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Performance-Based Regulation: Enterprise Responsibility for Reducing Death, Injury, and Disease Caused by Consumer Products

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15 **Abstract** This article offers a bold new idea for confronting the staggering level
16 of death, injury, and disease caused by five consumer products: cigarettes, alcohol,
17 guns, junk food, and motor vehicles. Business leaders try to frame these negative out-
18 comes as “collateral damage” that is someone else’s problem. That framing not only
19 is morally objectionable but also overlooks the possibility that, with proper prodding,
20 industry could substantially lessen these public health disasters. I seek to reframe the
21 public perception of who is responsible and propose to deploy a promising approach
22 called “performance-based regulation” to combat the problem. Performance-based
23 regulation would impose on manufacturers a legal obligation to reduce the negative
24 social costs of their products. Rather than involving them in litigation or forcing them
25 to operate differently (as “command-and-control” regimes do), performance-based
26 regulation allows the firms to determine how best to decrease bad public health con-
27 sequences. Like other public health strategies, performance-based regulation focuses
28 on those who are far more likely than individual consumers to achieve real gains.
29 Analogous to a tax on causing harm that exceeds a threshold level, performance-
30 based regulation seeks to harness private initiative in pursuit of the public good.

31 Postindustrial societies face a wide range of serious public health problems
32 that arise from a combination of consumer-product characteristics and indi-
33 vidual behavior. Products that cause great harm include cigarettes, alcohol,
34 guns, junk food, and motor vehicles. These products often combine risks to
35 users with risks to others. Together they account for a staggering number

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L1 **Table 1** Annual Deaths

Causes	Estimated Number of Deaths per Year
Tobacco	438,000 ^a
Firearms	30,896 ^b
Motor vehicles	37,261 ^c
Drunk driving	16,885 ^d
Obesity	111,909 ^e
Total	More than 630,000

^aBased on data from 1997–2001; includes tobacco-related deaths linked to cancer, cardiovascular disease, respiratory disease, infant illness associated with the mother’s smoking during pregnancy, exposure to secondhand smoke, and smoking-attributable fire. See Centers for Disease Control and Prevention 2005a.

^bBased on 2006 data, including the following firearm-related causes: suicide (16,883) and homicide (12,791). See Heron et al. 2009.

^cBased on 2008 data. See NHTSA 2009.

^dBased on 2005 data. See Alcohol Alert! 2005.

^eBased on 2000 data. See Flegal et al. 2005. This is a more conservative estimate than that of the Centers for Disease Control and Prevention, which determined that in 2000 obesity from such causes as poor diet and physical inactivity led to more than three hundred thousand U.S. deaths.

of annual user deaths, injuries, and illnesses (table 1). Third-party victims include those harmed by homicide, drunk driving, and drifting (“secondhand”) tobacco smoke. In addition, taxpayers and medical insurance consumers collectively bear substantial medical costs associated with lung cancer, cirrhosis, diabetes, and other diseases caused by these products. The behaviors giving rise to such public health problems—for example, smoking, drinking, unsafe driving, gun carrying, and overeating—often develop during childhood and persist into adulthood. This article explores a bold new idea: the use of “performance-based regulation” (May 2003) to reduce these problems. What is here called performance-based regulation is sometimes also called outcome-based regulation. Performance-based regulation seeks to hold enterprises directly responsible for decreasing the harms they know their products cause.

In general, public health policy makers search for policy interventions on a group or population basis rather than seeking strategies aimed directly at changing behavior individual by individual (as might occur, for example, through a physician’s personal interaction with a patient). Providing communities with clean drinking water is a classic example of a populationwide measure. Mass immunization through vaccinations is another.

To be sure, for the public health problems at issue here, our society would be much healthier if parents trained their children so that through-

L1 out their lives they would drink and eat moderately, drive carefully, not
2 smoke, and not use guns irresponsibly. But the reality is that, absent collec-
3 tive intervention, our society will continue to be plagued by a huge amount
4 of death, injury, and disease connected to the use of these products. Many
5 children will already be victims of or addicted to self-destructive behav-
6 iors by the time they are adults, assuming they live that long.

7 The typical public health perspective on such problems is to promote
8 a variety of broad policy changes designed to reduce the socially unde-
9 sirable consequences. Policy changes such as banning indoor smoking,
10 lowering speed limits, levying alcohol taxes, and restricting the number
11 of fast food outlets in a single neighborhood are all hallmarks of conven-
12 tional public health tactics aimed at these products.

13 Public health policy interventions, such as those just listed, may be cat-
14 egorized into different types. Sometimes, public health leaders seek only
15 voluntary changes by target industries. For example, a foundation con-
16 nected to former president Bill Clinton recently came to an “agreement”
17 with Pepsi, Coca-Cola, and Cadbury-Schweppes in which the three major
18 soda companies announced that they would no longer sell certain sweet-
19 ened beverages in certain schools (Burros and Warner 2006). Other times,
20 rather than calling on private actors to change their behavior, public health
21 advocates focus on the provision of new services by public agencies (like
22 smoking cessation clinics at public hospitals, nutrition education at public
23 schools, and safer public highways). Neither of these approaches, however,
24 imposes legal requirements on private enterprises, and the imposition of
25 such requirements is the focal point of this article.

26 The first section (“Applying Performance-Based Regulation”) presents
27 performance-based regulation in some detail. It explains how this strategy
28 might be employed to harness private initiative in pursuit of the public
29 welfare with respect to each of the five key consumer products on which
30 this article focuses. After acknowledging design challenges that confront
31 this approach, I offer reasons why performance-based regulation may
32 nonetheless be a very promising way to deal with behavioral public health
33 issues.

34 The law can regulate private parties in many ways, and performance-
35 based regulation is but one approach. The second section (“Regulatory
36 Alternatives”) presents a taxonomy of more familiar public health regula-
37 tory strategies, offering illustrations of existing or proposed policies with
38 respect to the behavioral public health issues of interest here. I contrast the
39 various strategies and note the differences in their underlying logic, as a way
40 of locating performance-based regulation in this broader context. Given the

L1 shortcomings of these traditional approaches, I conclude that performance-
 2 based schemes should be considered as serious policy alternatives to (or
 3 options in combination with) the other, more familiar, mechanisms.
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 6 **Applying Performance-Based Regulation to**
 7 **Public Health Consequences Arising from**
 8 **the Consumption of Consumer Products**

9 **How Performance-Based Regulation Works**

10 In general, performance-based regulation works like this: A firm's per-
 11 formance target is set, either by legislation or by an administering agency
 12 running the scheme. A system of regular measurement is implemented to
 13 determine whether the firm is meeting its goal. And a penalty structure
 14 is put in place that would impose consequences if a firm fails to meet its
 15 goal. Assume for now that the penalties are financial charges, the amount
 16 of which depends on the extent of the shortfall.
 17

18 A good example of performance-based regulation from the environ-
 19 mental law field is a regime that requires a power plant to reduce its emit-
 20 ted pollutants by a specified amount each year. This sort of requirement
 21 does not tell the power plant owner whether it should, for example, install
 22 different pollution screens, burn different fuel, or make less electricity.
 23 The regulation simply requires an improved public health outcome and
 24 leaves it to the operator of the power plant to figure out how to comply.

25 It is worth noting that this example specifies reduced pollution as the
 26 target outcome, and, while reduced pollution may be desirable for its
 27 own sake, it is probably best understood as something of an intermediate
 28 performance target, with the real public health objective being a lower
 29 incidence of lung and other diseases. Defining the output target in terms
 30 of pollution, therefore, would be based on the conclusion that high pollu-
 31 tion levels significantly increase the incidence of those diseases. Notice,
 32 then, that an even more demanding performance-based regulatory scheme
 33 might directly require power plant operators to reduce the amount of
 34 pollution-caused disease in the community in which they operate.

35 Performance-based regulation is sometimes paired with a "tradable
 36 permit" strategy.¹ Broadly speaking, this feature is designed to allow the
 37 regulated industry as a whole to achieve the overall social objective most

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 40 1. For discussion of the increased reliance on such market incentive programs as tradable permits, as compared to traditional command-and-control strategies, see Sugarman and Sandman 2007. See also Drury et al. 1999 (analyzing Los Angeles' scheme to improve air quality centered on the use of a declining cap in permissible emissions and tradable permits).

L1 efficiently by permitting firms within the industry to buy and sell portions
2 of their allowed negative outcomes among themselves. In this way, it is
3 hoped, power plant pollution reduction will be disproportionately realized
4 at plant sites where doing so is cheapest. Such combined schemes are
5 sometimes termed “cap and trade.”

6 Although applicable to public bodies rather than private enterprises, the
7 federal educational scheme known as No Child Left Behind (No Child Left
8 Behind Act of 2001, Pub.L. 107–110, 115 Stat. 1425 [2002]), or NCLB, is
9 another good example of performance-based regulation. NCLB does not
10 tell schools or school districts what to do to improve the education they
11 provide (Liebman and Sabel 2003). Rather, it demands results and leaves
12 it up to the educators to determine how to achieve their performance goals.
13 Thus, in using the performance-based approach, regulators need not know
14 what changes to order the regulated firms to make. But they do need to
15 figure out what level of performance to demand—that is, how much of a
16 reduction in the current level of public health harm they can fairly ask the
17 regulated firm to achieve. Of course, performance-based regulators can
18 alter the harm reduction required based on experience. Whether it is better
19 to start by asking for too much and then reducing what is demanded or to
20 start by asking for too little and working up is a difficult problem that I
21 will put aside for now.

22 Furthermore, enforcing performance-based regulation is itself a delicate
23 matter. A relatively simple approach would have government agencies
24 impose predetermined fines on firms that fail to achieve their performance
25 targets. The goal in setting the penalty levels is to induce socially efficient
26 prevention. Prevention is socially efficient when the cost incurred to
27 prevent harm is less than the total cost that the harm imposes on society.
28 Thus, to entice a firm to pursue the ideal level of prevention, the penalty
29 should equal the social cost. In this way, for cases where efficient prevention
30 is possible, pursuing such prevention will be cheaper for the regulated
31 firm than paying the fines. Whether there should be private enforcement,
32 even individual enforcement, of a firm’s targets is a possibility I mention
33 but put aside for now.

34 35 Examples of Performance-Based Regulation 36 Potentially Applied to Key Consumer Products 37

38 This section illustrates ways that performance-based regulation could be
39 used to address the five important public health problems mentioned at
40 the outset.

