

## Case Study

### *The Ford Pinto*

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#### I

On August 10, 1978 a tragic automobile accident occurred on U.S. Highway 33 near Goshen, Indiana. Sisters Judy and Lynn Ulrich (ages 18 and 16, respectively) and their cousin Donna Ulrich (age 18) were struck from the rear in their 1973 Ford Pinto by a van. The gas tank of the Pinto ruptured, the car burst into flames and the three teen-agers were burned to death.

Subsequently an Elkhart County grand jury returned a criminal homicide charge against Ford, the first ever against an American corporation. During the following 20-week trial, Judge Harold R. Staffeldt advised the jury that Ford should be convicted of reckless homicide if it were shown that the company had engaged in "plain, conscious and unjustifiable disregard of harm that might result (from its actions) and the disregard involves a substantial deviation from acceptable standards of conduct."<sup>1</sup> The key phrase around which the trial hinged, of course, is "acceptable standards." Did Ford knowingly and recklessly choose profit over safety in the design and placement of the Pinto's gas tank? Elkhart County prosecutor Michael A. Cosentino and chief Ford attorney James F. Neal battled dramatically over this issue in a rural Indiana courthouse. Meanwhile, American business anxiously awaited the verdict which could send warning ripples through board rooms across the nation concerning corporate responsibility and product liability.

#### II

As a background to this trial some discussion of the Pinto controversy is necessary. In 1977 the magazine *Mother Jones* broke a story by Mark Dowie, general manager of *Mother Jones* business operations, accusing Ford of knowingly putting on the road an unsafe car—the Pinto—in which hundreds of people have needlessly suffered burn deaths and even more have been scarred and disfigured due to burns. In his article "Pinto Madness" Dowie charges that:

Fighting strong competition from Volkswagen for the lucrative small-car market, the Ford Motor Company rushed the Pinto into production in much less than the usual time. Ford engineers discovered in pre-production crash tests that rear-end collisions would rupture the Pinto's fuel system extremely easily. Because assembly-line machinery was already tooled when engineers found this defect, top Ford officials decided to manufacture the car anyway—exploding gas tank and all—even though Ford owned the patent on a much safer gas tank. For more than eight years afterwards, Ford successfully lobbied, with extraordinary vigor and some blatant lies, against a key government safety standard that would have forced the company to change the Pinto's fire-prone gas tank. By conservative estimates Pinto crashes have caused 500 burn deaths to people who would not have been seriously injured if the car had not burst into flames. The figure could be as high as 900. Burning Pintos have become such an embarrassment to Ford that its advertising agency, J. Walter Thompson, dropped a line from the ending of a radio spot that read "Pinto leaves you with that warm feeling."

Ford knows that the Pinto is a firetrap, yet it has paid out millions to settle damage suits out of court, and it is prepared to spend millions more lobbying against safety standards. With a half million cars rolling off the assembly lines each year, Pinto is the biggest-selling subcompact in America, and the company's operating profit on the car is fantastic. Finally, in 1977, new Pinto models have incorporated a few minor alterations necessary to meet that federal standard Ford managed to hold off for eight years. Why did the company delay so long in making these minimal, inexpensive improvements?

Ford waited eight years because its internal "cost-benefit analysis," which places a dollar value on human life, said it wasn't profitable to make the change sooner.<sup>2</sup>

Several weeks after Dowie's press conference on the article, which had the support of Ralph Nader and auto safety expert Byron Bloch, Ford issued a news release attributed to Herbert T. Misch, vice president of Environmental and Safety Engineering at Ford, countering points made in the *Mother Jones* article. Their statistical studies significantly conflicted with each other. For example, Dowie states that more than 3,000 people were burning to death yearly in auto fires; he claims that, according to a National Highway Traffic Safety Administration (NHTSA) consultant, although Ford makes 24 percent of the cars on American roads, these cars account for 42 percent of the collision-ruptured fuel tanks.<sup>3</sup> Ford, on the other hand, uses statistics from the Fatality Analysis Reporting System (FARS) maintained by the government's NHTSA to defend itself, claiming that in 1975 there were 848 deaths related to fire-associated passenger-car accidents and only 13 of these involved Pintos; in 1976, Pintos accounted for only 22 out of 943. These statistics imply that Pintos were involved in only 1.9 percent of such accidents, and Pintos constitute about 1.9 percent of the total registered passenger cars. Furthermore, fewer than half of those Pintos cited in the FARS study were struck in the rear.<sup>4</sup> Ford

