



**Beyond Process Excellence:  
Toward Enhancing Societal Wellbeing**

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## **Executive Summary**

Regulatory excellence is often defined primarily or exclusively by reference to procedural metrics that have been championed by the field of administrative law: opportunities for public comment, including an obligation for the regulator to respond to comments; avenues for formal stakeholder input and negotiation; transparency about the rationales for decision making; adherence to the letter and intent of the statutes that authorize and constrain the regulator’s authority; and opportunities for judicial review when stakeholders are injured by regulatory action. We argue that procedural metrics of excellence should be understood as minimums, and that the primary criterion for regulatory excellence should be societal wellbeing. We perform case studies at multiple federal agencies that illustrate success and failure in the design of regulations to achieve wellbeing. Two principal obstacles are identified to a stronger regulatory focus on societal wellbeing: interest-group politics and presidential electoral politics. Reforms are suggested to strengthen the voice of societal wellbeing, including a statutory requirement for benefit-cost reasoning subject to judicial review to ensure regulations do more good than harm.

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John D. Graham and Paul R. Noe

## **Section I: Introduction**

There is much confusion among academics, regulatory practitioners, and stakeholders as to what it means for a regulator to be excellent in his or her performance. The confusion is so great that we suspect that there is more consternation about how regulations are made (the process) than the consequences of regulations for the wellbeing of society (the outcome).<sup>1</sup> The confusion is so ingrained in the law that regulatory programs frequently are not even designed to objectively determine – before or after enactment – whether a regulation enhances wellbeing.<sup>2</sup> We believe that this confusion stems from a large void in the architecture of administrative law: there is no statutory framework to ensure that regulators balance tradeoffs and design regulations that do more good than harm.

It is sobering to consider how many regulators proceed from one regulation to the next without much focus on understanding the outcomes of their work; insofar as regulators are concerned about results, the yardstick tends to be whether regulators hear complaints from organized interest groups, judges, or elected officials. That is a pretty weak filter since, when citizens experience good or bad outcomes in daily life (e.g., a change in the price of gasoline or a new safety feature in their car), they rarely realize whether those outcomes relate to regulatory action or other factors.

Process considerations include a wide variety of legal questions, such as adherence to the statutory language that authorizes agency action as well as statutory requirements around public and stakeholder participation and transparency about decisionmaking rationales.<sup>3</sup> Process also encompasses political considerations such as whether the regulatory action is consistent with the priorities of the president or prime minister and, more crassly, whether the regulatory action advances the electoral interests of the political leadership or the (usually partisan) allies of the political leadership in the legislature.

The outcomes of regulation are the impacts on the day-to-day lives of citizens, the functioning of businesses and other organizations, and the quality of the environment in

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<sup>1</sup> For an excellent introduction into the nuts and bolts of rulemaking. See Cornelius M Kerwin. *Rulemaking: How Government Agencies Write Law and Make Policy*. CQ Press. Washington, DC. 2003.

<sup>2</sup> Upon close philosophical examination, most fairness claims can be accommodated by a welfarist standard of societal wellbeing. See Louis Kaplow, Steven Shavell. *Fairness Versus Welfare*. Harvard University Press. 2002.

<sup>3</sup> Walter Gellhorn, Clark Byse, Peter L Strauss. *Administrative Law: Cases and Comments*. Seventh Edition. Foundation Press. 1979.

which humans and other species live. We presume that the outcomes of concern are those that influence wellbeing, where wellbeing is understood to be determined by the overall welfare of citizens as well as the distribution of that welfare. The quality of the environment is judged by the humans who experience it, recognizing that humans have a strong interest in the welfare of other species as well as the welfare of future generations. Likewise, the outcomes of citizens of the nation state are of primary concern, but those citizens may have interests in the wellbeing of noncitizens living in the nation state or even the wellbeing of people living in other nation states.

By drawing such a sharp process-outcome distinction, we do not intend to suggest that current procedural requirements are unrelated to the quest for good outcomes.<sup>4</sup> When the U.S. Congress gave the federal courts the power to overturn “arbitrary and capricious” regulatory actions, it presumably did so – at least in part – with an eye toward protecting society from the perverse outcomes that could flow from “arbitrary and capricious” regulations. A similar outcome-related justification could be made for other procedures such as public/stakeholder participation and respect for presidential priorities.

In this paper, we argue that process-oriented concepts of regulatory excellence are relevant and important but should be understood as only the bare minimum. In other words, fidelity to process is the beginning rather than the end of the inquiry into regulatory excellence. The more important dimensions of excellence, ones that we acknowledge may be philosophically and scientifically more challenging, relate to the substance of the regulatory design and the ultimate impacts of a regulation on the wellbeing of society.

The paper is organized as follows. Following this introduction, section II explores in more depth the procedural and substantive dimensions of regulatory excellence, with illustrations from the United States. Section III presents several short case studies of U.S. regulations, where we contend the outcomes of the regulation were good, bad, or ugly, regardless of their procedural competence. In the final section, we argue that, in order for the regulatory system to be more sensitive to wellbeing, the requirements of the system need to be supplemented to emphasize wellbeing. One might say, with some irony, that we are turning to process reform as a strategy to improve the substantive design of regulations and their outcomes for society. We would put it differently: we are arguing that the Administrative Procedure Act (APA) needs to be supplemented with an administrative substance act to ensure that regulations do more good than harm.

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<sup>4</sup> For a strong case that administrative procedures can lead to good outcomes, see Steven P Croley. *Regulation and the Public Interests: The Possibility of GOOD Regulatory Government*. Princeton University Press. 2008.

## **Section II: Societal Wellbeing and Current Procedures: The Disconnect**

The pursuit of regulatory excellence based on the criterion of societal wellbeing is not easy.<sup>5</sup> We show in this section what an analysis of societal wellbeing entails and how it is often approximated with a benefit-cost analysis in the regulatory state.<sup>6</sup> We also explain why current procedural requirements are likely to have an imperfect relationship to wellbeing.

A wellbeing approach to regulatory excellence is consequentialist because it presumes that the ultimate determination of regulatory excellence requires understanding a regulation's consequences for wellbeing. If one relies entirely on procedural notions of excellence, one does not need to address consequences, or one needs to have confidence that procedural requirements deliver excellent consequences. Since the current body of procedural requirements in the U.S. were adopted without considering explicitly the wellbeing approach to regulatory evaluation, it takes a large "leap of faith" – or an "invisible hand" in regulatory politics -- to believe that current procedures are maximizing societal wellbeing. We believe – and show in this paper -- that regulatory politics can have the opposite effect.

The wellbeing inquiry can be seen as having three components: (1) the physical consequences of the regulation for each citizen (often mediated through impacts on businesses, the environment, and so forth), (2) the valuation of those consequences for each citizen (typically based on what citizens would prefer if they were well informed and thought about the issue with some care), and then (3) a distributional check to make sure that, once aggregated, the distribution of societal wellbeing is acceptable (or, preferably, optimal).