L1 *Cigarettes (and Smoking Prevalence)*. In the years since the surgeon gen-
 2 eral issued his famous 1964 report on the lethal consequences of ciga-
 3 rettes, adult smoking prevalence rates in the United States have dropped
 4 from more than 40 percent to about 20 percent (Kaufman 2007). Earlier
 5 informational efforts have been supplemented by higher tobacco taxes,
 6 laws restricting where people can smoke, counteradvertising exposing
 7 the misconduct of tobacco companies to the public, tougher enforcement
 8 of laws barring sale to minors, restrictions on cigarette marketing cam-
 9 paigns, and cheaper access to more effective cessation products and pro-
 10 grams (Rabin and Sugarman 2001). These policy initiatives have made a
 11 difference in curbing smoking rates.²

12 Yet cigarettes remain widely promoted and available, and we are
 13 nowhere near the long-standing public health goal of reducing the nation-
 14 wide smoking prevalence rate to below 12 percent.³ Although higher taxes
 15 appear to be the most effective of the strategies that have been tried (Cha-
 16 loupka, Wakefield, and Czart 2001; Chaloupka and Warner 2000), there
 17 seems to be a limit on how high policy makers are willing to go with this
 18 approach, for two reasons. First, at some point, smuggling and other tax
 19 evasion scams can become a serious problem.⁴ Second, imposing higher
 20 and higher costs on increasingly low-income addicted smokers eventually
 21 seems too harsh.⁵ While it is widely agreed that a comprehensive tobacco
 22 control plan is the best way to attack the problem, even California, for
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 24

25 2. For example, California's comprehensive tobacco control program—which included ele-
 26 ments such as a mass media antismoking campaign, restrictions on areas where people could
 27 smoke, and legislation making it more difficult for adolescents to purchase cigarettes—resulted
 28 in a decline in smoking rates of 70 percent in twelve- to thirteen-year-olds, 53 percent in fourteen-
 29 to fifteen-year-olds, and 34 percent in sixteen- to seventeen-year-olds (Pierce, White, and Gil-
 30 pin 2005). Researchers concluded that such comprehensive programs “were associated with
 31 greater cessation success than were with high cigarette prices alone, although both effects were
 32 limited to younger adults” (Messer et al. 2007). See also *Hu, Sung, and Keeler 1995 (conclud-*
ing that “both taxation and antismoking media campaigns are effective means of reducing
cigarette consumption”; however, consumption “is influenced by the magnitude of the taxes
and the amount of media campaign expenditures” [1218]).

33 3. The U.S. Public Health Service (2000) set goals to reduce smoking among adults from
 34 23 percent to 12 percent by 2010. See also Centers for Disease Control and Prevention 2004a
 35 (noting the premature deaths that could be prevented if the Public Health Service goals are
 36 met). But see Mendez and Warner 2000 (suggesting that the Public Health Service goal to cut
 37 adult smoking prevalence rates in half by 2010 is unattainable and proposing a more plausible
 38 goal).

39 4. About 30 percent of exported cigarettes are smuggled into other countries (or back into
 40 the country of origin). Tobacco taxes as a tobacco control strategy are undermined if taxes are
 evaded (often accomplished through smuggling) and tobacco products are available at a lower
 price (Sugarman 2001).

5. For example, in 2006 California voters rejected Proposition 86, which would have raised
 the excise tax per pack from \$0.87 to \$3.47 (Harmon 2006).

L1 example, which has such a scheme, is a long way from the 12 percent
2 target.⁶

3 Performance-based regulation attacks the issue in an altogether dif-
4 ferent way. It rests on the simple proposition that the tobacco companies
5 themselves should be required to achieve sharply improved public health
6 outcomes. To be sure, the real public health goal here is a dramatic reduc-
7 tion in the more than four hundred thousand annual deaths from smoking
8 that occur in the United States (Centers for Disease Control and Preven-
9 tion 2006b). Hence, insisting that cigarette makers take responsibility
10 for curtailing that death rate would be the most direct application of the
11 performance-based regulatory approach.

12 Yet there is typically a significant time gap between starting to smoke
13 and the onset of tobacco-related diseases. Hence, if the regulator defined
14 the target as disease reduction, it would take a very long time to deter-
15 mine whether tobacco companies' disease-reducing measures had been
16 effective. By contrast, changes in smoking rates can be demanded and
17 achieved in the short term. And because reliable data on smoking rates are
18 readily obtained and most smokers are brand loyal (Brandt 2007; Kluger
19 1997), compliance with the regulatory target would be fairly easily mea-
20 sured. Given the tight connection between use of this product and eventual
21 mortality and morbidity, aiming the performance-based target at smoking
22 rates rather than disease rates seems wisest.

23 Imagine, then, that over, say, seven years, tobacco companies were
24 required to cut in half the number of people who smoke their products.
25 Reducing the smoking rate to less than 10 percent would have enormously
26 positive public health consequences. To provide firms with the right sort of
27 incentive, those that fail to achieve their goals would be subject to serious
28 financial penalties.

29 The moral argument for this proposal is that cigarette makers—whose
30 products kill when used as directed—should be held accountable for the
31

32
33 6. See Bonnie, Stratton, and Wallace 2007 (proposing a comprehensive tobacco control
34 program—based on a major study of tobacco policy in the United States—that strengthens
35 and implements traditional tobacco control measures and changes the regulatory landscape
36 to permit new policy innovations, such as stronger federal regulation); Centers for Disease
37 Control and Prevention 2000 (noting that economic, regulatory, and comprehensive approaches
38 have the largest span of impact and that the potential for combined effects of various strategies
39 underscores the need for comprehensive approaches); and Myers 2000 (urging policy mak-
40 ers to implement the surgeon general's recommendations for a combination of comprehensive
prevention and cessation programs, regulatory efforts, and economic interventions). Regarding
California, see also Centers for Disease Control and Prevention 2005b (noting that in 2004, the
cigarette smoking prevalence in the state was 14.8 percent).

L1 death toll. The practical argument is that since tobacco companies have
2 been so effective in enticing teens and adults to consume their products,
3 they are also probably best positioned to figure out how to reduce the num-
4 ber of smokers. To be sure, cigarette makers would not be happy about
5 having to halve the size of their businesses. But this is an industry that has
6 been found liable for “racketeering.”⁷ Besides, even if tobacco companies
7 had only half the number of customers they now have, they could still turn
8 a handsome profit, especially if they retained as customers their heaviest
9 smokers. Of course, it would be even better if the number of deaths from
10 smoking fell to zero, or even to nearly zero. And so, if the initial applica-
11 tion of performance-based regulation were successful in reducing smoking
12 rates to below 10 percent, even more ambitious goals might be set for sub-
13 sequent years. In any event, it should be appreciated that sharply reduced
14 level of smoking achieved by, say, 2016 would be a public health triumph.

15 Under my proposal, it would not matter whether a firm achieved a
16 uniform reduction in sales from each of its brands, because the perfor-
17 mance goal would be enterprisewide. Moreover, at least at the outset, the
18 regulation would be indifferent as to which demographic group experi-
19 enced decreased smoking rates. For example, the low-hanging fruit might
20 consist of preventing youths from starting, keeping former smokers from
21 restarting, and getting social smokers to quit rather than escalate to daily
22 smoking. Notice that if firms achieved reductions in these segments of
23 the population, they could still retain their best (i.e., heaviest-smoking)
24 clients. Even so, the long-run public health benefits would be great.

25 Firms would be free to achieve their regulatory target in many dif-
26 ferent ways. One approach might be to provide smokers with subsidized
27 access to cessation aids and programs. Alternatively, tobacco companies
28 might increase product prices, try to convince cigarette smokers to switch
29 to a far less dangerous alternative nicotine delivery device, or engage in
30 advertising genuinely aimed at discouraging smoking initiation by teens.
31 Of course, these and other tactics might be used in some combination.
32 Given the discretion to develop their own methods, tobacco companies
33 would likely employ some strategies that are unimaginable now. Perhaps
34 the leading tobacco firms would cooperate in seeking to reduce smoking
35

36 7. In 2006 U.S. District Judge Gladys Kessler held in a case brought by the U.S. government
37 against the tobacco industry, that the tobacco companies had violated the federal Racketeer
38 Influences and Corrupt Organizations Act “by engaging in a lengthy, unlawful conspiracy to
39 deceive the American public about the health effects of smoking and environmental tobacco
40 smoke, the addictiveness of nicotine, the health benefits from low tar, ‘light’ cigarettes, and
their manipulation of the design and composition of cigarettes in order to sustain nicotine addic-
tion” (*United States v. Philip Morris U.S.A.*, 449 F. Supp. 2d 1, 26–27 [D.D.C. 2006]).

L1 prevalence so as to prevent one firm from free riding on certain efforts
2 that influenced all smokers and not just those of a specific firm's brands.

3 The key point is that the legal requirements would focus directly on
4 outcomes, not on techniques aimed at outcomes, which is how tobacco
5 control works now. Admittedly, if smoking prevalence reductions were
6 systematically achieved only for certain racial, ethnic, or religious groups,
7 some might find that troubling. Such a development could be examined
8 before a new round of reductions was imposed. But even this sort of tilted
9 achievement would be an enormous public health gain.

10 It would be possible to include a "tradable permit" feature in such a
11 performance-based regulatory scheme. As already noted, the idea of such
12 schemes is to force an industry to achieve a certain level of performance
13 without specifying that each enterprise in the industry achieve its own
14 goal. With permit trading, if the target reduction were 50 percent and, for
15 example, R. J. Reynolds reduced its consumer base by more than half, it
16 could sell that excess accomplishment to, say, Philip Morris, which could
17 then exceed its target by the allocation it bought. Overall, the industry
18 would have reached the public health target, and arguably in the most
19 efficient manner.

20 This idea of using performance-based regulation to reduce smoking
21 rates is not altogether new. I have briefly written about it in the past (Sugar-
22 man 2005). Moreover, such a regime (although limited to youth smokers)
23 was included in a bill proposed to Congress as part of the so-called Global
24 Settlement of the wave of state attorneys general tobacco litigation in the
25 1990s (Pertschuk 2001; Derthick 2001; Wolfson 2001). Despite support
26 of the Global Settlement from the tobacco companies, that arrangement
27 was never enacted. Later, these cases were resolved through the Master
28 Settlement Agreement (1998). But that bargain did not contain this per-
29 formance-based feature. In the recent *Racketeer Influenced and Corrupt*
30 *Organizations* (RICO) case brought by the federal government against
31 the tobacco industry, the Department of Justice asked for a performance-
32 based remedy with respect to youth smoking rates, but this feature was not
33 included in the trial judge's final order.⁸ Even more recently, U.S. Senator
34

35 8. Expert witness Jonathon Gruber (2005) testified for the government in *Philip Morris* that a
36 youth look-back provision was unlikely to be very effective in reducing tobacco industry incen-
37 tives to attract youths to smoking, and instead proposed a forward-looking outcome-based reme-
38 dy that imposes a fine if defendants fail to meet targeted reductions in youth smoking. See also
39 Tobacco on Trial 2005 (conveying a U.S. government memorandum proposing outcome-based
40 penalties for missing targets of specific reduction in youth smoking). However, Judge Kessler
declined to impose this proposed penalty because it was "not narrowly tailored to prevent and
restrain Defendants' future RICO violations" (*Philip Morris*, 449 F. Supp. 2d at 1647).

L1 Michael Enzi of Wyoming proposed a strategy similar to that advanced
2 here. His bill, which would apply to all smokers, was offered as a sub-
3 stitute for the bill then before the Senate that would give the Food and
4 Drug Administration regulatory authority over cigarettes.⁹ Enzi's plan (S.
5 1834, 110th Cong., 1st sess. [2007]) includes a "cap and trade" feature that
6 would, as described above, permit tobacco companies to buy and sell their
7 ever-decreasing quota of legal customers. While Enzi's approach has not
8 yet won legislative approval, performance-based regulation has been at
9 least considered as a tobacco control mechanism (Sugarman 2008b). That
10 is not the case for other consumer products, as I next explain.