concludes from this and other studies that the Pinto was never an unsafe car and has not been involved in some 70 burn deaths annually as *Mother Jones* claims.

Ford admits that early model Pintos did not meet rear-impact tests at 20 mph but denies that this implies that they were unsafe compared to other cars of that type and era. In fact, its tests were conducted, according to Ford, some with experimental rubber "bladders" to protect the gas tank, in order to determine how best to have their future cars meet a 20 mph rear-collision standard which Ford itself set as an internal performance goal. The government at that time had no such standard. Ford also points out that in every model year the Pinto met or surpassed the government's own standards, and

it simply is unreasonable and unfair to contend that a car is somehow unsafe if it does not meet standards proposed for future years or embody the technological improvements that are introduced in later model years.<sup>5</sup>

*Mother Jones*, on the other hand, presents a different view of the situation. If Ford was so concerned about rear-impact safety, why did it delay the federal government's attempts to impose standards? Dowie gives the following answer:

The particular regulation involved here was Federal Motor Vehicle Safety Standard 301. Ford picked portions of Standard 201 for strong opposition way back in 1968 when the Pinto was still in the blueprint stage. The intent of 301, and the 300 series that followed it, was to protect drivers and passengers after a crash occurs. Without question the worst post-crash hazard is fire. Standard 301 originally proposed that all cars should be able to withstand a fixed barrier impact of 20 mph (that is, running into a wall at that speed) without losing fuel.

When the standard was proposed, Ford engineers pulled their crash-test results out of their files. The front ends of most cars were no problem—with minor alterations they could stand

the impact without losing fuel. "We were already working on the front end," Ford engineer Dick Kimble admitted. "We knew we could meet the test on the front end." But with the Pinto particularly, a 20 mph rear-end standard meant redesigning the entire rear end of the car. With the Pinto scheduled for production in August of 1970, and with \$200 million worth of tools in place, adoption of this standard would have created a minor financial disaster. So Standard 301 was targeted for delay, and with some assistance from its industry associates, Ford succeeded beyond its wildest expectations: the standard was not adopted until the 1977 model year.<sup>6</sup>

Ford's tactics were successful, according to Dowie, not only due to their extremely clever lobbying, which became the envy of lobbyists all over Washington, but also because of the pro-industry stance of NHTSA itself.

Furthermore, it is not at all clear that the Pinto was as safe as other comparable cars with regard to the positioning of its gas tank. Unlike the gas tank in the Capri which rode over the rear axle, a "saddle-type" fuel tank on which Ford owned the patent, the Pinto tank was placed just behind the rear bumper. According to Dowie,

Dr. Leslie Ball, the retired safety chief for the NASA manned space program and a founder of the International Society of Reliability Engineers,

recently made a careful study of the Pinto. "The release to production of the Pinto was the most reprehensible decision in the history of American engineering," he said. Ball can name more than 40 European and Japanese models in the Pinto price and weight range with safer gas-tank positioning.

