

TESTIMONY OF SIDNEY A. SHAPIRO

UNIVERSITY DISTINGUISHED CHAIR IN LAW,  
ASSOCIATE DEAN FOR RESEARCH AND DEVELOPMENT,  
WAKE FOREST SCHOOL OF LAW  
AND  
MEMBER SCHOLAR, VICE-PRESIDENT  
CENTER FOR PROGRESSIVE REFORM

BEFORE THE  
COMMITTEE ON OVERSIGHT AND GOVERNMENT REFORM  
UNITED STATES HOUSE OF REPRESENTATIVES

HEARING ON  
REGULATORY IMPEDIMENTS TO JOB CREATION  
FEBRUARY 10, 2011

Mr. Chairman and Members of the Committee, thank you for inviting me here today to share with you my views on regulatory impediments to job creation. I am the University Distinguished Professor of Law and an Associate Dean at the Wake Forest School of Law. I am also a Member Scholar and Vice-President of the Center for Progressive Reform (CPR) (<http://www.progressivereform.org/>). Founded in 2002, CPR is a 501(c)(3) nonprofit research and educational organization comprising a network of sixty scholars across the nation dedicated to protecting health, safety, and the environment through analysis and commentary. My work on regulation and administrative law includes six books, seven book chapters, and over fifty articles (as author or coauthor). My most recent book, published by the University of Chicago Press, is *The People's Agents and the Battle to Protect the American Public: Special Interests, Government, and Threats to Health, Safety, and the Environment*, coauthored with Professor Rena Steinzor of the University of Maryland. I have served as consultant to government agencies and have testified previously before Congress on regulatory subjects.

The long history of regulation – airbags, unleaded gasoline, cleaner air and water, food safety protections, market safeguards and more – demonstrates that it saves lives, prevents serious injuries, and protects the economic livelihood of millions of Americans. And it was a lack of regulation, not too much regulation that was responsible for the collapse of the financial sector, which precipitated the economic recession from which we now suffer. Likewise, it has been too little regulation and enforcement that has led to the Gulf Oil Spill, the West Virginia mine collapse, and the almost yearly outbreaks of food poisoning that have killed many

and injured thousands more.

This historical record suggests that regulation has brought important benefits to the country and the lack of regulation can create significant risks for Americans, including even the onset of a financial recession. When it comes to regulatory reform, it is important for Congress to look before it leaps. While reasonable regulatory oversight is a necessity in a democracy, care must be taken not to rollback or impede necessary and reasonable regulation.

Regulatory critics contend the cost of regulation has kept the U.S. business community from participating more fully in our nation's economic recovery. Based on this argument, this committee is considering how regulation might be reduced in order to lighten the burden on the business community. Upon examination, however, it turns out that a focus on regulatory costs alone is a flawed way to examine the usefulness and necessity of government regulation, or to determine whether or not regulatory costs are hindering the country's economic recovery.

Specifically, the focus on regulatory costs is misguided because:

- The cost of regulation in isolation proves nothing because it ignores the benefits that regulation brings to the public and the economy. OMB recently estimated that over the last 10 years major federal regulations with quantified and monetized costs and benefits produced total of between \$128 and \$616 billion—a staggering return on the total \$43-\$55 billion cost of these investments.
- Retrospective studies show that industry estimates of regulatory costs, submitted to agencies for purposes of rulemaking, are often too high. This result should not be surprising. Regulated entities have a strong incentive to overstate potential costs to regulators and to Congress.
- A recent study on regulatory costs, authored by Nicole and Mark Crain for the SBA Office of Advocacy, which claims regulation has an annual cost of \$1.75 trillion in 2008, is unreliable evidence concerning regulatory costs for reasons I'll describe in a moment.

- Much of the cost of regulation discussion seems to assume that regulatory costs are a drag on the economy, as if regulation produces no economic benefit. Like any spending, the costs of regulation generate economic activity, because the money is spent on goods and services, thereby generating jobs. It is difficult to tally the ultimate economic impact of this spending, but the literature does not support the conclusion that regulation retards economic recovery. It might make good politics, but there's no real evidence.