11
12 *Junk Food (and Childhood Obesity)*. Childhood obesity is now widely
13 understood to be a critical public health problem (Koplan et al. 2007).
14 Not only is one in six American schoolchildren obese, but the obesity
15 prevalence in this group has tripled since the late 1970s (Centers for Dis-
16 ease Control and Prevention 2006a). Early obesity leads to early diabetes,
17 high blood pressure, and other adverse health consequences (Koplan et
18 al. 2007).

19 Policy advocates have just recently given serious attention to this issue,
20 and most of their proposals reflect traditional regulatory approaches, such
21 as banning sodas in schools, requiring fast food sellers to post calorie
22 counts on menu boards, banning junk food ads on children's TV shows,
23 taxing candy and sodas, and suing McDonald's (Gostin 2007). So far
24 there is no indication whether any of these approaches will make impor-
25 tant inroads into the obesity crisis.

26 In a context of uncertainty as to which public interventions will actually
27 help solve the problem, performance-based regulation would be an inno-
28 vative strategy (Sugarman and Sandman 2007, 2008). The most direct
29 performance-based regulatory approach would demand that junk food
30 sellers achieve reductions in childhood diabetes (and perhaps in hyper-
31 tension among youths as well). Yet, because of measurement problems, a
32 wiser regulatory target would be childhood obesity rates.

33 Under this proposal, large firms selling food and drinks that are high in
34 sugar or fat are deemed to be "junk food" sellers and will be assigned the
35 responsibility of reducing childhood obesity based on their share of the
36

37
38 9. On February 15, 2007, two identical, bipartisan bills were introduced in the U.S. Senate
39 and the U.S. House to grant the U.S. Food and Drug Administration authority over tobacco
40 products: S. 625, 110th Cong., 1st sess. (2007), sponsored by Senators Edward Kennedy and
John Cornyn, and H.R. 1108, 110th Cong., 1st sess. (2007), sponsored by Representatives Henry
Waxman and Tom Davis.

L1 junk food market. It seems only fair for firms selling unhealthy products
2 to be obligated to address the childhood obesity problem. I have in mind
3 here both junk food product makers like candy bar companies and junk
4 food retailers like Burger King and Wal-Mart (to the extent that Wal-Mart
5 sells products under its own brands).

6 To ensure accountability, the scheme must assign a specific pool of
7 children to a covered firm. If, instead, all firms were held responsible for
8 a share of the improved health goal of all covered children nationwide, no
9 one could tell which firm actually accomplished any health improvement
10 in any individual child. That, in turn, would give firms an incentive to
11 free ride on each other, with the upshot that, absent some complex agree-
12 ment among the firms or the threat of draconian penalties that would be
13 imposed on everyone, all firms would likely hold back and do nothing.

14 My solution is to assign children to the regulated firms by pairing the
15 firms with geographically proximate schools where obesity rates are cur-
16 rently above the plan's nationwide target rate of 8 percent (which is about
17 half of the current rate). Coca-Cola, for example, might be given responsi-
18 bility for all of the relevant children in the company's home state of Geor-
19 gia. Over a several-year period, each regulated firm would be required to
20 cut in half the obesity rate in the schools for which it is responsible.

21 To be sure, some firms might initially reformulate their products so as
22 to fall below the nutritional threshold triggering a regulatory obligation.
23 Other things being equal, this too would yield a public health gain, even
24 if the reformulation put the product just below the cutoff line. Moreover,
25 in later regulatory rounds, the qualifying criteria (here, a product's share
26 of calories from fat or sugar) could be made even lower. Subsequent regu-
27 lation might have to deal with other problems as well. For example, if
28 regulated firms got people to substitute eating leafy green vegetables for
29 high-sugar candy, that would be good, but if they lured children away
30 from high-sugar candy by offering them larger helpings of candy with
31 sugar levels just below the cutoff, that would probably be unhelpful.

32 Under my proposal, the regulated firms would likely conclude that their
33 primary strategy would be to keep young children slim rather than getting
34 already-obese children to lose weight. Assuming this was their strategy,
35 a firm might first focus its attention on preschool children who would age
36 into the pool for which that firm is responsible as the regime ages and
37 the penalty structure comes into place. Concentrating on prevention is at
38 the center of the public health tradition. Just how regulated firms would
39 accomplish obesity prevention (which would have to continue throughout
40 the target children's years in school) would be up to the firms to figure

L1 out. Firms might sponsor more vigorous physical education or subsidize
2 the substitution of healthy food and activity for nonnutritious meals and
3 sedentary routines in preschools and day care centers.

4 This proposal focuses on the United States even though I recognize that
5 childhood obesity is a problem throughout the world (Koplan et al. 2007)
6 and many of the key product makers are multinational corporations. Yet,
7 if my proposal were adopted in the United States, other nations could fol-
8 low suit to deal with childhood obesity in their own country; indeed, per-
9 haps this performance-based regulatory scheme for obesity will be tried
10 first elsewhere.

11
12 *Alcohol (and Drunk-Driving Deaths)*. Excessive consumption of alcohol
13 is responsible for more than seventy-five thousand deaths a year in the
14 United States (Centers for Disease Control and Prevention 2004b). One
15 could imagine a performance-based regime for this public health problem
16 that is somewhat similar to that described above for smoking. Just for pur-
17 poses of illustration, rather than focus on all of the negative consequences
18 of excessive drinking, I consider here applying performance-based regu-
19 lation solely to the problem of drunk driving. About seventeen thousand
20 annual auto fatalities are traceable to drunk driving (Alcohol Alert! 2005).
21 Imagine a performance-based regulatory scheme requiring the alcohol
22 industry to reduce that number to below nine thousand in seven years.
23 Existing measures aimed at drunk driving have helped, but there is little
24 reason to hope for that sort of reduction under the current regime (Howat
25 et al. 2004).

26 People often drink more than one alcohol product before they drive dan-
27 gerously, so for that and other reasons, tracing individual alcohol products
28 to specific drunk-driving deaths may be cumbersome. Therefore, instead
29 of connecting a specific alcoholic-beverage manufacturer with a specific
30 drunk-driving fatality, each major alcohol provider might be assigned a
31 share of the existing problem proportional to its market share. Analogous
32 to my proposal to fight childhood obesity, each of the regulated firms
33 might then be given a geographic section of the nation whose proportion
34 of current annual drunk-driving fatalities equals the firm's market share.
35 A firm then would have to halve the drunk-driving death rate in its region.
36 Each firm would independently decide how to do this.

37 For example, a firm might provide financial incentives for the installa-
38 tion of Breathalyzers in the vehicles of persons convicted of drunk driv-
39 ing; it might invest in treatment efforts for drunk drivers; or it might press
40 bars, restaurants, and retailers to exercise tighter control over how much

L1 alcohol their customers drink or buy. Maybe a firm would advertise non-
2 non-alcoholic (or lower-alcohol) substitutes or subsidize taxi service in areas
3 where people drink alcohol and cannot readily get home on foot or on
4 public transportation. Most likely, firms would use a combination of mea-
5 sures, including some that no one has yet seriously proposed. Notice that
6 a firm could achieve its target without reducing the overall level of sales of
7 its alcoholic beverages, provided that it was effective in targeting behav-
8 ior changes at those who now drink and drive.
9

10 *Guns (and Homicides)*. Imagine a similar regime applying to gun deaths.
11 Perhaps the performance goal would be to reduce the approximately thirty
12 thousand annual deaths in the United States caused by guns, including
13 deaths caused by suicide, by accident, by self-defense, and by the lawful
14 actions of law enforcement officials (Heron et al. 2009). But in terms of
15 what is generally seen as the most pressing social problem, a performance-
16 based regulatory scheme might focus exclusively on reducing the more
17 than ten thousand annual gun-based homicides in the United States.

18 Again, as just suggested with respect to junk food and alcohol, an indi-
19 vidual gun maker might be given responsibility for a geographic area rep-
20 resenting its market share. But in this setting, perhaps responsibility might
21 instead be linked to the manufacturer of the specific weapon used in any
22 homicide. That is possible because “tracing” data should allow regulators
23 to produce a statistically reliable estimate of the number of deaths caused
24 by the guns sold by any gun company. In any event, the gun makers would
25 have to decide how best to meet their goal, which they would have several
26 years to achieve.

27 Notice, however, that the strategy gun makers employ might vary
28 depending on how the responsibility is cast. For example, if each firm’s
29 obligation were to reduce the number of murders caused by shots fired
30 from guns manufactured by that company, then perhaps firms would con-
31 centrate on fingerprint-based trigger locks that prevent anyone but the
32 registered owner from firing the weapon, combined with tighter retail
33 screening practices by those who sell the firm’s products. If, instead, a
34 gun maker had a geographically based obligation of the sort proposed
35 here with respect to childhood obesity, the firm might pursue a different
36 strategy. Perhaps it would choose to invest in finding jobs and recreational
37 outlets for young men who might otherwise become violent gang mem-
38 bers, or it might work with police and community organizations in other
39 ways to curtail gang violence.
40

L1 *Motor Vehicles (and Auto Accidents)*. From 1993 through 2007, between
2 40,000 and 44,000 Americans were killed annually in highway driving
3 accidents; while there was a substantial drop to just over 37,000 in 2008,
4 this may have been a temporary change owing to an unusually rapid
5 increase in gasoline prices (National Highway Traffic Safety Administra-
6 tion [NHTSA] 2009). The number of deaths per miles driven has very
7 slowly dropped since 1993 (*ibid.*). Some specific features of cars that make
8 them safer have resulted from command-and-control regulation imposed
9 by the NHTSA, such as air bags (Evans 1991; Mashaw and Harfst 1990).
10 Tort liability may also have played a role in causing cars to become more
11 “crashworthy” and hence safer (*Larsen v. Gen. Motors Corp.*, 391 F.2d
12 495, 502 [8th Cir. 1968]; Nader and Page 1967). Nonetheless, it would be
13 overly optimistic to think that the yearly death toll will fall close to twenty
14 thousand without significant additional intervention.

15 As with cigarettes, alcohol, guns, and junk food, the moral claim for
16 performance-based regulation is that makers of cars and trucks benefit
17 from the sale of products that they know will kill both users and third par-
18 ties. The practical claim is that, if held to performance standards, vehicle
19 makers would find ways to ensure that consumers use safer products more
20 safely. Whether that would involve new vehicle design or something else
21 would be left to the vehicle makers to decide. While car companies prob-
22 ably have the greatest control over their vehicles’ safety features, today
23 there is more of an incentive for them to focus design innovations on sell-
24 ing points like speed, style, and comfort. Under a performance-based
25 regulation scheme, this would change. Car companies might decide to
26 focus as well on changing driver conduct, improving roadway conditions,
27 increasing effectiveness of postaccident rescue, or some combination of
28 these. And unless highway deaths from drunk driving were separately
29 regulated, vehicle makers themselves might, for example, decide to install
30 Breathalyzers in all new vehicles. To be sure, some of these strategies
31 could not be implemented by the car companies alone and would require
32 them to win the cooperation of other key actors. But promoting such coop-
33 eration may be desirable, because vehicle makers could become powerful
34 allies of the public health community.

