

Commentary & Debate

Automobile Safety: Is Government Regulation Really Our Savior?

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In their recent encomium to auto safety regulation, Joan Claybrook and David Bollier¹ contend generally that:

1. Major lifesaving and injury-prevention gains have been achieved at a cost so modest that it hardly bears discussion; but
2. Regulation does not enjoy the popularity it deserves because of a "perceptual bias" under which its costs are clearly recognized while its gains are largely "hidden."

Few people, if any, argue publicly for a return to the *status quo ante* that existed until 1966, when the first significant federal vehicle safety laws were enacted.² The popularity of auto safety legislation is difficult to assess, and Claybrook and Bollier present no real evidence on this point. If this regulation in fact fails to generate overwhelming public enthusiasm, however, it may be because an accurate evaluation of its costs and benefits is less clearly one-sided than Claybrook and Bollier believe.

I. The Benefits and Costs of Auto Safety Regulation

The primary benefit of regulating vehicle and traffic safety is the saving of life and limb that occurs if the program, broadly defined, works. Claybrook and Bollier cite a variety of statistics on this point, for example, "the estimated 10,000 motorists whose lives are spared and the tens of thousands spared injury through auto safety regulation each year."³

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1. Claybrook & Bollier, *The Hidden Benefits of Regulation: Disclosing the Auto Safety Payoff*, 3 YALE J. ON REG. 87 (1985).

2. See National Traffic and Motor Vehicle Safety Act of 1966, Pub. L. No. 89-563, 80 Stat. 718 (1967) (codified as amended at 15 U.S.C. §§ 1381-1431 (1982)); Highway Safety Act of 1966, Pub. L. No. 89-564, 80 Stat. 731 (codified as amended at 23 U.S.C. §§ 401-408 (1982)).

3. Claybrook & Bollier, *supra* note 1, at 87 (footnotes omitted) (citing two National Highway Traffic Safety Administration studies).

Estimates of this type come from government agencies, frequently the same agencies that are responsible for administering the programs in question. Although this does not necessarily mean that the estimates are wrong, it ought to engender at least a modicum of skepticism. Agencies that set out to measure their own effectiveness cannot be expected to be totally detached. In fact, a few independent studies of the magnitude of lifesaving effects of auto safety regulation exist, but they are not cited by Claybrook and Bollier.⁴

A. *Engineering Estimates*

There is a potentially important objection to the methodology used by the National Highway Traffic Safety Administration (NHTSA) in calculating the lifesaving effects of vehicle safety standards. These calculations are typically of an "engineering" nature. That is, they assume a given pattern of accident frequency and severity, and ask how many deaths will be or have been prevented by mandated safety devices.

As economists are quick to point out, these methods can produce misleading estimates of the lifesaving effects of a safety program. The primary reason is that people may well adjust their behavior in response to changes in the risk environment. If, in the immediate instance, drivers react to safer vehicles by taking greater risks,⁵ then engineering estimates of lives saved will overstate program impact, perhaps seriously. These estimates may accurately reflect the lifesaving effect that would have occurred had driving behavior remained unchanged; but greater risk-taking will offset, at least in part, the salutary impact of improved vehicle safety.

Although this possibility might appear far-fetched, it is in fact plausible and contradicts nothing in economic or psychological analysis.⁶ One would not, of course, expect timid souls to be transformed into daredevils when their vehicle safety is improved a bit, but even marginal changes by many

4. See Peltzman, *The Effects of Automobile Safety Regulation*, 83 J. POL. ECON. 677 (1975); Graham & Garber, *Evaluating the Effects of Automobile Safety Regulation*, 3 J. POL'Y ANALYSIS & MGMT. 206 (1984).

5. Or, in Peltzman's terminology, by increasing their "driving intensity." See Peltzman, *supra* note 4, at 681-82.

6. In economic terms the argument is that both driving safety and driving intensity (risk taking) are normal goods that will be "consumed" in greater quantities as their availability increases (i.e., as the relevant budget constraint is relaxed). Laws that increase vehicle safety in effect expand the safety-intensity constraint—that is, the combinations of the two goods that drivers can consume. To the extent that they choose more intensity, the amount of driving safety "consumed" falls below the level that would have prevailed under pre-law driving patterns.