### REGULATORY COSTS AND BENEFITS

A discussion of regulation is inherently incomplete—and distorted—if it focuses on costs without also considering benefits. Indeed, according to this one-sided focus, practically any economic transaction—from the purchase of a loaf of bread to the construction of a manufacturing plant—would be counted as a drain on the economy, because they only include the costs not the benefits.

On balance, regulations have made a net positive contribution to our society. The 2009 OMB report on aggregate costs and benefits completed for Congress finds that significant regulations adopted in the last 10 years produced total benefits of between \$128 and \$616 billion and total costs of \$43-\$55 billion.<sup>1</sup> This finding refers to total aggregate net benefits, which means that some individual regulations may not have benefits that exceed costs. But, this result usually arises from the difficulty of monetizing regulatory benefits, rather than the lack of actual benefits.<sup>2</sup> OMB's methodology does not account very well for items that defy monetization – the value of keeping people healthy rather than simply treating their pollution-caused illnesses, or the value of a great view from the top of a mountain that hasn't been shorn clean by mountaintop mining. Even allowing for those shortcomings, all

of which accrue to the anti-regulation side of the ledger, almost all regulations have greater economic benefit than cost.

### **COSTS ARE OVERSTATED**

To generate cost estimates for cost-benefit analyses, agencies rely primarily on surveys of representative companies that the regulation will likely affect. Because companies know the purpose of the surveys, they have a strong incentive to overstate costs in order to skew the final cost-benefit analysis toward weaker regulatory standards.<sup>3</sup> Agencies must also fill in any data gaps they encounter by making various assumptions. Due to fear of litigation over the regulation, they tend to adopt conservative assumptions about regulatory costs, such that the cost assessment ends up reflecting the maximum possible cost, rather than the mean.<sup>4</sup>

Industry cost estimates, and therefore the cost estimates that agencies develop also do not account for technological innovations that reduce the cost of compliance and produce non-regulatory co-benefits, such as increased productivity. When companies are asked to predict which technology they will employ to comply with a particular environmental regulation, they often will point to the most expensive existing "off-the-shelf" technology available. Once the regulation actually goes into effect, however, companies have a strong incentive to invent or purchase less costly technologies to come into regulatory compliance. As a result, compliance costs tend to be less, and often much less, than the predicted costs. Moreover, the technological innovations tend to produce co-benefits unrelated to the regulation—such as increased productivity and efficiency—that the company strives to achieve

in any event. Given these co-benefits, only a portion of the innovative technology's costs can fairly be counted as compliance costs.<sup>5</sup>

As the following table indicates, retrospective studies of regulatory costs find that the initial cost estimates are often too high:

Study	Subject of Cost Estimates	Results
PHB, 1980 <sup>6</sup>	Sector level capital expenditures for pollution controls	– EPA overestimated capital costs more than it underestimated them, with forecasts ranging 26 to 126% above reported expenditures
OTA, 1995 <sup>7</sup>	Total, annual, or capital expenditures for occupational safety & health regulations	– OSHA overestimated costs for 4 of 5 health regulations, with forecasts ranging from \$5.4 million to \$722 million above reported expenditures
Goodstein & Hedges, 1997 <sup>8</sup>	Various measures of cost for pollution prevention	– Agency and industry overestimated costs for 24 of 24 OSHA & EPA regulations, by at least 30% and generally by more than 100%
Resources for the Future, 1999 <sup>9</sup>	Various measures of cost for environmental regulations	– Agency overestimated costs for 12 of 25 rules, and underestimated costs for 2 rules

### THE CRAIN AND CRAIN REPORT

A recent study on regulatory costs, authored by Nicole and Mark Crain for the SBA Office of Advocacy, which claims that regulation cost the U.S. economy \$1.75 trillion in 2008 is unreliable evidence concerning regulatory costs.<sup>10</sup> Crain and Crain's \$1.75 trillion estimate is far larger than the estimate generated by the Office of Management and Budget (\$62 billion to \$73 billion). Crain and Crain attribute this massive difference to the fact that their report considers many more rules than do the annual OMB reports, including rules with estimated costs less than \$100 million, rules that were put on the books more than 10 years ago, and rules issued by independent regulatory agencies.