35 Under performance-based regulation, vehicle makers might be assigned
36 the obligation to reduce, by about 50 percent over seven years, the number
37 of occasions in which one of their cars is centrally involved in a fatal acci-
38 dent. This might be measured first by counting every driver or passenger
39 inside one of their models who was killed in an accident. But the tally
40 might also include any pedestrian or occupant of another vehicle killed

L1 on impact with one of their models. In this way, deaths in two-car crashes
2 could be assigned to makers of both cars, with the performance-based
3 goals and measures of success fashioned accordingly.

4 Under performance-based regulation, Toyota might be required to
5 reduce auto fatalities connected to its vehicles from, say, ten thousand to
6 five thousand by a certain date, and if it failed to reach that goal, it would
7 pay a fee (call it a fine, or penalty, or a tax if you like) based on how many
8 deaths were attributed to it beyond five thousand. Critically, the amount of
9 the penalty per extra death would have to be high enough that, if sensible
10 precautionary efforts were feasibly available, Toyota would find it cheaper
11 to spend money on those than to pay the shortfall fees.

13 Some Concerns Acknowledged

15 I concede that any performance-based regime will be imperfect in prac-
16 tice. Here are some potential pitfalls.

17 First, firms might try to achieve their goals by engaging in, or push-
18 ing others to engage in, socially unacceptable behaviors. For example, it
19 would be misguided to substitute a wave of anorexia for childhood obe-
20 sity. Even a campaign that shamed highly overweight children as a way
21 to discourage others from becoming obese might be viewed as having
22 unacceptable social costs. Similarly, with respect to cars, at some point the
23 benefits of increased car safety might be outweighed by resulting harms.
24 For example, if car manufacturers responded to the performance-based
25 regulation exclusively by making heavier, less fuel-efficient vehicles, the
26 costs to society would include greater gasoline consumption and more
27 pollution. Therefore, as part of any performance-based regulation, firms
28 should be required to disclose their compliance plans to the administering
29 agency and the agency should have the authority to veto socially unac-
30 ceptable plans.

31 I admit that this will be a difficult job to do. On the one hand, if reg-
32 ulated firms' plans are regularly vetoed, they may become belligerent,
33 claiming that the scheme prevents them from doing what the public wants
34 of them. And if they throw up their hands in dismay and just pay the
35 penalty fees, then a lot of effort will have been expended to wind up with
36 the equivalent of a tax that could more simply have been imposed at the
37 outset. On the other hand, if the regulated firms are permitted to engage
38 in activities that help them achieve the public health goals but which also
39 carry with them other negative social consequences, the regulators who
40 approved such activities will probably have to take the blame for those

L1 negative consequences. This could be politically difficult, even if, on bal-
2 ance, the social gains exceed the social costs. In short, agency objectives
3 and the overall public interest might not be fully in sync.

4 Second, one has to specify the performance goal precisely to avoid the
5 possibility that compliance will not achieve the desired result. This risk
6 has been noted with respect to performance goals in the education con-
7 text. Goals that focus on children passing tests only in English and math
8 may cause schools either only to teach to the test or only to teach those
9 subjects, thereby not accomplishing the real social goal of better educated
10 youngsters. Or, for example, few would claim progress in public health if
11 cigarette smoking were substantially replaced by cigar and cocaine smok-
12 ing. Similarly, it is hard to see how it would be better if gun suicides were
13 fully replaced by drug-overdose suicides. It is also worth noting that to
14 simplify my proposal, I have focused on using performance-based reg-
15 ulation primarily to reduce the death rate (tobacco company regulation
16 aside). But of course, reducing illness and injury rates are also of great
17 social concern, and death rates alone may not always be a good measure
18 of both mortality and morbidity. Hence an actual implementation might
19 include requiring reductions in both fatality and nonfatality outcomes.

20 Third, the administering agency must worry about the reliability of
21 the measurement system. Suppose food companies entice obese children
22 to stay home from school on the day that official weight measurement
23 occurs. Suppose gun makers respond to the regime by making generic
24 weapons that are no longer traceable to them. Or consider the difficulty in
25 identifying the make of vehicles that cause crashes but are no longer at the
26 scene when the police arrive, as with drivers who swerve and cause other
27 drivers to collide or drivers involved in hit-and-run accidents.

28 Fourth, the performance-based plans outlined above are based on two
29 assumptions. On the one hand, individual users (drinkers, smokers, driv-
30 ers, gun users, and junk food consumers) are not going to solve these
31 public health problems on their own, and on the other hand, the product
32 providers can and fairly should take responsibility for finding at least par-
33 tial solutions. Sometimes, however, the target enterprises may not turn out
34 to be the actors best suited to solve the problems. Conceding this point,
35 I argue that it is not an insurmountable hurdle to the adoption of these
36 performance-based plans. After all, the regulated firms can by contract
37 (or political lobbying) entice others to act.

38 A related point I concede is that the specific product makers I have
39 identified are not the only ones who might be asked to take responsibil-
40 ity for the same bad public health outcome. For example, when it comes

L1 to road deaths, how should responsibility be allocated between vehicle
2 manufacturers and makers of alcoholic beverages? In the same vein, to
3 what degree should the regulatory focus be on the product makers as com-
4 pared with, say, the retailers (assuming that they are different enterprises)?
5 Moreover, other enterprises are also arguably connected in various ways
6 with the existing negative public health outcomes. When it comes to road
7 deaths, for example, there are those firms that make and repair the roads,
8 as well as the gasoline companies and the retailers that facilitate private
9 motoring. Notwithstanding such arguments, I believe there would be a
10 rough public consensus as to which enterprises are morally and culturally
11 understood to be the primary causes of the particular public health prob-
12 lems discussed here. In addition, it should always be kept in mind that I am
13 not advocating a regulatory solution in which the regulated parties must
14 altogether eliminate the public health harm. Moreover, if I am wrong and
15 more firms involved in the problem were included in the regulation, that
16 is fine with me. In short, as in many policy arenas, while some minimum
17 moral connection is probably required between the regulatory target and
18 the problem to be solved, just who must bear the burden of compliance is
19 often a matter of administrative practicality and political framing by those
20 promoting the regulatory scheme.

21 Still, this raises a fifth and more general concern about what a realistic
22 target for improved public health in any designated arena should be. For
23 purposes of illustration, I have been assuming a target reduction of 50
24 percent over seven years, but that may be too ambitious (or too modest).
25 Generally, if the target is set too low, some public health gains which are
26 efficiently able to be reached will probably not be achieved, because the
27 regulated firms will have little incentive to go beyond their target. On the
28 other hand, if the target is set too high, firms may pay penalties for failing
29 to achieve public health gains that are practically beyond them. Yet the
30 latter may not be a terrible outcome, because the ultimate result would be,
31 in effect, a tax on the product passed on to consumers in the marketplace.
32 Such a result could in itself be justified as helping internalize into the price
33 of the product some of the continuing externalities in the form of death,
34 injury, or disease beyond the firm's target.

35 The concern about getting the target right is tied as well to a sixth
36 concern—how should the penalty for noncompliance be set? Ideally, it
37 would seem that the fee for failure to meet a firm's target should be set
38 to equal the social cost of the public health harm, and that the target be
39 set to the level of prevention for which the marginal cost of prevention
40 just equals the marginal social cost of the harm. This way, the firm has

L1 an incentive to prevent harm up to, but only up to, the point where it is
2 efficient to do so. By contrast, if the penalty is set too low, then firms
3 might elect to pay penalties when they could have efficiently achieved
4 additional desired public health gains. On the other hand, if the penalty is
5 set too high, then firms may find it financially desirable to invest in public
6 health gains that are not actually worth their cost (from a social account-
7 ing perspective). Of course, much stronger penalties could be threatened
8 for failure to achieve the target, including forcing a firm to cease produc-
9 ing the relevant product (Cooter and Porat 2007). While this may give
10 the regulated firm an even stronger incentive to achieve its performance
11 goal, if the target turns out to be set unrealistically high, the enforcement
12 of such a harsh penalty is likely to be seen as unfair. Moreover, imposing
13 the threat of such a heavy penalty may politically require setting the target
14 lower than socially desirable. On balance, this sort of compromise (higher
15 penalty but lower target) is probably less desirable than trying to choose
16 the socially efficient target and imposing socially appropriate penalties for
17 failure to meet that target.

18 If the scheme is highly effective, there will be major public health gains
19 and no penalties imposed. Of course, funding would still be required for
20 the administrative operation of the scheme. So if there are some failures
21 and some penalties imposed, that revenue can be devoted first to paying
22 for the plan's operation.

23 Because it is difficult to know the social cost of public health harms
24 with precision, at the outset the administrator should not expect to position
25 the required performance levels and the noncompliance penalties exactly
26 right. As more information becomes available, however, the regime can
27 be adjusted. For example, the administrator can set certain targets and
28 penalties for the first five years and then reset them for the next five years.
29 With respect to both the target and the penalty levels, it would be better
30 initially, as a technology-forcing strategy, to err on the high side. If firms
31 later can show that they are spending more money to reduce harm than is
32 socially desirable and that prospects for achieving those outcomes at lower
33 cost are dim, then a convincing case for lower targets or lower penalties
34 will have been made. To counter protests by firms claiming that they are
35 being asked to achieve too much too soon, the scheme could phase in
36 the required targets by calling for a 20 percent reduction in fatalities (or
37 whatever the performance target is) by year 4, with incrementally higher
38 goals in subsequent years, reaching a 50 percent reduction by year 7. So,
39 too, penalties might be phased in, say, starting only in year 3 or 4. The
40

L1 general point here is that regulators might not have the information at the
2 outset to know precisely what outcome to demand.

3 Seventh, in settings where I have imagined attacking the public health
4 issue by dividing up firm responsibility geographically, it may turn out
5 that some firms could actually be most effective in areas where they do not
6 have responsibility, and some firms might achieve gains in areas assigned
7 to them by imposing costs in other areas. However, these shortcomings
8 might be overcome by a cooperative agreement among the regulated firms,
9 or by including a “tradable permits” feature as already discussed.

10 Eighth, tricky issues are bound to arise if other new public policies are
11 being implemented at the same time as performance-based regulation.
12 Suppose, with respect to both tobacco and alcohol, the government simul-
13 taneously adopts both performance-based regulation and other policies
14 (such as higher cigarette taxes and tougher drunk-driving penalties). If
15 those other policies are effective, public health harms will abate and firms
16 will get credit for achieving at least part of their performance goals without
17 doing anything on their own. While, of course, it would be good to have
18 the public health gains in any event, it misses the point of performance-
19 based regulation to credit firms with social benefits they did not achieve.
20 Yet regulators traditionally have been unwilling to resist the temptation
21 to try to implement command and control or other policy interventions
22 they strongly believe will be socially helpful. At a minimum, I would urge
23 those regulators running the performance-based plan first to publicize
24 and recommend new strategies, leaving it to the regulated enterprises to
25 adopt those ideas on their own. In this way, public safety experts could
26 continue to hone their skill in identifying the best ways to produce public
27 health gains, but they would act as consultants offering advice rather than
28 regulators issuing commands.

