#### Pathways to Auto Safety:

# Assessing the Role of the National Highway Traffic Safety Administration by Robert L. Rabin\*

I. Road Injuries: The National Highway Traffic Safety Administration in Context

At the outset, it is worth reflecting on the extent to which the injury toll inflicted by motor vehicles on the roadway corresponds to the domain of auto safety regulation by the National Highway Traffic Safety Administration (NHTSA)—the regulatory domain to be assessed in this chapter. One recent personal experience, backed by a broader overview of highway fatality and injury data, will set the stage.

Shortly after Memorial Day, returning from our annual three-week road and hiking trip, my wife and I were on the familiar last leg of our sojourn: driving north on Highway 395, tracking the Owens Valley on the eastern side of the Sierras. At a point north of Bishop, California, the four lane highway begins a relatively steep, protracted ascent for some fifteen miles (with no divider between the two lanes in each direction at that juncture). Midway up the section, as I drove behind a lumbering long-haul truck, the air began to fill with smoke suggesting the possibility that a brushfire of some sort might be in the offing. But almost immediately, the smoke became positively overwhelming, as though an enormous white blanket had been thrown over the entire car, reducing my visibility literally to zero. I could no longer see

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the truck, any cars that might be following or coming toward us from the opposite direction, or from the passing lane to my left. I was blinded to all possibilities.

Good fortune prevailed. I swung instinctively to the left, pressed down on the accelerator, and hoped for the best. Immediately, as I passed the truck, it became clear that its motor had badly overheated and was discharging bellowing smoke. The cloud lifted: I had avoided running into the backside of the vehicle, sideswiping another car that might have been in the passing lane, or overreacting by driving into oncoming traffic.

Most such incidents are devoid of high drama, and indeed are relatively rare. But inattention to routine vehicle maintenance, questionable driving judgment, inebriation, inadequate highway safety design (or warnings)—any or all of which may in fact have been involved in the scenario—or simply an instance of extraordinary bad luck, feed the registry of highway accident statistics.<sup>1</sup> While these risks are predominantly outside the ambit of federal auto safety regulation, they are routinely addressed through state highway safety codes mandating everything from DUI sanctions, speed limits, and seat belt usage, to police enforcement activity.

<sup>&</sup>lt;sup>1</sup> For a thoughtful discussion on highway accident data, see Clinton V. Oster & John S. Strong, *Analyzing Road Safety in the United States*, 43 RESEARCH IN TRANSPORTATION ECONOMICS 98, 106 (2013).

A brief examination of recent data on the highway injury toll provides greater detail. In 2013, 32,719 people died from auto accidents on American roads.<sup>2</sup> Among these fatalities, 22,383 (68%) were vehicle occupants; 4,668 (14%) were motorcyclists; and 5,668 (17%) were pedestrians or bicyclists.<sup>3</sup> For people of all ages, auto accidents are the thirteenth most common cause of death.<sup>4</sup> For children and young adults ages eight to thirty-four, auto accidents are the leading cause of death.<sup>5</sup>

The prevalence of certain factors in fatal auto accidents helps spell out the raw body counts. In 29% of fatal accidents, one or more drivers exceeded the speed limit;<sup>6</sup> 31% of fatal accidents involved one or more alcohol-impaired drivers;<sup>7</sup> 10% of fatal accidents involved one

<sup>3</sup> *Id.* at 106. Of the deceased, 23,808 (71%) were men and 9,733 (29%) were women. *Id.* 

<sup>4</sup> NAT'L CTR. HEALTH STATISTICS, CTR. FOR DISEASE CONTROL, LCWK1: DEATHS, PERCENT OF TOTAL DEATHS, AND DEATH RATES FOR THE 15 LEADING CAUSES OF DEATH IN THE UNITED

STATES, 2013 (Dec. 31, 2014), http://www.cdc.gov/nchs/data/dvs/LCWK1\_2013.pdf.

<sup>5</sup> Teen Drivers: Get the Facts, CTR. FOR DISEASE CONTROL (Oct. 7, 2014),

http://www.cdc.gov/motorvehiclesafety/teen\_drivers/teendrivers\_factsheet.html; *see also* Oster & Strong, *supra* note 1, at 98.

<sup>6</sup> 2013 TRAFFIC SAFETY, *supra* note 2, at 191.

<sup>7</sup> Alcohol-impaired is defined as over 0.8% BAC. See 2013 TRAFFIC SAFETY, supra note 2, at 42.

<sup>&</sup>lt;sup>2</sup> See NAT'L HIGHWAY TRAFFIC SAFETY ADMIN., U.S. DEP'T OF TRANSP., DOT HS 812 139, TRAFFIC SAFETY FACTS 2013, http://www-nrd.nhtsa.dot.gov/Pubs/812139.pdf [hereinafter 2013 TRAFFIC SAFETY]. (last visited Nov. 9, 2015).

or more distracted drivers;<sup>8</sup> and 24% of drivers in fatal auto accidents were not wearing a seatbelt.<sup>9</sup> There is overlap amongst these categories, of course.

But what of the trend data? Between 1966 and 2013, the rate of fatal auto accidents declined from 5.5 to 1.09 deaths per 100 million vehicle miles traveled. Figure 12.1 shows the steady decrease in fatal accidents over the past half century.

## [INSERT FIGURE 12.1 ABOUT HERE, WITH THIS FOOTNOTE]<sup>10</sup>

Some portion of this reduction can be attributed to state and local efforts to reduce speeding and alcohol-impaired driving and to wider seatbelt usage, as well as evolving social norms and improved emergency medical care, apart from legal requirements. Strict speed limits and police enforcement of these limits have probably reduced the frequency of fatal accidents, though the relationship between speed and fatal accidents is complex.<sup>11</sup> Stricter DUI penalties and enforcement, combined with consumer awareness and public health campaigns, have likely decreased the number of fatal accidents involving alcohol-impaired driving.<sup>12</sup> As shown in Figure 12.2, the percentage of fatal accidents involving an alcohol-impaired driver declined from

<sup>8</sup> NAT'L HIGHWAY TRAFFIC SAFETY ADMIN., U.S. DEP'T OF TRANSP., TRAFFIC SAFETY FACTS: DISTRACTED DRIVING 2012 (Apr. 2014), http://www.distraction.gov/downloads/pdfs/812012.pdf. <sup>9</sup> This data point is especially stark when compared to the proportion of drivers not wearing seatbelts in non-fatal auto accidents that still produced injury: 2.7%. 2013 TRAFFIC SAFETY, *supra* note 2, at 136.

<sup>10</sup> *Id.* at 20.

 $^{12}$  *Id*.

<sup>&</sup>lt;sup>11</sup> Oster & Strong, *supra* note 2, at 106.

48% in 1982 to 31% in 2013.<sup>13</sup> And seatbelt laws and consumer awareness campaigns have increased the percentage of drivers and passengers that use a seatbelt from 14% in 1983<sup>14</sup> to 87% in 2013.<sup>15</sup>

## [INSERT FIGURE 12.2 ABOUT HERE, WITH THIS FOOTNOTE]<sup>16</sup>

In this array of preventive strategies, NHTSA might be regarded as a backstop contributor; isolating its role with any precision is a difficult task.<sup>17</sup> For one thing, many accident reports fail to attribute fatal accidents to any particular cause. Some factors like driver fatigue are

<sup>&</sup>lt;sup>13</sup> See 2013 TRAFFIC SAFETY, *supra* note 2, at 42

<sup>&</sup>lt;sup>14</sup> *America's Experience with Seat Belt and Child Seat Use*, NAT'L HIGHWAY TRAFFIC SAFETY ADMIN., http://www.nhtsa.gov/people/injury/airbags/Archive-04/PresBelt/america\_seatbelt.html (last visited Aug. 15, 2015).

<sup>&</sup>lt;sup>15</sup> NAT'L HIGHWAY SAFETY ADMIN., U.S. DEP'T OF TRANSP., DOT HS 812 030, TRAFFIC SAFETY FACTS: SEAT BELT USE IN 2013—USE RATES IN THE STATES AND TERRITORIES (May 2014), http://www-nrd.nhtsa.dot.gov/Pubs/812030.pdf.

<sup>&</sup>lt;sup>16</sup> 2013 TRAFFIC SAFETY, supra note 2, at 43.

