

## Foreword

Accidents are the leading cause of death among people in the United States under the age of 45. Motor vehicle accidents are by far the leading cause of accidental deaths. About fifty years ago research first showed that the major part of these deaths — and serious injuries — was caused by crash forces hurling people against the inside of the vehicle or out of it. Rather than prescribing the traditional remedy for accidents — take care and avoid crashes — a new school of safety researchers and their allies among consumer groups pointed to ways of keeping people restrained during the crash. The first method was the seat belt. When it became obvious that few people were using the seat belts in their cars, airbags were developed because they would restrain automatically. In 1966 Congress passed a law setting up a federal agency to set safety standards that car manufacturers would have to follow. Providing seat belts was in the first group of standards issued. Shortly after that the agency began considering airbags as part of a possible passive (later called automatic) restraint.

Requiring airbags and the consequences of doing this have been among the most contentious issues on the federal regulatory agenda for the past thirty years. These issues have been intertwined with others concerning both the level of seat belt use and its requirement. But the more controversial issue has been requiring airbags. The opponents of this requirement proposed instead requiring the use of seat belts. So airbag regulation is the focus of this study although seat belt issues have a leading role. For most of the story many participants in the debate viewed airbags and seat belts as alternative restraints. In recent years they have come to be regarded as two parts of an integrated system, which could save most crash victims from death or serious injury.

The regulatory framework within which airbags developed in the United States came about largely because auto manufacturers seemed not to be paying enough attention to producing safer vehicles. They did not exactly flaunt the motto that safety did not sell, but they concentrated on other sales appeals. The regulation that emerged after long wrangling did not specify airbags, but they triumphed over other passive restraints — namely automatic belts — because customers believed they were safer. Many other countries — Canada, Australia, and much of Europe — also have experienced the rapid spread of airbags, but this is because favorable experience in the United States led to customer demand elsewhere. Market forces led to airbags' spread in these countries where regulation is otherwise pervasive.

At first some American automakers — Ford and General Motors — actively participated in developing airbags. But they turned against regulations requiring passive restraints (which meant airbags for most of this history) until in the early 1990s driver airbags proved to have strong sales appeal. Then, when passenger airbags began to harm children and small adults, the auto industry joined insurers and other safety groups in promoting both ways of avoiding the harm (using seat belts and keeping children restrained in rear seats) and developing standards for advanced, relatively harmless, airbags. Automakers have also responded to regulatory hints about the need to protect against side crashes by developing voluntary standards for side airbags.

So, apart from the intrinsic interest of the long and twisty story of a piece of technology that will be part of every American's life, and might save many of them, the story suggests that regulatory and market processes are not simple opposites. There may be other lessons for policy making suggested by this case study. "Suggested" is the operational word, since a single case can never establish any generalization.

The story proceeds chronologically, stopping in 2002 even though advanced airbags and side airbags are still evolving, both technologically and in regulatory terms. After explaining how motor vehicle safety became a federal concern, it notes the early appearance of both airbags and safety belts on that regulatory agenda and tracks the development of proposed rules for their use through the political, economic, legal and conceptual changes that shaped them. At the end there are some reflections on the possible implications of the story.

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This case history is not written with any pretensions to neutrality or objectivity. But I have tried hard to be aware of my biases and to give a full and balanced account of the views of all sides of each contentious issue. I played a very minor role in the story, as a member of the Board of Directors of the Insurance Institute for Highway Safety for eighteen years, until 1991, and as an officer in an automobile insurance company that actively supported airbag requirements. The Insurance Institute for Highway Safety, a leading proponent of airbags, supported this study. But IIHS has never tried to guide the positions taken in it.

Here is a partial list of all the debts I contracted in writing this study. I was introduced to the serious study of highway safety by William Haddon, Jr. After Bill's untimely death, Brian O'Neill succeeded him both as president of the Insurance Institute for Highway Safety and as my mentor. Brian and his colleagues, Chuck Hurley, Steve Oesch, Allan Williams, Adrian Lund, Susan Ferguson, and Michele Fields, have patiently led me through the technical and legal mine fields of the subject. Maria Kaufmann has been an insightful and skilled editor. Most of my research exploited the resources of the IIHS library, where Kris Pruzen and Carolyn Sosnowski were unfailing sources of advice and Ellen Sanders was a patient helper. Kristi Lowe patiently refined my word processing. So many participants in the history shared their recollections with me in sometimes lengthy interviews that I have listed them in a separate appendix. But I want to especially thank Joan Claybrook, Raymond Peck, Helen Petruskas, and Roger Maugh for the trouble that they took to answer my questions. The reader will note that I have built on the foundations laid by the earlier studies of Joel Eastman and John Graham.<sup>1</sup> The latter even allowed me to review his interview notes. If, in spite of all the help I received in this study, there are errors or gaps, the fault is mine alone.

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1. Joel W. Eastman, *Styling vs. Safety: The American Automobile Industry and the Development of Automotive Safety, 1900-1966* (Lanham: University Press of America, 1984); John D. Graham, *Auto Safety: Assessing America's Performance* (Dover, MA: Auburn House, 1989).