

SAFETY SELLS: Market Forces and Regulation in the Development of Airbags

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CHAPTER 7: Conclusions

The history of airbag regulation was first and foremost a dispute about whether they would work — especially whether they would work better than the alternatives, either active or passive seat belts. The paradoxical answer is that they do work — not as well as once expected, but as well as they do because they work along with what was once viewed as their main alternative, active seat belts. Once an airbag regulation was issued, rather than preempting the market, the regulatory structure allowed market forces to come into play. And the airbag regulation contributed to the rise of seat belt use after decades of very low use.

How Successful Have Airbag Standards Been?

By January 2004, NHTSA estimated that 11,347 drivers and 2,620 right-front passengers had been saved by airbags, an estimate accepted both by automobile manufacturers and safety advocates.¹ When the 1984 automatic occupant restraint rule was issued, NHTSA assumed that front seat fatalities in car crashes from all directions would be reduced 20-40 per cent if airbags were used alone, and by 45-55 per cent if airbags were used together with three-point seat belts. Based on statistical analyses of driver fatalities, NHTSA showed in 2001 that airbags alone reduced driver deaths by 14 percent in all crash modes; the combination of airbags and lap-shoulder belts reduced driver deaths by 51 percent. Impressive as the estimates of lives saved by airbags may be, the numbers are still lower than either NHTSA or early proponents expected.

As NHTSA has reported, in purely frontal crashes passenger airbags are about as effective for people over thirteen as driver airbags. But they have been drastically less effective for those under thirteen. By January 1, 2004, 41 children, 81 drivers, and 11 adult passengers had been killed by airbags, mostly in low-speed crashes.² These airbag fatalities have declined dramatically since 1997, but before then more children under thirteen were estimated to have been killed than saved by passenger airbags. Although John Graham at the Harvard School of Public Health and his co-authors criticized the cost-benefit ratios of passenger side airbags because of this net loss of children's lives, they admitted that "cost-effectiveness ratios for airbags are comparable to other well-accepted measures in preventive medicine." Moreover, they noted:

1. NHTSA, Special Crash Investigation Report, 1/1/2004.

2. Ibid.

Immediate steps can be taken to enhance the cost-effectiveness of front passenger airbags, such as moving children to the rear seat and increasing the rate at which children are properly restrained in crashes.³

The balance of benefit to harm caused by airbags is probably comparable to that of many widely used drugs, vaccines, and medical procedures. But in the case of airbags the harm was concentrated among infants and small children, a segment of the population our society feels a particular obligation to protect. No one is questioning the effort to make airbags safer for them, in spite of the potentially high cost.

Airbags rank second only to seat belts as life-saving occupant protection.⁴ Airbags add to seat belts' effectiveness, and using seat belts prevents almost all the potential harm that airbags can cause adults. While airbags were originally seen as the way to protect the vast majority of American vehicle occupants who would not use belts, belts and airbags are now viewed by safety experts as reinforcing each other in an integral occupant protection system. This implies that future measures of the success of occupant protection should be based on the airbag/seat belt system; for example, counting numbers of lives saved by airbags alone, by seat belts alone, and by the two combined. Neither NHTSA nor any other safety organization currently produces such a measurement. Still, the debate leading up to the "interim" standard on advanced airbags focused on tests to protect unbelted adults, and that standard will be revisited in the future to measure whether the unbelted are being adequately protected.

As airbag-equipped vehicles have become more common, airbags have saved more lives. The harm airbags can cause in low-speed crashes, both to adults and children, seems to have been moderated by a combination of technological and behavioral fixes. While NHTSA was working on its advanced airbag standard, automobile manufacturers produced depowered versions of airbags that they believed would be less likely to cause harm but continue to save lives. And people most likely changed their behavior by placing children in rear seats and sitting further from the steering columns. Since drivers who use seat belts are more likely to see to it that children are properly restrained in their vehicles, the rising proportion of adult seat belt users probably contributed to the success of the campaign to put children, restrained, in the rear seat.

If we balance the harm and the costs of airbags against the deaths and serious injuries prevented, the outcome of the struggle for airbag standards has been clearly positive. But it did take a long time.

3. John D. Graham, Kimberly M. Thompsom, Sue J. Goldie, Maria Segui-Gomez, Milton C. Weinstein, "The Cost-effectiveness of Air Bags by Seating Position," *Journal of the American Medical Association*, vol. 278, No. 17, November 5, 1997, pp.1424-1425. See also John D. Graham, et. al., "Reducing Risks to Children in Vehicles With Passenger Airbags," *Pediatrics*, Vol. 102, July 1998.