<sup>&</sup>lt;sup>17</sup> It is worth noting here that NHTSA is peripherally involved in non-automotive-design initiatives through its state and local grant programs. It funds a number of programs targeted at some of these driver behavior problems. The significance of this funding is unclear. *See Highway Safety Grant Programs*, NAT'L HIGHWAY TRAFFIC SAFETY ADMIN.,

http://www.nhtsa.gov/About+NHTSA/Highway+Safety+Grant+Programs (last visited Aug. 15, 2015).

nearly impossible to reconstruct after the fact. Finally, as mentioned above, many accidents involve multiple causes that influenced the accident to varying degrees.<sup>18</sup>

Reflecting these considerations, Clinton Oster and John Strong divide the factors that contribute to auto accidents into three categories: 1) road and traffic environment and engineering; 2) vehicle characteristics and performance; and 3) driver behavior and performance.<sup>19</sup> Road and traffic environment and engineering encompass factors like road design, road maintenance, and traffic control. Vehicle characteristics and performance deal with vehicle design and manufacture related to the frequency of auto accidents (crash avoidance) and the consequences of accidents (crashworthiness). Driver behavior and performance include factors like risk-taking, use of seatbelts, speed, and alcohol-impaired driving.

The categories are illuminated by returning to my misadventure on Highway 395. Had there been lane dividers or prominent warnings of the risk of overheating, the prospect of a serious accident might have been lessened. Had the truck's engine not overheated from the ascent, there would have been no sight-impaired risk of an accident. Had I (or the truck driver) reacted differently behind the steering wheel, it might have resulted in a collision.

All three of Oster and Strong's safety categories have played a part in the decrease in fatalities per mile traveled since 1966. Road engineering and maintenance have undoubtedly improved; vehicles are designed and built more safely; and drivers are behaving more responsibly. This chapter is principally concerned with the role that vehicle design and manufacture play in auto safety – and NHTSA's role in regulating vehicle design and

<sup>&</sup>lt;sup>18</sup> Oster & Strong, *supra* note 1, at 99.

<sup>&</sup>lt;sup>19</sup> *Id.* at 100.

manufacture. Despite the impressive gains in auto safety over the past half century, NHTSA has borne substantial criticism for failing to regulate proactively and failing to detect major safety defects in motor vehicles.<sup>20</sup>

What role has NHTSA played in reducing the injury toll reported above? Has the agency implemented its statutory mandate efficaciously? Is the steady drumbeat of criticism over its selection of regulatory priorities and level of commitment to safety improvements warranted? Is it realistic to expect more of the agency? These are questions that will be pursued in the following sections.

In 1966, Congress created NHTSA through the National Traffic and Motor Vehicle Safety Act ("Motor Vehicle Safety Act").<sup>21</sup> A substantial measure of credit has gone to Ralph

<sup>20</sup> According to its own internal estimate, NHTSA's regulations and slightly preceding federal regulatory activity saved 613,501 lives since 1960. *See* NAT'L HIGHWAY TRAFFIC SAFETY ADMIN., U.S. DEP'T OF TRANSP., DOT HS 812 069, LIVES SAVED BY VEHICLE SAFETY TECHNOLOGIES AND ASSOCIATED FEDERAL MOTOR VEHICLE SAFETY STANDARDS, 1960 TO 2012 (Jan. 2015), http://www-nrd.nhtsa.dot.gov/Pubs/812069.pdf [hereinafter LIVES SAVED]. From 2002 to 2012, NHTSA's annual estimates of lives saved by vehicle safety technologies runs between approximately 25,000-30,000 per year. *Id.* at 228.

<sup>21</sup> National Traffic and Motor Vehicle Safety Act of 1966, 15 U.S.C. 1381 et seq. (amended 1966, 1970, 1974, 1976, 1978, 1982, 1984, 1988, 1991, 1994, 1995, 1996, 1997, 1998, 1999, 2000, 2002, 2005, 2007, 2008, 2011) (current version at 49 U.S.C.A. § 30101 (Westlaw through Pub L. No. 114-40 (excluding Pub. L. No. 114-27))).

Nader's breakthrough volume, *Unsafe at Any Speed*.<sup>22</sup> And there is no doubt that his vivid account of the defects in the widely-popular General Motors Corvair played a major role in generating the legislation.<sup>23</sup> More broadly, however, the auto safety legislation can be viewed as an integral part of the singular movement, beginning in the mid-1960s and carrying over into the early 1970s, when Congress enacted foundational health and safety legislation addressing an array of environmental and product concerns, which had previously gone largely unheeded at the federal level.<sup>24</sup>

The Motor Vehicle Safety Act directs NHTSA to promulgate and enforce vehicle safety regulations, issue vehicle and component recalls, and conduct research and gather data to support

<sup>23</sup> For a comprehensive account of the enactment of the Motor Vehicle Safety Act, see JERRY L. MASHAW & DAVID L. HARFST, THE STRUGGLE FOR AUTO SAFETY (1990). Nader followed up on his volume by establishing the watchdog organization Center for Auto Safety, funded substantially through the settlement of his right of privacy tort settlement against General Motors, *see* Nader v. General Motors Corp., 255 N.E.2d 765 (N.Y. 1970) (documenting the automaker's efforts to harass and humiliate him).

<sup>24</sup> Robert L. Rabin, *Federal Regulation in Historical Perspective*, 38 STAN. L. REV. 1189, 1278-95 (1986). From another perspective – *compensation* of victims of auto accidents – roughly half the states, in the same period, enacted auto no-fault legislation, underscoring the extent to which motor vehicle injuries had become a focal point of domestic public policy. *Id*.

<sup>&</sup>lt;sup>22</sup> RALPH NADER, UNSAFE AT ANY SPEED: THE DESIGNED-IN DANGERS OF THE AMERICAN AUTOMOBILE (1965).

its safety mission.<sup>25</sup> Published twenty-five years ago, Jerry Mashaw and David Harfst's study, *The Struggle for Auto Safety*,<sup>26</sup> offered a comprehensive critique of the agency's performance through its early decades. The authors concluded that after an initial flurry of important rulemaking activity, extending through 1974, NHTSA's record on the rulemaking front was marked by failed opportunities. Essentially, they concluded that the agency abandoned meaningful rulemaking after its early years and took a path of lesser resistance – resistance, in particular, from Congress, the courts and the auto industry – relying on inefficacious recalls, rather than rulemaking, as its principal regulatory strategy.<sup>27</sup>

This chapter reassesses Mashaw and Harfst's critique twenty-five years later. Reviewing NHTSA's rulemaking and recall activities since 1990, I conclude that Mashaw and Harfst's criticisms of NHTSA remain largely valid. I am somewhat more optimistic, however, with regard to the potential for a robust recall program to improve auto safety. I conclude that if NHTSA were to receive adequate resources, adopt the necessary political will, and work towards a culture of "skeptical receptiveness" in its approach to the auto industry – undeniably big ifs – its recall program could become a vital and effective regulatory tool.

II. NHTSA: Responsibilities and Performance

<sup>&</sup>lt;sup>25</sup> 49 U.S.C. § 30101.

<sup>&</sup>lt;sup>26</sup> MASHAW & HARFST, *supra* note 23.

<sup>&</sup>lt;sup>27</sup> In a briefer critique, Mashaw revisited the agency's performance a little over a decade later and found no reason to revise his previous conclusions. *See* Jerry L. Mashaw, *Law and Engineering: In Search of the Law-Science Problem*, 66 L. & CONTEMP. PROBS. 135 (2003).

#### A. Rulemaking Responsibilities

NHTSA is responsible for issuing Federal Motor Vehicle Safety Standards and Regulations (FMVSS). Under the Motor Vehicle Safety Act, these safety standards must be practicable, reasonably meet the need for motor safety, and be stated in objective terms.<sup>28</sup> These rules aim to protect the public against "unreasonable risk of crashes occurring as a result of the design, construction, or performance of motor vehicles" and protect the public "against unreasonable risk of death or injury in the event crashes do occur."<sup>29</sup> The FMVSS are divided among standards that address crash avoidance, crashworthiness, and post-crash integrity.<sup>30</sup>

The rulemaking process begins in one of four ways: 1) Congressional mandate; 2) agency research identifying a safety problem; 3) petition from the public; or 4) recommendation from another agency, like the National Transportation Safety Board. NHTSA then goes through a traditional rule-making process: collecting safety data and testing, drafting a proposed rule,

Electronics-TRB-2012.pdf [hereinafter SR-308].

<sup>&</sup>lt;sup>28</sup> See 49 U.S.C. § 30111(a) (2012); see also Daniel Smith, NHTSA Rulemaking Process,

http://onlinepubs.trb.org/onlinepubs/UA/012711Smith.pdf (last visited Aug. 15, 2015).

<sup>&</sup>lt;sup>29</sup> U.S. GOV'T ACCOUNTABILITY OFFICE, GAO-11-603, AUTO SAFETY: NHTSA HAS OPTIONS TO

IMPROVE THE SAFETY DEFECT RECALL PROCESS 4 n.8 (June 2011),

http://www.gao.gov/assets/320/319698.pdf; see also 49 U.S.C.A. § 30111.