Theorists argue that the three steps can be embedded in a social welfare function, where social welfare is determined by the wellbeing of each citizen and an aggregation system to account for distributional preferences (a special case of which is a function where the wellbeing of each citizen is weighted equally).<sup>7</sup> We explain below why current federal regulatory procedures are not well designed to implement the wellbeing criterion and how interest-group and presidential-electoral politics may work against wellbeing.<sup>8</sup>

### **High-Quality Scientific and Technical Information**

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<sup>5</sup> There are subtle issues, for example, as to whether wellbeing should be judged by a person's preferences or experiences. Paul Dolan, Tessa Peasgood. *Measuring Well Being for Public Policy: Preferences or Experiences?* In *Law and Happiness*, eds. Eric A Posner, Cass R Sunstein. University of Chicago Press. 2010.

<sup>6</sup> Cass R Sunstein. *The Cost-Benefit State: The Future of Regulatory Protection*. American Bar Association. 2002.

<sup>7</sup> Matthew D Adler. *Well-Being and Fair Distribution*. Oxford University Press. 2012.

<sup>8</sup> For a classic statement of how interest-group politics and rent seeking detract from the cost-benefit state, see C Boyden Gray. "Obstacles to Regulatory Reform." *University of Chicago Legal Forum*. 1997, 1-11.

In order for a regulatory system to achieve excellence, regulators need access to the best available scientific and technical information, including objective and unbiased interpretation of that information. Close coordination between scientists and regulators is necessary to achieve well-designed regulations.<sup>9</sup> In a regulatory system where interest-group and presidential-politics are dominant concerns, the quest for high-quality scientific and technical information may become a secondary concern.

The federal government has substantial technical resources to assist in estimating the physical consequences of regulatory alternatives. Unfortunately, the best available expertise is not necessarily located in the federal agency with the statutory authority to regulate. For example, when there was public concern about “sudden acceleration” in Toyota cars, the National Highway Traffic Safety Administration (NHTSA) of the Department of Transportation (DOT) realized that there were technical issues that were best addressed by another federal agency, the National Aeronautics and Space Administration. When the Environmental Protection Agency (EPA) regulates the energy industry, agency professionals sometimes seek (or resist) the technical contributions from analysts at the Department of Energy (DOE), as DOE may be best positioned to deploy appropriate expertise on some questions. In the field of chemical risk assessment, DOE, the Department of Defense, and the Food and Drug Administration (FDA) have argued in various cases that EPA has not made proper use of the best available science, and in some cases the National Research Council of the National Academy of Sciences has concurred with the criticism of EPA.<sup>10</sup>

On the science issues in regulation, judicial deference to agency expertise does not recognize the complexity of the federal government. Federal courts extend deference on technical issues to the federal agency with the relevant statutory authority rather than to the federal agency with the best expertise on the issue. Moreover, current regulatory procedures do not always require or encourage the agency with regulatory authority to give emphasis to – or even consult with – the agency with the best access to relevant data and expertise. The White House – practicing a unitary theory of the Executive Branch -- typically discourages one agency from making public criticisms of the technical work of another agency. A more promising approach is to seek advice on – or peer review of – regulatory science by qualified experts organized by objective institutions that are separate from the regulatory body.<sup>11</sup> Thus, one cannot have great confidence that the first step in the wellbeing criterion – projecting the physical consequences of regulation – are handled with excellence under current procedures.

Regulators face even more difficulty using scientific and technical information submitted by regulated entities in the private sector, even when it is the most relevant and authoritative, since regulatory procedures sometimes treat scientists and engineers in

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<sup>9</sup> National Research Council. *Science and Decisions*. National Academy Press. Washington, DC, 2009.

<sup>10</sup> Cheryl Hogue. *EPA’s Efforts Endorsed*. *Chemical and Engineering News*. 92(20). May 19, 2014, 26-27.

<sup>11</sup> Jason Scott Johnston (ed). *Institutions and Incentives in Regulatory Science*. Lexington Books, 2012.

regulated entities as if they were more biased than experts in academia, think tanks, consulting firms, or the government. There is no compelling evidence to support such a general claim of bias, especially when information-quality requirements are applied to influential data (e.g., replicability of experiments and transparency of models). The U.S. Office of Management and Budget (OMB) has issued guidelines on information quality and peer review, but those guidelines are not typically seen as enforceable in federal court.<sup>12</sup>

Looking forward, regulatory excellence requires an appreciation of how to make sound decisions when the scientific and technical information is uncertain, but when there is a cost (or risk) of waiting for improved scientific information.<sup>13</sup> The value-of-information (VOI) framework, a close cousin of benefit-cost analysis, is well suited to addressing this pervasive dilemma, but it is rarely utilized by regulatory agencies. The VOI stance provides a more promising framework for harmonizing U.S. and European regulations than does uneven application of a subjective precautionary principle.<sup>14</sup>

### **Determining the Preferences of Informed Citizens**

The valuation by citizens of the physical consequences of regulation is typically performed in monetary units, thereby facilitating an “apples to apples” comparison of benefits and costs. Using methods such as revealed preference and stated preference, regulatory analysts strive to ensure that plausible monetary values are assigned to physical consequences.<sup>15</sup>

The social sciences are making progress with these methods, but significant uncertainties remain, as indicated by the contemporary controversy over the “social cost of carbon” (i.e., the estimated monetary damage to society of emitting a ton of carbon dioxide into the atmosphere).<sup>16</sup> One of the key inputs to this calculation, the social discount rate for converting future consequences into present value, remains a source of

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<sup>12</sup> But see Lawrence A Kogan. Revitalizing the Information Quality Act as a Procedural Cure for Unsound Regulatory Science: A Greenhouse Gas Rulemaking Case Study. Washington Legal Foundation. Critical Legal Issues Working Paper Series Number 191. Washington Legal Foundation. February 2015.

<sup>13</sup> Howard Raiffa. Decision Analysis: Introductory Lectures on Choices Under Uncertainty. Addison Wesley, 1970; Robert T Clemen. Making Hard Decisions: An Introduction to Decision Analysis. Second Edition. Brooks/Cole Publishing Company. 1996.

<sup>14</sup> For a real-world view on how Europe and the USA differ on science-based regulation, see Jonathan B Wiener, Michael D Rogers, James K Hammitt, Peter H Sand (eds). The Reality of Precaution: Comparing Risk Regulation in the United States and Europe. Resources for the Future Press. Washington, DC. 2011.

<sup>15</sup> Robert Cameron Mitchell, Richard T Carson. Using Surveys to Value Public Goods. Resources for the Future. 1989; A Myrick Freeman III. The Measurement of Environmental and Resource Values. Resources for the Future. 2003.

<sup>16</sup> U.S. General Accountability Office. Regulatory Impact Analysis: Development of Social Cost of Carbon Estimates. GAO-14-663. July 2014

contention among professional economists.<sup>17</sup> There is some effort in the federal government, led usually by OMB, to document best-available valuation methods and numerical values (e.g., OMB Circular A-4 on “Regulatory Analysis”), but such efforts are not routinely updated. Regulatory agencies are under no legal obligation to use OMB-recommended methods or to explain to courts why they may have deviated from OMB guidance.<sup>18</sup>

Some Western-trained economists and libertarians confuse matters by assuming that consumer preferences observed in real-world markets are necessarily the preferences that should be honored by regulatory analysts implementing the wellbeing criterion. The assumption is fine in many cases, but there are exceptions when it is apparent (or likely) that the preferences revealed by consumers or workers are based on factual errors, poorly-explained information, misperceptions, ill-considered emotions, or faulty reasoning processes. The wellbeing approach seeks to honor preferences that would be displayed by consumers who overcame some basic human frailties that have been shown by psychologists and behavioral economists (e.g., addiction to nicotine might be considered a human frailty rather than a well-considered preference).<sup>19</sup>

On the other hand, it is reasonable to ask how regulators themselves can overcome such basic human frailties; the reason is presumably because the regulator has access to specialized knowledge and training (e.g., to the findings of decision science and behavioral economics) and has practice in dealing with issues that consumers may confront less frequently. Thus, it is imperative that regulators pursue their craft in an objective and unbiased manner.