A CPR Report, *Setting the Record Straight: The Crain and Crain Report on Regulatory Costs*,<sup>11</sup> shows that much more is at work than that. I have attached a copy of the CPR report as an appendix to this testimony.

In areas where the OMB and Crain and Crain calculations overlap, Crain and Crain use the same cost data as OMB, but, unlike OMB, which presents regulatory costs as a range, Crain and Crain always adopt the upper end of the range for inclusion in their calculations. More significantly, Crain and Crain's calculations for the regulations not covered by OMB's report appear to be based largely on a decidedly unusual data source for economists – public opinion polling, the results of which Crain and Crain massage into a massive, but unsupported estimate of the costs of “economic” regulations. Because Crain and Crain have refused to make their underlying data or calculations public – apparently even withholding them from the Small Business Administration office that contracted for the study – it is difficult to know precisely how they arrived at the result that economic regulation has a cost of \$1.2 trillion dollars, comprising more than 70 percent of the total costs in their report.

Nevertheless, their calculations inspire great skepticism. For one thing, as stated, their estimate of economic regulatory costs is based on the results of public opinion polling, specifically a poll concerning the business climate of countries that has been collected in a World Bank report. The authors of the World Bank report warn that its results should not be used for exactly the type of extrapolations made by Crain and Crain, because their underlying data are too crude.

## LACK OF EVIDENCE LINKING REGULATION AND JOB LOSS

Regulatory critics contend that environmental, health and safety, and other regulation of industries slow economic growth and leads to job losses, but as with any type of spending, regulatory compliance generates economic activity. It is difficult to measure whether on balance job gains from this spending offset any job losses, but existing studies do not support the conclusion that regulation retards economic recovery.<sup>12</sup> Since time is short, I'll focus on one area of regulation that has been a particular target of late – environmental regulation.

In his book, *The Trade-off Myth: Fact and Fiction About Jobs and the Environment*, economist Eban Goodstein of Bard College found no evidence that significant numbers of jobs or businesses have been lost because of environmental regulations, principally because regulation leads to job increases which can offset any job losses in regulated industries.<sup>13</sup> He found there were "well over two million people" who worked directly or indirectly in environmentally related jobs in 1999.<sup>14</sup> In many cases, these were relatively high-paying jobs requiring specialized skills.<sup>15</sup> Goodstein notes that from 1977 to 1991, employment in these areas increased fifty-five percent, making this area of work "one of the most dynamic growth sectors in the US economy."<sup>16</sup>

Similarly, Stephen Meyer of MIT found no link between strong environmental policies and weak economic growth. Meyer compared the economic performance of states with strong environmental regulation to states with weaker regulations. After examining five primary indicators of economic growth and prosperity, he

found that there was no evidence that the states with stronger environmental standards fared less well than those with weaker environmental standards.<sup>17</sup> When he updated his earlier study, considering specifically the 1990-91 recession, the results were the same: "stronger environmental standards have not limited the relative pace of economic growth and development among the states over the past twenty years."<sup>18</sup> In particular, he notes:

Environmentally stronger states do not experience more precipitous declines in employment during the recession. Nor do they demonstrate a higher rate of business failure. Thus, contrary to what many argue *environmentally stronger states are not more vulnerable to economic decline.*<sup>19</sup>

Meyer stresses his work does not prove environmental regulation causes economic prosperity, but it does suggest that regulation did not get in the way of economic prosperity.

Another study tested the likely impacts of environmental regulations at the industry level for four heavily polluting industries: pulp and paper mills, plastic manufacturers, petroleum refiners, and iron and steel mills.<sup>20</sup> The authors found that "environmental spending generally does *not* cause a significant change in industry-level employment."<sup>21</sup> On average for all four industries, there was a net gain of 1.5 jobs for each \$1 million in additional environmental spending, with a standard error of 2.2 jobs, which is an insignificant effect. Evaluating the results, and taking into account several caveats, the authors concluded, "[W]hile environmental spending clearly has consequences for business and labor; the hypothesis that such spending significantly reduces employment in heavily polluting industries is not supported by the data."<sup>22</sup>

## CONCLUSION

The fact that regulated entities do not like regulation does not mean that it is the cause or even a contributor to our economic and unemployment woes. The evidence to back up these claims is not there.