29 Finally, it is also imaginable that government interventions aimed at
30 different social policy objectives would undercut the gains that firms
31 subject to performance-based regulation are otherwise achieving. For
32 example, suppose car companies are directed to reduce highway deaths,
33 but at the same time and for altogether different reasons, the government
34 reduces the minimum driving age, or raises the speed limit on two-lane
35 roads, or reduces the gasoline tax—all of which could bring about more
36 highway fatalities. These examples illustrate that substantial care must be
37 exercised when combining policies that, intentionally or not, impact the
38 same behavior.

39
40

L1 Practicalities

2 Perhaps readers can gain a better feel for both the practical feasibility
3 and the administrative difficulties facing the actual implementation of
4 performance-based regulation for public health through a more detailed
5 description that shows how the idea might be applied to at least one of
6 products more briefly described above. Hence I focus here on motor vehi-
7 cle fatalities.

8 First, which agency would be responsible for administering the scheme?
9 For these purposes I propose the NHTSA, since that agency already con-
10 cerns itself with highway safety. Next, one would have to determine the
11 precise outcome measure by which vehicle makers are to be judged. I
12 have so far talked of highway fatalities. Notice that this would include
13 truck, bus, motorcycle, and other motor-vehicle-related deaths and not just
14 automobile-related deaths, and if we stick with that scope for the plan, it
15 would bring into the scheme the makers of those products as well as auto-
16 makers. Notice too that this would exclude highway deaths from the use of
17 nonmotorized vehicles (like bicycles) that do not also involve motor vehicles.
18 And so too it would exclude deaths from the nonhighway use of motorized
19 vehicles, such as from the off-road recreational use of all-terrain vehicles
20 or from the use of power boats on lakes and rivers. Obviously, there is no
21 self-evidently most desirable boundary on the scope of this sort of scheme.
22 Again, framing is probably critical, and in that light it would seem practi-
23 cally sensible to start with highway accidents from motor vehicles because
24 this is already a politically salient category (e.g., the NHTSA's focus) and a
25 way that a very important social problem is already currently understood by
26 the public at large. It also has the advantage, at least at the start, of narrow-
27 ing the range of regulated firms to a reasonably small number, even if truck,
28 bus, and motorcycle makers are included along with automakers.

29 A further consideration is whether the target should only be reduced
30 highway deaths or whether injury reduction, or at least serious-injury
31 reduction, should also be part of the required outcome. As a policy matter,
32 surely we want injury reduction as well; moreover, we would feel much
33 better about fatality reductions if what used to be deaths were converted
34 into accidents avoided altogether instead of merely converted into serious
35 injuries. Still, even the latter shift is not to be sneezed at. Yet we are likely
36 to be much more confident that we are properly measuring outcomes if
37 the plan is restricted to fatalities. Perhaps the answer to the question of
38 what sort of outcomes to demand here depends on how much, as a gen-
39 eral matter, measures that are effective in reducing fatalities will also
40

L1 bring with them reductions in serious injuries even if not required by the
2 plan. If one could be confident that that were the case, then to restrict the
3 plan to deaths probably makes the most practical sense. However, if there
4 were good reason to fear that the regulated firms would adopt measures
5 that, while saving lives, sharply increased the number of serious injuries,
6 that undesirable consequence would push in the direction of adopting a
7 broader performance-based measure.

8 Assuming for now that the plan is aimed at highway fatalities, we would
9 need a fair and reliable way of attributing each fatality to a specific vehicle
10 or vehicles. For what are truly one-car crashes, this seems unproblematic.
11 Notice here that, for these purposes, it does not matter why the car
12 crash happened. There may have been nothing wrong with the car in the
13 traditional sense, that is, no defects that caused the vehicle to, say, roll
14 over or crash into a center divider. The whole point here, after all, is to
15 prod car companies to take new measures to contend with these sorts of
16 consequences of humans piloting heavy vehicles at high speeds under all
17 sorts of conditions (including varying road conditions, varying weather
18 conditions, and varying conditions of the driver). One-car crashes that kill
19 bicyclists and/or pedestrians would also be assigned to the maker of the
20 motor vehicle involved.

21 Two-vehicle crashes are more complicated. Victims in such cases could
22 be drivers or passengers of either vehicle or both (and pedestrians and
23 bicyclists could also be killed, a matter put to side for now). One solution
24 in such cases would be to assign the deaths to the maker of the vehicle
25 in which the victims were riding. This gets vehicle makers to focus on
26 occupant safety. A second solution would be to assign the deaths to the
27 maker of the other vehicle. This gets vehicle makers to focus on making
28 their products less lethal to others. A third solution, which seems wisest
29 to me, would be to assign all the deaths to makers of both vehicles so as to
30 widen their focus to include both types of safety. If the latter, then a decision
31 would have to be made as to whether, in weighting deaths in one-car
32 crashes as compared with two-car crashes, the assigned number of deaths
33 allocated in the latter should be halved for each firm, which is perhaps the
34 most sensible outcome. Whether the same approach should apply in dealing
35 with crashes involving vehicles of a considerably different character is
36 another matter—say, bus/car crashes or car/large truck crashes, or even
37 car/motorcycle crashes. All of these examples demonstrate that it is not
38 simple to decide how to assign responsibility. And yet I have little doubt
39 about the NHTSA's ability to resolve these questions in a reasonably fair
40 and sensible way via normal administrative rule-making procedures.

L1 I have been assuming for purposes of illustration that the industry target
2 for reduced highway fatalities would be 50 percent over seven years, or
3 about a 7 percent reduction per year (or possibly an 8 percent reduction
4 over years 2–7 after a grace year at the outset, or yet another schedule that
5 yielded the same result by the end of year 7). But of course, both the extent
6 of fatality reduction and the period over which it is to be achieved can be
7 contested and set otherwise. As noted already, I favor an ambitious target.
8 Still, if the target is seen as wholly implausible, then it may well be politi-
9 cally difficult to impose anything but minor penalties for noncompliance,
10 a combination that risks having the regulated firms ignore their target and
11 just pay small fines. On the other hand, it is probably a waste of time and
12 money to put into place the administrative machinery of a performance-
13 based regulatory scheme if the intended safety gains are not large. Past
14 improvements could provide relevant information; for example, if seat
15 belts and air bags together currently save, say, eight thousand lives a year,
16 that provides some context for asking the motor vehicle companies to save
17 perhaps another twenty thousand lives annually. Again, I think that sen-
18 sible targets could be arrived at either through administrative rule making
19 or through congressional hearings before enactment of the scheme that
20 results in the inclusion of the plan's targets in the legislation.

21 The plan would also have to determine for each of the regulated firms
22 both its current level of assigned deaths and its reduced-death target. When
23 it comes to cigarette makers, I envision a uniform required reduction target
24 for each company, because all cigarettes are, so far as I know, essentially
25 equally dangerous. But for motor vehicle makers this is probably not true.
26 Certain firms already produce products that are disproportionately more
27 or less involved in highway fatalities, given their market share. Hence we
28 would want to demand less from firms that already make safer vehicles
29 as compared with those making more dangerous ones. A straightforward
30 way to allocate responsibility, then, would be this. Assume that the year 7
31 target for the industry as a whole is a reduction in highway fatalities from
32 forty-four thousand to twenty-two thousand. For that last year (with simi-
33 lar targets along the way) a firm could be allocated a maximum number
34 of deaths assigned to its vehicles based on its market share of vehicles on
35 the road. So, for example, if Honda had 15 percent of the market, its target
36 would be 15 percent of twenty-two thousand, or thirty-three hundred. So,
37 too, if Ford had 15 percent of the market, its target would be the same
38 as Honda's. But achieving that target might require more or less from
39 Ford than from Honda, depending on what share of the existing forty-
40 four thousand deaths were assigned to it. If Fords were safer than Hondas

L1 already, then the data might show that Ford were currently responsible for
2 only, say, fifty-five hundred deaths rather than sixty-six hundred deaths,
3 which would reflect its 15 percent market share. In such event, Ford would
4 need to achieve a reduction of only twenty-two hundred deaths to meet its
5 target. Under this assumption, Honda (or some other firm) would have a
6 disproportionately higher share of existing deaths assigned to it and hence
7 would have farther to go to meet its target. Notice, too, that the allocation
8 of allowable deaths (i.e., the number that are allowed without penalty) may
9 be based on something other than simple market share data. Perhaps the
10 number of miles a firm's vehicles are driven, as compared with total miles
11 driven, could be used in setting targets. Perhaps vehicle weight could also
12 be taken into account.

13 Another issue to face is whether a firm's market share (or whatever the
14 target is based on) at the start of the regulatory scheme should be used to
15 set an individual firm's target for at least the first round of the plan (say,
16 seven years), or whether there should be ongoing adjustments based on
17 market share. A related problem concerns new entrants, if any, during
18 the scheme's operation, although my presumption is that those would be
19 assigned a target of zero fatalities, so that if they wanted to function with-
20 out paying penalties, they would have to purchase fatality allowances from
21 firms operating at the start of the scheme. Again, these are all matters
22 that I believe could be sensibly resolved through normal administrative
23 processes or even through congressional hearings held in connection with
24 the adoption of the plan.

25 To gain public and industry confidence, the plan would have to provide
26 assurances that the number of highway fatalities allocated to each regu-
27 lated firm was reasonably accurate and that suitable statistical adjustments
28 were being made to attribute fatalities in cases in which there had been a
29 highway death but no vehicle could be identified (or only one of clearly
30 two or even more vehicles involved had been identified). But because of
31 police and ambulance service involvement in motor vehicle deaths, the
32 frequency of insurance claims and lawsuits filed in case of such deaths,
33 and the typical availability of witnesses to such accidents, I think that once
34 it was legally determined how deaths were assigned, the NHTSA could
35 readily develop a good reputation for properly assigning death counts to
36 the right enterprise. While there is always a risk that the regulated parties
37 will figure out how to game the system by showing illusory public health
38 gains, that risk seems minor in this instance.

39 Under these assumptions, the key remaining task is to determine the
40 penalty for failing to achieve a firm's target and collecting funds if the

L1 target is not met. For now, I put aside the latter, even while admitting
2 the financial precariousness of automakers in the current financial crisis.
3 Agencies like the NHTSA are already experienced in assigning values
4 to lives lost, and let us assume a number like \$5 million for purposes of
5 illustration here. That number could well be the figure used in setting
6 the fine for exceeding the allowable target. But it is more complicated
7 than that. First of all, assuming that we believe that measures that reduce
8 highway deaths also reduce serious injuries, then the failure to achieve,
9 say, a reduction of one hundred deaths means an even greater social loss
10 and hence may call for a larger penalty. Second, because firms will have
11 penalties starting, for instance, in year 2 or 3 of the plan with intermediate
12 targets along the way, it is critical to decide whether the penalties imposed
13 are once and for all or repetitive. For example, suppose General Motors
14 (GM) starts with nine thousand deaths assigned to it and it is supposed to
15 reduce that number to seven thousand by the end of year 3, to six thousand
16 by the end of year 4, and so on until it reaches four thousand by the end of
17 year 7. But suppose seventy-five hundred deaths are assigned to it in year
18 3, so that it has a five-hundred-fatality excess. Once it pays its year 3 fine,
19 are those five hundred excess deaths forever ignored, or is GM fined again
20 if by the end of year 4 it has achieved the one-thousand-death reduction
21 envisioned for that year but, because of past failures, is still responsible in
22 year 4 for sixty-five hundred deaths? I tend to favor ongoing responsibility,
23 but that would seemingly call for a different penalty amount than a
24 once and for all penalty. Again, these are important details with which the
25 NHTSA would have to grapple.