The psychology argument is, roughly, that people may formulate notions of reasonable or optimal risk taking. When some external alteration of risk occurs, they then adjust their behavior so as to move back toward the optimum. See Wilde, *Risk Homeostasis in Safety and Health Habits*, 2 RISK ANALYSIS 209 (1982).

drivers can have a significant impact.⁷ The hypothesis that drivers adapt to vehicle risk characteristics does not imply that safety requirements are without effect. Rather, the magnitude of such effects becomes an empirical issue that cannot be settled by procedures that assume an invariant pattern of accident experience.

B. Evidence on Fatality Rates

It is apparently widely believed that the 1966 traffic safety legislation sparked a clear and sudden decline in national auto fatalities. This belief is inaccurate. Even casual inspection of U.S. fatality rates indicates that there has been a long-term decline, dating at least to the mid-1940's, and perhaps to the 1920's.⁸ This trend has continued since 1966, but it is patently a function of many factors apart from safety regulation. Among them are, at the very least, changes in social attitudes, changes in income, changes in the age distribution of drivers, increased awareness of alcohol-related safety problems (and associated enforcement programs), and changes in driving speed and variation in speed. The impact of federal safety regulation on traffic fatalities has been examined by Peltzman⁹ and by Graham and Garber,¹⁰ with rather mixed results. Peltzman's well-known study concluded that the net lifesaving effect of major safety standards introduced in 1966 was negligible. Although fatalities among vehicle occupants subsequently fell beneath predicted levels, this was offset by increased fatalities among non-occupants. Graham and Garber, employing a somewhat different methodology, found a significant lifesaving effect from regulation.¹¹ If Graham and Garber are correct, then the engineering estimates of regulatory lifesaving, while overstated, are not so grossly in error as Peltzman's findings imply. The accumulating evidence suggests

7. Consider the following scenario: a driver who is used to buckling up finds herself or himself in a car without seat belts. As a result she or he drives a bit more slowly and cautiously. This is hardly an absurd possibility, yet it is all that need be implied by the "adjustments" or "adaptations" hypothesis.

8. Fatality rates, defined on various bases, have declined in most years since automobiles came into wide use (the early and mid 1960's and 1976-1978 are exceptions). The sharpest decline occurred between 1973 and 1974, presumably because of the national 55 mile-per-hour speed limit, which was adopted as an energy-saving measure. The early 1980's have also witnessed a relatively steep decline in fatalities, perhaps because of increased awareness of the drunk driving problem, and enforcement of DWI laws. See NATIONAL SAFETY COUNCIL, ACCIDENT FACTS 58-59 (1983).

9. Peltzman, *supra* note 4.

10. Graham & Garber, *supra* note 4.

11. Zlatoper also finds a significant regulatory effect on motor vehicle deaths. Zlatoper, *Regression Analysis of Time Series Data on Motor Vehicle Deaths in the United States*, 18 J. TRANSPORT ECON. & POL'Y 263 (1984). Crandall and Graham report some evidence of offsetting behavior by drivers in response to safety regulation, but find that it is swamped by the intrinsic engineering effects of mandated safety devices. Crandall & Graham, *Automobile Safety Regulation and Offsetting Behavior: Some New Empirical Estimates*, 74 AM. ECON. REV. 328 (1984).

that while Peltzman's conclusions were too strong, the precise magnitude of the safety gains from regulation must be regarded as an open question.¹²

C. *Regulatory Costs*

Claybrook and Bollier say little about the costs of auto safety regulation, citing only a NHTSA estimate of \$370 per car. Even if this estimate were accurate, which it probably is not,¹³ it would represent a very substantial quantity of resources. It is important to recognize that building safer cars is not a matter of "simply spending money." Such a decision incurs real opportunity costs that limit our ability to pursue other useful activities, including alternative lifesaving programs. The expenditure on auto safety may be worthwhile. It surely will appear so if one is determinedly optimistic about regulatory benefits; but since the benefit magnitudes are uncertain, the net effects of our auto safety laws are, at the least, a subject of legitimate debate.¹⁴