---

<sup>1</sup> OFFICE OF MGMT & BUDGET, EXECUTIVE OFFICE OF THE PRESIDENT, 2009 REPORT TO CONGRESS ON THE BENEFITS AND COSTS OF FEDERAL REGULATIONS AND UNFUNDED MANDATES ON STATE, LOCAL, AND TRIBAL ENTITIES 3 (converted from 2001 to 2009 dollars), available at [http://www.whitehouse.gov/sites/default/files/omb/assets/legislative\\_reports/2009\\_final\\_BC\\_Report\\_01272010.pdf](http://www.whitehouse.gov/sites/default/files/omb/assets/legislative_reports/2009_final_BC_Report_01272010.pdf) [hereinafter 2009 OMB Report]. The Regulatory Right-to-Know Act requires OMB to produce a report every year that, among other things, calculates the annual cost of major regulations. Treasury and General Government Appropriations Act of 2001 §624, Pub. L. 106-554, 31 U.S.C. §1105 note.

<sup>2</sup> See e.g., Sidney Shapiro et al., CPR Comments on Draft 2010 Report to Congress on the Benefits and Costs of Federal Regulations 16-19 (App. A, Pt. C.) (2010), available at [http://www.progressivereform.org/articles/2010\\_CPR\\_Comments\\_OMB\\_Report.pdf](http://www.progressivereform.org/articles/2010_CPR_Comments_OMB_Report.pdf); Rena Steinzor et al., CPR Comments on Draft 2009 Report to Congress on the Benefits and Costs of Federal Regulations 16-19 (App. A, Pt. C.) (2009), available at [http://www.progressivereform.org/articles/2009\\_CPR\\_Comments\\_OMB\\_Report.pdf](http://www.progressivereform.org/articles/2009_CPR_Comments_OMB_Report.pdf); Amy Sinden & James Goodwin, CPR Comments on Draft 2008 Report to Congress on the Benefits and Costs of Federal Regulations 5-8 (2008), available at [http://www.progressivereform.org/articles/2008\\_Comments\\_OMB\\_Report.pdf](http://www.progressivereform.org/articles/2008_Comments_OMB_Report.pdf). see also Rena Steinzor et al., A Return to Common Sense: Protecting Health, Safety, and the Environment Through "Pragmatic Regulatory Impact Analysis" (Ctr. for Progressive Reform, White Paper 909, 2009), available at [http://www.progressivereform.org/articles/PRIA\\_909.pdf](http://www.progressivereform.org/articles/PRIA_909.pdf); John Applegate et al., Reinvigorating Protection of Health, Safety, and the Environment: The Choices Facing Cass Sunstein (Ctr. for Progressive Reform, White Paper 901, 2009), available at <http://www.progressivereform.org/articles/SunsteinOIRA901.pdf>; Frank Ackerman et al., Applying Cost Benefit Analysis to Past Decisions: Was Protecting the Environment Ever a Good Idea? (Ctr. for Progressive Reform, White Paper 401, 2004), available at [http://www.progressivereform.org/articles/Wrong\\_401.pdf](http://www.progressivereform.org/articles/Wrong_401.pdf).

<sup>3</sup> Thomas O. McGarity & Ruth Rutenberg, *Counting the Cost of Health, Safety, and Environmental Regulation*, 80 TEX. L. REV. 1997, 2011, 2044-45 (2002).

<sup>4</sup> *Id.* at 2046.