Los Angeles auto safety expert Byron Bloch has made an indepth study of the Pinto fuel system. "It's a catastrophic blunder," he says. "Ford made an extremely irresponsible decision when they placed such a weak tank in such a ridiculous location in such a soft rear end. It's almost designed to blow up—premeditated."<sup>7</sup>

Although other points could be brought out in the debate between *Mother Jones* and Ford, perhaps the most intriguing and controversial is the cost-benefit analysis study that Ford did entitled "Fatalities Associated with Crash-Induced Fuel Leakage and Fires" released by J. C. Echold, Director of Automotive Safety for Ford. This study apparently convinced Ford and was intended to convince the federal government that a technical improvement costing \$11 per car which would have prevented gas tanks from rupturing so easily was not cost-effective for society. The costs and benefits are broken down in the following way:

*Benefits*

Savings:	180 burn deaths, 180 serious burn injuries, 2,100 burned vehicles
Unit Cost:	\$200,000 per death, \$67,000 per injury, \$700 per vehicle
Total Benefit:	$180 \times (\$200,000) + 180 \times (\$67,000) + 2,100 \times (\$700) = \$49.5 \text{ million.}$

*Costs*

Sales:	11 million cars, 1.5 million light trucks
Unit Cost:	\$11 per car, \$11 per truck
Total Cost:	$11,000,000 \times (\$11) + 1,500,000 \times (\$11) = \$137 \text{ million}$

<i>Component</i>	<i>1971 Costs</i>
Future Productivity Losses	
Direct	\$132,000
Indirect	41,300
Medical Costs	
Hospital	700
Other	425
Property Damage	1,500
Insurance Administration	4,700
Legal and Court	3,000
Employer Losses	1,000
Victim's Pain and Suffering	10,000
Funeral	900
Assets (Lost Consumption)	5,000
Miscellaneous	200
TOTAL PER FATALITY	\$ 200,725

(Although this analysis was on all Ford vehicles, a breakout of just the Pinto could be done.) *Mother Jones* reports it could not find anybody who could explain how the \$10,000 figure for "pain and suffering" had been arrived at.<sup>8</sup>

Although Ford does not mention this point in its News Release defense, it might have replied that it was the federal government, not Ford, that set the figure for a burn death. Ford simply carried out a cost-benefit analysis based on that figure. *Mother Jones*, however, in addition to insinuating that there was industry-agency (NHTSA) collusion, argues that the \$200,000 figure was arrived at under intense pressure from the auto industry to use cost-benefit analysis in determining regulations. *Mother Jones* also questions Ford's estimate of burn injuries: "All independent experts estimate that for each person who dies by an auto fire, many more are left with charred hands, faces and limbs." Referring to the Northern California Burn Center which estimates the ratio of burn injuries to deaths at ten to one instead of one to one, Dowie states that "the true ratio obviously throws the company's calculations way off."<sup>9</sup> Finally, *Mother Jones* claims to have obtained "confidential" Ford documents which Ford

did not send to Washington, showing that crash fires could be largely prevented by installing a rubber bladder inside the gas tank for only \$5.08 per car, considerably less than the \$11 per car Ford originally claimed was required to improve crash-worthiness.<sup>10</sup>

Instead of making the \$11 improvement, installing the \$5.08 bladder, or even giving the consumer the right to choose the additional cost for added safety, Ford continued, according to *Mother Jones*, to delay the federal government for eight years in establishing mandatory rear-impact standards. In the meantime, Dowie argues, thousands of people were burning to death and tens of thousands more were being badly burned and disfigured for life, tragedies many of which could have been prevented for only a slight cost per vehicle. Furthermore, the delay also meant that millions of new unsafe vehicles went on the road, "vehicles that will be crashing, leaking fuel and incinerating people well into the 1980s."<sup>11</sup>

In concluding this article Dowie broadens his attack beyond just Ford and the Pinto.

Unfortunately, the Pinto is not an isolated case of corporate malpractice in the auto industry. Neither is Ford a lone sinner. There probably isn't a car on the road without a safety hazard known to its manufacturer . . .