4. One automobile statistical analyst, Leonard Evans, believes that whether the airbag mandate reduced fatalities is an open question, partly because of the higher effectiveness of seat belts, partly because of the (unproven) possibility that their presence may have led to more driver risk taking. Leonard Evans, "Transportation Safety," in *Handbook of Transportation Science*, R. W. Hall Editor, Kluwer Academic Publishers, Norwell, MA, pp. 99-106.

Would Economic Forces Have Been More Efficient Than Regulation in Making Airbags Available?

Economic or market forces do not operate in a vacuum. Buyers must recognize that a product like airbags meets their needs at a price they are willing to pay, and sellers must recognize that such a demand exists and be able to supply it. The law that introduced federal motor vehicle safety standards was passed because its backers felt that auto manufacturers were not paying enough attention to safety. Did this reflect a consensus that “safety did not sell?” The manufacturers did not use this defense; it could have led to the argument that if the market did not support safety, regulations should. Instead the manufacturers argued that they had made significant contributions to safety.

Although Ford and General Motors seemed at first to compete strenuously for leadership in developing airbags, both eventually gave up the struggle. They objected to many aspects of any proposed standard and feared that the price of airbags would reduce car sales. Airbags did not sell well in two tests — General Motors’ effort in the mid-seventies and Mercedes-Benz’ European sales in the early eighties. The manufacturers did not promote them aggressively, and buyers were not widely aware of their availability.

The airbag industry came into existence largely because of the prospect that the device might be promoted by a government standard. Airbags likely would have disappeared in the early eighties without government encouragement and support. The passive restraint standard would probably have been met almost entirely by automatic belts, chosen because of their low cost. An amendment to the automatic protection rule that allowed driver-only airbags along with manual passenger belts encouraged carmakers to make airbags available. Suddenly the media discovered that airbags were saving lives in newsworthy crashes. Only then did market forces take over, driving the spread of this technology. In Europe there has never been a regulation requiring airbags; consumer demand rose only after the American experience had been widely reported. Thus it was regulation that laid the groundwork for airbags to defeat passive belts in a market competition.

The public debate over passive restraints rarely focused on the issue of whether market forces could promote public safety more effectively than regulation. Some academic economists and Reagan administration ideologists, like David Stockman and Christopher DeMuth, did raise this fundamental question. But most of the debate centered first on whether the proposals met the criteria of the 1966 regulation and later on whether auto companies or vehicle occupants should be the subject of regulation — the auto companies and many other opponents of passive restraint rules argued that regulating driver behavior through mandatory belt use laws would be far more efficient and cost-effective than requiring manufacturers to supply passive or automatic restraints. In 1995, two economists, Mannering and Winston, argued that the spread of consumer demand for airbags through market mechanisms justified automakers introducing them gradually. The same evidence also led them to question “the potential social

value of automobile safety regulation.”⁵ Their argument ignores the role of regulation during the 1980s in preserving airbags when they were not supported by the market and in stimulating manufacturers to offer driver side airbags.

There is little doubt that regulations such as seat belt use laws can affect behavior, especially if the laws are consistently and vigorously enforced. Libertarians may object to such laws as infringements on individual freedom, but they do reduce social costs and most people seem not to object to being forced to protect themselves. Even without strenuous and consistent enforcement seat belt use began to increase in the United States after many states passed seat belt use laws. Where safety is concerned, good regulations and market forces may complement each other rather than clash. The trick is in discovering how to integrate them. One approach is suggested by the rule for setting motor vehicle standards: require the manufacturers to meet standards and allow buyers to choose among competing designs. It is even arguable that well-publicized regulations may raise safety consciousness and promote the demand for safety products, just as the demand for airbags outpaced the regulatory calendar requiring them.⁶

How Can the Motor Vehicle/Highway Safety Regulatory Process be Made More Effective?

The two most important improvements in the regulatory process suggested by the history of airbags involve scope and speed. Expanding the scope of federal regulations would permit mandates for safe practices as well as safe equipment on the highway. Accelerating the regulatory process would minimize the kind of delay that characterized airbag regulation.