### **Aggregation and Distributional Concerns**

The least developed area in the wellbeing criterion is distributional weighting, and the design of the federal regulatory system is also questionable on this point. Current procedural requirements do require special consideration of specific interest groups, sectors, or subpopulations (e.g., small businesses, children, Indian tribes, state and local governments, farmers and so forth), but such requirements seem to reflect interest-group politics more than a well-grounded philosophical stance on the fairness-based design of a social welfare function. Organized interest groups are already well represented through “notice and comment” procedures, public hearings, and face-to-face meetings with staff at regulatory agencies and OMB, but the interests of the unorganized public (especially lower-income Americans, non-union workers, ordinary taxpayers, and consumers of

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<sup>17</sup> DF Burgess, RO Zerbe. Appropriate Discounting for Benefit-Cost Analysis. *Journal of Benefit-Cost Analysis*. 2(2). 2011, 1-18.

<sup>18</sup> For an insider’s description of OMB’s regulatory-review process, see Cass R Sunstein. *The Office of Information and Regulatory Affairs: Myths and Realities*. Public Law and Legal Theory Working Paper Series, Paper No. 13-07. Harvard Law School. 2012, forthcoming *Harvard Law Review*.

<sup>19</sup> On sources of “distorted preferences,” see Matthew D. Adler, Eric A Posner. *New Foundations of Cost-Benefit Analysis*. Harvard University Press. 2006.

goods and services) have remarkably little procedural weight in current regulatory processes.

Fortunately, the current OMB requirements for benefit-cost analysis provide some voice for the interests of the unorganized.<sup>20</sup> But it is crucial to recognize the limits of the OMB review process. It typically occurs late in the game, after the agency has determined the course of action it wants to take. (In fact, agencies too often treat benefit-cost analysis as a post-hoc justification for regulatory proposals that were designed with other motivations). OMB is given more power in some presidential administrations than others. OMB also is short on staff and not backed up by any judicial review of agency compliance with the Executive order on regulatory review or the Circular A-4 analytic guidelines. Perversely, presidential politics sometimes causes agencies and OMB to be deployed in a regulatory direction that could undermine societal wellbeing. And there is a large volume of “stealth regulation” that occurs without any OMB review or benefit-cost justification, and much of this activity is permissible under current procedural requirements.<sup>21</sup>

In fact, specialized procedures have already been established to facilitate “regulatory negotiation” whereby organized interest groups (e.g., trade associations, labor unions, and environmental groups) can meet and draft a proposed regulation for consideration by the responsible agency. Once such groups agree on an approach, it is difficult for an analysis of societal wellbeing to have much impact, even though a strength of the wellbeing criterion is consideration of the welfare of all citizens, not simply those whose interests are approximated by the preferences of organized interest groups. In short, there may be a disconnect between those who see value in regulatory negotiation and those who seek to implement a wellbeing criterion.

### **Key Regulatory Design Issues**

In many cases, the crux of the issue in regulatory policy is not whether or not to regulate. When a federal agency launches a regulatory initiative, it is rarely the case that the initiative has no merit because markets are working perfectly. Nor is it common for the agency to have fabricated or distorted economic and scientific information to justify a regulatory intervention in a setting where regulation is not needed.

The more prevalent questions concern the breadth (coverage) and stringency of regulation, the proper choice of regulatory instrument to accomplish the societal objective, and the proper approach to coordination of federal regulation with related rules at the

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<sup>20</sup> For a clear, concise statement of the virtues and limits of OMB review, see Sally Katzen. The Office of Information and Regulatory Affairs: Federal Regulations and Regulatory Reform Under the Obama Administration. Testimony before the Subcommittee on Courts, Commercial, and Administrative Law, Committee on the Judiciary. US House of Representatives. Washington, DC. March 21, 2012.

<sup>21</sup> John D Graham, Cory R Liu. Regulatory and Quasi-Regulatory Activity Without OMB and Cost-Benefit Review. *Harvard Journal of Law and Public Policy*. 37(2). Spring 2014, 425-445; Paul R. Noe, John D. Graham, “Due Process and Management for Guidance Documents: Good Governance Long Overdue,” *Yale Journal on Regulation*. 25. Winter 2008, 103.

state and local levels of government and with trading partners in the world. Indeed, it is sometimes challenging to overcome political opposition and enact a stringent health, safety and environmental regulation when it is called for by the wellbeing standard.<sup>22</sup> Although these often are the key questions, many of the requirements that are either in place or are advocated (e.g., consultation with various stakeholders) relate only to the procedural issue of the steps through which the regulation is developed, not the substantive issue of whether the regulation increases societal welfare. Thus, current and often-advocated procedures are insufficient for implementation of the wellbeing criterion.

### **Section III: Short Regulatory Case Studies: The Good, the Bad and the Ugly**

To illustrate the conceptual themes from Section 2, we present some brief case studies of regulatory action (and inaction) from the federal government. Each of the cases could be addressed in much more detail, to illustrate various themes, but here we point only to some of the themes in Section 2 related to implementation of a societal wellbeing criterion. Some of the cases highlight good practice; others reveal shortcomings.

#### **A. Labeling Foods for Their Trans-Fat Content**

A strong body of experimental and epidemiological evidence links the trans-fatty acid content of the human diet to an elevated risk of coronary heart disease.<sup>23</sup> In February 1994, the Center for Science in the Public Interest (CSPI), a nutrition and health advocacy organization, petitioned FDA to include trans-fat on nutrition labels and set limits on the amounts of trans-fat in foods. Recognizing the growing body of evidence, the FDA finally proposed in November 1999 that the standard food label be modified to include information on trans-fat content as well as traditional items such as calories and saturated fat content.

FDA's benefit-cost analysis showed that, if such a change were instituted, many companies in the food processing industry would take steps to reduce the trans-fat content of their products. The benefits from reduced heart attacks (about \$2.9 billion per year) would more than pay for the extra labeling and food-processing costs (up to \$275 million per year and then declining after the third year of compliance).

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<sup>22</sup> Richard L Revesz, Michael A Livermore. *Retaking Rationality: How Cost-Benefit Analysis Can Better Protect the Environment and Our Health*. Oxford University Press. 2008.

<sup>23</sup> U.S. National Institute of Health, National Library of Medicine, Medline Plus: <http://www.nlm.nih.gov/medlineplus/ency/imagepages/19514.htm> ("Trans fatty acids are manufactured fats created during a process called hydrogenation, which is aimed at stabilizing polyunsaturated oils to prevent them from becoming rancid and to keep them solid at room temperature. They may be particularly dangerous for the heart and may pose a risk for certain cancers. Hydrogenated fats are used in stick margarine, fast foods, commercial baked goods (donuts, cookies, crackers), processed foods, and fried foods.")