Furthermore, cost-valuing human life is not used by Ford alone. Ford was just the only company careless enough to let such an embarrassing calculation slip into public records. The process of willfully trading lives for profits is built into corporate capitalism. Commodore Vanderbilt publicly scorned George Washington and his "foolish" air brakes while people died by the hundreds in accidents on Vanderbilt's railroads.<sup>12</sup>

Ford has paid millions of dollars in Pinto jury trials and out-of-court settlements, especially the latter. *Mother Jones* quotes Al Slechter in Ford's Washington office as saying: "We'll never go to a jury again. Not in a fire case. Juries are just too sentimental. They see those charred remains and forget the evidence. No sir, we'll settle."<sup>13</sup> But apparently Ford thought such settlements would be less costly than the safety improvements. Dowie wonders if Ford would continue to make the same decisions "were Henry Ford II and Lee Iacocca serving 20-year terms in Leavenworth for consumer homicide."<sup>14</sup>

### III

On March 13, 1980, the Elkhart County jury found Ford not guilty of criminal homicide in the Ulrich case. Ford attorney Neal summarized several points in his closing argument before the jury. Ford could have stayed out of the small car market which would have been the "easiest way," since Ford would have made more profit by sticking to bigger cars. Instead Ford built the Pinto "to take on the imports, to save jobs for Americans and to make a profit for its stockholders."<sup>15</sup> The Pinto met every fuel-system standard of any federal, state or local government, and was comparable to other 1973 subcompacts. The engineers who designed the car thought it was a good, safe car and bought it for themselves and their families. Ford did everything possible quickly to recall the Pinto after NHTSA ordered it to do so. Finally, and more specifically to the case

at hand, Highway 33 was a badly designed highway, and the girls were fully stopped when a 4,000-pound van rammed into the rear of their Pinto at at least 50 miles an hour. Given the same circumstances, Neal stated, any car would have suffered the same consequences as the Ulrichs' Pinto.<sup>16</sup> As reported in the *New York Times* and *Time*, the verdict brought a "loud cheer" from Ford's Board of Directors and undoubtedly at least a sigh of relief from other corporations around the nation.

Many thought this case was a David against a Goliath because of the small amount of money and volunteer legal help Prosecutor Cosentino had in contrast to the huge resources Ford poured into the trial. In addition, it should be pointed out that Cosentino's case suffered from a ruling by Judge Staffeldt that Ford's own test results on pre-1973 Pinto's were inadmissible. These documents confirmed that Ford knew as early as 1971 that the gas tank of the Pinto ruptured at impacts of 20 mph and that the company was aware, because of tests with the Capri, that the over-the-axle position of the gas tank was much safer than mounting it behind the axle. Ford decided to mount it behind the axle in the Pinto to provide more trunk space and to save money. The restrictions of Cosentino's evidence to testimony relating specifically to the 1973 Pinto severely undercut the strength of the prosecutor's case.<sup>17</sup>

Whether this evidence would have changed the minds of the jury will never be known. Some, however, such as business ethicist Richard De George, feel that this evidence shows grounds for charges of recklessness against Ford. Although it is true that there were no federal safety standards in 1973 to which Ford legally had to conform and although Neal seems to have proved that all subcompacts were unsafe when hit at 50 mph by a 4,000-pound van, the fact that the NHTSA ordered a recall of the Pinto and not other subcompacts is, according to De George, "*prima facie* evidence that Ford's Pinto gas tank

mounting was substandard.”<sup>18</sup> De George argues that these grounds for recklessness are made even stronger by the fact that Ford did not give the consumer a choice to make the Pinto gas tank safer by installing a rubber bladder for a rather modest fee.<sup>19</sup> Giving the consumer such a choice, of course, would have made the Pinto gas tank problem known and therefore probably would have been bad for sales.

Richard A. Epstein, professor of law at the University of Chicago Law School, questions whether Ford should have been brought up on criminal charges of reckless homicide at all. He also points out an interesting historical fact. Before 1966 an injured party in Indiana could not even bring civil charges against an automobile manufacturer solely because of the alleged “uncrashworthiness” of a car; one would have to seek legal relief from the other party involved in the accident, not from the manufacturer. But after *Larson v. General Motors Corp.* in 1968, a new era of crashworthiness suits against automobile manufacturers began. “Reasonable” precautions must now be taken by manufacturers to minimize personal harm in crashes.<sup>20</sup> How to apply criteria of reasonableness in such cases marks the whole nebulous ethical and legal arena of product liability.