Scope

The 1966 laws establishing the regulatory process separated motor vehicle standards from those involving highways and driver behavior. Both the auto industry and safety advocates wanted uniform federal motor vehicle standards in order to avoid the high cost of differing state standards and to make them more enforceable. Conversely, highway safety standards were aimed at encouraging states to adopt effective safety programs by withholding some federal highway funds if states did not comply. In 1976 the Highway Safety Act was amended to eliminate the requirement that states conform to each standard, instead turning them into guidelines. Even earlier, in 1974, Congress eliminated funding that could be used as incentives for states to pass laws mandating seat belt use.

5. Op. cit., pp. 277-278.

6. Both government and private consumer information programs also heighten awareness of the safety of vehicles, as shown by NHTSA's New Car Assessment Program beginning in 1979 and IIHS' crashworthiness tests from 1995 on. Brian O'Neill, "Improving Vehicle Safety: The Role of Regulation and Consumer Information," *Safety Transport Solutions: Regulations and Practices*, International Conference and Exposition; New Delhi, India, November 4, 2003.

Conclusions

As we already have noted, a major focus of the struggle over airbag standards from the mid-seventies on was the debate over whether a regulation mandating airbags (passive restraints) or laws mandating safety belt use should be the preferred method of dealing with the very low belt use in the United States. Airbag advocates always supported belt use laws in addition to passive restraint regulations. Years of failed attempts led them to believe that belt use laws would not be passed until the Dole decision made passage of enough state laws a way to avert the passive restraint standard. Then, it was discovered that the rising use of safety belts was helping to make airbags effective and safe by keeping occupants in place. Seat belts, in turn, were becoming more effective through pretensioners and force limiters, advances made possible by airbag technology. As noted earlier, auto safety experts now think of airbags and safety belts as reinforcing each other in an integrated system. But there is no federal mechanism for mandating both airbag technology and the use of seat belts. NHTSA has been encouraging states to make their seat belt use laws primary, and Congress has given the agency some funds to use as incentives. Results so far have been modest.

Seat belt use in the United States actually reached 79 percent in 2003 while in Canada, northern Europe, and Australia, well-enforced laws have brought usage to over 90 percent. Well enforced belt use laws also brought use to over 90 percent in California and the state of Washington. Is it conceivable that NHTSA could be given the power to require intensive enforcement? Why not enlarge NHTSA's powers to include setting standards for state laws relating to behavior as well as vehicle standards? Would local and state police actually carry out such requirements? In a time of growing judicial and federal deference to states' rights, this kind of growth in federal power might seem a pipe dream. But 20 years ago the current level of seat belt use in the United States might have also seemed inconceivable.

Speed

For some long-time airbag proponents the delay between the time airbags were first feasible, around the mid-seventies, and the time when they first became widely available, in the early nineties, is a tragic one. During these years many lives were lost that could have been saved by airbags. The delay was clearly caused by the strong opposition of American automobile manufacturers. This opposition was not inevitable. First Ford and then General Motors were promoters of airbag development, probably because of the potential competitive advantage. But both came to oppose standards that would require airbags on the grounds that the technology and production facilities were not ready. With optimism bred by some early technological progress, the first NHTSA proposals required passive protection for occupants of all seats and in all crash modes without requiring seat belts. NHTSA scaled back successive proposals as industry opposition hardened, but it will never be known if a more modest initial proposal in the early seventies would have led to industry cooperation and an earlier use of airbags.

Another opportunity to break the impasse between NHTSA and the industry might have come with a serious test of both the technological feasibility and market acceptance of airbags. This could have been done when General Motors actually began to market airbags in a few 1974-76 model large cars. But the test hardly got off the ground; barely 10,000 cars were sold with airbags. Although the airbags functioned as expected, there was no serious effort by GM or NHTSA to promote their sale.

An opportunity for an even larger scale test of airbags, one that would include aggressive marketing, was offered by the agreement between the department of transportation and major automobile manufacturers at the end of the Ford administration. But whatever trust produced that agreement disappeared when early in the Carter administration the department issued a passive restraint proposal, triggering an escape clause that the manufacturers had negotiated.

Although there has been no change in the regulatory process, recent developments suggest that the long delays that marked the early history of airbags may not be repeated in the future. While NHTSA has been very deliberate in proposing new standards for advanced airbags, manufacturers have been aggressively developing and selling their variations on the new technology. In May 1999 the NHTSA administrator, Dr. Martinez, urged the automobile industry to devise “a voluntary safety standard... to prevent serious injury to children from side-door airbags.” An industry committee, chaired by Adrian Lund of IIHS, proposed a standard in little more than a year. Safety advocates like Joan Claybrook of Public Citizen and Clarence Ditlow of the Center for Auto Safety were skeptical that voluntary standards will work, noting “there’s no penalty for noncompliance.” Still, it is possible that in the current competitive climate for safety leadership, automobile manufacturers would strive to meet or exceed these standards. This may be a model for the rapid development of future safety standards — NHTSA would request a voluntary standard with the implicit threat of imposing one if the industry did not act quickly.