During the transition from the Clinton to the G.W. Bush administrations, FDA's momentum behind the trans-fat rule petered out. The well-organized baker and processing associations had filled the rulemaking record with numerous critical comments. The Bush administration was slow to appoint a new head of FDA. Only one consumer group, CSPI, was working the issue aggressively, and that group tended to have limited stroke in conservative, Republican administrations.

Despite the lack of visible support from stakeholders or the press, based on the strength of FDA's benefit-cost analysis, OMB decided to publicly prompt FDA to finish the trans-fat rulemaking.<sup>24</sup> When FDA did so in 2003, the rule helped stimulate a much broader movement in the U.S. and abroad to reduce the trans-fat content of foods offered everywhere from grocery stores to fast-food restaurants. Simply disclosing information helped transform the grocery store aisle into a platform for companies to compete on the healthy attributes of their food products.

FDA's trans-fat labeling rule illustrates how faithfulness to the criterion of societal wellbeing can lead to favorable regulatory outcomes. Those outcomes might not have occurred –or at best would have occurred years later -- under the model of interest-group pluralism that underpins much of the current procedural design of the regulatory system.

## **B. Reducing Interstate Transport of Air Pollutants**

During the G.W. Bush administration, EPA issued the "Clean Air Interstate Rule" (CAIR) that required coal-fired power plants to reduce by 60-70% the emissions of sulfur dioxide and nitrogen dioxide, pollutants that can be transported long distances and contribute to the formation of smog and soot. Although the regulation was expensive (about \$1.9 to \$3.1 billion per year), EPA estimated that the benefits – primarily due to avoidance of premature deaths from fine particle exposure – were 30 times greater than the costs. Within a decade, EPA estimated that the rule would avoid 17,000 premature deaths, 8,700 cases of chronic bronchitis, 22,000 nonfatal heart attacks, 1.7 million lost work days, and 9.9 million days of restricted activity.

Using more conservative (yet plausible) assumptions about benefits, OMB estimated that the benefit-cost ratio would be 3 to 1. OMB and EPA together argued unsuccessfully in the Bush White House, on benefit-cost grounds, that the sulfur cap should be placed at 90% rather than 70% control. It probably did not help EPA's cause that their 30:1 benefit-cost estimate was viewed with skepticism in the White House, even though the rule had a compelling case using more realistic estimates. This underscores the importance of agencies using objective and unbiased analysis.

The federal courts ultimately slowed implementation of the CAIR rule for legalistic reasons that are inconsistent with the societal well-being criterion. EPA under

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<sup>24</sup> Judith Weinraub, "The Hidden Fat; Some Scientists Have Known About the Dangers of Trans Fats For More Than Two Decades. What Took the Government So Long?," The Washington Post, Food Section, F1, Sept. 10, 2003.

the Obama administration re-issued the rule with somewhat greater coverage and stringency but also has run into judicial obstacles. Basically, since there is no statutory requirement that federal courts give primary emphasis to societal well-being when reviewing agency rulemakings under the Clean Air Act, litigation of EPA rules often veers off in a variety of directions that are of questionable public value.

The design of the CAIR rule also illustrates how regional politics in presidential elections can contribute to regulatory outcomes that are inconsistent with faithful implementation of a societal well-being standard. If benefit-cost analysis supported a 90% sulphur cap, why wouldn't the Bush EPA enact it? The answer to this question may be informed by an appreciation of how regional politics in "battleground states" influences presidential politics.

George W. Bush was elected president in November 2000 by the narrowest Electoral College margin in modern political history. While the national press made much of Bush's victory in Florida (because of the controversy over "hanging chads" and the 5-4 Supreme Court decision against a Florida recount), Bush's 52-46% victory in West Virginia (with its five Electoral College votes) was equally crucial to his election. In fact, Bush's defeat of Vice President Al Gore in West Virginia in 2000 was the first Republican win in the state in an open presidential race since 1928.<sup>25</sup>

The economy of the State of West Virginia is heavily dependent on coal. Throughout the 2000 campaign, Bush pledged his support of "clean coal" as an energy source and successfully painted Gore as an enemy of coal.

During Bush's first term, there was a strong reluctance in the White House to issue burdensome regulatory requirements that might cause electric utilities to shift from coal to natural gas. The primary use of coal in the U.S. economy is the generation of electricity. There are certainly principled policy reasons for this preference (e.g., fuel diversity, concerns about the reliability and affordability of the gas supply before the fracking revolution, and the need for affordable gas in manufacturing), but it was obvious to everyone who followed presidential politics closely that Bush would fight hard to keep West Virginia in his column when he sought re-election in 2004. (Kerry strived to recapture West Virginia, but Bush won the state again by a 56-43% margin). One of the ways Bush succeeded was by restraining regulatory burdens on the coal industry, even in cases where a modestly more stringent standard might have been better for societal wellbeing.

### **C. Mandating and Subsidizing Corn Ethanol**

The 1990 Clean Air Act Amendments mandated that urban areas add oxygen to motor fuels on the expectation that "oxygenated" fuels would help control unhealthy levels of carbon monoxide and ozone in urban areas. MTBE, a petroleum-derived oxygenate, competed with ethanol, particularly on the U.S. East and West Coasts, as a compliance strategy.

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<sup>25</sup> Michael Barone. *Almanac of American Politics*. 2004, 1709.

Ethanol was more costly to produce than MTBE and cannot be transported in oil pipelines without causing corrosion. Accordingly, ethanol, which is made from corn in the U.S., was sold primarily in the Midwest. Favorable tax and regulatory treatment of ethanol helped to offset its cost disadvantage and ensure the Midwestern market. Still, before passage of the Energy Policy Act of 2005, ethanol's market penetration was comparatively small. Meanwhile, public opposition to MTBE was growing due to reports that the chemical was leaking from underground storage tanks and contaminating groundwater and surface waters, raising calls to repeal the oxygenate requirement.<sup>26</sup>

The George W. Bush administration struggled to persuade Congress to pass a major energy bill from 2001 to 2005. Bush's policy preferences favored nuclear power and advanced fossil fuels, while many Democrats preferred renewable energy. Without significant support from Senate Democrats, Bush's energy bill could not pass the Senate, since the filibuster rule effectively requires a 60-vote margin on any significant legislation.

A national mandate for renewable fuels (i.e., corn ethanol) became the grease that lubricated a grand political compromise leading to passage of the 2005 energy bill. Rather than repeal the oxygenates mandate, it was replaced with a new requirement that refiners blend renewable fuels with gasoline. The Bush White House helped enlist a powerful coalition behind this mandate, including corn producers, ethanol producers, Midwestern landowners, railroads and shippers, coal producers (who would fuel many ethanol plants), and environmental groups who favored renewables. Many economists objected to this de facto mandate for corn ethanol, but it enticed key Corn Belt Democrats to vote for President Bush's broader energy plan.<sup>27</sup>

In 2005, Congress mandated refiners to increase the volume of ethanol and other renewable fuels to 4 billion gallons in 2006 and 7.5 billion gallons in 2012. In January 2007, President Bush urged the Democratic Congress to expand the renewable fuels requirement to 35 billion gallons in 2017. Congress responded within a year with a 36-billion-gallon mandate by 2022.

In addition to the production mandates, ethanol enjoyed rich incentives. Domestic ethanol producers were protected by a 54-cent-per-gallon import tariff, which curbed Brazilian sugarcane ethanol imports. Beginning in 2004, blenders of motor fuel also received a tax credit for each gallon of ethanol they mixed with gasoline. By 2011, blenders received a tax credit of \$0.45 per gallon, and small producers received an additional \$0.10 on the first 15 million gallons.

