

The Corporate Average Fuel Efficiency Program Meets Passage without Closure

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Controversy over the Corporate Average Fuel Economy (CAFE) program, spanning fourteen months of U.S. congressional testimonials by a plethora of experts and consultants from every stakeholder, a critical review of multiple scientific papers and peer-reviewed publications, and dramatization by biased media heads, led miraculously to the passage of a new energy bill this December.

This paper elucidates the concept of *closure* in light of the precarious passage of this bill. Through the analysis of the three main stakeholders within the debate, I aim to show that the passage of a bill is by no stretch of the imagination equivalent to the closure of a controversy. More particularly, stakeholders effectively speak past or over one another with little respect for each other's positions, evidenced by the different schema that each stakeholder constructs to frame the debate. Consequently, a mish-mashed bill replete with loopholes and ambiguous wording passed in both the House and the Senate—imparting to each just enough to satisfactorily *seal the deal* but not enough to *close controversy over the issues that drive the debate*.

In other words, the various stakeholders never came together to agree on what was most important in the debate and how to frame the issue—thus *closure on the controversy* was never reached *despite closure on the bill*. The stakeholders reached a compromise that satisfied nobody entirely but most groups partially. In particular issues where compromise failed and went unresolved, loose and ambiguous wording filled the gaps. Hence the debate continues, despite a change in policy. Thus, I argue, truce declared and debate deferred is the nature of the modern political process within the United States, or at least in the case of this energy bill.

Prior to this analysis, I provide context and groundwork for the debate with an overview of the CAFE program and a brief description of the stakeholders' positions.

Brief Overview of CAFE Program

In response to the 1973 oil crisis, the U.S Congress passed the Energy Policy and Conservation Act of 1975, with the goal of reducing the country's dependence on foreign oil (Board on Energy and Environmental

Systems, 2002). Among other accomplishments, the act established the Corporate Average Fuel Economy (CAFE) program, which required automobile manufacturers to increase the sales-weighted average fuel economy of the passenger car and light-duty truck fleets sold in the United States. Since 1978, the first year the policy was enacted, fuel efficiency standards have risen from 18 miles per gallon (mpg) to 27.5 mpg (pre-2007) for passenger cars and to 20.7 mpg for light-duty trucks, which include minivans, pickups, and sport utility vehicles. In 2007, the U.S. Congress debated over a new energy bill that would increase the CAFE standard to 35 mpg by 2020 with the intention of trimming increasing greenhouse-gas emissions and dependence on imported oil. This bill of contention, and the focus of this article, was passed by Congress in mid-December.

The development and evolution of this debate—over how much to increase CAFE standards—has been a battle among three contentious stakeholders. The automotive industry—aiming for a less stringent increase in standards—believes that autos represent only small share of the energy security picture, and called for policies that did more to incorporate other stakeholders. Their framework hinged on the needs to ensure automobile safety, to incorporate consumer responsibility, and most importantly to shield itself and the economy from negative short-term economic impact. Conversely, the environmental lobbyists adopted a forward-looking framework that addressed the need for energy independence and emissions reductions, with a long-term vision in mind. California—the main state-contender—framed the controversy around the urgent need to reduce global warming, to protect particularly fragile local ecosystems and resources with the most forward-looking and stringent policy measures of the three, and the right to respond to the greater will of the citizens of the state of California.

The remainder of this essay will explore how the contenders responded to the most substantive issues within the debate: (1) Automobile Safety, (2) Economic Impact, (3) Energy Security and Independence, (4) Global Climate Protection, and (5) Policy Loopholes.

Automobile Safety

The uncertainty of automobile safety in light of increasing standards has been a very contentious point within the debate. While the Alliance of Automobile Manufacturers (AAM) weighs in heavily with absolute, disciplinary and mechanical objectivity to uphold the position that increasing standards has a negative impact on vehicle safety, the Union of Concerned Scientists (UCS) and other environmental groups defend their points with similar tactics, and so a yelling contest ensues. Listed below is a sampling of the kinds of arguments and counter-arguments that were brought to the debate by both AAM and UCS. First, I will analyze how their claims were made, and then how this influenced the debate.

A) AAM claim: “The fundamental laws of physics dictate that smaller and/or lighter vehicles are less safe than larger/heavier counterparts with equivalent safety designs and equipment.” (*Fuel efficiency standards and the law of physics*, 2007).

B) UCS retort: “Because light trucks pose a substantial risk to other vehicles on the road due to their mass and design, making them lighter will also save the lives of others on the road.”(UCS, n.d.b).