<sup>&</sup>lt;sup>30</sup> TRANSP. RESEARCH BD., NAT'L RESEARCH COUNCIL, SPECIAL REPORT 308: THE SAFETY

PROMISE AND CHALLENGE OF AUTOMOTIVE ELECTRONICS 27-28 (2012),

http://www.omg.org/hot-topics/documents/Safety-Promise-and-Challenge-of-Automotive-

conducting economic cost-benefit analysis, writing a draft rule for intra-and inter-agency comment, and publishing the rule for public comment before revising and issuing the final rule.<sup>31</sup>

Some concrete examples illustrate each category. Crash avoidance rules cover subjects like light systems, warning systems, braking systems, rearview mirrors, electronic stability control systems, and tires. Crashworthiness rules deal with issues related to airbags, seatbelts, child restraint systems, side and rear impact protection, ejection prevention, and roof crush resistance.<sup>32</sup> Post-crash integrity rules deal with issues like fire resistance.

The FMVSS are intended to be "performance-oriented" and "technology neutral," rather than traditional command-and-control regulations, thereby creating flexibility for technology changes over time and variance across manufacturers.<sup>33</sup> In this regard, the FMVSS generally operate as minimum safety standards that auto manufacturers can meet in one of a variety of ways, rather than as mandates to use a specific technology to make cars safer. Auto manufacturers self-certify that their vehicles meet the relevant FMVSS.<sup>34</sup> To enforce the FMVSS, NHTSA randomly purchases vehicles and tests them to ensure they conform to the safety standards. It goes without saying that just because the model meets the FMVSS does not mean that in subsequent road performance it will be free of defects.

<sup>&</sup>lt;sup>31</sup> Smith, *supra* note 28.

<sup>&</sup>lt;sup>32</sup> *Id.*; *Federal Motor Vehicle Safety Standards and Regulations*, NAT'L HIGHWAY SAFETY ADMIN., http://www.nhtsa.gov/cars/rules/import/FMVSS.

<sup>&</sup>lt;sup>33</sup> SR-308, *supra* note 30, at 104, 128; *see also* 49 U.S.C.A. § 30111.

<sup>&</sup>lt;sup>34</sup> Id.

#### B. Rulemaking: A Critique

These are the formalities. How does it translate into performance? The Department of Transportation estimates that the FMVSS have saved over 600,000 lives, largely based on rules governing air bags and seatbelts.<sup>35</sup> Despite this purported success story, NHTSA has received substantial criticism for failing to adequately fulfill its rulemaking responsibilities.

Mashaw and Harfst exhaustively documented this critique twenty-five years ago. Since then, while critics may not entirely agree on why NHTSA fails in this regard, the consensus has been that the agency has been too reactive, excessively cautious, and strikingly slow in issuing safety rules that could save lives.

Congressional hearings have provided a platform for observers to express their criticisms. Testifying at a Senate subcommittee hearing in 2013, Professor Thomas McGarity argued, as part of a larger critique of a broken regulatory system, that NHTSA has "effectively given up on rulemaking unless specifically required by statute, focusing instead on its statutory power to force the recall of motor vehicles that contain 'defects' related to safety performance."<sup>36</sup>

<sup>&</sup>lt;sup>35</sup> See LIVES SAVED, *supra* note 20.

<sup>&</sup>lt;sup>36</sup> Justice Denied: Rules Delayed on Auto Safety and Mental Health, Hearing Before the Subcomm. on Oversight, Fed. Rights & Agency Action of the S. Comm. on the Judiciary, 113th Cong. at 58 (2013), http://www.gpo.gov/fdsys/pkg/CHRG-113shrg89428/pdf/CHRG-113shrg89428.pdf [hereinafter Justice Denied Hearing] (prepared statement of Professor Thomas McGarity).

McGarity noted a variety of problems with regulating through "case-by-case adjudication," including the lack of notice to regulatees and lack of accountability to Congress.<sup>37</sup>

At the same congressional hearing, Clarence Ditlow, Executive Director of the Center for Auto Safety, argued that there is a direct connection between NHTSA's failure to issue safety rules and the major increase in recalls over the past two decades. Had NHTSA been more proactive, according to Ditlow, it could have saved thousands of lives and avoided costly recalls. As examples, Ditlow cited delay in adopting electronic stability control systems; fused circuits defects, which led to millions of Ford recalls; tire defects, which led to the Firestone recalls; and several others. Ditlow chalked up NHTSA's failure to regulate to underfunding and industry opposition.<sup>38</sup>

Joan Claybrook, a former NHTSA Administrator and long-time safety advocate, agreed with Ditlow and McGarity's critiques. In testimony before a House committee in 2009, she added that NHTSA is slow to issue even congressionally-mandated rules and that the rules they do issue are "unnecessarily weak in ways that will save fewer lives and avert fewer serious injuries than would be the case had the agency adopted stronger standards."<sup>39</sup> She specifically

<sup>37</sup> *Id.* at 53.

<sup>&</sup>lt;sup>38</sup> *Justice Denied Hearing, supra* note 36, at 67 (prepared statement of Clarence Ditlow, Executive Director, Ctr. for Auto Safety).

<sup>&</sup>lt;sup>39</sup> Auto Safety: Existing Mandates and Emerging Issues: Hearing Before the Subcomm. on Commerce, Trade & Consumer Prot. of the H. Comm. on Energy & Commerce, 111th Cong. 75 (2009), http://www.gpo.gov/fdsys/pkg/CHRG-111hhrg72888/pdf/CHRG-111hhrg72888.pdf

cited roof crush-resistance rules, ejection prevention, and the rollover crash-testing mandated by the 2005 SAFETEA-LU Act.<sup>40</sup> Claybrook also argued for increased NHTSA funding and more Congressional involvement to spur better rulemaking.<sup>41</sup>

However, the untoward flight from rulemaking has not gone unchallenged. Industry advocates and a leading author on regulation, Professor Cary Coglianese, offer a different view. They argue that NHTSA has in fact issued major safety rules that have reduced the rate of accidents and saved lives. They deny that rulemaking "ossification" has occurred at NHTSA and point to the effectiveness and net number of NHTSA rules issued over the past two decades.<sup>42</sup> Still, these advocates can hardly deny that many of the rules they point to – especially the important ones – would not have been issued had Congress not mandated them.<sup>43</sup>

Industry advocates argue that NHTSA has been extremely effective in the past at reducing fatalities from auto accidents, which are at an all-time low. In addition, they argue that most new safety features are initiated by the industry rather than as the result of any regulatory mandate. They cite antilock brakes, lane departure warnings, and electronic stability control,

[hereinafter *Auto Safety Hearing*] (prepared statement of Joan Claybrook, Board Member, Advocates for Highway and Auto Safety).

<sup>40</sup> Safe, Accountable, Flexible, Efficient Transportation Equity Act of 2005: A Legacy for Users (SAFETEA-LU), Pub. L. No. 109-59, 119 Stat. 1144-1978 (codified in scattered sections of 23 U.S.C.).

<sup>41</sup> Auto Safety Hearing, supra note 39, at 72-93 (prepared statement of Joan Claybrook).

<sup>42</sup> See Justice Denied Hearing, supra note 36 at 76-77 (prepared statement of Cary Coglianese).

<sup>43</sup> See *infra* text accompanying note 50.

among others.<sup>44</sup> In a Congressional hearing, one lobbyist noted, "Claims that vehicle safety will not be advanced in the absence of regulatory requirements simply do not reflect the reality of today's automakers."<sup>45</sup> Industry advocates reject out of hand the Mashaw ideal of NHTSA as a "technology-forcing" regulator. They argue that NHTSA is most effective when it works to increase seat belt usage and reduce impaired driving and leaves technology innovation for safety to industry.<sup>46</sup>

Professor Coglianese argues that NHTSA has not stopped making rules nor has it shifted its regulatory strategy from rulemaking to recalls. Citing the gross number of rules NHTSA has issued and the economic costs of such regulations (\$5.2-\$10.1 billion in costs over the past several decades), Coglianese argues, "we can see today more clearly than ever before that NHTSA has definitely not abandoned rulemaking." Furthermore, he disputes that the shift to recalls is as strong as many argue, noting that most recalls are manufacturer-initiated, rather than NHTSA-initiated.<sup>47</sup>

<sup>46</sup> See *id*.

<sup>&</sup>lt;sup>44</sup> A long-time participant/observer of NHTSA told me that in virtually all of these instances, the regulatory standard followed industry development of the new technology, generally in high-end cars. But NHTSA's standards then functioned as a floor for new model entrants into the market. Side airbags were an exception where the agency did take the lead.

<sup>&</sup>lt;sup>45</sup> *See, e.g., Auto Safety Hearing, supra* note 39, at 53-59 (prepared statement of Robert Strassburger).