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<sup>26</sup> John D. Graham, Bush on the Home Front: Domestic Policy Triumphs and Setbacks, Indiana Press (2010), at p. 149-50. By 2006, almost 20 states had banned MTBE due to concerns about the contamination of ground water and surface water. MTBE suppliers were concerned about potential legal exposure after a 2005 court decision denied legal protection for MTBE.

<sup>27</sup> Graham, *supra* note 26, at 150-51.

To meet the 36-billion-gallon requirement by 2022, it would not be enough to expand the market for E10. Many vehicles would have to operate on much higher ethanol blends. The Bush Administration sought to expand the use of E85 (85 percent ethanol blended with 15 percent gasoline). Using executive powers, the administration encouraged automakers to produce more “flex-fuel” vehicles (capable of running on gasoline, E10, or E85) by extending them generous compliance credits under the Corporate Average Fuel Economy (CAFÉ) program. For example, the flex-fuel version of a Chevy S-10 that normally gets 25 miles per gallon would be counted for CAFÉ compliance purposes as if it got 40 miles per gallon. Critics argued that the flex-fuel credits were not useful because of the lack of E85 pumps at gas stations.<sup>28</sup>

The U.S. became the world’s top ethanol producer, with well over half of global production, followed by Brazil, which relies on sugar cane; together, the two countries now account for almost 90 percent of world production.<sup>29</sup> By the end of 2010, over 90 percent of the gasoline sold in the U.S. was blended with ethanol,<sup>30</sup> with nearly 40 percent of the U.S. corn crop going to support ethanol production.<sup>31</sup>

Recognizing that complete dependence on corn-based ethanol might be unwise, Congress in 2007 provided a mandated market for advanced biofuels (sometimes referred to as cellulosic ethanol).<sup>32</sup> Instead of using corn as the input for making ethanol, advanced fuels are made from biomass such as corn stover (the stalk, leaves and cob), switch grass, woodchips and municipal waste. The theory was that the advanced biofuels would develop due to a “technology mandate.”

Barack Obama joined Bush in the celebration of corn ethanol. He positioned himself as the only Democratic candidate for president in 2008 with a pro-ethanol record, while his Republican rival, Senator John McCain, opposed the corn ethanol mandate. Obama emerged as the unexpected victor over Hillary Clinton in the January Iowa caucuses, and then in November, he easily defeated McCain 54-44.7 percent in the Iowa general election, receiving more votes than any presidential candidate in the state’s history.<sup>33</sup> Likewise, Bush’s support of corn ethanol had helped propel his 0.67 percent margin of victory in Iowa over John Kerry in 2004 -- despite narrowly losing the state to Al Gore in 2000. The importance of corn to Iowa and the viability of presidential candidates should not be underestimated.<sup>34</sup>

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<sup>28</sup> Graham, *supra* note 26, at 152-55.

<sup>29</sup> Renewable Fuels Association, “Accelerating Industry Innovation – 2012 Ethanol Industry Outlook” (2012-03-06).

<sup>30</sup> *Id.*

<sup>31</sup> “After Three Decades, Tax Credit for Ethanol Expires,” Robert Pear, *New York Times*, January 1, 2012.

<sup>32</sup> Within the 36-billion-gallon ethanol mandate by 2022, 16 billion gallons was required to be “advanced biofuels” (e.g., cellulosic ethanol), and were defined as renewable fuels that reduce greenhouse gas emissions by at least 50 percent.

<sup>33</sup> See *The New York Times*, [www.electionsnnytimes.com](http://www.electionsnnytimes.com)

<sup>34</sup> Iowa is the largest ethanol-producing state, with about 27 percent of U.S. production in 2014. “Senators Introduce Bill to Repeal Corn-Ethanol Mandate,” Christopher Doering, *The Des Moines Register*, January 16, 2015.

After he took office, President Obama's EPA then encouraged greater use of ethanol. In March 2009, Growth Energy, a lobbying group for the ethanol industry, petitioned EPA to allow the ethanol content in gasoline to be increased from 10 percent to 15 percent. In October 2010, EPA granted the waiver to allow up to 15 percent blends (E15) to be sold for cars and trucks with a model year of 2007 or later, which was about 15 percent of the vehicles in use. In January 2011, EPA expanded the waiver to allow the use of E15 in model year 2001 through 2006 passenger vehicles.<sup>35</sup> By November 2013, however, EPA proposed to reduce the amount of ethanol required in the U.S. gasoline supply by the Energy Independence and Security Act of 2007, citing concerns about the "blend wall" -- the point where blending targets exceed the 10 percent limit at which ethanol can be safely blended into the fuel supply, since the vast majority of U.S. vehicles are not equipped for higher ethanol blend gasoline.<sup>36</sup> A year later, the Obama EPA delayed its final decision, which was welcomed by the biofuels industry.<sup>37</sup>

From a good-government perspective, there was one glaring problem with the 2005/2007 ethanol mandates and subsequent regulations: it was never demonstrated, ex ante or ex post, that the overall societal benefits of the mandates would justify the overall societal costs and risks. Moreover, careful analyses were never performed, ex ante, to determine whether there might be unintended side effects from the mandates (e.g., due to indirect effects on agricultural markets). In other words, the mandate of corn-based ethanol may have been a good illustration of creative, short-run interest-group politics, but there were only assertions and guesses about whether it would enhance societal well-being in the long run.

To make a long story short, despite claims of economic and environmental benefits, the corn ethanol mandate has proven to be a source of unintended side effects, disappointment, and international controversy.<sup>38</sup> And the second-generation biofuels have been so slow to develop that their technology mandates have been repeatedly delayed.<sup>39</sup>

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<sup>35</sup> EPA's E15 waiver was unsuccessfully challenged in court by a coalition including the Alliance of Automobile Manufacturers, the American Petroleum Institute, the Association of International Automobile Manufacturers, the Grocery Manufacturers Association, the National Manufacturers Association, and the Outdoor Power Equipment Institute.

<sup>36</sup> See Wikipedia, "Ethanol Fuel in the United States" and citations therein [http://en.wikipedia.org/wiki/Ethanol\\_fuel\\_in\\_the\\_United\\_States](http://en.wikipedia.org/wiki/Ethanol_fuel_in_the_United_States) (last checked February 20, 2015).

<sup>37</sup> "EPA Sides With Biofuel Industry By Delaying Key Ethanol Mandate Decision," Michael Bastasch, *The Daily Caller*, November 21, 2014.

<sup>38</sup> See, e.g., Harry de Gorter and David R. Just, "The Social Costs and Benefits of Biofuels: The Intersection of Environmental, Energy and Agricultural Policy," *Applied Economic Perspectives and Policy*, vol. 32, no. 1, pp. 4-32, doi 10.1093/aepdppp010 (2010) (examining the costs and benefits of biofuel policies and finding that adverse interactions are highly likely when combining subsidies and mandates simultaneously).

<sup>39</sup> See Miguel A. Carriquiry, Xiadong Du, and Govinda R. Timilsina, "Second Generation Biofuels: Economics and Policies," 39 *Energy Policy*, pp. 4222-4234 (2011) (finding cost as a major barrier to commercial production of cellulosic ethanol in the short- to medium-term).