Testing Assumptions

In addition to the policy issues explored above, this case study of airbag regulation tests some assumptions about broad regulatory criteria and the specific issue of the superiority of automatic protection.

Regulatory Criteria

The Preference for Performance Standards

The preference for performance over design standards was accepted as a way to avoid freezing technology and allow manufacturers to adopt the most efficient ways of reaching safety objectives. But almost from the beginning, performance standards were ignored when they seemed hard to formulate or unnecessary, as in the cases of seat belts or ignition interlocks. The Supreme Court ignored the whole issue of performance standards when it overruled the rescission of the automatic restraint requirement on

the ground that NHTSA had not considered mandating a specific design, namely airbags. Finally, Congress mandated airbags for all vehicles under its 1991 law.

Performance standards can almost always be phrased in ways that are narrow enough to dictate a specific design. Whether this is desirable depends upon the particular circumstances. There seems to be no way to prove that performance standards are always better than design standards in promoting safety.

Comparing Costs and Benefits

Comparing costs and benefits was not contemplated in the law that introduced federal motor vehicle safety standards. Such a comparison might have been implied in the requirements for practicability and feasibility, but these were clearly secondary to safety considerations. However, starting with the Nixon administration, the White House issued increasingly broad requirements for agencies to analyze the economic effects of proposed regulations. From 1974 on NHTSA supplied these analyses, although measuring costs seemed particularly dubious when manufacturers could dictate price, at least until competition took over. Safety advocates at first objected to the procedure, then used it as a way of affirming what they knew to be the superior safety of airbags. In most cases, the cost benefit analyses rested on assumptions that were arguable rather than provable, but at least they made the assumptions explicit. There is no evidence that the analyses played a decisive role in promoting or defeating automatic restraint standards.

Public Acceptability

Public acceptability was another criterion not explicitly mentioned in the law. But after the fiasco of the ignition interlock, federal safety regulators became concerned about the public's acceptance of practically all decisions about automatic occupant protection, especially airbags. Federal courts came to believe that such a criterion was implied in the law but applied it so broadly that even Secretary Adams' dismissal of his predecessor's concerns about public acceptance of passive restraints was interpreted as due consideration of public acceptability. Since that time public acceptability has not been a pivotal issue, but it has never been far from the surface. The reactions of NHTSA, auto manufacturers, insurers, and safety organizations to airbag-related injuries and deaths were, at least in part, motivated by the fear that these reports would turn the public against airbags. Whatever the letter of the law, public acceptability of a regulation cannot be ignored.

Should Some People be Given More Crash Protection Than Others?

Neither the law authorizing motor vehicle safety standards nor its legislative history established any preferences or priorities in protecting people from injuries or death. In its decisions on depowered airbags and on-off switches, NHTSA introduced the principle that children should be given priority in

protection against injury or deaths caused by airbags. The main reason was that fatal and serious injuries to children would undermine public support for airbags and prevent their full benefits from being realized. Also, children are dependent on the actions and judgments of others. Automobile manufacturers and IIHS have proposed another set of preferences: protecting seat belt users more than nonusers, possibly because nonusers are now a clear minority. The underlying assumption is that this kind of regulatory triage would be unnecessary if and when airbags are sufficiently advanced to no longer cause serious injury or death. Some groups, like Public Citizen and the Center for Auto Safety, did object to the possibility that unbelted occupants might be placed at greater risk by depowered airbags. But it is striking that there has been virtually no public debate about the moral choice made by NHTSA to protect children at the expense of many adults. This choice may reflect a deeply held value of American society.