<sup>&</sup>lt;sup>47</sup> *Justice Denied Hearing, supra note* 36, at 76 (prepared statement of Cary Coglianese). This either/or position appears to need qualification. Many observers regard the recall process as

Who is correct? The consensus on rulemaking seems to be that Mashaw and Harfst's 1990 critique is still valid. A 2010 National Research Council study noted that "nearly every high-income country has made more rapid progress than has the United States in reducing the frequency of road traffic deaths and the rate of deaths per kilometer of vehicle travel."<sup>48</sup> Arguably, NHTSA's slow rulemaking has contributed to this.

One example shows the potential for rulemaking to improve auto safety and NHTSA's failure to fulfill this potential. The Electronic Stability Control (ESC) rule, issued in 2007, is estimated to have saved 1,144 lives in 2012.<sup>49</sup> This is without doubt a substantial contribution to auto safety in the United States. In fact, however, many experts had long called for ESC rules, but NHTSA failed to issue the ESC rule until Congress mandated that they do so in 2005 under

frequently involving joint informal negotiations between NHTSA and the manufacturer. See *infra* note 62. For Coglianese's broader critique of the claim of rulemaking ossification, see Cary Coglianese, *Empirical Analysis and Administrative Law*, 2002 U. ILL. L. REV. 1111. <sup>48</sup> TRANSP. RESEARCH BD., NAT'L RESEARCH COUNCIL, SPECIAL REPORT 300: ACHIEVING TRAFFIC SAFETY GOALS IN THE UNITED STATES: LESSONS FROM OTHER NATIONS vii (2010), http://onlinepubs.trb.org/onlinepubs/sr/sr300.pdf. Of course, these safety advances turn on a wide array of road safety initiatives, as noted earlier.

<sup>49</sup> NAT'L HIGHWAY TRAFFIC SAFETY ADMIN., U.S. DEP'T OF TRANSP., DOT HS 812 042, TRAFFIC SAFETY FACTS: ESTIMATING LIVES SAVED BY ELECTRONIC STABILITY CONTROL, 2008-2012 (2014), http://www-nrd.nhtsa.dot.gov/Pubs/812042.pdf. SAFETEA-LU.<sup>50</sup> Two broadly applicable insights into NHTSA's rulemaking follow from this example. First, NHTSA might have saved more lives had it passed the ESC rule earlier. Second, NHTSA might never have issued the ESC rule –apart from voluntary initiative from the industry – had Congress not mandated that it do so.

## C. Recall Strategy: Introductory Observations

The complementary strategy to standard-setting available to NHTSA for enhancing auto safety is recalls of defectively designed parts – and, in my view, it is critical to emphasize *complementarity*. While rulemaking deficits have been the central focal point of agency criticism from outside observers, the agency's potential effectiveness is to a considerable degree a function of how it exercises its recall authority. Rulemaking has its intrinsic limits.

The point can be illustrated by reference to two of the most widely-publicized recent mass defect cases, both involving airbags: the GM ignition switch cases, in which unexpected engine shut-down led to road injuries from failure of airbag inflation, and the Takata propellant cases involving debris-related injuries from aberrant airbag inflations.

Consider each in turn. In the ignition switch cases, to be discussed in greater detail below, it is questionable how rulemaking – as contrasted to recalls – might have played a meaningful role. Clearly, the inflation failures, resulting from the engine shut-down, bore no connection to the airbag regulations themselves, which focus on airbag performance.<sup>51</sup> Nor does the non-

<sup>&</sup>lt;sup>50</sup> Haroon H. Hamid, *The NHTSA's Evaluation of Automobile Safety Systems: Active or Passive?*19 LOY. CONSUMER L. REV. 227, 247-49 (2007).

<sup>&</sup>lt;sup>51</sup> Occupant Crash Protection, 49 C.F.R. § 571.208 (2012).

deployment appear to suggest that, *ex ante*, the agency should have been focusing on a more refined performance standard for ignition switches. In fact, the ignition switch defect appears to have been a consequence of a GM engineer's mistaken approval of a design that failed to provide a product with the torque that had been specified by the auto manufacturer—torque that presumably would have created no risk of engine shut-down from incidental contact between the driver's knee and the key in the ignition.<sup>52</sup>

Moreover, the engine shutdown phenomenon – and its link to airbag disablement – emerged over an extended period of time in which reports aggregated from the field (and from discovery of GM's suppression of relevant evidence). Indeed, by the time the hazardous design feature of the ignition switch was acknowledged, GM had already independently abandoned the flawed design in favor of a safer alternative – in duplicitous fashion, it should be added, failing to assign a new product identification number.<sup>53</sup> At that point, or even earlier, it would have

http://www.nhtsa.gov/staticfiles/communications/pdf/nhtsa-path-forward.pdf [hereinafter NHTSA's PATH FORWARD].

<sup>&</sup>lt;sup>52</sup> See NAT'L HIGHWAY TRAFFIC SAFETY ADMIN., U.S. DEP'T OF TRANSP., DOT HS 812 163, NHTSA'S PATH FORWARD 6-7 (2015),

<sup>&</sup>lt;sup>53</sup> This cover-up appears to have come to light through scrupulous investigation by an engineering expert hired by a plaintiff's attorney, which was subsequently relied on in pretrial discovery pursuant to an ignition switch tort claim, nicely illustrating the potential interplay between regulation and tort in promoting auto safety. See Bill Vlasic, *An Engineer's Eureka Moment with a G.M. Flaw*, N.Y. TIMES (Mar. 29, 2014),

made little sense to engage in a time-consuming informal rulemaking process, rather than invoking mass recall of the defective part.

The Takata hazardous airbag propellant cases provide another example. In this instance, recourse to a rulemaking option requires monumental hindsight: that NHTSA might have amended the airbag rule *ex ante* to require a propellant that contained a chemical activator without the propensity to explosively ignite in hot and humid climates after long-term use—the alleged trigger for the mass injuries that occurred. To be sure, if data generated by manufacturer/consumer reporting had led the agency to identify this specific hazard in more timely fashion, earlier agency action could have taken place. But surely that action would have been a stepped-up recall order rather than an initiation of a rulemaking process addressing this risk.

The more general observation is that, to the extent that "rulemaking ossification" is a critique of proceeding by adjudication rather than regulatory standard-setting, it somewhat misses the mark in the case of NHTSA's authority. While it is undeniable that standards have proven vital in preventing mass numbers of fatalities, they are of limited salience, at most, in responding to design defects that emerge from esoteric engineering miscalculations that arise case-by-case and aggregate to a singular need for an expeditious response.

## D. Recalls: A Flawed Process

http://www.nytimes.com/2014/03/29/business/a-florida-engineer-unlocked-the-mystery-of-gms-ignition-flaw.html

But what precisely is the process for initiating a recall, and how effectively is it being implemented? In 2014, about 62 million U.S. vehicles were recalled, doubling the previous annual record, set in 2004.<sup>54</sup> Strikingly, according to Consumer Reports, the number of recalled cars in 2014 was equal to approximately one out of every four cars on the road.<sup>55</sup> As of November 2015, 19 million vehicles equipped with Takata airbags had been recalled in the United States alone – the largest recall in automotive history.<sup>56</sup>

The process is best examined by focusing on the recent GM ignition switch recall, in light of the sheer magnitude of the injuries and concomitant recall figures that triggered intensive self-study.<sup>57</sup> Moreover, spotlighting the ignition switch recall serves a broader purpose, because the

<sup>55</sup> The Truth About Car Recalls, CONSUMER REPORTS (Feb. 24, 2014),

http://www.consumerreports.org/cro/magazine/2015/04/the-truth-about-car-recalls/index.htm.
<sup>56</sup> At least eight deaths and 130 injuries have been linked to the defect. *See* Tara Siegel Bernard, *Navigating the Takata Airbag Recall*, N.Y. TIMES (Nov. 27, 2015),

http://www.nytimes.com/2015/11/28/your-money/navigating-the-takata-airbag-recall.html; Jonathan Soble, *Takata Chief Apologizes for Airbag Problems*, N.Y. TIMES (June 25, 2015), http://www.nytimes.com/2015/06/26/business/international/takata-airbag-apology-issued-bychief-executive.html.

<sup>&</sup>lt;sup>54</sup> Bill Vlasic & Hilary Stout, *Auto Industry Galvanized After Record Recall Year*, N.Y. TIMES (Dec. 30, 2014), http://www.nytimes.com/2014/12/31/business/a-year-of-record-recalls-galvanizes-auto-industry-into-action.html.

<sup>&</sup>lt;sup>57</sup> GM has recalled 2.6 million vehicles for the specific ignition switch defect linked to 124 deaths that has captured national attention. *See* Aaron Kessler, *G.M. Earnings Beat Estimates*,

intensive review generated a comprehensive critique of the organizational deficiencies that plague NHTSA.