C) The AAM references a study conducted by the NAS in 2002, which concluded: “As the NAS report and a more recent NHTSA study have found, down-weighting of the light truck fleet, especially those trucks in the low and medium weight ranges, creates more safety risk for occupants of light trucks and all motorists combined” (National Center for Statistics Analysis, 2006).

D) The UCS cites the same two studies to refute this claim: “However, both studies also suggest that if down-weighting is concentrated on the heaviest light trucks in the fleet there would be no net safety impact, and there might even be a small fleet-wide safety benefit.” (National Center for Statistics Analysis, 2006).

E) The Environmental Defense group attacks the legitimacy of the study¹.

F) The NHTSA (in support of the AAM) states, “The agency continues to stand by our analytical method and database, and we continue to believe that weight reduction in lighter vehicles would reduce safety” (National Center for Statistics Analysis, 2006).

G) AAM support: “It will cost \$2,000 to \$10,000 per car to support the new legislation.” (Jesse Torprak, Executive Director of industry analysis for Edmunds.com)

H) UCS support within NAS report: “It is technically feasible and potentially economical to improve fuel economy without reducing weight or size, and, therefore, without significantly affecting the safety of the motor vehicle” (Board on Energy and Environmental Systems, 2002).

As one can see, both the automakers and the environmental groups weigh into the debate with absolute objectivity² with statements “grounded” in “laws of physics” and common knowledge/common sense; refer to points A and B. Further, both contenders employ disciplinary

¹ Environmental Defense stated that the Kahane study on which the agency relied for determining the weight reduction limitations was flawed, because it did not adequately distinguish between the effects of size and weight on motor vehicle accident mortality, despite the large body of evidence suggesting that other factors besides vehicle weight, such as vehicle size and design, have critical implications for vehicle safety.

² Absolute objectivity is a term coined by Theodore Porter in his book, *Trust in Numbers: Pursuit of Objectivity in Science and Public Life* (2006), which implies knowing things as they really are, and is very closely associated with realism and the laws of nature.

objectivity³ with numerous references to scientific studies; refer to points C and D. One of the environmental groups even tries to sway the debate in its favor by attacking the credibility of one of the scientific studies (point E). However, what is most important is the way that AAM frames the debate around vehicle safety. Ensuring consumer safety is both a moral responsibility (point F) that falls in the lap of the automotive manufacturers, as well as an economic pain point to consumers (point G) in terms of the economics of retooling to meet safety standards. To this point, the automakers argue that it will cost the consumers substantially more. The environmentalists on the other hand, neglect cost altogether and champion that the technology is accessible, thus we should utilize it (point H). In terms of AAM's moral responsibility to ensure safety, uncertain evidence is just as strong as evidence indicating that it does impact safety negatively—it is better to be certain about safety than uncertain. This explains why the environmental groups never raise claims of uncertainty with regard to the relationship between increasing standards and safety—in order to win this point, they must prove that safety will not be affected adversely by the new standards, while all the automakers have to do to win is claim uncertainty or argue that it does have negative impacts.

The problem illustrates experimenter's regress.⁴ In other words, when constructing a model (i.e., the experiment) of the relation between automobile safety and size, fuel efficiency, etc., there is no independent or absolute “proof” that the model is accurate. In any case, both contenders' attempt to defend their points with scientific evidence (despite experimenter's regress), as indicated by their abilities to defend and refute CAFE's effects on vehicle safety with numbers grounded in science (points C, D, and F).

So even if the technology exists to ensure safety and meet standards, the costs to implementation are expensive, or at best uncertain. Further, even if they are implemented, it remains uncertain, or at best contested, whether or not it will be effective in upholding safety standards.

While it is unclear whether or not vehicle safety played a decisive role in shaping the rates of increase, it is clear that the multiple frameworks and conflicting scientific evidence, brought to the debate by these contenders, have brought little resolve to this point.

³ Disciplinary objectivity is a term coined by Theodore Porter in his book, *Trust in Numbers: Pursuit of Objectivity in Science and Public Life* (2006) to describe objectivity legitimized by the consensus of a group of experts in a field. Statements that claim legitimacy by reference to a study widely accepted by the scientific community implicitly employ this kind of objectivity.

⁴ Experimenter's regress describes a situation in which trade-offs cannot be precisely estimated and may never be, since an objective criterion would have to be agreed upon to determine whether or not quantitative models reflect “realities” (in other words, whether the “experiment” had been competently performed).

