W. Kip Viscusi


The area of automobile safety research has long been an active part of the risk and uncertainty field. This prominence stems in part from the practical importance of automobile safety, as motor vehicle deaths have long been the leading source of accidental fatalities. Studies of automobile safety have also provided substantial insight into the limits of government regulation as well as the nature of individuals' behavioral responses to regulation. Sam Peltzman's classic analysis of the effect of seatbelts on driver behavior is perhaps the best known example of this type.

The recent volumes by Glenn C. Blomquist and John D. Graham represent two quite different contributions to this active field of research. The Blomquist volume is a very carefully written synthesis of automobile safety research. Although this retrospective by Blomquist does not provide an exhaustive summary of the literature, it does provide a comprehensive and thorough overview of the field. This book will become essential reading for every researcher in the area of automobile and traffic safety. Blomquist's succinct volume provides a superb introduction to the economic issues and economic debates that arise with respect to auto safety. The Graham volume also makes a valuable contribution. This book represents the outcome of a recent conference by a number of leading researchers both in economics and other disciplines. The main value of this book is in terms of exploring new issues that are currently at the frontier of automobile safety research.

Although the volumes differ substantially in terms of the nature of their approach, they share many common themes. The dominant emphasis of both books is on the role of driver behavior in contributing to the generation of
accidents. Whereas noneconomists typically followed a more technologically oriented approach in which the role of engineering controls was paramount, the focal point of these economic analyses is on how individuals have responded to changes in government regulation. Although this class of issues is not entirely new, there have been a number of new policy experiments that provide a solid foundation for each of these analyses.

The Blomquist book is quite explicit in making the authors’ orientation clear, as the first page of text in the preface emphasizes that the thrust of this book is to shift one’s orientation from the “technological” approach to the “individual net benefits approach,” whereby the focal point will be on the benefits and costs to the individual of various courses of action.

In effect, this book is about precautionary behavior within a context that has been influenced by changes in technology.

Chapter 1 of the Blomquist volume provides an overview of the legislative background and accident statistics for automobile safety regulation, which are quite impressive. Half of all accidental deaths arise from motor vehicle accidents, which makes this an area of substantial importance. Blomquist explores in detail the fatality rate patterns over time, as well as the linkage of these patterns to policy actions. An attractive feature of his discussion is that he gives both a detailed summary of the legislative history of automobile safety regulation and describes the accompanying accident context that was in place at the time of the policy actions. In addition, Blomquist summarizes all federal motor vehicle safety standards issued from 1967–1978, which is helpful but somewhat dated.

In Chapter 2 of his book, Blomquist lays out the alternative method that can be used to analyze driver behavior. The text provides a nice nontechnical discussion of not only the economic perspectives in this area, but also of models in the psychology literature, such as the “risk homeostasis” model whereby individuals have a target risk level. His critique of such alternative models appears to be compelling, and there is also a nice mathematical appendix to this chapter that provides a concise development of the economic approach to motorists’ decisions.

Chapter 3 of the book provides a superb review of the literature on the effect of motor vehicle traffic safety regulation on safety outcomes. This chapter reviews the original Peltzman article as well as the rather large literature that followed it. Blomquist is generally sympathetic to Peltzman, and he provides a variable-by-variable critique of the alternative studies. For example, the advent of seatbelts had an adverse effect on motorcyclists’ fatalities, and this relationship is often ignored. What Blomquist does not do is provide new empirical results in which the sensitivity of the findings to the various variables is explored so that his book in effect serves as a superb review and critique but not as a definitive analysis that will resolve this debate once and for all.

Chapter 4 of the book turns to the issue of passive restraints, which also may involve a behavioral response on the part of drivers that may mitigate to some extent the benefit of these devices. In addition, the impetus for passive restraints stems in part from speculations regarding the rationality of individual decisions, so that many analysts have undertaken the approach of analyzing the benefits and costs of these measures recognizing that current decisions may not be optimal.

Although Blomquist has a strong market orientation, he is by no means a
laissez faire economist. What he does stress, however, is that understanding the individual maximization process on the part of drivers is essential to assessing the likely effectiveness of any future regulation. He urges that policies alter the payoffs that drivers receive from their actions to lead them to undertake the desired behavior. For example, one could impose financial penalties if one did not use seatbelts, or one could make these devices more comfortable to wear so that the cost of using such restraints would be reduced.