Testifying before a House committee investigating the ignition switch recalls, David Friedman, NHTSA's then Acting Administrator, provided a succinct overview of the agency's recall process.<sup>58</sup> Initial responsibility resides in the Office of Defects Investigation (ODI), whose goal is to determine whether there is an unreasonable safety risk associated with a particular model year vehicle. ODI begins its investigation with the screening of incoming data from a number of sources: consumer complaints (stated to be the primary source), technical service bulletins sent by the manufacturer to dealers, early warning reports (EWRs) submitted by

But Ignition Switch Scandal Takes Toll, N.Y. TIMES (Oct. 21, 2015),

http://www.nytimes.com/2015/10/22/business/gm-earnings-beat-estimates-but-ignition-switchscandal-took-toll.html. Moreover, as of June 2015, GM has recalled 13.6 million total vehicles for a variety of ignition switch-related problems. The exact numbers are difficult to pinpoint due to lack of clear data from NHTSA and GM. *See* David Shepardson, *GM Ignition Switch Rejects Five Injury Claims with 1 to Review*, DETROIT NEWS (Aug. 10, 2015),

http://www.detroitnews.com/story/business/autos/general-motors/2015/08/10/gm-ignition-rejects-five-injury-claims-review/31405297.

<sup>58</sup> The GM Ignition Switch Recall: Why Did It Take So Long? Hearing Before the Subcomm. on Oversight & Investigations of the H. Comm. on Energy & Commerce, 113th Cong. (April 1, 2014) (statement of David Friedman, Acting Administrator, National Highway Transportation Administration), available at https://www.gpo.gov/fdsys/pkg/CHRG-113hhrg89888/pdf/CHRG-113hhrg89888.pdf manufacturers on a quarterly basis, and at times, special crash investigations (SCIs). It should be emphasized that the variety of acronyms corresponds to a dispersion of responsibility for data gathering and analysis in disparate sub-divisions of the agency. But as related by Friedman, these data-gatherers are in "constant communication" with each other, and use "sophisticated data mining techniques to identify trends…that may be evidence of a safety defect."<sup>59</sup>

Once identified, the suspected defect triggers a more formal investigation, involving a host of follow-up measures, including, among other methods, interviews with consumer complainants, requests for additional data from the manufacturer, and analysis of field reports (e.g., police crash reports). A public meeting and opportunity for submission of comments may follow, and, should the Administrator determine that a recall is required, an order to that effect is issued – assuming the manufacturer has not independently initiated a recall by then. If an automaker fails to comply with a recall or fails to provide adequate information pursuant to federal law, NHTSA has the power to issue civil penalties of up to \$35,000,000, which can be doubled or tripled depending on whether the automaker has committed multiple violations.<sup>60</sup> The Department of Justice can also seek criminal penalties or even file criminal charges under certain circumstances.<sup>61</sup>

## <sup>59</sup> *Id.* at 5.

<sup>60</sup> NHTSA fined GM \$35,000,000 for failing to report the ignition switch defect in a timely manner. *See* Bill Vlasic, *G.M.'s Ignition Switch Death Toll Hits 100*, N.Y. TIMES (May 11, 2015) http://www.nytimes.com/2015/05/12/business/gms-ignition-switch-death-toll-hits-100.html.
<sup>61</sup> See 49 U.S.C.A. § 30170 (2012). In the GM case, the Justice Department entered a deferred prosecution agreement in which GM agreed to follow a strict agreement and pay \$900,000,000 in

In fact, it is rarely the case that the administrative process proceeds to the point of a formal recall – the last one occurred in 1996. More commonly, either the manufacturer initiates a voluntary recall or the formal process is terminated by what Friedman delicately referred to as "an influenced recall."<sup>62</sup> The ignition switch recall seems clearly to have fallen into this latter category.

One year after this House committee hearing, a systematic review of the ignition switch recall process generated three highly critical reports: two internal studies conducted by NHTSA

criminal penalties. Mike Spector, *GM Does U-Turn in Ignition-Switch Motion*, WALL ST. J. (Oct. 6, 2015) http://www.wsj.com/articles/gm-does-u-turn-in-ignition-switch-motion-1444148648. In a separate case, Fiat-Chrysler avoided referral to the Justice Department for criminal investigation and possible criminal penalties, but agreed in a consent order with NHTSA to pay a record fine of approximately \$105,000,000. Bill Vlasic, *Big Fine for Fiat Chrysler, Then Further Penalties to Set Example for Industry*, N.Y. TIMES, (July 27, 2015),

http://www.nytimes.com/2015/07/28/business/big-fine-for-fiat-chrysler-then-further-penalties-to-set-example-for-industry.html.

<sup>62</sup> NHTSA officials are on record averring that, "[i]n almost all cases...the [recall] determination is made by the manufacturer (although often after the agency has initiated an investigation)." Stephen P. Wood et al., *The Potential Regulatory Challenges of Increasingly Autonomous Motor Vehicles*, 52 SANTA CLARA L. REV. 1432, 1436 (2012). Once a recall has been initiated, whether influenced or not, the manufacturer, under 49 C.F.R § 573, is required to file a "573 Report," which provides a detailed account of the character of the recall. *See* Defect and Noncompliance Responsibility and Reports, 49 C.F.R. § 573 (2011). staff, focusing to a considerable extent on GM's evasions, and an independent audit report prepared by the Inspector General of the Department of Transportation (IG Report), analyzing the internal agency investigative recall process.<sup>63</sup> Particularly revealing is the comprehensive

<sup>63</sup> The respective reports are 1) NHTSA'S PATH FORWARD, *supra* note 52; and 2) NAT'L HIGHWAY TRAFFIC SAFETY ADMIN., U.S. DEP'T OF TRANSP., DOT HS 812 167, WORKFORCE ASSESSMENT: THE FUTURE OF NHTSA'S DEFECTS INVESTIGATIONS (June 2015), http://www.nhtsa.gov/staticfiles/communications/pdf/workforce-assessment-june2015.pdf; and 3) OFFICE OF THE INSPECTOR GENERAL, U.S. DEP'T OF TRANSP., ST-2015-063, INADEQUATE DATA AND ANALYSIS UNDERMINE NHTSA'S EFFORTS TO IDENTIFY AND INVESTIGATE VEHICLE SAFETY CONCERNS (June 18, 2015), https://www.oig.dot.gov/sites/default/files/NHTSA%20Safety-Related%20Vehicle%20Defects%20-%20Final%20Report%5E6-18-15.pdf [hereinafter OIG AUDIT REPORT]. See also Danielle Ivory, Federal Auditor Finds Broad Failures at N.H.T.S.A, N.Y. TIMES (June 19, 2015), http://www.nytimes.com/2015/06/20/business/federal-auditor-findsbroad-failures-at-nhtsa.html. Note also an outside study commissioned by General Motors in May 2014. ANTON R. VALUKAS, REPORT TO BOARD OF DIRECTORS OF GENERAL MOTORS COMPANY REGARDING IGNITION SWITCH RECALLS (May 29, 2014), http://www.nytimes.com/interactive/2014/06/05/business/06gm-report-doc.html. It is no understatement to say that each of these studies is extremely critical of the product defect identification process as it functioned in the ignition switch recalls – and that the deficiencies identified were regarded as endemic, rather than limited to this episode.

investigation conducted by the Inspector General, which laboriously pinpointed every stage of the structural flaws in ODI's process for identifying product defects for recall purposes.

Reduced to its essentials, the IG Report is a classic study in organizational malfunction:

## NHTSA fails to provide detailed guidance on information consumers and

*manufacturers should report.* The IG Report notes that ODI regulations specify twenty-four categories for assessing incident reports against a backdrop of some 15,000 components. Lacking detailed guidance, consumers and manufacturers submit report information that frequently misses the mark in precisely identifying the source of a potential defect. By way of illustration, the Report notes:

ODI staff told us that a manufacturer could categorize a malfunction of an air bag component in a seat using three different vehicle codes: air bags, seats, or electrical systems. Additionally, the regulations allow manufacturers to decide if an incident not included in the 24 defined codes should be reported.<sup>64</sup>

## NHTSA fails to provide follow-up in verifying and clarifying the data it receives. ODI

has the authority to inspect the records of manufacturers for verification or clarification of incident reports. But it has never exercised this authority. Instead, it relies on a self-described "honor system," despite the opportunities for misinformation just noted – and staff admissions that manufacturers routinely take advantage of the opportunity for evasion. As the Report states, "staff told [investigators] that some manufacturers avoid using the word 'fire' in non-dealer field reports and instead use phrases such as 'strange odor' to avoid categorizing an incident as fire-related."<sup>65</sup> With respect to the ignition switch investigation, ODI received some 2,000 death and

<sup>&</sup>lt;sup>64</sup> OIG AUDIT REPORT, *supra* note 63 at 6-7.