II. Paternalism in Safety Regulation

As viewed by Claybrook and Bollier, vehicle safety regulation is "civilizing," "moral," and protective of "freedom." Skepticism or criticism of regulation, in contrast, simply serves the interests of "industry." People are of course entitled to such judgments, although they will not contribute much to a useful debate about the merits of government intervention. These characterizations, however, inadvertently raise a pertinent question: is the desirability of safety regulation best defined by particular individuals (for example, Joan Claybrook, whose record of public service shows her to be not only civilized but highly effective); or is it best defined by consumers acting in the marketplace? The issue, most fundamentally, concerns paternalism: are particular individuals qualified to decide for you or me what risks we ought to take?

12. One study has recently found lifesaving effects greater than those reported in the government's (engineering) studies. The full range of sophisticated lifesaving estimates thus runs from effectively zero to something more than the optimistic magnitudes based in simple methodology. R. CRANDALL, H. GRUENSPECHT, T. KEELER, & L. LAVE, *REGULATING THE AUTOMOBILE* 68-69 (1986) [hereinafter cited as R. CRANDALL].

13. The reason in part, may be that it ignores the fuel cost of safety devices. R. CRANDALL, *supra* note 12, cites recent safety regulation cost estimates of roughly \$650 to \$1000 per vehicle. If the cost of bumper standards is omitted (on the ground that it is not a safety-related element), the estimates fall to a range of about \$470 to \$690 per vehicle.

14. Crandall reports favorable benefit-to-cost ratios "under most reasonable assumptions." R. CRANDALL, *supra* note 12, at 84. As noted, however, these ratios reflect lifesaving estimates that exceed those of engineering studies.

Economic analysis, something for which Claybrook and Bollier have little apparent use, suggests that *properly functioning* markets will tend to make appropriate decisions. The argument is, very roughly, as follows. If consumers value a particular product attribute, such as "safety," they will be prepared to pay for it. Should they be willing to pay more than the cost of producing the safety attribute, manufacturers will supply it—not because they are benevolent or socially responsible, but because it will be profitable. Conversely, if consumers' willingness to pay for an extra dollop of safety in their cars does not exceed supply cost, that dollop will not be produced. This may displease some of us as individuals, but the decision is fundamentally correct. Since we do not value additional safety highly enough to outweigh the resource cost of producing it, production makes no sense. It would yield benefits smaller than the value of what we must give up to obtain those benefits.

The qualification that the markets in question must function properly is important. If the market fails, consumer valuations may be distorted, and appropriate supply decisions will not be forthcoming. A case for government intervention—at times a very strong case—may then be advanced.

Market failure arguments clearly justify some government activity in automobile safety, for example, requirements for horns, brakes, headlights, and windshield wipers, the absence of which could result in injury to third parties.¹⁵ Similarly, gross consumer ignorance of particular risks may justify government intervention. If I purchase a car with defective brakes or a steering assembly that is likely to fall apart, I may have no way of discovering these potentially disastrous possibilities short of a serious accident (indeed, if I had discovered them in advance, I probably would not have bought the car). When and if the manufacturer finds these problems, there is a strong argument for compelling that company to disclose and remedy the defect, as is required by present law.¹⁶

Where third-party effects (externalities) or consumer ignorance are not serious problems, the argument for public safety intervention becomes more difficult. Consider the example of seat belts and restraint systems generally. Here regulation has evolved circuitously from required installation of lap belts,¹⁷ to a brief and unhappy experience with ignition interlocks,¹⁸ to required lap and shoulder belts.¹⁹ Several states have recently

15. Third parties are those external to the market, whose demand for vehicle safety devices is not taken into account by producers.

16. Notice that recent trends in products liability law might well suggest to the manufacturer the desirability of such action, whether or not it were required by the 1966 legislation. *See, e.g., Borel v. Fiberboard Paper Prods. Corp.*, 493 F.2d 1076 (5th Cir. 1973) (asbestos manufacturer has duty to warn users of hazards of which it was or should have been aware).