If such a civil suit had been brought against Ford, Epstein believes, the corporation might have argued, as they did to a large extent in the criminal suit, that the Pinto conformed to all current applicable safety standards and with common industry practice. (Epstein cites that well over 90% of U.S. standard production cars had their gas tanks in the same position as the Pinto.) But in a civil trial the adequacy of industry standards is ultimately up to the jury, and had civil charges been brought against Ford in this case the plaintiffs might have had a better chance of winning.<sup>21</sup> Epstein feels that a criminal suit, on the other hand, had no chance from the very outset, because the prosecutor would have had to establish criminal intent on

the part of Ford. To use an analogy, if a hunter shoots at a deer and wounds an unseen person, he may be held civilly responsible but not criminally responsible because he did not intend to harm. And even though it may be more difficult to determine the mental state of a corporation (or its principal agents), it seems clear to Epstein that the facts of this case do not prove any such criminal intent even though Ford may have known that some burn deaths/injuries could have been avoided by a different placement of its Pinto gas tank and that Ford consciously decided not to spend more money to save lives.<sup>22</sup> Everyone recognizes that there are trade-offs between safety and costs. Ford could have built a “tank” instead of a Pinto, thereby considerably reducing risks, but it would have been relatively unaffordable for most and probably unattractive to all potential consumers.

To have established Ford’s reckless homicide it would have been necessary to establish the same of Ford’s agents since a corporation can only act through its agents. Undoubtedly, continues Epstein, the reason why the prosecutor did not try to subject Ford’s officers and engineers to fines and imprisonment for their design choices is because of “the good faith character of their judgment, which was necessarily decisive in Ford’s behalf as well.”<sup>23</sup> For example, Harold C. MacDonald, Ford’s chief engineer on the Pinto, testified that he felt it was important to keep the gas tank as far from the passenger compartment as possible, as it was in the Pinto. And other Ford engineers testified that they used the car for their own families. This is relevant information in a criminal case which must be concerned about the intent of the agents.

Furthermore, even if civil charges had been made in this case, it seems unfair and irrelevant to Epstein to accuse Ford of trading cost for safety. Ford’s use of cost-benefit formulas, which must assign monetary values to human life and suffering, is precisely what the law demands in assessing civil liability suits.

The court may disagree with the decision, but to blame industry for using such a method would violate the very rules of civil liability. Federal automobile officials (NHTSA) had to make the same calculations in order to discharge their statutory duties. In allowing the Pinto design, are not they too (and in turn their employer, the United States) just as guilty as Ford's agents?<sup>24</sup>

#### IV

The case of the Ford Pinto raises many questions of ethical importance. Some people conclude that Ford was definitely wrong in designing and marketing the Pinto. The specific accident involving the Ulrich girls, because of the circumstances, was simply not the right one to have attacked Ford on. Other people believe that Ford was neither criminal nor civilly guilty of anything and acted completely responsibly in producing the Pinto. Many others find the case morally perplexing, too complex to make sweeping claims of guilt or innocence.

Was Ford irresponsible in rushing the production of the Pinto? Even though Ford violated no federal safety standards or laws, should it have made the Pinto safer in terms of rear-end collisions, especially regarding the placement of the gas tank? Should Ford have used cost-benefit analysis to make decisions relating to safety, specifically placing dollar values on human life and suffering? Knowing that the Pinto's gas tank could have been made safer by installing a protective bladder for a relatively small cost per consumer, perhaps Ford should have made that option available to the public. If Ford did use heavy lobbying efforts to delay and/or influence federal safety standards, was this ethically proper for a corporation to do? One might ask, if Ford was guilty, whether the engineers, the managers, or both are to blame. If Ford

had been found guilty of criminal homicide, was the proposed penalty stiff enough (\$10,000 maximum fine for each of the three counts = \$30,000 maximum), or should agents of the corporations such as MacDonald, Iacocca, and Henry Ford II be fined and possibly jailed?