<sup>&</sup>lt;sup>65</sup> *Id.* at 8.

injury field reports submitted by GM over a ten-year period, which were frequently

inconsistently coded.66

## NHTSA staff are inadequately trained in statistical analysis and consequently lack any

*clear set of priorities.* The Report succinctly summarized the consequences of this staffing incapacity:

ODI does not consistently identify a model (a set of assumptions) for the aggregate data to establish a base case – that is, what the test results would be in the absence of safety defects. . . . Without a base case, ODI cannot differentiate trends and outliers that represent random variation from those that are statistically significant – that is, scores that indicate a safety issue should be pursued.<sup>67</sup>

Moreover, the absence of statistical competence appears to have corresponded to a more

fundamental staffing inadequacy: the assignment of incident report analysis to personnel with deficiencies in engineering expertise and lack of remedial training. Not surprisingly, the Report documents a ten-year period in which ODI failed to investigate or monitor the incoming data on airbag non-deployment tied to the ignition switch shutdowns.

*NHTSA has shown minimal regard for transparency in its operations.* An effective recall process obviously rests on an aggregative approach to incident reports. Perversely, ODI

<sup>67</sup> *Id.* at 13.

<sup>&</sup>lt;sup>66</sup> In one notable incident, seven years before the recall, an ODI official summarily dismissed a Wisconsin state trooper's accident report, which explicitly made the connection between the ignition switch shut-off and the airbag non-deployment, at the pre-investigation stage. The state trooper's report was included as documentation in a GM incident report that concluded none of the systems defined in the regulations was involved. *See* OIG AUDIT REPORT, *supra* note 63, at

appears, from the IG's investigation, to have given screeners free rein to operate on a case-bycase basis as ignition switch reports came in, with only the most conclusory notation of decisions to decline further investigation and no follow-up monitoring: "Transparency and accountability are especially critical since ODI generally does not revisit proposals once they are declined for investigation."<sup>68</sup>

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In sum, the ignition switch recall process, and the broader organizational behavior characteristics it reflects, offer a dismal portrait of a failed regulatory system – which, in turn raises two fundamental questions: 1) why has this state of affairs come to pass, and 2) can it be remedied? The following section addresses these questions.

## E. Recalls: Reprise and Reflection

Answers to both questions – why this state of affairs has come to pass, and how it can be remedied – are implicit in the criticisms that have been leveled at the agency. First, if NHTSA has been passive and neglectful in its recourse to timely recalls in recent episodes, one can certainly argue that it has been lulled into passivity by Congress's systematic underfunding and highly episodic review through committee hearings initiated solely as perceived crises have emerged.<sup>69</sup>

There is an interesting contrast between the factors explaining NHTSA passivity in rulemaking and recalls. As Mashaw and Harfst highlighted twenty-five years ago, NHTSA was,

<sup>&</sup>lt;sup>68</sup> *Id.* at 24.

<sup>&</sup>lt;sup>69</sup> The Toyota sudden acceleration recall is a third recent event of major proportions that animated widespread attention and study. See SR-308, *supra* note 30, at 142.

in effect, treated as the handmaiden of Congress with respect to rulemaking, as Congress took initiation of the standard-setting process into its own hands by either mandating agency action or diminishing or scrapping NHTSA rulemaking proposals.<sup>70</sup> To the contrary, apart from a spurt of productivity following the Firestone Tire recalls when it passed the TREAD Act (which strengthened NHTSA's recall process),<sup>71</sup> Congress has largely ignored recalls unless a crisis emerges—and its typical response to a crisis has simply been to hold committee hearings. <sup>72</sup> This stance, taken in tandem with systematic underfunding, failure to appoint energetic leadership, and the automobile industry's access to Congress – as well as its vastly superior resources and technical expertise – contributes greatly to making NHTSA an agency adrift when storms arise.

The remedy, if it is to take place, is implicit in the circumstances that have led to NHTSA's retreat as an active player on the auto safety front. In my view, the starting point is enlightened, energetic agency leadership, and there are signs that the present Administrator is committed to responsive action following up on the publicity and proposals that have emerged in

<sup>&</sup>lt;sup>70</sup> MASHAW & HARFST, *supra* note 23, at 108-110.

<sup>&</sup>lt;sup>71</sup> Transportation Recall Enhancement, Accountability, and Documentation (TREAD) Act, Pub.

L. No. 106-414, 114 Stat. 1800-09 (2000).

<sup>&</sup>lt;sup>72</sup> See Paul F. Rothberg, Gwenell L. Bass & Duane A. Thompson, Cong. Research Serv., RL30710, Firestone Tire Recall: NHTSA, Industry, and Congressional Responses (2001).

the course of the various reports on the ignition switch recalls – proposals aimed at upgrading data collection, analysis, and timely response.<sup>73</sup>

But these measures cannot be taken in a vacuum. Correspondingly, it seems critical that the agency develop and maintain what I would label a culture of "skeptical receptiveness" in relating to the industry: *skeptical* in its assessment of industry-generated accident, design, and economic feasibility data and *receptive* in its openness to negotiation with the industry over the need and timing of recalls (cognizant of the frequent uncertainty over the underlying explanation for a rising cluster of accidents and consequent physical injuries).<sup>74</sup>

Finally, however, there is perhaps the greatest imponderable. It seems essential that a stalwart political response be manifested to the need for the infusion of funds for training in data analysis, addition of skilled personnel, and generally, the upgrading of investigative, engineering

<sup>73</sup> See e.g., Vlasic, *Big Fine for Fiat Chrysler, supra* note 61. More generally, the current NHTSA Administrator, Mark J. Rosekind, has expressed a strong commitment to implementing the proposals in the internal and OIG reports on the ignition switch recalls. *See* Ashley Halsey III, *Federal Regulators Admit They Bungled Investigation of Deadly Auto Ignition*, WASH. POST (June 5, 2015), http://www.washingtonpost.com/local/trafficandcommuting/federal-regulators-admit-they-bungled-investigation-of-deadly-auto-ignition/2015/06/05/d5e7e154-0bab-11e5-9e39-0db921c47b93\_story.html.

<sup>74</sup> Uncertainty of explanation must frequently be taken into account. See, for example, the sudden acceleration cases; while defective floormats and sticking gas pedals were identified factors, many of the injury cases were undoubtedly a result of driver error. Moreover, an electronic malfunction theory was never validated. See SR-308, *supra* note 30.

29

and statistical expertise at all levels within the agency – overcoming the short-term crisisresponse mentality.<sup>75</sup> Here, Congress must be responsive beyond scoring political points through show-and-tell hearings. And, in our current political climate, that may be a tall order.

III. Regulation by Other Means: Tort and No-Fault

## A. Tort

Interestingly, the tort system's awakening to recognition of responsibility for design defects corresponds almost precisely to the timing of NHTSA's establishment. Beginning in the early 1960s, products liability law was reshaped by the recognition of strict liability.<sup>76</sup> But the extension to auto design defects was not immediately forthcoming. A representative case, decided in 1966, *Evans v. General Motors*,<sup>77</sup> involved a victim of a side collision whose claim turned on an allegedly inadequate frame of the vehicle. The Seventh Circuit Court of Appeals routinely dismissed the claim holding that "[t]he intended purpose of an automobile does not

<sup>&</sup>lt;sup>75</sup> An Update on the Takata Airbag Ruptures and Recalls, Hearing Before the Subcomm. on *Commerce, Manufacturing &Trade of the H. Comm. on Energy & Commerce*, 113th Cong. (June 2, 2015) (statement of Mark J. Rosekind, Administrator, National Highway Traffic Safety Administration).

<sup>&</sup>lt;sup>76</sup> Greenman v. Yuba Power Prods., Inc., 377 P.2d 897 (Cal. 1963); RESTATEMENT (SECOND) OF TORTS § 402A (1965).

<sup>&</sup>lt;sup>77</sup> 359 F.2d 822 (7th Cir. 1966).

include its participation in collisions with other objects, despite the manufacturer's ability to foresee the possibility that such collisions occur."<sup>78</sup>

But the days of this cramped conception of what constituted a defect were numbered. Only two years later, in 1968—the birth year of NHTSA—the leading case of *Larsen v. General Motors Corp.*,<sup>79</sup> was decided, enunciating the crashworthiness doctrine. The plaintiff suffered serious head injuries when the steering mechanism was thrust back in a head-on collision. Reversing the trial court's grant of summary judgment, the Eight Circuit Court of Appeals invoked the new norm of vehicle safety for a "second collision":

We think the intended use construction urged by General Motors is much too narrow and unrealistic. Where the manufacturer's negligence in design causes an unreasonable risk to be imposed upon the user of its products, the manufacturer should be liable for the injury caused by its failure to exercise reasonable care in design. These injuries are readily foreseeable as an incident to the normal and expected use of an automobile.<sup>80</sup>

In the ensuing years, automobile design defect litigation has become a staple ingredient of the products liability mix, perhaps most notably recognized in the widely discussed Ford Pinto case.<sup>81</sup> Whether tort has consequently had a substantial impact on design decisionmaking by the

<sup>78</sup> *Id.* at 825.