<sup>5</sup> *Id.* at 2049-50. Studies of OSHA's vinyl chloride and cotton dust standards concluded that actual compliance costs were much lower than predicted costs in part because of overall productivity gains achieved by regulatees. When company scientists and engineers were forced to concentrate on cost-effective compliance techniques, they also identified ways to improve the overall productivity of an industrial process, or even an entire industry. See OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION, OFFICE OF PROGRAM EVALUATION, REGULATORY REVIEW OF OSHA'S COTTON DUST STANDARD (2000) (identifying extensive technological improvements and increased productivity in the textile industry spurred by OSHA's cotton dust standard); RUTH RUTTENBERG, REGULATION IS THE MOTHER OF INVENTION

- 42, 44-45 (Working Papers for a New Society, May/June 1981), (identifying six regulation-induced changes in the vinyl chloride industry that resulted in increased productivity).
- <sup>6</sup> Winston Harrington, Richard D. Morgenstern, & Peter Nelson, *On the Accuracy of Regulatory Cost Estimates* 6 (Resources for the Future, Discussion Paper 99-18, 1999) (citing PUTNAM, HAYES, & BARTLETT, INC., COMPARISONS OF ESTIMATED AND ACTUAL POLLUTION CONTROL CAPITAL EXPENDITURES FOR SELECTED INDUSTRIES (Report prepared for the Office of Planning & Evaluation, U.S. Env'tl. Protection Agency, 1980)), available at <http://www.rff.org/documents/RFF-DP-99-18.pdf>.
- <sup>7</sup> OFFICE OF TECHNOLOGY ASSESSMENT, GAUGING CONTROL TECHNOLOGY AND REGULATORY IMPACTS IN OCCUPATIONAL SAFETY AND HEALTH: AN APPRAISAL OF OSHA'S ANALYTICAL APPROACH 58 (1995).
- <sup>8</sup> Eban Goodstein & Hart Hodges, *Polluted Data: Overestimating Environmental Costs*, 8 AM. PROSPECT 64 (Nov./Dec. 1997).
- <sup>9</sup> Harrington, Morgenstern, & Nelson, *supra* endnote 27. The Resources for the Future study notes that actual compliance costs can also be less than an agency estimates because there can be less regulatory compliance than the agency anticipates. If an agency overestimates the extent of pollution cases, the original agency estimate might have been accurate, but it turns out to be wrong because the regulatory industry does not obey the regulation to the extent that the agency predicted. *Id.* at 14-15.
- <sup>10</sup> Sidney A. Shapiro, Ruth Ruttenberg, & James Goodwin, Setting The Record Straight: The Crain and Crain Report on Regulatory Costs (Feb. 8, 2011), available at [http://www.progressivereform.org/articles/SBA\\_Regulatory\\_Costs\\_Analysis\\_1103.pdf](http://www.progressivereform.org/articles/SBA_Regulatory_Costs_Analysis_1103.pdf).
- <sup>11</sup> *Id.*
- <sup>12</sup> See Frank Ackerman and Rachel Massey, *Prospering With Precaution: Employment, Economics, and the Precautionary Principle* (Aug. 2002), available at [http://www.precaution.org/lib/prospering\\_with\\_precaution.20020801.pdf](http://www.precaution.org/lib/prospering_with_precaution.20020801.pdf).
- <sup>13</sup> Eban Goodstein, *The Trade-off Myth: Fact and Fiction About Jobs and the Environment* 41-67 (1999).
- <sup>14</sup> *Id.* at 4.
- <sup>15</sup> Ackerman and Massey, *supra* n. , at 2.
- <sup>16</sup> Goodstein, *supra* n. , at 18.
- <sup>17</sup> Stephen M. Meyer, *Environmentalism and Economic Prosperity: Testing the Environmental Impact Hypothesis* (1992), available at <http://web.mit.edu/polisci/mpepp/Reports/eep.pdf>.
- <sup>18</sup> Stephen M. Meyer, *Environmentalism and Economic Prosperity: An Update* (Feb. 1993), available at <http://web.mit.edu/polisci/mpepp/Reports/eepup.PDF>.
- <sup>19</sup> *Id.* 9 (emphasis in original).
- <sup>20</sup> Richard D. Morgenstern, William A. Pizer, and Jhih-Shyang Shih, *Jobs versus the Environment: An Industry-level Perspective* (June 2000), Discussion paper 99-01-REV, Washington, DC: Resources for the Future, available at [http://www.globalurban.org/jobs\\_vs\\_the\\_environment.pdf](http://www.globalurban.org/jobs_vs_the_environment.pdf).
- <sup>21</sup> *Id.* at 1.
- <sup>22</sup> *Id.* at 25.