26 Furthermore, it may be noted that a more modest scheme than the one
27 I have been presenting could be adopted with respect to motor vehicles. It
28 would focus only on vehicles sold after the date of the plan's enactment.
29 In effect, a firm would be permitted (without fine) to have its new vehicles
30 sold after the start of scheme to be involved in only x highway fatalities
31 per, say, one hundred thousand vehicles sold. Over time, of course, the
32 new scheme would approach the features of the one I have been describing
33 in detail, as the vehicles on the road at the start of the scheme became a
34 minimum share of the total.

35 Finally, I recognize that it is a long way from simply demanding high-
36 way fatality reduction to understanding precisely what motor vehicle com-
37 panies would actually do to avoid the penalties discussed here. It might be
38 very difficult and costly for firms to meet their goals, or it might not be.
39 They might be able to achieve their goals largely through actions taken
40 in isolation with respect to the design of vehicles and perhaps through

L1 changes in their marketing practices and restrictions imposed on those
2 to whom their vehicles are sold (with conditions attached to resale as
3 well). Yet it might also take considerable cooperation with other motor
4 vehicle makers on various fronts. One issue is vehicle compatibility with
5 respect to matters such as how high bumpers are set or relative weight and
6 speed of vehicles. Another concerns possible cooperation with respect to
7 changes in highway safety that would impact the operation of the entire
8 motor vehicle fleet, changes that might include speed limits, road condi-
9 tions, police presence, rescue operations, and more. The central point that
10 bears reemphasis here is that all of this would be for the motor vehicle
11 industry to figure out. Of course, auto makers would engage experts in
12 highway safety to help them. But it would be their responsibility to take
13 the most effective action to bring the fatality rate down. As noted earlier,
14 firms would be required to disclose their plans to meet their targets so that
15 the NHTSA could be sure that they were not doing so in ways that caused
16 other unacceptable outcomes as well. Disclosures of this sort would also
17 help others in the industry better learn from each other so that, through
18 competition, the most cost-effective ways of lowering highway fatalities
19 might be achieved on an industrywide basis.

20 To be sure, the NHTSA's mission would be redirected by this proposal,
21 and there surely would be substantial costs involved in establishing the
22 data collection regime needed to monitor and enforce the scheme. More-
23 over, the NHTSA is likely to face some problems in managing such a
24 scheme, many of which probably cannot be anticipated in advance. The
25 goal here, however, is no more to achieve perfection than it is to eliminate
26 highway deaths entirely. Rather, the goal is rather the ambitious public
27 health aim of halving motor vehicle fatalities on the road, a goal which, if
28 even mostly accomplished, would be an enormous contribution to overall
29 societal well-being.

31 **Regulatory Alternatives**

32
33 So far I have shown how performance-based regulation might be adopted
34 to deal with each of the five major consumer products under consideration
35 here (having given special attention to its specific application to highway
36 fatalities). I have also conceded some of the potential problems gener-
37 ally confronting this approach. I next describe alternative approaches to
38 regulating hazardous products. These are mostly (but not entirely) con-
39 ventional strategies. I provide examples relevant to automobiles, guns,
40 cigarettes, alcohol, and junk food, noting the shortcomings of each of

L1 these strategies. My overall message is that performance-based regulation
 2 is a promising strategy as compared to other more conventional options,
 3 which have all too often had disappointing results.
 4

5 Command and Control 6

7 In the most common regulatory strategy, command and control (Stew-
 8 art 1988, 1987, 1985; Ackerman and Stewart 1985), the regulator (e.g.,
 9 legislature, agency, or commission) requires the regulated party (e.g.,
 10 manufacturer, retailer, or possibly user) to take specific measures that
 11 the regulator believes will mitigate potential harms. For example, to pro-
 12 mote auto safety, a regulator might require car manufacturers to include
 13 air bags. To avoid accidental shootings, gun makers might be required
 14 to include trigger locks in the design of new guns. Secondhand smoke
 15 injuries might be curbed by requiring employers to adopt and enforce a
 16 ban on workplace smoking. Alcohol-related fatalities might be lowered
 17 by limiting how much alcohol may be contained in the malt liquor that
 18 supermarkets and liquor stores sell. Childhood obesity might become less
 19 prevalent by forcing TV broadcasters to eliminate junk food advertising
 20 on programs aimed at children. Notice that in some of these examples the
 21 command-and-control regulation is directed toward a product maker (e.g.,
 22 car companies or gun makers), while in others it is directed toward other
 23 actors, like retailers (the malt liquor example) or employers (the second-
 24 hand smoke example).

25 Command-and-control schemes rest on the belief that the regulator
 26 knows the best way (or at least a good way) to attack the public health prob-
 27 lem. As is usual with command-and-control schemes, all of the examples
 28 above call for “input” changes. This is in marked contrast to performance-
 29 based regulation, which targets outcomes. Input strategies ordinarily
 30 assume that if enterprises make the ordered behavioral changes, then
 31 improved public health performances will follow. To be sure, sometimes
 32 the regulator only imposes what looks like a promising solution in hopes
 33 of success. Put more generally, regulators implement command-and-
 34 control strategies to attack apparent risk factors and strive to bring about
 35 better social outcomes, but recognize that such outcomes are not guaran-
 36 teed. For example, eliminating junk food ads on TV might not actually
 37 lead to lowered childhood obesity rates. So, too, requiring trigger locks
 38 on guns might have a negligible impact on accidental shootings and no
 39 impact at all on homicides or suicides.

40 Although command-and-control regulations are imposed by regulators,

L1 it is not as though the regulators work in isolation. They typically come to
2 conclusions about precisely which command-and-control rules to impose
3 through a procedure that involves public input. For example, they can use
4 a variety of formal and informal mechanisms (such as hearings, notice and
5 comment procedures, or negotiations) to involve those potentially subject
6 to regulation as well as other relevant actors (such as nongovernmental
7 organizations [NGOs]) (Bamberger 2006).

8 While command-and-control mistakes can be corrected, the major
9 problem with this approach is that the regulator may not order the right
10 changes, even after a number of tries, or that it will take too long to get it
11 right (Komesar 1985, 1990; Page 1991; Trebilcock 1991). This could be
12 because the self-interest of the regulators does not match that of the public;
13 they may be corrupt, subject to undue influence by those being regulated,
14 inept, or simply eager to maximize the size and budget of the agency.
15 Even assuming the best of intentions, regulators simply may not possess
16 or be able to acquire the information to determine the most efficient and
17 effective changes to require. Worse yet, they may lock enterprises into
18 outmoded and unduly costly technologies.

19 Furthermore, even if the regulators reach a partial solution, they may
20 lack a solid approach to another, perhaps key, aspect of the problem. For
21 example, maybe trigger locks on guns would substantially reduce accidental
22 shootings, and hence could be socially quite valuable, but such shoot-
23 ings account for only a very small share of gun deaths and injuries (fewer
24 than a thousand annually) (Anderson et al. 2004; Jacobs 2002).

25 In addition, command-and-control public health interventions are
26 sometimes plagued by special political problems. Even if policy experts
27 generally agree that net social gains would occur through some regula-
28 tory intervention, the limits on individual liberty that would be imposed
29 (and the accompanying complaints about the “nanny” state) could doom
30 the adoption of otherwise helpful policy initiatives. How else to explain,
31 for example, the tenacious opposition to requiring motorcyclists to wear
32 helmets?

33 Taxes and Subsidies

34
35
36 Second, instead of demanding a change to the specific inputs of a product
37 or directly regulating the manner of its sale or use, the regulator might
38 try to influence the level of production or consumption of the product by
39 imposing an excise tax or granting a subsidy (or adjusting existing levels
40 of taxes or subsidies). Taxes on tobacco and alcohol are familiar examples.

L1 Also in this vein, the regulator might impose a substantial license fee for a
2 gun permit or allow consumers to claim a tax credit for purchasing a car
3 with antilock brakes. So, too, in order to address obesity, the government
4 might decrease subsidies for high fructose corn syrup while creating sub-
5 sidies for fresh fruits and vegetables.

6 This approach is arguably less direct than command-and-control
7 regulation (although enforcement sometimes can be much easier). The
8 tax approach assumes that price effects of taxes and subsidies will cause
9 changes in consumption patterns that will in turn lead to improved public
10 health outcomes. To be sure, some command-and-control requirements
11 may add to a product's cost and thereby diminish its sales, resulting in an
12 overlap between these first two regulatory mechanisms. But regulators are
13 doing quite different things when they tax gun sales generally and when
14 they increase gun costs by requiring trigger locks.

15 The success of tax and subsidy strategies in lowering the level of a dan-
16 gerous activity is likely to depend first on "elasticity of demand"—how
17 sensitive consumers are to price, which depends in part on the price and
18 suitability of substitute products. Thus, when demand is highly inelastic,
19 behavioral effects from price changes may be very modest. Still, taxes also
20 have an "income" effect, altering consumers' overall spending patterns,
21 including purchases of the taxed item. Moreover, industry responses to taxes
22 and subsidies can both undermine and exaggerate intended policy impacts.
23 Consider the example of concentrated industries with price leaders. On the
24 one hand, if firms in such an industry are willing to temporarily take lower
25 profits, they may choose to avoid passing higher taxes on to consumers in
26 the form of higher prices. In the analogous case for subsidies, such firms
27 may be able to temporarily take higher profits by not passing subsidies on to
28 consumers in the form of lower prices. On the other hand, taxes sometimes
29 have an even greater effect than regulators imagined. For example, sellers
30 might use the occasion to raise prices more than the amount of the tax and
31 reap (at least temporarily) higher profits. All of this suggests that excise
32 taxes (and subsidies) are somewhat blunt policy instruments.

33 Furthermore, taxes designed to promote public health tend to have an
34 overbreadth problem. For example, all drinkers will have to pay more for
35 alcohol when it costs more because of tax increases, but most of those
36 who consume less as a result are not alcoholics or irresponsible users.
37 Thus, public-health-based taxes will frequently suffer from "target inef-
38 ficiency." Even cigarette taxes—which are great to the extent they cause
39 people to quit, not to relapse and start smoking again, and not to start in
40 the first place—do nothing to improve public health to the extent heavy

L1 smokers respond to the higher cost by switching from premium to lower
2 cost brands.