<sup>79</sup> 391 F.2d 495 (8th Cir. 1968).

<sup>80</sup> *Id.* at 502.

<sup>81</sup> Grimshaw v. Ford Motor Co., 174 Cal. Rptr. 348 (Ct. App. 1981). The jury awarded \$125 million in punitive damages – later reduced to \$3.5 million – for the injuries from burns suffered after the fuel tank ignited in a rear-end collision alleged to have been avoidable with a different placement of the fuel tank. For an interesting account, see Gary T. Schwartz, *The Myth of the Ford Pinto Case*, 43 RUTGERS L. REV. 1013 (1991).

auto manufacturers is open to question. The caselaw does not provide clear guidance. Virtually all design defect decisions in the courtroom elude treatment under the consumer expectations test, because of the complexity of the core issue, even in states like California that have maintained a two-pronged consumer expectations/reasonable alternative design standard.<sup>82</sup> Under the latter prong, risk-benefit analysis and correlative expert witness testimony are requisites. Moreover, from an early point in the litigation, courts have carefully limited the risk-benefit analysis to comparable vehicles.<sup>83</sup> What all of this suggests is that a case-by-case inquiry would provide little, if any, *ex ante* guidance to product engineering departments about the tort consequences of their design decisions. There is nothing in the auto safety literature to offer persuasive empirical assistance in resolving the deterrence question.<sup>84</sup>

<sup>83</sup> See, e.g., Dreisenstock v. Volkswagenwerk, 489 F.2d 1066 (4th Cir. 1974) (involving an unsuccessful effort to hold the manufacturer of a microbus liable for failure to conform to the front-end passenger space of a standard motor vehicle).

<sup>84</sup> Defense attorneys with close ties to the industry tell me that tort almost never has an effect on initiation of design changes; for example, electronic stability controls, arguably the most important design change in recent years (having virtually eliminated rollover fatalities, particularly in SUVs), were brought to market by the industry. Lane-change technology is another example. Having said that, however, once these technologies are on the market, other

<sup>&</sup>lt;sup>82</sup> See e.g., Soule v. General Motors Corporation, 882 P.2d 298 (Cal. 1994). Unlike California, many – probably a majority – of states adhere to the Products Liability Restatement (1998), Section 2(b), which categorically rejects a consumer expectations test in design defect cases. See Restatement (Third) of Torts: Products Liability § 2(b).

In a recent article, Professor W. Kip Viscusi recounts the GM ignition switch recall against the backdrop of a series of "blockbuster awards" in punitive damages cases, following the Pinto case, in which juries similarly punished auto manufacturers for relying on *ex ante* risk-benefit analysis in support of design defect decisions.<sup>85</sup> His thesis is that the failure to find any evidence of risk-benefit considerations having been taken into account by GM in Congressional testimony and internal audit reports on the process leading up to the ignition switch recall suggest the abandonment of such analysis in reaction to these earlier tort awards. This is circumstantial evidence, of course. But if he is correct, it would suggest a perverse effect on the deterrent threat of tort liability – that the threat may have diluted the prospect of explicit attentiveness to safety concerns.

A related question is whether tort litigation has in fact contributed in positive fashion to NHTSA's performance. Once again, it is difficult to reach a definitive conclusion. Surely, to the extent that tort claims, through the pretrial investigatory process, uncover risk-related data that has eluded NHTSA – recall the plaintiff attorney's "Eureka moment," mentioned earlier, in the ignition switch case – an affirmative answer would seem warranted.<sup>86</sup> In addition, as in the

companies move quickly to adopt the innovation in order to avoid being the last one on board, which would make them vulnerable to tort liability.

<sup>&</sup>lt;sup>85</sup> W. Kip Viscusi, *Pricing Lives for Corporate Risk Decisions*, 68 VAND. L. REV. 1117, 1126-43 (2015).

<sup>&</sup>lt;sup>86</sup> See *supra* note 53. In the case of the Ford-Firestone Tires recall, tort litigation preceded recall and regulatory action by five years. According to one study, Firestone faced thirty-seven personal injury claims in 1995 related to the tire tread problem that led to the ultimate recall in

ignition switch case just referenced, there is strong evidence of a reciprocal effect: Just as early tort filings may claim a measure of credit for the GM recalls, so have the recalls almost certainly played a major role in generating personal injury and class action filings that have ensued.<sup>87</sup>

Moreover, in more subtle fashion, tort litigation can impact the cultural perspectives on health and safety through its educational effect. An analogue would be the tobacco tort litigation, where pretrial discovery unearthed a narrative of deceit and misrepresentation that contributed

<sup>87</sup> See, e.g., In re General Motors Co. Derivative Lit., No. 9627-VCG, 2015 WL 3958724, at \*4 (Del. Ch., June 29, 2015). There is also pending multi-district litigation that has been consolidated in the Southern District of New York. *See* In re General Motors LLC Ignition Switch Litigation, No. 1:14-md-02543-JMF (MDL-2543) (S.D.N.Y. filed Oct. 14, 2014), http://gmignitionmdl.com. About half of the suits in the MDL for death and personal injury were settled, according to a September 17 announcement. Six bellwether personal injury trials have been scheduled in the MDL for 2016, the first of which will begin in January for plaintiff Robert Scheuer. *See* Sindhu Sundar, *GM Ignition Switch 'War Room' Held Key Details, Victims Say,* LAW 360 (Nov. 23, 2015), http://www.law360.com/articles/730515/gm-ignition-switch-warroom-held-key-details-victims-say.

<sup>2000.</sup> While litigation made information available to the public on the potential defect and one plaintiffs' attorney even supplied internal Ford documents from discovery to Congressional investigators and reporters, it is somewhat discouraging that this litigation did not lead more quickly to regulatory action or change in industry behavior. For more background on the role of tort litigation in the Firestone case, see Jon S. Vernick et al., *Role of Litigation in Preventing Product-Related Injuries*, 25 EPIDEMIOLOGIC REV. 90-98 (2003).

substantially to dramatically altering public perceptions of the industry and buttressed an array of regulatory control strategies.<sup>88</sup>

In the final analysis, however, tort can at best play a complementary role to NHTSA in promoting automotive safety. Tort awards in design defect cases too frequently send mixed signals to the agency.<sup>89</sup> And variability aside, juries lack the expertise that can be expected of a more proactive NHTSA. Relatedly, the adversary process is a highly imperfect model for determining complex scientific and engineering issues of risk associated with motor vehicle performance.<sup>90</sup>

<sup>88</sup> See discussion in Robert L. Rabin, *Tobacco Control Strategies: Past Efficacy and Future Promise*, 41 LOY. L.A. L. REV. 1721, 1750 (2008).

<sup>89</sup> And to the industry as well. See, for example, Dawson v. Chrysler Corp., 630 F.2d 950 (3d Cir. 1980), involving a judgment of \$2 million for a driver who was crushed after his car skidded sideways into a pole and wrapped around it. Evidence showed that using a firmer side frame would have added 200-250 pounds to the weight of the car and \$300 to its cost:

The result of such arrangement is that while the jury found Chrysler liable for not producing a rigid enough vehicular frame, a factfinder in another case might well hold the manufacturer liable for producing a frame that is too rigid. Yet, as pointed out at trial, in certain types of accidents head-on collisions it is desirable to have a car designed to collapse upon impact because the deformation would absorb much of the shock of the collision, and divert the force of deceleration away from the vehicle's passengers. In effect, this permits individual juries applying varying laws in different jurisdictions to set nationwide automobile safety standards and to impose on automobile manufacturers conflicting requirements. It would be difficult for members of the industry to alter their design and production behavior in response to jury verdicts in such cases, because their response might well be at variance with what some other jury decides is a defective design. *Id.* at 962.

