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## EDITORIAL

# Twenty Thousand More Americans Killed Annually Because US Traffic-Safety Policy Rejects Science

If traffic fatalities in the United States had declined by the same percentage as occurred in any one of seven other countries, 20 000 fewer Americans would be killed each year. So concludes an article in this issue.<sup>1</sup>

Here I propose that these additional Americans die because the United States excludes science from influencing traffic-safety policy. This happens largely because of the uniquely powerful role of litigation in the United States.

The 20 000 value was derived by straightforward quantitative analyses.<sup>1</sup> A similar process cannot explain why the United States performs so poorly. My explanation here flows from a more than four-decade career devoted to the science of traffic safety. I have personally observed and discussed traffic in 58 countries, and have addressed professional traffic-safety audiences in 30 of them, learning from colleagues from all over the world. My explanation also draws upon perspectives gained from growing into adulthood outside the United States.

When my 1991 book<sup>2</sup> was being written, US traffic safety was nearly the best in the world. By my 2004 book,<sup>3</sup> other countries had far outperformed the United States. This precipitated a chapter titled “The Dramatic Failure of US Safety Policy.” My 2014 article<sup>1</sup> analyzes vastly more data and leads to even more certain, stark, and robust conclusions.

### KEY TO US FAILURE IS REJECTION OF SCIENCE

Traffic safety has been studied as a science for more than 75

years. A 1938 article in the *American Journal of Psychology*<sup>4</sup> was an early contribution to what is now a vast scientific literature supporting a solid scientific edifice.

In the early 1970s the National Highway Traffic Safety Administration (NHTSA) sponsored a study in which multidisciplinary teams of experts examined in detail thousands of crashes.<sup>5</sup> The study concluded that the road user was a sole or contributing factor in 94% of crashes. The vehicle was the sole contributor in 2% of crashes, the same percentage as found in a British study. The vehicle factors identified were generally maintenance related (worn brakes, bald tires, etc.). These have more to do with road user behavior than vehicle design or manufacture.

### US Policy Not Random, But Topsy-Turvy

Copious research confirms with ever-solidifying reliability what might be called a fundamental traffic safety “law”: vehicle factors are important, but less important than roadway factors, which are far less important than road-user factors.

Despite sponsoring research confirming this law, NHTSA spearheads misinformation that safety is mainly to do with vehicles, with its ongoing emphasis on recalls, crash test results, new vehicle safety technology, and biomechanics research. Science shows that all of these have relatively little to do with traffic safety. The core of the resulting topsy-turvy policies is an obsessive focus on the least important factor,

vehicles, leaving insufficient energy for the most important factor, drivers.

Another component of NHTSA’s focus on vehicles was a multidecade obsession with airbags. These can affect safety, but far less than behavioral changes (belt wearing, reduced speeds, reduced drunk-driving, etc.).

NHTSA might be better named the National VEHICLE Safety Administration. While NHTSA has certainly done much good, the following conclusion seems inescapable. The net effect of NHTSA is to increase the number of US road deaths.

### An Example: Toyota Phantom Acceleration

An allegation that 19 deaths were associated with sudden unintended acceleration<sup>6</sup> in Toyota vehicles triggered an all-day televised session of a US Congressional Committee on February 24, 2010. A contrite Toyota acknowledged that a poorly fitting carpet could sometimes impede the accelerator pedal from reverting to its neutral position. The matter generated massive media coverage, providing the lead item in nearly all news coverage. The 19 deaths were alleged to have occurred in the previous decade.<sup>6</sup>

Over that same 2000–2009 decade, 22 574 people were killed traveling in Toyota vehicles<sup>7</sup> (Table 1). Almost none of these deaths had anything to do with technology, defective or otherwise. The problem was overwhelmingly intended acceleration.

The nation was obliged to squander resources looking for an alleged electronic flaw in the

**TABLE 1—Number of People Killed Traveling in Toyota Vehicles in the United States, 2000–2009**

	Toyota	Lexus <sup>a</sup>	Total
Drivers killed	14 946	910	15 856
Passengers killed	6283	435	6718
Total vehicle occupants killed	21 229	1345	22 574

*Note.* The data in this table do not provide any information on the safety of Toyota vehicles relative to other vehicles. The data reflect mainly the numbers of Toyota vehicles on the roads and how they are driven. The same data show additionally more than 3000 pedestrians killed in crashes involving Toyotas in the 2000–2009 decade. Massive media publicity was given to the allegation that in this same decade sudden unintended acceleration was a factor in 19 deaths.