The Superiority of Automatic Protection

The government's interest in airbags was motivated from the very beginning by the belief that passive, or automatic, protection was always superior to protection that depended on behavior, whether voluntary or prescribed by law. The first director of the agency that became NHTSA, Dr. William Haddon, brought this principle from his public health training, although he never relied exclusively on passive measures when others were effective. But seat belt use was very low after motor vehicle safety standards were introduced. So, upon the emergence of airbag technology, NHTSA began to develop a passive restraint standard with airbags in mind. Some advocates thought airbags were superior to seat belts not only because they were automatic, but also because they spread crash forces more evenly. Even into the eighties, these advocates viewed seat belts as an alternative form of occupant protection that would eventually be replaced by airbags. But safety engineers within the auto industry kept coming back to the need for seat belts to keep occupants in position and to protect against rollovers, ejections, and many nonfrontal crashes. By the mid-seventies NHTSA thought of airbags plus lap belts as a passive restraint. This could be justified in a Pickwickian sense by assuming that belts would be used with airbags only as often as without them. Even after its enthusiastic embrace of airbags, the auto industry has not accepted the superiority of passive restraints. The lap/shoulder belt is considered the primary safety restraint, with airbags providing additional protection, especially for the minority of occupants who do not always use seat belts. In recent years, almost all safety experts have come to emphasize the combination of the two restraints and the need for increasing seat belt use rather than the primacy of airbags.

It undoubtedly is true that automatic protection is better than protection based on behavior. But if the automatic protection is limited to frontal or near frontal crashes, as is the case for airbags, then the issue of influencing behavior is still with us.⁷ That process might be slow, but the spread of airbags has

7. Side airbags do reduce side impact risk, but not risk from rollover or ejection.

not been dramatically faster than the rise in seat belt use. What is important is the combined benefit of airbags and safety belts; passivity is a secondary issue.

Some have argued, like Malcolm Gladwell in *The New Yorker*, that the early concentration on passive restraints by Haddon and other safety advocates led to the neglect of seat belt use laws in the United States, and that as a result belt use has lagged and many lives have been lost. As noted previously, however, it was the low level of belt use that was the most prominent early reason for advocating passive restraints. Efforts to pass seat belt use laws almost invariably failed until Secretary Dole offered the opportunity to avoid the passive restraint regulation if enough states passed mandatory seat belt use laws. Only then did seat belt use rise, partly because of the laws and partly because most automakers initially met the passive restraint standard with automatic seat belts rather than airbags. In a way the current level of seat belt use, high compared with the 14 percent U.S. rate in 1984 but low compared with Canada, Australia, and much of Europe, was a by-product first of the drive for passive restraints and then to reduce injuries from airbags. There is little reason to believe that most states would have passed belt laws and that the U.S. belt use rate would have reached its current level of 79 percent otherwise.⁸

Assumptions about Behavior

Policy preferences are often shaped by assumptions about behavior. The assumption that safety does not sell, an assumption that lurked in the background of the National Traffic and Motor Vehicle Safety Act of 1966, has now been reversed. Once Administrator Peck believed that safety had, in fact, become salable, he assumed that airbags would succeed in the marketplace even if they were not mandated. But he did not cite this argument in his unsuccessful attempt to rescind the automatic restraint standard. Although many of the conservative economists in the Reagan administration believed that the marketplace should be the place for consumers to express their preference for safety, no political leader seriously tried to overturn passive restraint or other motor vehicle standards on these grounds.

The evolution of assumptions about seat belt use is more complex. At first, airbag proponents kept citing experience and social research to show that advertising and publicity campaigns would not raise seat belt use, while airbag opponents were emphasizing the potential of those campaigns. Then the apparent effectiveness of foreign seat belt laws led to a debate about whether such laws would ever be accepted in the United States. For more than a decade they were not, and supporters of airbags came to believe no one could rely on their passage. Suddenly, in 1984, the dam broke, at least partly in response to the pressures raised by the Dole decision. The laws seemed to raise belt use, but only a combination of consistent enforcement and publicity got use in two states up over 90 percent. Even so, those most likely

8. Malcolm Gladwell, "Wrong Turn," *The New Yorker*, June 11, 2001, pp. 50-61.

to be in crashes are least likely to use belts. Law enforcement pressures probably have to be supplemented by informal social pressures to achieve high levels of belt use among the risk-prone.

The Politics of Airbag Regulation

Presidential Intervention

Presidential intervention in airbag regulation was, at first, secret. The Nixon White House feared that its action would alienate consumer groups, which it was courting, or that its action to postpone passive restraints would be seen as improperly influencing rulemaking under federal administrative procedure. The Ford and Carter executive staffs intervened indirectly, if at all, by setting broad standards for rulemaking. President Reagan and his staff later tightened those standards and were blunt in publicizing their opposition to an automatic protection rule. Secretary Dole and her staff, in turn, were quite open about the process by which the final rule on passive restraints was cleared by President Reagan. The first President Bush seemed to play little or no role in NHTSA's activities or in Congress' decision to require airbags. President Clinton, while supporting the various initiatives taken by NHTSA as part of his administration's crusade for family values and public safety, did not appear to take the lead in these latest cases. The second President Bush seems to have left the issue to NHTSA and DOT.