 $^{90}$  One critical factor to keep in mind when discussing the complementarity of NHTSA regulation with tort or no-fault is that agency regulation – which is the perspective discussed in this chapter

B. No-Fault

Conventionally, no-fault responsibility rests on a fundamental premise that sharply departs from the regulatory perspective; in that regard, one speaks of no-fault as the guiding principle of legislative *compensation* schemes. And from its early origins in workers' compensation, commentators have emphasized the social welfare underpinnings of no-fault.<sup>91</sup> On the contemporary scene, recourse to no-fault has reinforced this understanding. Consider, most prominently, the 9/11 Victim Compensation Fund, the title of which identifies the motivation for its enactment.<sup>92</sup> In a still more recent development, GM established a *private* no-fault compensation fund to provide redress to ignition switch victims, including those arguably

– offers nothing by way of compensation to victims. Thus, a *comprehensive* governmental response to the auto injury problem, in view of the inevitability of accident injuries, would include either tort or no-fault redress.

<sup>91</sup> Jeremiah Smith, *Sequel to Workmen's Compensation*, 27 HARV. L. REV. 235 (1913). <sup>92</sup> Note, however, the distinction between a no-fault scheme like the 9/11 Fund, enacted to provide benefits to the victims of a disastrous event, and an ongoing no-fault scheme like workers' compensation or auto no-fault legislation, intended to provide benefits routinely for injuries arising in the future out of designated activities. In the ignition switch scenario, the two categories are not mutually exclusive. Presumably, in an auto no-fault state like New York, victims would recover basic compensation under the statute. ineligible to sue in tort because their injuries occurred prior to the company's discharge in bankruptcy of all pre-existing tort claims.<sup>93</sup>

It may come as something of a surprise, then, that twenty-five years ago, Mashaw and Harfst gave serious attention to auto no-fault as a strategy for promoting automotive safety in light of—in their view—a failed regulatory agency, before dismissing its regulatory potential on largely pragmatic grounds.<sup>94</sup> As the authors noted:

Universal first-party insurance, or as it is commonly termed "no-fault insurance," would produce [the] internalization of benefits and costs. Under such a scheme, insurers should then make premiums dependent in part upon the safety of the automobile that the insuring party purchases or drives. The potential savings in insurance costs would make it worthwhile for drivers or purchasers to demand, and auto manufacturers to market, safer vehicles.<sup>95</sup>

Unfortunately, the mechanics of no-fault belie this aspiration. Consider the New York auto no-fault compensation scheme, among the most generous established in the wave of auto

reviewed and processed 4,343 claims; finding 399 eligible for relief and 3,944 ineligible. Note

that Takata has resisted setting up a similar type fund for airbag propellant victims. See Danielle

Ivory & Hiroko Tabuchi, Takata Says No to Fund for Victims of Defective Airbag, N.Y. TIMES

(July 9, 2015), http://www.nytimes.com/2015/07/10/business/takata-says-no-to-fund-for-

victims.html.

<sup>95</sup> *Id.* at 242.

<sup>&</sup>lt;sup>93</sup> See GM Ignition Compensation Claims Resolution Facility: Final Report, GM IGNITION COMP.

<sup>(</sup>Dec. 10, 2015), www.GMIgnitionCompensation.com. As of October 9, 2015, the facility had

<sup>&</sup>lt;sup>94</sup> MASHAW & HARFST, *supra* note 23, at 242-45.

no-fault enactments in the late 1960s.<sup>96</sup> For a variety of reasons, it falls short of any idealized version of comprehensive first-party assignment of costs and benefits that might serve as an inducement to greater safety in auto design. To begin with, the system departs in critical ways from a pure first-party model: not just owner/operators and injured occupants of vehicles, but injured pedestrians recover from the covered drivers. In other words, there is a distinct third-party component to the no-fault scheme – and it is a virtual certainty that the same would be true of any such plan. Second, there is no coverage of pain-and-suffering damage for cases falling within the limits of the plan; once again, reducing the risk-allocating potential of the plan. And finally – similarly consistent with the social welfare, horizontal equity underpinnings of the model – there are ceilings on lost income, as well as total out-of-pocket costs, recoverable under the scheme; the tort system remains in place for redress in cases of more serious injury. Moreover, premiums reflect not just auto safety but also driver performance, and on the latter score, experience-rating by auto insurers is based on rough approximations of likely accident involvement and driving history.

In theory, of course, a no-fault plan could be a total replacement for tort – in other words, no recourse to tort would be provided once the total out-of-pocket limits were exceeded.<sup>97</sup> But social welfare and structural limitations intrinsic to no-fault bring it no closer to a satisfying complement to NHTSA regulation as a medium for generating greater auto safety. And once one

<sup>&</sup>lt;sup>96</sup> N.Y. INS. LAW §§ 5101-5109 (McKinney 2015). New York provides basic protection of \$50,000 in economic loss.

<sup>&</sup>lt;sup>97</sup> See discussion of New Zealand's comprehensive no-fault scheme in Peter Schuck, *Tort Reform, Kiwi-Style*, 27 YALE L. & POL. REV. 187 (2008).

turns to the total tort replacement option, the pragmatics kick-in. The auto no-fault movement has been more-or-less dead in the water for a generation at this point, and there is no indication of a revival in the political sphere – let alone a leap forward to comprehensive auto no-fault.<sup>98</sup>

### IV. Concluding Thoughts

Needless to say, the goal of reducing motor vehicle-related fatalities and injuries will continue to remain a high priority on the public safety agenda in the foreseeable future. As innovations in automotive design technology generate the prospect of safer vehicles, corresponding risks of human and computer-generated error will arise, as well. Effective auto safety regulation will be a key component of this dynamic process.

By way of illustration, consider the emerging development of so-called "driver-less vehicles" (better referred to as "autonomous vehicles"). NHTSA has sketched out a continuum of scenarios for the near future.<sup>99</sup> At one end of the spectrum, reflecting the present-day baseline of full driver involvement, are non-automated features – computer-generated alerts, for the most

http://www.nhtsa.gov/About+NHTSA/Press+Releases/U.S.+Department+of+Transportation+Rel eases+Policy+on+Automated+Vehicle+Development. My summary draws on the more extensive discussion in Stephen P. Wood, et al., *The Potential Regulatory Challenges of Increasingly Autonomous Vehicles*, 52 SANTA CLARA L. REV. 1423 (2012).

<sup>&</sup>lt;sup>98</sup> See generally, Nora Freeman Engstrom, *An Alternative Explanation for No-Fault's Demise*, 61 DEPAUL L. REV. 303 (2012).

<sup>&</sup>lt;sup>99</sup> See U.S. Department of Transportation Releases Policy on Automated Vehicle Development, NAT'L HIGHWAY SAFETY ADMIN. (May 30, 2013),

part – such as lane departure warnings. Moving one position in the direction of automation – "automation-assisted" features – lane-control systems would steer the vehicle back to its proper position without reliance on driver control.<sup>100</sup> Next on the continuum comes "monitored automation," as illustrated by automatic parallel parking systems activated by voice control. And still another step beyond on the continuum is "conditional automation," where the vehicle would be programmed to alert the driver that it was time to take over control—obviously with adequate lead time for effective response. Finally, down the road (no pun intended), on the far end of the continuum, is the fully-automated, truly driver-less vehicle.<sup>101</sup>

Note that the technologies under consideration in this new era could well intersect with the risk factors, discussed in the introduction, that are traditionally considered apart from engineering safer vehicles; for example, sensors detecting alcohol-impaired drivers, automated controls on excessive speed, and computer-generated shutdowns on distracted driving.<sup>102</sup>

<sup>&</sup>lt;sup>100</sup> Electronic stability control systems already represent this technological development.

<sup>&</sup>lt;sup>101</sup> Similarly, connected-vehicle technologies are on the drawing board, which would provide – as the term suggests – for safety-related communication between vehicles.

<sup>&</sup>lt;sup>102</sup> These new technologies, to the extent that they intersect with Internet-based communication, raise the daunting prospect of yet another automotive-related risk: external hacking and corresponding disablement of safety controls in the vehicle. *See* Aaron M. Kessler, *Fiat Chrysler Issues Recall Over Hacking*, N.Y. TIMES (July 24, 2015),

http://www.nytimes.com/2015/07/25/business/fiat-chrysler-recalls-1-4-million-vehicles-to-fix-hacking-issue.html.

If NHTSA is to play a meaningful role in promoting auto safety as technology evolves, it will be essential, at times, to set *ex ante* performance standards that guide and back-stop industry innovation, and at times, to initiate or negotiate recalls *ex post*, when unanticipated risks arise from design miscalculations. In either case, based on its track record, NHTSA faces severe challenges. As the ignition switch debacle makes clear, the agency needs a major overhaul: more refined techniques for gathering and systematizing accident injury data; better trained personnel in automotive design and statistical analysis; greater infusion of funding from Congress; and leadership with a proactive mindset.

Extraneous factors are a constant. Industry will innovate anticipating or responding to market demand; tort lawyers will litigate as injury claims arise. But a comprehensive effort to assure continuing progress on the safety front in automotive design is dependent on a reconstituted implementation of regulatory rulemaking and recall strategies at NHTSA.