The first source of controversy has been the impact of the ethanol mandates on the market price of corn and other goods (e.g., meat, poultry, and packaged foods and beverages) that rely on corn. The price of corn rose rapidly and unexpectedly following the mandates. From 2005 to 2007, the wholesale price of corn soared from \$1.90 to \$4.00 per bushel.<sup>40</sup> Overall, food prices rose 4 percent in 2007, the largest price spike since 1900.<sup>41</sup> The food-price impact has been felt not only in the U.S. but throughout the world, where prices of U.S. agricultural commodities can mean the difference between hunger and malnutrition and a good diet. The amount of corn used to produce the 13 billion gallons of ethanol that America consumed in 2014 theoretically could feed 500 million people -- the entire population of the Western Hemisphere outside of the U.S.<sup>42</sup>

Second, environmentalists began to have second thoughts when they realized that every “renewable” fuel is not necessarily good for the environment. Growing corn and producing ethanol requires large amounts of water that is in short supply in many parts of the country.<sup>43</sup> Agricultural runoff from farms also is a persistent environmental concern. Moreover, because ethanol has a lower energy density than gasoline, vehicles using ethanol fuels proportionally lose fuel economy (e.g., a vehicle gets 25 percent lower miles per gallon on E85 than with E10). And the notion that replacing gasoline with ethanol would reduce greenhouse gases has now been called into question because large amounts of carbon dioxide are released into the atmosphere when more land is cleared and readied for corn production.<sup>44</sup>

As the unfavorable profile of risks and benefits became better understood, opponents of the ethanol mandate began to organize and become more aggressive. A strong coalition opposed to the ethanol mandates emerged, including producers of pork, poultry and beef, packaged food and beverage companies, the oil industry, environmental

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<sup>40</sup> Graham, *supra* note 26, at 155; see also “It’s Final – Corn Ethanol Is of No Use,” James Conca, *Forbes*, April 20, 2014.

<sup>41</sup> Graham, *supra* note 26, at 155.

<sup>42</sup> James Conca, *supra* note 40.

<sup>43</sup> U.S. National Research Council, Water Implications of Biofuels Production in the United States, National Academy Press, Washington, DC, ISBN 978-0-309-11361-8 (“Biofuels expansion beyond current irrigated agriculture, especially in dry western areas, has the potential to greatly increase pressure on water resources in some areas.”) By one estimate, 500 to 2000 liters of water is required to produce one liter of ethanol, mostly for evapotranspiration. Powers, Susan E.; Dominquez-Faus, Rosa; Alvarez, Pedro JJ, “The Water Footprint of Biofuel Production in the USA,” *Biofuels* (Future Science) 1(2): 255-60, doi:10.4155/BFS.09.20 (March 2010). Aside from water required to grow corn crops, a typical ethanol plant consumes up to four gallons of water to produce each gallon of ethanol. Concerns were raised about pressure being put on the aquifers in the relatively dry corn belt region of the U.S. Graham, *supra* note 1 at 156.

<sup>44</sup> Graham, *supra* note 26, at 156 (and citations therein). But see Jerome Dumortier et al., “Sensitivity of Carbon Emission Estimates from Indirect Land-Use Change,” *Applied Economic Perspectives and Policy*, vol. 33, no. 3, p. 428, doi:10.1093/aep/ppro15 (2011) (finding that model results can dramatically change from a change in modeling assumptions: e.g., an assumption that biotech seed companies might speed the rate of genetic gain in response to an increased willingness to pay could mitigate or even reverse the land-use change results found by Searchinger et al. (2008)).

groups such as the Environmental Working Group, world hunger groups such as Oxfam, and free-market think tanks, including the Competitive Enterprise Institute.

In Congress, bipartisan opposition to the corn ethanol incentives and mandate grew. By the end of 2011, Congress allowed the tariff and the tax credit for corn ethanol to expire, as proponents of the corn-based ethanol decided not to fight the issue and instead conserve their resources to protect the ethanol mandates. By then, the federal government reportedly had provided more than \$20 billion in ethanol subsidies.<sup>45</sup>

On January 15, 2015, Senators Dianne Feinstein (D-CA) and Pat Toomey (R-PA) introduced an amendment to abolish the corn ethanol mandate. They are particularly concerned about the “blend wall” – most fuel is now blended with 10 percent ethanol, and the number of vehicles on the road that can accept higher blends is limited, yet refiners continue to face rising requirements to blend ethanol. They also are concerned that using 40 percent of the U.S. corn crop for ethanol is inflating food and animal feed prices and adversely impacting the environment.<sup>46</sup>

Ironically, even some proponents of ethanol might have benefited from more careful analysis at the start. The overly ambitious mandates of 2005/2007 may have precipitated a backlash that cannot be controlled. If careful planning had been performed ex ante, it may have been apparent that the prudent strategy was to have a longer phase-in period, thereby allowing time for markets to adjust gradually and for the economic feasibility of advanced biofuels to be established.

The case study of corn-based ethanol is rich with insights on how the worthy cause of regulatory excellence can be advanced. A stronger benefit-cost perspective is sorely needed in both the Executive Branch and Congress. In Congress, a benefit-cost perspective could provide a modest check on the interest-group politics that tends to dominate legislative thinking about regulatory legislation. A new regulatory analysis unit in the Congressional Budget Office, an analogue to OMB’s Office of Information and Regulatory Affairs, might be a useful first step to help ensure that statutes do more good than harm.<sup>47</sup>

In the Executive Branch, not only agencies but also presidential electoral politics need to be checked. Like all presidential candidates, Bush and Obama were eager to perform well in the Iowa caucuses, but their stances in regulatory policymaking should be subject to showing a favorable benefit-cost balance so the nation as a whole -- not just politically valuable swing states -- are well served. OMB, as part of the Executive Office of the President, is not a reliable check when the President is leading the charge toward a

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<sup>45</sup> “After Three Decades, Tax Credit for Ethanol Expires,” Robert Pear, *The New York Times*, January 1, 2012.

<sup>46</sup> “Senate Amendment to Repeal RFS Corn Ethanol Mandate,” EnerKnol Research, January 26, 2015.

<sup>47</sup> See Committee for Economic Development, Modernizing Government Regulation: The Need For Action, pp. 26-29.

dubious regulatory outcome. Congress needs to legislate a general benefit-cost check so regulatory actions do more good than harm.

#### **D. The California Zero-Emission Vehicle (ZEV) Mandate**

When Barack Obama campaigned for the White House in 2008, one of the base constituencies he courted was the network of West Coast advocates seeking to commercialize the electric vehicle (EV).<sup>48</sup> The network includes organized pro-car environmentalists and their donors, California-based venture capitalists with interests in battery and electric drive-train technology, companies that produce the chargers and recharging stations (also based in California), investors in Tesla (the darling of EV companies), and Silicon-Valley entrepreneurs who see EVs as a symbol of technological progress. In order to appeal to EV enthusiasts, Obama pledged during the campaign to get 1.0 million plug-in vehicles on the road by 2015, in addition to a pledge to force automakers to achieve an average of 50+ miles per gallon in their new vehicles by 2025.<sup>49</sup>

When Obama took office in January 2009, he promptly took steps to deliver on his pledges. Obama's first budget reaffirmed support for the generous tax credits for EVs that Congress initiated in 2008. Depending on the vehicle's design, an EV purchaser was made eligible for tax credits of up to \$7,500 for vehicle purchase costs and up to \$2,000 for the costs of purchasing and installing home chargers. On the supply side of the market, the U.S. Department of Energy – under the 2009 Recovery Act -- allocated \$2.1 billion in subsidies for battery manufacturing projects, vehicle component production, construction of production facilities, and community-based EV demonstration projects. Billions more in federal loan guarantees for EVs were granted to companies such as Ford, Nissan and several suppliers.<sup>50</sup>

On the regulatory front, EPA and DOT undertook a joint rulemaking aimed at increasing the average fuel efficiency of passenger vehicles from 35.5 miles per gallon in 2016 to 54.5 miles per gallon by 2025. The EPA-DOT rulemaking was supported by an elaborate benefit-cost analysis. Tucked in the rulemaking were two little-noticed provisions for EVs that were not subjected to any benefit-cost analysis.