Economic Impact

The near-term, long-term, micro, and macro economic forecasts of increasing fuel efficiency standards have also been in heated debate, and have yet to be resolved. While many of the non-partisan research groups indicate uncertainty over the matter, AAM makes aggressive claims about how the standards will significantly increase vehicle purchase costs to the consumer, as well as how these standards pose risks to jobs within the automotive sector. UCS reports otherwise promoting consumers' long-term savings and the growth of jobs in other sectors. Listed below are some of the main points that both contenders bring to the debate.

A) The AAM asserts: "Counting associated industries, about 13.3million people work for auto; their jobs and livelihoods will be at risk because of this act if the automakers are not able to meet the demands of the new legislation" (*Texas automotive manufacturing industry report*, 2007).

B) The AAM purports a study by the NHTSA: "Third, the agency noted the adverse economic impacts that might result from steady future increases in the stringency of CAFE standards under the current regulatory structure." (National Center for Statistics, 2006).

C) In the same study, the UCS cites: "Improving energy efficiency has benefits for economic growth and the environment. More specifically, reducing total petroleum use decreases our economy's vulnerability to oil price shocks. [Further] reducing the growth rate of oil use will help relieve pressures on already strained domestic refinery capacity, decreasing the likelihood of product price volatility." (National Center for Statistics and Analysis, 2006).

D) A UCS report indicates: "In 2020, the benefits from investments in fuel economy would lead to 241,000 more jobs throughout the country, with California, Texas, Florida, New York, Michigan, Ohio, and Illinois all seeing more than 10,000 new jobs. In the automotive sector, projected jobs would grow by 23,900 in 2020." (UCS, 2007).

E) UCS asserts: "These vehicles would save consumers more than \$3,300 at the gas pump over their lifetimes compared to vehicles meeting the current standard of 21.0 mpg—these savings are more than four times the cost of the fuel economy improvements."(UCS, n.d.c).

F) General Motor's Vice-Chairman Robert Lutz: "The company could hit the new CAFE rules soon, but not without radically altering the nation's current choice of vehicles or adding \$6,000 a car in cost. Some carts could become as much as \$10,000 more expensive." (Welch, 2008).

G) The NAS, voicing uncertainty over macroeconomic impacts, states in a 2002 report: "There are significant uncertainties surrounding the societal costs and benefits of raising fuel economy standards for light-duty fleet. The higher the target for average fuel efficiency, the greater the uncertainty about the cost of reaching that target."(Board on Energy and Environmental Systems, 2002):

H) The NAS study also indicates: “The high cost of oil imports [associated with increased dependence] poses two risks: downward pressure on the strength of the dollar and an increase in U.S. vulnerability to macroeconomic shocks that cost the economy considerable real output.” (Board on Energy and Environmental Systems, 2002).

Like we saw in the first section on automobile safety, both parties heavily utilize disciplinary objectivity to bolster their points by referring to scientific reports (points B, C, F, and G). They also invoke mechanized objectivity⁵ to further legitimize their positions (points A, E, and D). These mechanisms lend to officials, whose legitimacy is frequently questioned by their bipartisanship, the appearance of objectivity, and thus the grounds to speak past one another. Similarly to the controversy over vehicle safety, many of the reports cited here fall suspect to experimenter’s regress. However, most importantly evidenced by these points, is the widening of the scope with respect to economic forecasting. More particularly, while points A and D introduce job growth or loss as a legitimate concern, points C and G introduce the risks associated with high oil prices. In other words, AAM attempts to build rapport by focusing on the threat to jobs within the automotive sector (A) and the costs to the consumer (F)—these being short-term consequences. Conversely, the environmentalists frame the issue around long-term objectives—minimizing stress on oil refinery capacity (C), expanding jobs in other sectors related to the automotive industry (D), and saving the consumer money in the long-haul with returned savings on fuel (E). Further, points A and D address microeconomic risks associated with the automotive sector, while points C and G address macroeconomic risks associated with the broader U.S. economy. Point E, a contention raised by a non-partisan body, further expands the debate with its assertion of uncertainty over the matter.

Thus, multiple frameworks and evidence that supports wholly different points has created a tumultuous landscape for agreeing upon potentially the most significant terms of the debate.

Energy Security and Energy Independence

Both AAM and UCS recognize that energy security and energy independence should be a part of national policy, but they disagree on the means of how it should be implemented and who should bear the costs. Listed below are many of the points raised by UCS to elevate the urgency of the matter; point E presents a synopsis of the scope that AAM adopts with regard to energy security.

