffic Safety and the Driver*. New York, NY: Van Nostrand Reinhold; 1991.
2. Redelmeier DA, Tibshirani RJ, Evans L. Traffic-law enforcement and risk of death from motor-vehicle crashes: case-crossover study. *Lancet*. 2003;36:2177–2182.
3. Evans L. The dominant role of driver behavior in traffic safety. *Am J Public Health*. 1996;86:784–785.
4. Federal motor vehicle standards: occupant protection systems, docket no. 75-14, notice 10. 42 *Federal Register* 34299 (July 5, 1977): Table III. Available at: <http://www.scienceservingsociety.com/A/RemoveBelts.pdf> (PDF file). Accessed December 15, 2003.
5. Evans L. Transportation safety. In: Hall RW, ed. *Handbook of Transportation Science*. 2nd ed. Norwell, Mass: Kluwer Academic Publishers; 2002:67-112.
6. Cummings P, McKnight B, Rivara FP, Grossman DC. Association of driver air bags with driver fatality: a matched cohort study. *BMJ*. 2002;324:1119–1122.
7. O'Donnell J. Republican senator, auto-safety advocate form unlikely alliance. *USA Today*. July 28, 2003. Available at: [http://www.usatoday.com/money/autos/2003-07-28-cover\\_x.htm](http://www.usatoday.com/money/autos/2003-07-28-cover_x.htm). Accessed December 15, 2003.

Return to [List of Publications](#)