17. *See R. CRANDALL, supra* note 12, at 33-34.

18. *See id.* at 53.

enacted some form of belt-use law, following the Department of Transportation's latest plan to phase in passive restraint requirements by 1989.²⁰

It turns out that there is a market failure argument that favors mandatory restraints.²¹ What is most interesting in the context of this discussion, however, is the persistent failure of motorists to use seat belts except under legal compulsion (and perhaps not even then). Usage rates in the absence of laws have been estimated at no more than eleven to fifteen percent in the United States, a range in keeping with estimates for other nations.²² Why is this? Claybrook and Bollier contend that the value of restraints is "underappreciated." Yet the contribution of belts (and air bags) to safety has been very extensively publicized, and there is no reason to suspect that motorists in the United States or elsewhere are incapable of understanding the message.

Whether mandatory belt use or passive restraint requirements are on balance "desirable" is not the immediate issue. Rather, the issue is who shall decide. In the absence of a persuasive market failure argument, such requirements are paternalistic. When Claybrook and Bollier observe that restraints are "underappreciated," I translate, perhaps uncharitably, "People don't appreciate them as much as *we think they should*." Elements of paternalism may be found in many areas of safety and health regulation. They should be resisted, not only because they are often very costly and potentially demeaning, but because they tend to besmirch all regulatory efforts.

III. Is Auto Safety Regulation Desirable?

The answer to this question is, very likely, yes. The issue, however, is not a simple one. As a rational risk averter, I am prepared to pay several hundred dollars for safety equipment on a new car, even without a precise

19. See 31 Fed. Reg. 11528 (1966); 32 Fed. Reg. 2408, 2415 (1967) (codified as amended at 49 C.F.R. § 571.208 (1984)).

20. See N.Y. Times, July 21, 1985, § 1, at 22, col. 1. The requirements will not be implemented if states representing at least two-thirds of the nation's population enact appropriate mandatory belt-use laws. 49 Fed. Reg. 28962 (1984).

21. Assume that drivers in most jurisdictions are required to purchase liability insurance, at prices (premiums) that depend on traffic injury and fatality claims experience. Since the use of restraints would reduce injury severity and fatalities, it would lower the insurance premiums of all drivers on average. Voluntary use thus implies a type of externality: my failure to wear a seat belt raises your insurance cost, even if you always wear your belt and never have an accident. The problem could be ameliorated if insurance companies could distinguish between the liability claims of belted and unbelted accident victims and refused to pay full compensation to the latter group.

22. See, e.g., OFFICE OF DRIVER AND PEDESTRIAN RESEARCH, RESEARCH AND DEVELOPMENT DIVISION, NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION, RESTRAINT SYSTEM USAGE IN THE TRAFFIC POPULATION 3 (1983).

probability estimate that my family and I will thereby be saved from serious injury or death. This, however, is not a sufficient argument for publicly regulating vehicle safety. It must also be demonstrated that the market in automobile safety is incapable of responding appropriately to the desires of consumer-motorists. This part of the case is typically the most difficult to demonstrate, and is most frequently ignored by supporters of expanded safety regulation. From the standpoint of sensible policy making, the observation that I (or Joan Claybrook) as an individual might want consumers to demand more safety than they in fact do is irrelevant.

If auto safety regulation has succeeded, it is because a good deal of regulatory activity, though by no means all of it, has responded to clear problems of market failure. Although the costs of this regulation *are* substantial, the benefits, though uncertain, are potentially enormous. Under these circumstances, government intervention may well represent a reasonable social strategy, albeit not an inexpensive one.

Simply to assert without systematic evidence that the costs of auto safety regulation are paltry in comparison with the known benefits is not only incorrect but potentially harmful. Patently unrealistic claims of regulatory success may be pleasing to those already marching in the ranks of consumer advocacy. A broader audience, however, will recognize these claims for what they are. The result may be to give regulation a bad name that it does not (entirely) deserve.