3 In contrasting conventional tax strategies with the performance-based
4 regulatory scheme, two key distinctions should be emphasized. First,
5 excise taxes are rarely proposed (or enacted) that are at a high enough
6 level to be construed as internalizing the full social costs of the prod-
7 uct into its price. By contrast, the penalties imposed via performance-
8 based regulation are envisioned to be of this magnitude. Second, the tax
9 strategy is generally intended to apply to all sales, and is unresponsive
10 to any efforts firms make to reduce the negative social consequences of
11 their products. Rather, public health gains are envisioned as arising from
12 purchasing responses by consumers to the tax itself, assuming that the
13 tax is passed on to consumers (subject to possible monopolistic responses
14 already noted). Under performance-based regulation, by contrast, the
15 penalty—which admittedly may be viewed as a special sort of tax—only
16 applies to negative consequences beyond a firm’s target and is measured
17 by the extent of the shortfall from the target. Hence it is highly responsive
18 to a firm’s efforts to reduce those consequences. For this reason, if some
19 firms successfully meet their targets and others do not, it may be difficult
20 for the firms that fail to pass the cost of these penalties on in the price of
21 their product.

22 23 Participation

24
25 Third, the regulator might instead insist on the participation of public
26 health activists or consumer advocates in private business decision mak-
27 ing. An example from the field of occupational safety is the requirement
28 that firms have at-risk employees participate in worksite safety commit-
29 tees (Lobel 2005). Another good example of this participatory strategy
30 outside of the public health arena is the requirement that independent
31 directors be included in the composition of corporate boards to discour-
32 age excessive executive compensation and inappropriate self-dealing by
33 officers (Bebchuk and Fried 2005).

34 For this article’s focal areas, then, imagine requiring beer companies
35 to include public health advocates on their corporate boards; food com-
36 panies to appoint independent nutritionists to their product development
37 teams; manufacturers to appoint independent safety engineers to work
38 with company employees designing new car and gun models; or tobacco
39 companies to give representatives of former smokers a role in shaping
40 product advertising campaigns.

L1 This participatory approach rests broadly on the twin beliefs that the
2 regulator probably does not know exactly what to “command” firms to do
3 right now and that technological development and other changes may soon
4 make obsolete current regulatory solutions. Participation requirements, by
5 contrast, are meant to force firms to pay ongoing attention to public health
6 objectives. Of course, the actual influence of the public health participants
7 could vary greatly, depending on factors such as how much power they
8 have and how many of them there are.

9 Yet, even if publicly appointed participants have little formal power
10 within the firm, they may well have the power of publicity, creating trans-
11 parency in the decisions that go against the interest of public health. That
12 power of disclosure may in turn increase the attention that firms pay to
13 the participants’ recommendations. On the other hand, one risk of par-
14 ticipatory regulation is that it becomes all show and no action. Just as
15 regulated firms can “capture” the agencies that are supposed to regulate
16 them (for example, by using political contributions to entice officials to
17 appoint regulators who are overly friendly to the firms they are supposed
18 to regulate), firms can also “capture” these publicly appointed participants
19 that are supposed to represent the public interest.

20 Participation of the sort imagined here is a largely untried strategy. Its
21 prospects for enactment are difficult to assess, as are its likely impacts
22 even if put into place. The key point to emphasize, in comparison with
23 performance-based regulation, is that the participation approach in no way
24 insists on positive public health outcomes.

25
26
27

Litigation

28 Fourth, litigation is yet another regulatory strategy that can be employed
29 in furtherance of public health goals (American Law Institute 1991; Sugar-
30 man 2008a; Komesar 1990). One way to understand this strategy is to see
31 lawyers, judges, and juries as replacing lobbyists, agency personnel, and
32 legislators in shaping public health policy (Jacobson and Warner 1999).
33 From this perspective, resort to litigation may be based on a judgment about
34 command-and-control failures of the sort noted already, like regulatory
35 capture (by industry), regulator ineptness (in the form of an unresponsive
36 or incompetent bureaucracy), or regulatory gaps (such as tobacco products
37 until recently falling outside the jurisdiction of both the Food and Drug
38 Administration and the Consumer Product Safety Commission).

39 Specifically, I have in mind common-law tort litigation based on claims
40 of negligence, or what is largely the same thing—product liability claims

L1 based on the assertion that the product suffers from a design, marketing,
2 or warning defect (*Restatement [Third] of Torts: Product Liability*, sec.
3 2 [American Law Institute 1998]). These are cases in which a private vic-
4 tim seeks money damages. Examples of tort claims within the behavioral
5 health contexts at issue in this article include suing bars that serve alcohol
6 to people who then injure victims with their cars, suing gun sellers whose
7 guns are used to kill, and suing tobacco companies for smoking-related
8 deaths. When victims base their tort claims on the doctrine of “negligence
9 per se” (*Martin v. Herzog*, 126 N.E. 814 [N.Y. 1920]), arguing that the
10 party who injured them violated a statute or regulation, this sort of lawsuit
11 is perhaps best classified as an example of the private enforcement of a
12 command-and-control provision (Rabin 2000).

13 Even though a common-law tort plaintiff normally seeks money dam-
14 ages only after suffering harm, the regulatory theory underlying tort liti-
15 gation is that firms will take health and safety precautions in advance in
16 hopes of avoiding lawsuits (and will even more seriously address the con-
17 sequences of their products after a litigant successfully sues them or their
18 direct competitors) (Calabresi 1970; Landes 1987). Indeed, sometimes the
19 private litigants’ preferred legal remedy is an injunction to prevent ongo-
20 ing or future harm.

21 Furthermore, tort litigation is not the only option. Alternatively, pub-
22 licly employed lawyers like state attorneys general or city attorneys might
23 haul before judges those manufacturers (or even sellers) of consumer
24 products who should be doing more to reduce the behavioral public
25 health problems described here. I am not referring to in-court enforce-
26 ment of detailed regulatory or statutory rules, which I see as part of
27 the command-and-control strategy set out above. Rather, I am thinking
28 here of litigation that seeks to apply general consumer protection laws,
29 like those making illegal certain kinds of fraud or other unfair business
30 practices, to public health problems. In such cases, as with common-law
31 tort claims, it is judges (and juries) who give specific content to the broad
32 legal norms, deciding, in effect, which specific behaviors by private firms
33 are required and forbidden.¹⁰

34
35
36 10. For example, California’s Unfair Competition Law (California Business and Professions
37 Code, sec. 17200 [West 1997]), which prohibits “any unlawful, unfair or fraudulent business
38 act or practice and unfair, deceptive, untrue or misleading advertising” was enacted to protect
39 consumers. *Anunziato v. eMachines, Inc.*, 402 F. Supp. 2d 1133 (C.D. Cal. 2005). The “unfair”
40 prong intentionally provides courts with broad discretion to prohibit new schemes to defraud.
UCL Paulus v. Bob Lynch Ford, Inc., 43 Cal. Rptr. 3d 148 (Cal. Ct. App. 2006). Several Califor-
nia cities, including Los Angeles and San Francisco, have attempted to sue gun manufacturers
under section 17200. See Wallenstein 2001.

L1 Yet litigation has its own drawbacks. For one thing, it can be quite
2 expensive, especially the cost of the lawyers. Second, most tort litigation is
3 not policy oriented. It is not about identifying and blocking new dangers,
4 such as cars that are not “crashworthy” or guns that are irresponsibly mar-
5 keted. Rather, most torts cases involve routine claims such as for compen-
6 sation of victims of inattentive drivers or careless property owners; or they
7 are the hundreds or thousands (or more) follow-on claims against, say, a
8 pharmaceutical company whose drug has already been clearly shown to
9 have been inadequately tested (Hensler et al. 1987; Hensler and Peterson
10 1993). Third, even though both sides in complicated torts cases call expert
11 witnesses to testify in court on their behalf, there is reason to be skeptical
12 that juries fully understand the tradeoffs involved in deciding, for exam-
13 ple, whether a product’s design is unreasonably dangerous, or whether
14 it is reasonable to condemn the product maker for not having provided
15 a better warning or not having marketed the product in a different way.
16 Finally, many victims of wrongdoing will not bring tort claims because
17 they do not realize how they were injured, they cannot gather proof of
18 the fault of the enterprise that harmed them, or the amount of their injury
19 is sufficiently small that they cannot get a good lawyer to take their case
20 (Felstiner, Abel, and Sarat 1980).

21 22 Management Regulation

23
24 Fifth, perhaps best visualized as lying somewhere inside a square in which
25 self-regulation, participation, command-and-control regulation, and
26 performance-based regulation occupy the corners, is a strategy sometimes
27 called “management” regulation or “co-regulation” (Coglianese and Lazer
28 2003; Kagan 2001). Although these labels may apply to a variety of ideas,
29 a typical scheme requires a firm that creates a risk to devise a plan to
30 reduce that risk, publicly announce the plan, and then implement it (Bam-
31 berger 2006; Lobel 2005). This is more than self-regulation because action
32 is legally required. Both government and private firms participate in the
33 process, with perhaps NGOs participating as well. It is not a command-
34 and-control regime, however, because the requirement is only to have a
35 plan, and the regulators do not dictate the details of the plan. Neither is
36 it performance-based regulation because there is no penalty if the plan
37 does not work. I mention the management regulation strategy primarily to
38 include it in my taxonomy and to distinguish it from the others. Its central
39 virtue is its easy enforcement since the regulator need only determine
40 whether the private firm engaged in the process of adopting an action plan.

L1 Its downside is that firms will adopt unambitious and unimaginative plans
2 or will not seriously carry out what they planned to do.
3

4 **Comparing Performance-Based Regulation**

5
6 As already emphasized, the core idea behind the performance-based
7 approach is that firms whose products are inextricably linked to behav-
8 ioral public health problems should take responsibility for the resulting
9 harms. That is, firms should not be able to wash their hands of respon-
10 sibility for how their products are used. Performance-based regulation
11 works by simply insisting on a reduction in those negative public health
12 consequences.

13 This approach differs from typical command-and-control regimes in
14 two crucial respects. One, rather than empowering the regulators to dic-
15 tate required changes to firms, the firms themselves decide what to change
16 to achieve the desired results. Two, rather than focusing on inputs (as
17 command-and-control regimes do), performance-based regulation focuses
18 on results.

19 As contrasted with other strategies, performance-based regulation
20 requires neither product price changes nor participation in enterprise deci-
21 sion making by public health representatives. Yet, under performance-
22 based regulation, if regulated firms conclude that participation or price
23 manipulation strategies will help them achieve their required public health
24 gains, they are free to employ them. And this is a central advantage of
25 performance-based regulation—it prods firms whose products cause
26 harm to figure out ways to reduce that harm at a time when other regula-
27 tory approaches have left society with death, injury, and disease levels far
28 in excess of what I think is socially acceptable.

29 Note that fault-based litigation, like command-and-control regulation,
30 is also input oriented. Under tort law, the legal system (judges and juries)
31 tells firms how they should have behaved to reduce risk. That is, negli-
32 gence law generally requires a finding as to what precisely the defendant
33 ought to have done to have prevented the harm. In special circumstances,
34 the doctrine of *res ipsa loquitur* may be an exception to this rule, although
35 it is more often used as a procedural device to shift the burden of proof
36 to defendants. The key point, however, is that fault-based litigation differs
37 sharply from performance-based regulation.