The Graham volume is quite different in its focus, as it represents the outcome of a 1987 conference convened by the New England Injury Prevention Research Center. Because the focus of this conference was on auto safety issues currently on the policy agenda, the topics treated in the book are both quite timely as well as often not fully resolved. The main function of this book is to raise a variety of interesting research issues and to provide an initial exploration of these topics.

The introduction to the book by Graham provides a literature review that can be viewed as a capsule version of the Blomquist volume. A more helpful form of introduction would have been to provide a more detailed summary of the papers included in the volume as well as their relationship to one another so that this edited collection could have been better integrated. On the positive side, the papers that Graham selected and the organization in the book reflect considerable care. Moreover, the conclusion of the book by Graham and Eric Latimer provides the reader with some of this overview material.

The policy issues that are considered include seatbelt use and passive restraints, as in Blomquist, but this volume also includes treatment of minimum drinking ages, alcohol, taxes, and the recent raising of the speed limit to 65 miles per hour. What is noteworthy about these various contributions is that the economic approach to safety issues, whereby individual behavior plays an important role, has been fully integrated into the literature, but there appears to be little reliance on the technological approach that dominated such work a decade ago.

In considering the policy choices regarding automatic restraint designs, Graham and Max Henrion provide a careful sensitivity analysis of the benefits and costs of alternative policy options, including air bags, manual belts, and motorized belts. As in most policy contexts, one can disagree about the relative realism of different assumptions. For example, I preferred his value of life estimate at the upper end of the credibility range ($5,000,000 per life) over his estimate at the midpoint of the credibility range ($1.6 million dollars). What is admirable about this analysis is that a variety of alternative sets of assumptions are explored so that one can assess the robustness of the findings. The conclusion Graham and Latimer reach is that manual restraints appear to be dominated by the automatic restraints, although the choice among these automatic restraints is not clear-cut.

Other papers in the Graham volume include a careful analysis by Charles Phelps of alcohol taxes and highway safety. This study is quite timely, as he provides an analysis of the “right” tax for internalizing the external damages caused by drunken drivers. Once again, it is an economic analysis of the behavioral response that plays a central role. In particular, the elasticity of auto fatalities with respect to beer taxes is the central parameter that he uses in deriving his optimal tax rate.
The main implication of the Blomquist and Graham volumes is that automobile traffic safety remains an important policy issue, and any policies that are likely to be of consequence in promoting traffic safety must recognize the important role of individual decisions relating to safety. Economic behavior is now at the heart of the automobile safety research, and these books provide an excellent introduction to this set of safety policy issues where economics and sound policy analysis can play a constructive role.

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Richard Steinberg


I am called to review three books that will appeal to quite different audiences. Burton Weisbrod’s book will appeal primarily to researchers and policymakers. Michael O’Neill and Dennis Young write for an audience of educators and university administrators, though researchers will also be intrigued. John Bryson writes for government and nonprofit managers. The only thing these books have in common is the word ‘nonprofit’ in their title, a trait they share with quite a few forthcoming books, so I will begin with an overview of this trendy research subject.

Nonprofit organizations are important. In 1984, 5.6% of U.S. national income and 9.5% of employment originated in the ‘independent sector’ (which includes most nonprofit organizations). In contrast, the government sector generated 14.5% of national income, and 17.6% of employment. It would be wrong to characterize nonprofit organizations as “not-for-profit”—indeed, what they are “for” is the subject of much ongoing research and a major topic in one of the books discussed here. It would be wrong to characterize them as ‘zero-profit,’ a point made patently clear by the billions of dollars in university retained earnings (a.k.a. endowments). Organizations legally incorporated as nonprofits would seem to have little in common, as this rubric encompasses universities, soup kitchens, hospitals, religious organizations, country clubs, labor unions, symphony orchestras, day-care centers, old age homes, trade associations, and foundations. Indeed, the only thing these organizations clearly have in common is that they are required to obey what Henry Hansmann has deemed the ‘nondistribution constraint’—