# *Setting the Record Straight:*

## *The Crain and Crain Report on Regulatory Costs*

by CPR Member Scholar Sidney A. Shapiro (University Distinguished Chair in  
Law, Wake Forest University School of Law),  
Ruth Ruttenberg, (Professor of Economics, National Labor College),  
and CPR Policy Analyst James Goodwin



©Center for Progressive Reform White Paper #1103  
February 2011

## *Setting the Record Straight: The Crain and Crain Report on Regulatory Costs*

### **Introduction**

---

Critics of health, safety, and environment regulation have sought to buttress the case against regulation by citing a 2010 report by economists Nicole Crain and Mark Crain called *The Impact of Regulatory Costs on Small Firms*<sup>1</sup> (“the Crain and Crain report”). The Crain and Crain report is the fourth in a series of reports that have been produced under contract for the Small Business Administration’s (SBA) Office of Advocacy since 1995, each of which has attempted to calculate the total “burden” of federal regulations, and to demonstrate that small businesses in all economic sectors bear a disproportionate share of that burden.<sup>2</sup>

Among the Crain and Crain report’s findings is one that has become a centerpiece of regulatory opponents’ rhetoric: the “annual cost of federal regulations in the United States increased to more than \$1.75 trillion in 2008.”<sup>3</sup> This figure is several orders of magnitude larger than the estimate generated by the Office of Management and Budget (OMB)—the official estimate of the aggregate costs and benefits of federal regulations prepared annually for Congress. The 2009 OMB report found that in 2008 annual regulatory *costs* ranged from \$62 billion to \$73 billion.<sup>4</sup> The authors of the Crain and Crain report attribute this massive difference to the fact that their report considers many more rules than do the annual OMB reports, including rules with estimated costs less than \$100 million, rules that were put on the books more than 10 years ago, and rules issued by independent regulatory agencies.<sup>5</sup>

As this report demonstrates, however, much more is at work than that. In areas where the OMB and Crain and Crain calculations overlap, Crain and Crain use the same cost data as OMB, but, unlike OMB, which presents regulatory costs as a range, Crain and Crain always adopt the upper end of the range for inclusion in their calculations, a departure that is not justified as we explain in this report. Further, Crain and Crain’s calculations for the regulations not covered by OMB’s report appear to be based largely on a decidedly unusual data source for economists—public opinion polling, the results of which Crain and Crain massage into a massive, but unsupported estimate of the costs of “economic” regulations. Because Crain and Crain have refused to make their underlying data or calculations public—apparently even withholding them from the SBA office that contracted for the study—it is difficult to know precisely how they arrived at the result that economic regulation has a cost of \$1.2 trillion dollars, comprising more than 70 percent of the total costs in their report. Nevertheless, even based on what Crain and Crain reveal, their calculation of the cost of economic regulations is deeply flawed, as we also explain.

In addition, the OMB report accounts for an equally relevant figure that the Crain and Crain’s \$1.75 trillion figure simply omits: the economic benefits of regulation. OMB’s 2009 recent report found that in 2008 annual *benefits* of regulation ranged from \$153 billion to \$806 billion.<sup>6</sup> And, as a series of CPR reports have explained, the OMB reports likely overestimate regulatory costs and underestimate regulatory benefits, including omitting from its calculations altogether significant benefits that happen to defy monetization.<sup>7</sup> In contrast, the Crain and Crain report makes no effort to account for regulatory benefits. If, for example, a regulation imposes \$100 in

costs on a business, but provides twice that in benefits, the Crain and Crain report would still tally that as \$100 cost to society, even though it provides substantial net benefits.

It's easy to see why the anti-regulatory critics have seized on the Crain and Crain report and its findings.<sup>8</sup> The \$1.75 trillion figure is a gaudy number that was sure to catch the ear of the media and the general public. Upon examination, however, it turns out that the \$1.75 trillion estimate is the result of transparently unreliable methodology and is presented in a fashion calculated to mislead.