⁵ Mechanized objectivity is term coined by Theodore Porter his book, *Trust in Numbers: Pursuit of Objectivity in Science and Public Life* (2006) to describe objectivity that is rooted in numbers and quantifications. Porter claims that this is the ideal way expertise should be objectified, but that it is never fully attainable. He also claims that the validity of numbers is especially compelling to politicians who are often criticized for bias, lending authority to officials who have little of their own.

A) UCS cites NHTSA reports, with regard to CAFE standards: “Reducing dependence on oil imports from regions with uncertain conditions enhances our energy security and can reduce the flow of oil profits to certain states now hostile to the U.S. [It also] decreases our economy’s vulnerability to oil price shocks.” (National Center for Statistics and Analysis, 2006)

B) UCS reports: “Vehicles account for ~40 percent of all U.S. oil consumption.” (Natural Resources Defense Council, 2001).

C) UCS reports: “U.S consumers currently spend \$1 billion/day to import petroleum products.” (UCS, n.d.b).

D) UCS reports: “New standards will save 1.1 million barrels of oil per day in 2020, more than half current imports from the Persian Gulf.” (UCS, n.d.b).

E) AAM responds: “The U.S cannot achieve energy security through CAFE alone. CAFE is a one-dimensional and incomplete program. Any transportation energy policy must be comprehensive and multi-dimensional to be effective, and we believe that all sectors of the economy, not just transportation and certainly not just automakers, should strive to reduce petroleum consumption.” (McCurdy, 2007).

UCS dominates the argument over energy security. They strengthen their position with both disciplinary objectivity (point A) and mechanized objectivity (B, C, D), bringing urgency to the matter in a way that is difficult to contend with. The U.S. risk to energy security is not something that is debated, yet whose role it is to hedge that risk is controversial to this particular debate. This is a very effective point of contention for the environmentalists because it addresses a major pain point to the U.S, backed by science that suggests that reducing consumption is a very tangible way to hedge against these risks. The environmentalists adopt the position that this risk can be done with more stringent CAFE standards. The only way AAM can defend its position is by criticizing CAFE for not being sufficient enough (point E)—that AAM should not be the sole bearer of the costs to hedge these risks.

Thus, despite AAM’s reluctance to give into this position, it is almost forced to. Science has had the effect of persuading the broader public that energy is an important issue that must be dealt with accordingly. AAM should be a partner in this effort—something they cannot afford to deny if they hope to keep face with the broader U.S. public.

Global Climate Protection

Just as they agreed about the need for energy security, the stakeholders agree that global climate protection should be a priority. Global climate protection becomes a point grounded in moral appeal for both the environmentalists and the state of California to bolster their positions for a more stringent increase in CAFE.

A) UCS sites NHTSA report: “Increasing the fuel economy of MY 2008-11 light trucks would reduce their lifetime fuel consumption, energy

use, and greenhouse gas emissions (which result from the combustion of carbon-based fuels) compared to their levels that would result from extending the MY 2007 standard to apply to these model years.”(National Highway Traffic Safety Administration, 2006).

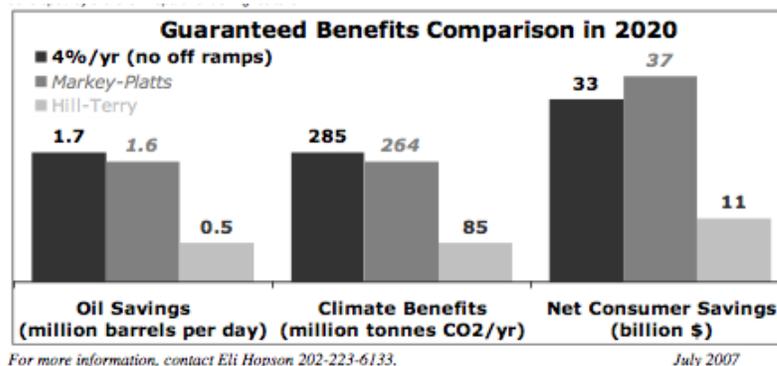
B) AAM cites same report: “However, improving fuel economy also reduces the fuel cost of driving and thus leads to additional use of light trucks, a response referred to as the fuel economy “rebound effect.” (National Center for Statistics and Analysis, 2006). The added driving caused by the rebound effect in turn results in increased emissions of criteria pollutants by light trucks” (National Center for Statistics and Analysis, 2006).