First, DOT/EPA sought to encourage vehicle manufacturers to comply with the tighter MPG requirements by installing EVs – rather than more cost-effective technologies such as the conventional hybrid engine (e.g., as commercialized by Toyota in the Prius) or the clean diesel engine (e.g., as championed by German vehicle

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<sup>48</sup> For a good sampling of the thinking of EV enthusiasts, see David B Sandalow (ed). *Plug-In Electric Vehicles*. Brookings Institution Press. Washington, DC. 2009.

<sup>49</sup> Margaret Kriz. *Is Obama's Goal of Putting One Million Plug-In Hybrids on the Road by 2015 Achievable?* National Journal. May 2, 2009.

<sup>50</sup> John D Graham, Joshua Cisney, Sanya Carley, John Rupp. *No Time for Pessimism about Electric Cars*. *Issues in Science and Technology*. 31(1). Fall 2014, 33-40.

manufacturers).<sup>51</sup> To tilt the compliance incentive toward EVs, DOT/EPA allowed vehicle manufacturers to count EVs as two vehicles instead of one in their MPG compliance calculations for the early years of the 2017-2025 program. Moreover, in the carbon-control aspect of the DOT/EPA rule, EVs are not penalized for any of the carbon dioxide emissions that they induce at the electric power plant as they draw electricity from the grid. In effect, EVs are treated as zero-emission vehicles (ZEVs) by DOT/EPA.

Second, and more importantly, in 2009 DOT/EPA granted a waiver to California (and about ten states aligned with California) under the Clean Air Act to proceed with the ambitious California ZEV program.<sup>52</sup> Vehicle manufacturers that wish to sell products in California must offer an increasing number of ZEVs for sale from 2018 to 2025, reaching a minimum of 15% of new vehicle sales in 2025. Under the most recent version of the ZEV mandate, automakers do not receive any partial credit for selling conventional hybrids or clean diesels, though they can receive credit for a qualified fuel-cell electric vehicle or an EV. And California-based Tesla, as a “low-volume” manufacturer, is exempt from ZEV burdens but permitted to sell its ZEV credits to other manufacturers, thereby boosting its troubled balance sheet.

The California Air Resources Board did publish a rudimentary benefit-cost analysis of the ZEV mandate. It concluded that it would take roughly the ten-year life of a vehicle for the energy savings of a ZEV to pay for a ZEV’s initial \$10,000 cost premium.<sup>53</sup> A variety of the technical assumptions used in CARB’s analysis would not likely have passed muster at OMB under OMB Circular A-4.<sup>54</sup> But the key point is that CARB’s analysis was performed from the perspective of the State of California, not from a national perspective. The waiver decision that EPA made for CARB should have been subjected to a national benefit-cost analysis that was reviewed by OMB.

There are several reasons that a national perspective is important. Under the Clean Air Act, other states are permitted to sign on to the California ZEV program if they wish. About ten (including New York, Massachusetts, Oregon and Washington) have done so. Thus, the California ZEV mandate now covers more than one quarter of all new

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<sup>51</sup> On the superiority of conventional hybrids, see Jeremy J Michalek, Mikhail Chester, Pauline Jaramillo, Constantine Samaras, Ching-Shin Norman Shiau, Lester B Lave. Valuation of Plug-in Vehicle Life-Cycle Air Emissions and Oil-Displacement Benefits. Proceedings of the National Academy of Sciences. 108(40). October 4, 2011, 16554-16558; Shisheng Huang, Bri-Mathias S Hodge, Farzad Taheripour, Joseph F Pekny, Gintaras V Reklaitis, Wallace E Tyner. The Effects of Electricity Pricing on PHEV Competitiveness. Energy Policy. 39. 2011, 1552-1561.

<sup>52</sup> U.S. Environmental Protection Agency. California State Motor Vehicle Pollution Control Standards; Notice of Decision Granting a Waiver of Clean Air Act Preemption of California’s 2009 and Subsequent Model Year Greenhouse Gas Emission Standards for New Motor Vehicles. 74 Federal Register. July 8, 2009, 32,744.

<sup>53</sup> California Air Resources Board/California Environmental Protection Agency. Staff Report: Initial Statement of Reasons: Advanced Clean Cars: 2012 Proposed Amendments to the California Zero Emission Program Vehicle Regulations. ES-2. 2011, <http://www.arb.ca.gov/regact/2012/zev2012/zevisor.pdf>.

<sup>54</sup> U.S. Office of Management and Budget. OMB Circular A-4. Regulatory Analysis. 2003.

vehicle sales in the USA. EPA's ZEV waiver for California was a multi-billion decision with national economic ramifications.

Moreover, car dealers find it very challenging to sell ZEVs, even with all of the subsidies and incentives now in place (e.g., California also grants HOV lane access to ZEVs). A ZEV is still more expensive than a conventional hybrid or diesel-powered car but also has limited range (less than 100 miles for most pure EVs) and takes four hours to charge (assuming the user has upgraded their garage to a Level-2 home charger).<sup>55</sup> As a result, it is likely that manufacturers will have to cut prices on ZEVs in order to comply with the California mandate and compensate for the losses by raising prices on non-ZEV vehicles.<sup>56</sup> The resulting welfare losses will not be confined to California and the other ZEV states. Those losses will be felt partly by consumers and stockholders in all states and partly in the form of reduced bonuses to workers and layoffs at vehicle assembly plants. Few employment losses will occur in ZEV states because those states have no vehicle assembly plants and few supplier plants.<sup>57</sup> Adverse labor impacts will be concentrated where vehicles are produced and where suppliers are located (e.g., Mexico, Japan, Germany, Missouri, Ontario, Michigan, Alabama, Tennessee, Kentucky and Indiana).<sup>58</sup>

Finally, the ZEV program may not produce any significant environmental benefits because the market interactions between the ZEV mandate and the 54.5 MPG federal mandate were not analyzed carefully. If a manufacturer is compelled to sell an additional ZEV into the California market, they can count that ZEV twice (!) in their MPG compliance calculation at the federal level. That means that the manufacturer may be free to sell an additional gas-guzzler and still comply with the 54.5 MPG mandate. Adding the ZEV mandate to a federal program that encourages ZEVs could, under plausible assumptions, cause more carbon pollution than federal program by itself (with or without the 2-for-1 sweetener).<sup>59</sup>

The sobering story of the California ZEV program illustrates why the U.S. Congress must compel presidents to subject their regulatory decisions -- even some waiver decisions related to state regulation -- to careful benefit-cost analysis from a national perspective. Moreover, the quality of the benefit-cost decision must be subject to judicial review, since OMB will be constrained in what they can do to check a poorly-analyzed presidential campaign pledge. A national benefit-cost requirement enacted by

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<sup>55</sup> Sanya Carley, Rachel M Krause, Bradley W Lane, John D Graham. Intent to Purchase a Plug-In Electric Vehicle: A Survey of Early Impressions in Large US Cities. Transportation Research Part D. 18. 2013, 39-45.