38 By contrast, were tort law to impose true “strict liability,” that would
39 be much more analogous to performance-based regulation because firms
40 would be held liable for injury regardless of how they behaved, and no

L1 specific precautionary behavior is required of them. However, American
2 tort law rarely imposes this sort of outcome-oriented responsibility; if
3 anything, tort law is moving away from that approach. To be sure, tort
4 law does impose strict liability for manufacturing mistakes (defectively
5 manufactured products) and for ultrahazardous activities (like dynamite
6 blasting), but not for products that are said to be defective because of their
7 design, warning, or marketing; in those cases, proof of reasonable alterna-
8 tive conduct is generally required.

9 However, a true regime of strict tort liability would hold product makers
10 responsible for all of their negative public health outcomes. That would
11 include deaths that everyone agrees cannot be prevented. That is because,
12 once a court determines that a given type of harm, say, damage from
13 dynamite blasting, should give rise to strict liability, all victims of dyna-
14 mite blasting are entitled to relief. So if obesity, say, were considered a
15 harm to which strict liability applied, then the food industry would be
16 legally responsible for all obese plaintiffs. By contrast, as already empha-
17 sized, under performance-based regulation, public health improvements
18 could be more carefully tailored to realistic goals. In the case of obesity,
19 the food industry might be induced merely to reduce the prevalence of
20 childhood obesity by, say, half, rather than required to eliminate it entirely.
21 I should also emphasize that under strict liability individual victims have
22 to prove that their harm was actually caused by the firm's product and
23 that their injury, death, or disease would not have occurred anyway. This
24 is sometimes very difficult to do. By contrast, this individualized cau-
25 sation requirement is replaced in performance-based regulation by the
26 plan's specified target for each firm (and the agreed-on basis of measuring
27 whether the target has been met).

28 Some years ago Howard A. Latin (1985a, 1985b) advocated using strict
29 liability in tort to hold car companies strictly responsible for those injured
30 or killed by their cars on the theory that this would induce the compa-
31 nies to more quickly introduce safer vehicles (or related safety-improving
32 measures). This idea strongly resembles my performance-based regula-
33 tory proposal. Nonetheless, important differences between his scheme and
34 ours are that Latin's plan would impose costs on vehicle makers for all
35 highway fatalities and the money would go to victims; by contrast, in my
36 proposal, no payments would be made if vehicle makers met their goals,
37 and if they did not, the payments would go to the government. Still, the
38 proposals share the broader notion that car companies should be prodded
39 to deal more effectively with the harms caused by their products.

40 I want to reemphasize that one way to view performance-based regula-

L1 tion is as a scheme of taxation. But this is taxation imposed, not on product
2 sales, but on a specified level of bad outcomes. In other words, rather than
3 being taxed at, say, \$1 per pack of cigarettes made or sold, the tobacco
4 industry would be annually taxed, say, \$10,000 for every smoker of their
5 brand beyond their allowable limit. These “taxes” would be the fees, fines,
6 or penalties imposed on firms for failing to achieve the mandated reduction
7 in their performance targets. Unlike that of the excise tax, however,
8 the policy goal of performance-based regulation is not to collect taxes
9 but to stimulate public health gains that relieve firms of those taxes. In a
10 similar vein, notice that strict liability in tort can also be seen as a “tax”
11 scheme (in which victims and their lawyers get the tax proceeds). But,
12 as emphasized above, under strict tort liability the firms’ targets would,
13 in effect, be set to zero since the strict liability payment obligation (the
14 “tax”) would apply to all harms, and not only to the harms beyond the
15 firm’s target set by performance-based regulation.

16 As mentioned already, although it might seem from the way I have
17 described these various regulatory approaches that they are exclusive
18 alternatives, this is not the case. In both theory and practice, more than
19 one strategy may be used to deal with the same public health problem. As
20 obvious examples, both tobacco and alcohol products are currently sub-
21 ject to both excise taxes and command-and-control regimes, and for both
22 fields personal injury lawyers have additionally sought further regulation
23 through tort actions. Nonetheless, the regulatory approaches described
24 here do represent very different ways of thinking about how to solve a
25 particular social issue, and in some respects combining certain of the
26 approaches can be awkward and potentially counterproductive. In par-
27 ticular, because performance-based regulation goes directly to the public
28 health goal and asks industry to achieve that goal, one must be especially
29 cautious in mixing it with the other approaches.

30 Acknowledging that systemic problems confront performance-based
31 regulation, it is important to review its potential advantages, especially
32 given the shortcomings of the regulatory alternatives.

33 Most important, performance-based regulation is designed to unleash
34 private innovation and competition. The same features that we value in
35 the production of goods in a capitalist system can now be specifically
36 turned toward promoting safety and health. Along with this decentral-
37 ized compliance arrangement should come experimentation, and mutual
38 learning as some strategies prove more successful, to say nothing of the
39 technology-promoting force of the call for ever greater public health gains
40 over time.

L1 Although existing agencies might promote performance-based regula-
2 tion as an alternative to their own current regulatory arrangements, let
3 us assume for now that adoption of my proposal will require legislative
4 action. This raises the question of whether performance-based regulation
5 is politically plausible. At the outset, opposition might well come from both
6 the public health community and the potentially regulated firms. After all,
7 many public health advocates distrust business and instinctively would
8 be hesitant to rely for solutions on an industry they already blame for the
9 social problem being addressed. Think about how strongly the tobacco
10 control community detests cigarette companies. On the other hand, there
11 are some public health leaders who, although they strongly believe that
12 industry must be part of any solution to the problems connected with their
13 products, are committed to voluntary self-regulation strategies. Corporate
14 social responsibility is the banner they typically fly. At a minimum, win-
15 ning both of these wings of the public health community over to trying out
16 performance-based regulation requires convincing them that their current
17 approaches are destined to fall short.

18 Because it is easy to keep pushing the same long-favored ideas, perhaps
19 some special event is required to shake people's confidence and allow
20 them to open themselves up to exploring something new. With respect to
21 guns, for example, maybe the recent U.S. Supreme Court decision inter-
22 preting the Second Amendment as generally giving individuals a constitu-
23 tional right to possess a weapon at home for purposes of self-defense will
24 become such an event. Because this case threatens conventional gun con-
25 trol strategies, it just might prompt those who previously had been com-
26 mitted to using command-and-control approaches to reduce gun deaths
27 to consider an altogether different strategy. Were there to be a lengthy
28 stall in the downward trend in smoking prevalence rates, that might move
29 public health leaders to look elsewhere instead of relying on the package
30 of approaches that are currently thought most effective. As the American
31 automakers came to Congress for a financial bailout during the financial
32 crisis of 2008–2009, we saw congressional leaders talking about imposing
33 conditions that promised greater fuel efficiency or even a shift to vehicles
34 that ran entirely without internal combustion. But with the right initiative,
35 accident-reduction (or vehicle-related fatality-reduction) conditions might
36 easily have been attached as well.

37 Enterprises, of course, are not eager for more regulation—including
38 performance-based regulation—and as I have noted throughout, their
39 general framing strategy to resist regulation is to cast the problems
40 under discussion here as arising from user abuse. Nevertheless, I want

L1 to emphasize that, as compared with other regimes, performance-based
2 regulation also has some attractions for the regulated parties. For example,
3 rather than being told what to do, as happens with command-and-control
4 regimes, firms may greatly prefer to control how they will satisfy their
5 obligations. Individual public health experts could play a role, as regulated
6 firms might choose to bring them in to help achieve the performance tar-
7 gets. As already noted, however, these experts would have to convince the
8 firms that what they have to offer will make a real difference, in contrast
9 to other regulatory approaches in which experts are empowered to compel
10 behavior on the part of firms. Moreover, if successful, the regulated firms
11 can praise themselves for the public health harm reduction they achieve.
12 This is in contrast to the bad publicity they typically suffer when suc-
13 cessfully sued, or the likelihood that they receive no added goodwill for
14 merely complying with regulatory commands.

15 The strategy for bringing industry around to supporting performance-
16 based regulation probably depends on convincing the target enterprises
17 that it is a less bad result for them. In other words, if they genuinely fore-
18 see what, from their viewpoint, is a highly undesirable command-and-
19 control scheme in the offing, then performance-based regulation may
20 be a far more palatable alternative. Furthermore, it might be possible to
21 win industry support by trading it off with the repeal of existing regimes.
22 For example, perhaps firms in the motor vehicle industry that meet their
23 targets under a performance-based regulatory plan should be freed from
24 existing tort liability for claims of product defect. Or perhaps existing and
25 future NHTSA safety measures could become recommendations instead
26 of requirements for vehicle makers that reached their fatality reduction
27 target. In effect, meeting the performance-based regulation goal would
28 provide a firm with a safe harbor with respect to other safety regulation.

29 If the political prospects for adopting performance-based regulation
30 in the areas under discussion here still seem remote, think about how
31 rapidly our perspectives on global warming have changed. Not that many
32 years ago it was unimaginable that large emitters of carbon dioxide would
33 be expected to take responsibility for dramatically reducing their carbon
34 footprints. Moreover, if one imagined future regulation in the fight against
35 climate change, one probably would think first of devices or processes
36 that governments would order power plants, factories, and vehicle mak-
37 ers to employ. Instead, at least for now, there appears to be widespread
38 support from policy makers and at least grudging acceptance from large
39 carbon dioxide polluters to try some sort of performance-based regulation
40 approach that at least leaves it to industry to figure out the cheapest way

L1 to curtail their emissions. As with global warming, it will probably take
2 creative and entrepreneurial political leaders and policy analysts to lead
3 public opinion in the direction of performance-based regulation for the
4 public health problems addressed here.

5 As a fresh approach that relies on enterprises to solve problems they
6 create, performance-based regulation, if positioned properly, could have
7 wide political cachet. Indeed, it can appeal to those who think firms are
8 more nimble than regulators as well as those who want firms to take
9 responsibility for the public health problems their products cause. For
10 this reason, I think regulation that imposes performance goals and fines
11 for noncompliance is more politically attractive than a somewhat similar
12 scheme that would provide affirmative financial rewards to firms that
13 achieve public health gains. Yet a combination of penalties and rewards
14 may ultimately be even more attractive. Applying this idea to highway
15 fatalities, for example, a performance-based penalty and reward scheme
16 might work like this. Instead of demanding a 7 percent annual reduction
17 in the fatality rate associated with any firm's vehicles, the plan could,
18 say, require a 4 percent reduction but at the same time provide generous
19 bonuses (perhaps equivalent to the fines firms would face for failing to
20 reach the 4 percent target) to those firms that achieved reductions beyond
21 4 percent. In that way, firms could do well by doing a lot better than they
22 do today in minimizing the negative outcomes of their products.

23 As emphasized throughout, perhaps the most important feature of any
24 political campaign promoting performance-based regulation to address a
25 behavioral public health issue is the framing of the problem. Performance-
26 based regulation ties together the freedom to sell products with the respon-
27 sibility for resulting negative consequences, leaving it to the firms to tailor
28 the former in ways that minimize the latter. This may not be the easiest
29 message to sell politically at a time of constant objections to the "nanny"
30 state and pressures for deregulation. Yet, as with global warming, with
31 the right political entrepreneurs taking the lead in framing the problem,
32 public perception can be changed. What before may have sounded like too
33 much regulation can instead be understood as appropriate restrictions on
34 enterprises that now irresponsibly harm the public health.

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