*Source.* US Department of Transportation Fatality Analysis Reporting System (FARS).  
<sup>a</sup>Toyota luxury brand.

vehicle in response to other claims.<sup>8</sup> Those familiar with the subject (and a similar 1985 Audi 500 case) knew the search was futile. Identical vehicles sold outside the United States did not exhibit the alleged hazard.

### WHY SCIENCE IS NOT RELEVANT TO POLICYMAKING

Over the decade in which 19 people were killed in crashes for which a sticky Toyota pedal was identified as one factor, 419 483 people died on the roads of the United States. Yet the US Congress, responsible for the nation’s laws, grandstands 19 deaths while almost ignoring 419 483. US policy is driven not by science, nor even by bare facts or even simple arithmetic, but by financial gain for lawyers.

The money paid out by Toyota for sudden acceleration claims includes, as just one item, a \$1.6 billion settlement of a class-action suit,<sup>9</sup> with a final total estimated at \$3.1 billion. Plaintiffs’ lawyers likely pocket more than a billion dollars. Settlement details are kept secret—yet another example of “damn the public interest” in favor of lawyers’ interests. The recipients of such largess are well

situated to contribute to the politicians who created and maintain this killing system. The problem is not so much the lawyers doing lawyering, but the lawyer legislators making laws that benefit themselves but plunder and kill their constituents.

### The Role of Media

The Toyota case is an example of the way the media misinforms the public that safety has to do with vehicles. Even more harmful is the almost daily bombardment under the banner of “safety,” of stories like “A million xyz manufacturer vehicles were recalled because of a safety defect in such and such a system. No injuries are reported.” Of what possible relevance to safety can this be to citizens in a nation in which 90 people are killed daily, and around 3000 injured?

### How US Safety Policy Is Made

Influence on policy is largely a question of lobbying with cash. The legislators are themselves nearly all lawyers and sympathetic to the arguments and interests of other lawyers.

NHTSA employs many excellent, indeed some outstanding, safety scientists. Yet, in late 2013,<sup>10</sup> the most senior traffic

safety official in the United States, the NHTSA Administrator, is a lawyer. His boss, the Secretary of Transportation, is a lawyer (married to another lawyer), and his boss, the President of the United States, is a lawyer (married to another lawyer). What they all additionally have in common is that none has any technical qualification.

Goals and skills of lawyers and scientists are fundamentally opposite. The duty of an “ethical” lawyer is to persuade others to favor their clients’ position, regardless of its justice, logic, or merits, or whether it harms the public.

It is not necessary for policymakers to be technical. However, for technical subjects like traffic safety, they should recognize, respect, and seek technical expertise, and should favor interventions that scientific research shows will improve public health.

### HOW TO REDUCE TRAFFIC DEATHS

The finding<sup>1</sup> of 20 000 additional American deaths was based on comparisons with other countries. All countries fall well short of ideal. Laws in democracies are made by legislators keenly interested in being re-elected. The better performing countries support traffic safety research institutions and take seriously the scientific knowledge they provide. Their top safety officials are often a members of the same scientific community to which I belong. Their citizens are more likely to have a reasonable understanding of what is important to traffic safety than are Americans.

Since the terrorist attacks that killed 3000 Americans on

September 11, 2001, deaths on US airlines have been rare events, averaging less than 20 per year. Since that date, more than 450 000 Americans have been killed in traffic crashes, including more than 8000 children aged seven years or younger. When 20 children of similar age were killed at Sandy Hook Elementary School, President Obama became prominently involved, as he did again on the one-year anniversary of the tragedy. Yet there is little governments can do to protect against deranged gunmen. They strike in many countries, the largest loss of life being a 2011 incident in Norway.

In sharp contrast, every aspect of traffic involves government. Governments design and build roads, regulate and inspect vehicles, pass and enforce traffic laws, and license and discipline drivers. It is government’s responsibility to take unremarkable steps that already apply in other countries to prevent the deaths of 20 000 Americans (including more than 300 children aged seven years or younger).

Traffic deaths can be sharply reduced by sensible traffic laws sensibly enforced for a public aware that by far the biggest risk to them and their families is from vehicular traffic.<sup>3</sup> At core is the sober driver problem. Speed is key—modest speed reductions produce large risk reductions. If alcohol were eliminated completely we would still kill more than 20 000 per year. Speeders can be restrained by radar speed detection technology already successfully deployed in some countries. The goal must be to reduce injuries by preventing speeding, not to punish speeders.

US safety policy continues to be a public health catastrophe. Government and other institutions

(media, insurance industry, and auto industry) endlessly reinforce that traffic safety is largely about vehicles. This orgy of toxic misinformation causes massive death and injury. Science shows that traffic safety is overwhelmingly about road-user behavior. The United States can make sharp reductions in casualties only when public policy loudly proclaims this in law and daily media coverage. ■

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