C) AAM sites same report again: “Finally, stricter CAFE standards can result in higher or lower emissions of “criteria” pollutants, by-products of fuel combustion that are emitted in extremely small amounts by the internal combustion engines used to power light trucks, as well as during gasoline refining and distribution” (National Highway Traffic Safety Administration, 2006).

D) Environmental Defense reports: “Through 2030, which is a reasonable horizon for evaluating the effect of the proposed measures, an energy bill under the more optimistic assumptions achieves 44% of the cumulative reductions needed to hold emissions down to the more stringent climate protective targets. Under a less optimistic scenario, an energy bill achieves only 19% of the reductions needed” (Environmental Defense , 2007).

E) California asserts: “Between 2009 and 2016, the California standards will prevent emissions of 58 MMTs of CO2. This is almost three times the 20 MMTs expected if only the new federal CAFE standards were implemented. By 2020, the full California rules would prevent 167 MMT of CO2 emissions, more than twice the 76 MMTs reductions of CO2 expected if only the federal standards were implemented” (Nichols, 2008).

F) UCS Report: This graph shows that the proposed increased standards under Markey-Platts has significantly higher climate benefits than the one championed by the AAM (Hill-Terry).



Once again, various tools of objectivity have been employed by both sides to bolster their positions. More importantly however, is the way that each frames its arguments. UCS frames CAFE as a method for reducing greenhouse gas emissions, while AAM questions its effectiveness in doing so. Interestingly, AAM does not attack the scientific reports created by UCS and Environmental Defense; which is dissimilar to the tactic adopted by the Environmental Defense to discredit a research report funded by an automotive ally over CAFE and vehicle safety. Instead, points B and C indicate that scientific evidence suggests that these new measures will actually counteract greenhouse gas reductions. Points D, E, and F are based on studies that have modeled climate benefits and greenhouse gas reductions for various CAFE standards—while this may limit experimenter’s regress to some degree (the incorporation of various scenarios), uncertainty over these models still exists. Even with existing uncertainty in these models, this point of contention bears plenty of moral appeal, which allows it to function as a major driving point for the environmental groups.

Loopholes

The current policy loopholes⁶ have been a very contentious issue for the environmentalists. Despite support from non-partisan expert witnesses to remove them, they still exist. A list of the points of contention is detailed below.

A) UCS analysis indicates: “Closing existing loopholes—including requiring light trucks to meet today’s car standard of 27.5 mpg within five model years—could cut gasoline use by 11 billion gallons in one year alone, 2015, saving consumers \$14 billion.” (UCS, n.d.a).

B) NAS study claims: “The car/truck distinction has been stretched well beyond the original purpose.” (Board on Energy and Environmental Systems, 2002).

C) NAS study claims: “[The Committee] could find no evidence that the two-fleet rule distinguishing between domestic and foreign content has had any perceptible effect on total employment in the U.S automotive industry.” (Board on Energy and Environmental Systems, 2002).

D) AAM in response to car/truck distinction: “Cars and light trucks have distinct characteristics with consumers, and therefore shouldn’t have the same standards.” (AAM, 2007).

E) NAS study indicates: “The provision for creating extra credits for multi-fuel vehicles has had, if any, a negative effect on fuel economy, petroleum consumption, greenhouse gas emissions, and cost. These

⁶ Two loopholes within the current policy exist. The first has to do with the distinction between cars and light trucks: auto manufacturers have blurred the distinction, due to ambiguous wording, and have thus stretched the clause beyond its original purpose. The second has to do with the dual-fuel credit standards, which are given to cars that can run on alternative fuels. The problem is that very few cars actually do, even when they technically can.

vehicles seldom use any fuel other than gasoline yet enable automakers to increase the production of less fuel efficient vehicles.” (Board on Energy and Environmental Systems, 2002).

F) AAM claims: “The dual fuel credit should continue. It can help reduce petroleum use, especially with more incentives to energy suppliers. That program has been extremely successful. Dual fuel autos help reduce gasoline demand, the original goal of CAFE. There are more than 6 million ethanol-capable vehicles on our roads; automakers have committed to selling millions more. If all dual fuel vehicles on U.S. roads today were able to use E85 (85 percent ethanol, 15 percent gasoline), America could save more than 3 billion gallons of gasoline a year.” (AAM, 2007).

The neutral party in this debate—the expert panel of scientists from the NAS—provides a representative-expert majority opinion that both loopholes should be removed because they fail to achieve the desired effects. Six years later (this report was created in 2002), there is still no closure to the loopholes. If the non-partisan expert committee that Congress calls upon to provide objective advice has unanimously agreed that they should be removed, why hasn’t it happened? This demonstrates a facet of U.S. politics where science is somewhat absent in decision-making—where politics outweigh what the trusted experts have to say.