<sup>56</sup> A price war in the EV industry has already begun. Jeff Bennett. Volt Falls to Electric-Car Price War. Wall Street Journal. August 6, 2013, B1.

<sup>57</sup> See "Ten Busiest North American Assembly Plants." Automotive News. January 12, 2012.

<sup>58</sup> John D Graham, Cory R Liu. Regulatory and Quasi-Regulatory Activity Without OMB and Cost-Benefit Review. 37(2). Spring 2014, 425, 431-439.

<sup>59</sup> Lawrence H. Goulder et al. Unintended Consequences from Nested State and Federal Regulations: The Case of the Pavley Greenhouse-Gas-Per-Mile Limits. National Bureau of Economic Research. Working Paper #15337, 2009.

Congress and backed by judicial review is necessary to check the president's misuse of regulatory power for base-pleasing purposes.

#### **Section IV: Implications and Prescriptions**

The foci of administrative procedure (e.g., faithfulness to statute, transparency as to the rationale for decisions, opportunity for public/stakeholder participation) are not objectionable if understood as minimum standards for excellence that must be coupled with a substantive focus on wellbeing. The problem with an exclusive focus on administrative procedure is that, as currently designed, procedure gives enormous weight to organized interest groups and the policy preferences of the president, neither which is always a good proxy for societal wellbeing.

The first obstacle, familiar to scholars of regulation, is the distortion of regulation by interest-group politics (often in the form of "rent seeking"). The emergence of the ethanol mandate illustrates the perversity of interest group politics. History suggests that the Congress, given its Madisonian design, will be particularly vulnerable to the wishes of a coalition of well-organized special interests that draws support from several regions of the country. The White House is certainly not immune from interest-group capture either, as illustrated in the case of ethanol.

The second obstacle is less well appreciated and derives from the now popular unitary theory of the Executive Branch, with its emphasis on the president as the Branch's sole accountable leader. The implication is that it is legitimate ("democratic") for regulatory policy to reflect the priorities and electoral interests of the president.

One reason that White House distortion of regulatory policy is less well appreciated may be that administrative law tends to treat the president's policy preferences as legitimate because he is the only elected official in the U.S. who represents the entire nation. In contrast, any single Senator or congressperson will focus on the interests of their state or district.

Unfortunately, there are some ominous trends in presidential politics that may motivate presidents to give relatively less attention to societal wellbeing than they might have in the past. In particular, the contemporary bout of partisan polarization in American politics has caused presidents to behave in ways that are sometimes at odds with societal wellbeing.

Under this polarization, presidents are perceived as leaders of their political party as much as leaders of the country as a whole.<sup>60</sup> That induces a particular presidential focus on the policy preferences of party activists, partisan-oriented media professionals, and party-oriented donors, as they are the most politically active and they offer cues to the ordinary partisan voter who does not pay as much attention to politics. As a result, presidents work at least as hard at "base politics" (pleasing and turning out the faithful) as they do appealing to the median voter (the true independent and/or moderate). Once

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<sup>60</sup> Alan I Abramowitz. *The Disappearing Center*. Yale University Press. 2010.

elected, presidents may seek policies that reward their base even if the policies are questionable from the perspective of societal wellbeing. The case study of Obama and electric cars illustrates the role of a president's base in regulatory politics.

If a president from one party makes regulatory policy motivated by a concern for societal wellbeing that happens to please interest groups aligned with the opposing party, leaders of the interest group may decide that it is not wise to praise the president of the opposing party too effusively. Bush's decision on labeling foods for trans-fat content raises this issue,<sup>61</sup> and there are certainly pro-business regulatory decisions by President Obama that were not effusively praised by the business community. The inability of presidents to count on any public praise for decisions unless they are base-pleasing measures is a strong disincentive to focus on societal wellbeing.

A second distortion occurs because of the tremendous significance of Iowa and New Hampshire in presidential politics. Any serious presidential candidate must do well in at least one of these states to have a realistic chance of winning their party's presidential nomination. That causes a potentially disproportionate focus on the welfare of citizens in these two states. Bush and Obama were both pro-ethanol and won Iowa and the presidency; Hillary Clinton and John McCain resisted the ethanol advocacy and lost Iowa and the presidency.

A third distortion occurs because of the non-competitive nature of general presidential elections in many states. The president is elected not by the national popular vote but by Electoral College votes in a dwindling number of "battleground states": Colorado (9), Florida (27), Iowa (7), New Hampshire (4), New Mexico (5), Nevada (5), Ohio (20), Virginia (13). As a gross rule of thumb, both parties have a good shot at 160-180 Electoral College votes with any decent presidential candidate. Most of the contested campaign occurs in ten or fewer swing states with about 90 Electoral College votes. The victor is encouraged, given a re-election mindset, to spend four years focusing on policies that might give him or her an edge in those battleground states. This distracts from a focus on societal wellbeing. It is instructive that Congress, not the president, ultimately passed relief from some of the questionable burdens of ethanol policy, as Obama (like his predecessor) was publicly committed to ethanol.

We close with two proposals for policy reforms aimed at giving greater voice to societal wellbeing in legislative and executive deliberations. First, Congress should take the modest step of authorizing a regulatory-analysis branch of the Congressional Budget Office. The dual role of the office should be to provide benefit-cost information to members of Congress on regulatory legislation and to provide analytic comments on presidential rulemakings, particularly those that seem to have a weak benefit-cost

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<sup>61</sup> After the FDA trans fat labeling rule was issued, the press coverage was relatively muted. For example, the Washington Post relegated the story to their food section, a source of wry amusement for OMB's leadership. See Judith Weinraub, "The Hidden Fat; Some Scientists Have Known About the Dangers of Trans Fat for More Than Two Decades: What Took the Government So Long?," The Washington Post, Food Section, p. F1, Sept. 10, 2003.

rationale. CBO might also offer an annual critique to the OMB Report to Congress on the Costs and Benefits of Federal Regulation.<sup>62</sup> Second, Congress should supplement the Administrative Procedure Act with an administrative substance act that focuses on societal wellbeing. Congress should make it crystal clear to reviewing courts that one form of “arbitrary and capricious” decision making is regulating in a way that does more harm than good.<sup>63</sup>

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<sup>62</sup> On the need for analytic review of OMB’s annual report, see Susan E Dudley. OMB’s Reported Benefits of Regulation: Too Good to Be True? Regulation. Summer 2013, 26-30.

<sup>63</sup> Federal courts are already reviewing benefit-cost analyses in some regulatory decisions, and a recent study found that they are doing so competently. Caroline Cecot, W Kip Viscusi. Judicial Review of Agency Benefit-Cost Analysis. Working Paper #14-31. Vanderbilt University Law School, Law and Economics. Nashville, Tennessee. 2015, forthcoming in George Mason Law Review.