In a political system in which the president's office is central, it seems inevitable that it should make the final decision, if it is so inclined, about a regulation involving so many lives.

The Political Course of Airbag Regulation

The political course of airbag regulation was, very broadly, determined by the financial concerns of the automobile and insurance businesses and the safety concerns of consumers. Ideologies and other ideas discussed above played a significant, but secondary role. No doubt many auto engineers and executives were concerned about the safety of their products, but financial survival meant promoting safety within the limits of profitability. As John Graham has already noted, industry embraced airbag technology when it seemed to offer a competitive advantage.⁹ Auto manufacturers resisted legal mandates as restraints on their freedom of action. The insurance industry supported automatic protection requirements, especially airbags, because they believed claim costs would be reduced. Of course, reducing claim costs by reducing injuries and deaths was also in consumers' interest. So it was easy for the Insurance Institute for Highway Safety to be both supported by auto insurers and to claim that its research was in the public interest. Consumer safety concerns were also reflected, selectively, through the activities of safety groups and the perceptions that political actors had of public opinion. For the most part consumer groups, IIHS, and the insurance industry were allies in support of mandating airbags. That

9. Op. cit., *passim*, especially p. 55.

alliance was frayed when IIHS and insurers supported manufacturers' petitions — first on driver-side airbag credits and then on depowering airbags. Consumer groups suspected that manufacturers were putting financial interests ahead of safety.

The initial push for airbags was obviously driven by manufacturers' competitive interests, combined with the belief of regulators that airbags were a user-friendly way of dealing with the "second collision" of the body with hard surfaces. Manufacturers later offered ignition interlocks as a way of promoting belt use and delaying airbags, which, especially during the first energy crisis, they came to regard as financially burdensome and potentially a hindrance to sales. Congress reacted to the public's outrage against the inconvenience of interlocks by raising the hurdles for future restraint regulation. Meanwhile, although virtually all the regulators believed that airbags were in the public interest, there was fear that the public would not agree. Hence Secretary Coleman's decision, during a period of major financial hardship for U.S. auto companies, to run a large-scale test of airbags and other passive restraints rather than require them. Secretary Adams' subsequent decision to mandate passive restraints, but only in the next presidential term, gave the companies some relief in the form of time. This permitted them to opt first for detachable automatic belts, which were cheaper and less sophisticated from an engineering standpoint than airbags, and then to plead for regulatory relief from the passive restraint mandate when another oil crisis tested their financial survival. The Supreme Court revived the primacy of safety in this regulatory process, and the financial recovery of the auto industry allowed Secretary Dole to balance the requirement for passive restraints with an emphasis on making driver airbags available and with incentives for state seat belt laws. Note that the Reagan administration, in spite of its professed bias toward the free market, saw no problem in promoting state regulations requiring seat belt usage. The regulation encouraging driver side airbags led to their eventual widespread availability. Media reports of airbag effectiveness in real crashes spurred consumer demand, which ultimately resulted in a congressional requirement for airbags replacing the automatic protection standard. When passenger airbags began to cause the deaths of children who were sitting in the front right seat, and some small adult drivers were injured or killed because they were sitting too close to the steering wheel, auto manufacturers joined with government and safety advocates to change seating behavior, to urge seat belt use and enforcement laws and to improve airbags. There was little demand to eliminate airbag requirements because they were still saving many more lives than they were taking, even if the injuries caused were ones the manufacturers had once warned about.

Missing from this outline is exactly how the interests of consumers are manifested. In a democracy, special interests always say they represent the public interest. Elected officials frequently find it easy to ignore weakly held majority opinions that are opposed by strongly felt and well-financed minority opinions. The courts profess to be bound not by public opinion, but by the law. The law, in turn, is what the courts say it is. Surveys and polls often do not accurately test the strength of opinions and results are easily manipulated through the wording of questions. These are classic concerns about policy-making in a democracy, and this case history throws only limited light on them. Auto safety regulation falls under the broad category of public health, and there is little dispute that the objective of public health policy is to reduce injuries and deaths. There can be disagreement about whether, and at what price, particular policies reach these goals. And sometimes choices have to be made about whether some groups should be given preference in protection. The history of airbag regulation shows that our system still does not have a straightforward procedure for resolving these issues. But in this particular case the process, did, in the long run, advance the public good.