Making Sense of Conflicting Frameworks, Inadequate Science, and Powerful Politics

As I have shown thus far, some of the most contentious issues—such as vehicle safety, economic impact, energy security, and global warming—are recognized by all of the contenders as significant. Yet disagreement occurs when deciding the best way to hedge the risks associated with these points. Frameworks conflict as AAM tries to weigh in heavily by calling attention to short-term risks and obligations to the consumer, while the environmentalists have weighed in with a long-term vision for energy security, environmental protection, and returned savings to the consumer.

In addition, I have shown the inadequacies of science to resolve many of these issues (particularly over vehicle safety and economic impact), primarily due to experimenter’s regress. Yet that is not to say that science has not helped to elevate the urgency of the needs to address energy security and to reduce global warming. Thus, it has had influence in shaping public perception of the bill, despite having little success in resolving many of the uncertainties related to the bill (vehicle safety and economic impact). Where science has not been effective in resolving the issue, political interests and power have weighed heavily in the debate, as evidenced by the extenuation of the loopholes. Thus, the final draft of the bill represents a substantial compromise of political interests and scientific input. Science has had the effect of shaping public opinion and demand for better, more stringent policies; while political clout has ensured that these stringent policies do not adversely affect any particular industry too

quickly. The chart below summarizes the various roles that science and politics played within the debate.

	The Role and Effectiveness of Science	The Role and Effectiveness of Politics	Conflict between Short-Term and Long-Term Vision?	Closure and Resolve?
Vehicle Safety	Science is very suspect of experimenter's regress; hence disciplinary objectivity is controversial; science is somewhat useless	Automakers incorporate economics into the debate; in face of uncertainty, political clout takes stronger role	Automakers emphasize short term economic impact	Little resolve
Economic Impact	Science is very suspect of experimenter's regress; hence disciplinary objectivity is controversial; science is somewhat useless	In face of uncertainty, political clout limits longevity of bill to 2020	Automakers emphasize short-term cost burdens; environmentalists emphasize long-term cost savings	Little resolve
Energy Security	Science convinces public that issue is real, despite controversial science about direct effectiveness of CAFE	Less significant	Automakers emphasize short-term cost burdens; environmentalists emphasize hedging risk	Some resolve
Global Warming	Science convinces public that issue is real, despite controversial science about direct effectiveness of CAFE	Less significant	Environmentalists emphasize hedging risk	Some resolve
Loopholes	Expert panel indicates that loopholes are ineffective for what purpose?	Political clout supersedes expert panel for many years (until recently)	n/a	Resolve; expected to be closed in 2010

Thus, this energy bill represents a not so atypical example of the U.S. political process, where both science and politics weigh in, and where truce is declared and debate is deferred. As further evidence, one can look at what was accomplished in the new energy bill. The standards did increase—which is no surprise since no one was arguing that they should not—rather the question was by how much and at what rate. The 3.25 percent annual increase to CAFE between 2010 and 2020 is a moderate compromise between the automakers and environmentalists. The

environmentalists got a slightly higher percentage increase (by adopting the Markley-Platts proposal over the Hill-Terry alternative), and the automakers were able to cap the time-period to 2020 instead of 2030 or 2050. Yet, the loopholes were never closed—instead, they will be reconsidered in 2010—a short-term win for the automakers. Furthermore, California’s contention over its right to set its own standard was left open-ended in the new energy bill. Since the bill’s passage, this particular debate has been *officially* reopened.⁷ Thus, the bill was able to reach passage because both sides each had minor wins, and no side was set to incur major losses. Instead, some of these potential losses (or big wins) have been deferred, while the rest have been greatly mitigated by these smaller compromises.

Not every act of legislation passed by Congress adheres to this process of truce and deferral. Yet I argue that this process does occur (1) when the controversy or debate involves many stakeholders with divergent agendas, (2) when scientific studies are subject to experimenter’s regress and hence fail to reach consensus, (3) when stakeholders have enough political power and clout to weigh into the debate, with or without legitimate points of contention, and (4) when the greater impacts of the controversy itself are not well understood on either a short-term or long-term scale. Each of these aspects, as I have illustrated in this article, are characteristic of many of the smaller debates within the larger controversy over the CAFE program.

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⁷ I italicize “officially” to emphasize that the controversy was never closed. It has been politically recognized in court now.

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