A number of questions concerning safety standards are also relevant to the ethical issues at stake in the Ford trial. Is it just to blame a corporation for not abiding by "acceptable standards" when such standards are not yet determined by society? Should corporations like Ford play a role in setting such standards? Should individual juries be determining such standards state by state, incident by incident? If Ford should be setting safety standards, how does it decide how safe to make its product and still make it affordable and desirable to the public without using cost-benefit analysis? For that matter, how does anyone decide? Perhaps it is putting Ford, or any corporation, in a catch-22 position to ask it both to set safety standards and to competitively make a profit for its stockholders.

Regardless of how the reader answers these and other questions it is clear that the Pinto case raises fundamental issues concerning the responsibilities of corporations, how corporations should structure themselves in order to make ethical decisions, and how industry, government, and society in general ought to interrelate to form a framework within which such decisions can properly be made in the future.

#### NOTES

1. *Indianapolis Star*, March 9, 1980, sec. 3, p. 2.
2. Mark Dowie, "Pinto Madness," *Mother Jones*, Sept/Oct, 1977, pp. 18 and 20. Subsequently Mike Wallace for *60 Minutes* and Sylvia Chase for *20/20* came out with similar exposés.
3. *Ibid.*, p. 30.
4. Ford News Release (Sept. 9, 1977), pp. 1-3.

5. Ibid., p. 5.
6. Dowie, "Pinto Madness," p. 29.
7. Ibid., pp. 22–23.
8. Ibid., pp. 24 and 28. Although this analysis was on all Ford vehicles a breakout of just the Pinto could be done.
9. Ibid., p. 28.
10. Ibid., pp. 28–29.
11. Ibid., p. 30.
12. Ibid., p. 32. Dowie might have cited another example which emerged in the private correspondence which transpired almost a half century ago between Lamont du Pont and Alfred P. Sloan, Jr., then president of GM, Du Pont was trying to convince Sloan to equip GM's lowest-priced cars, Chevrolets, with safety glass. Sloan replied by saying: "It is not my responsibility to sell safety glass. . . . You can say, perhaps, that I am selfish, but business is selfish. We are not a charitable institution—we are trying to make a profit for our stockholders." Quoted in Morton Mintz and Jerry S. Cohen, *Power, Inc.* (New York: The Viking Press, 1976), p. 110.
13. Ibid., p. 31.
14. Ibid., p. 32.
15. Transcript of report of proceedings in *State of Indiana v. Ford Motor Company*, Case No. 11-431, Monday, March 10, 1980, pp. 6202–3. How Neal reconciled his "easiest way" point with his "making more profit for stockholders" point is not clear to this writer.
16. Ibid., pp. 6207–9.
17. *Chicago Tribune*, October 13, 1979, p. 1, and sec. 2, p. 12; *New York Times*, October 14, 1979, p. 26; *Atlanta Constitution*, February 7, 1980.
18. Richard De George, "Ethical Responsibilities of Engineers in Large Organizations: The Pinto Case," *Business and Professional Ethics Journal*, vol. 1, no. 1 (Fall 1981), p. 4. *New York Times*, October 26, 1978, p. 103, also points out that during 1976 and 1977 there were 13 fiery fatal rear-end collisions involving Pintos, more than double that of other U.S. comparable cars, with VW Rabbits and Toyota Corollas having none.
19. Ibid., p. 5.
20. Richard A. Epstein, "Is Pinto a Criminal?" *Regulation*, March/April, 1980, pp. 16–17.
21. A California jury awarded damages of \$127.8 million (reduced later to \$6.3 million on appeal) in a Pinto crash where a youth was burned over 95% of his body. See *New York Times*, February 8, 1978, p. 8.
22. Epstein, p. 19.
23. Ibid., pp. 20–21.
24. Ibid., pp. 19–21.