This report points out the severe flaws with the effort by Crain and Crain to estimate total regulatory costs. These flaws include:

- **Omitted benefits of regulation.** A discussion of regulation is inherently incomplete—and distorted—if it focuses on costs without also considering benefits. Simply put, OMB's calculations demonstrate that regulation has a positive net effect on the economy, and not by a little. The Crain and Crain report simply ignores the benefits of regulation, focusing solely on one half of the equation. But, claiming to present a compilation of regulatory costs, without also presenting a compilation of regulatory benefits, is fundamentally misleading. Indeed, using Crain and Crain's methodology, practically any economic transaction—from the purchase of a loaf of bread to the construction of a manufacturing plant—would be counted as a drain on the economy, because they only include the costs not the benefits.\* The Crain and Crain report's failure to include an accounting of regulatory benefits is particularly puzzling, since virtually every source the authors rely on for estimates of costs also provide estimates of benefits as well.
- **Questionable assumptions and flimsy data.** The report's estimate of "economic regulatory" costs—financial regulations, for example—which account for 70 percent of the total regulatory costs, is not based on actual cost estimates. Instead, this estimate is based on the results of public opinion polling concerning the business climate of countries that has been collected and weighed in a World Bank report. The authors of the World Bank report warn that its results should not be used for exactly the type of extrapolations made by Crain and Crain, because their underlying data are too crude. Crain and Crain nevertheless enter the World Bank data into a formula, which they appear to have created out of whole cloth, that purports to describe a relationship between a country's regulatory stringency and its Gross Domestic Product (GDP). OMB has

---

\* While comparing costs and benefits is beyond the scope of this paper, it is notable that the 2009 OMB report found that total regulatory benefits are far larger than total regulatory costs. See *infra* endnote 4 and *supra* accompanying text. This finding refers to total aggregate net benefits, which means that some individual regulations may not have benefits that exceed costs. But, this result usually arises from the difficulty of monetizing regulatory benefits, rather than the lack of actual benefits. See comments cited *infra* endnote 7; see also Rena Steinzor et al., *A Return to Common Sense: Protecting Health, Safety, and the Environment Through "Pragmatic Regulatory Impact Analysis"* (Ctr. for Progressive Reform, White Paper 909, 2009), available at [http://www.progressivereform.org/articles/PRIA\\_909.pdf](http://www.progressivereform.org/articles/PRIA_909.pdf); John Applegate et al., *Reinvigorating Protection of Health, Safety, and the Environment: The Choices Facing Cass Sunstein* (Ctr. for Progressive Reform, White Paper 901, 2009), available at <http://www.progressivereform.org/articles/SunsteinOIRA901.pdf>; Frank Ackerman et al., *Applying Cost Benefit Analysis to Past Decisions: Was Protecting the Environment Ever a Good Idea?* (Ctr. for Progressive Reform, White Paper 401, 2004), available at [http://www.progressivereform.org/articles/Wrong\\_401.pdf](http://www.progressivereform.org/articles/Wrong_401.pdf).

repeatedly warned against trying to reduce the complex relationship between these two concepts to such simplistic terms, yet this is precisely what Crain and Crain do.

- **Opaque calculations.** Contrary to academic and government norms, Crain and Crain do not reveal their data or show the calculations they used to arrive at their cost estimates. Neither is the information available from the SBA Office of Advocacy. Moreover, Crain and Crain declined to furnish their data to CPR despite several requests. As a result, it is impossible to replicate their results, a flaw so significant it would prevent the publication of their paper in any respectable academic journal.
- **Slanted methodology.** The Crain and Crain report suffers from several methodological problems, all of which tilt the results towards an overstatement of regulatory costs. These problems are itemized and explained further below.
- **Overstated costs.** To estimate the cost of non-economic regulation, Crain and Crain almost always used the agency estimates of such costs that were submitted to OMB. Although OMB presents these costs as a range, Crain and Crain always used the upper bound estimate, effectively eliminating the agencies' careful efforts to draw attention to the uncertainties in these calculations. Moreover, cost estimates are typically based on industry data, and regulated entities have a strong incentive to overstate costs in this circumstance. As discussed below, empirical studies have shown that such estimates are usually too high.
- **Peer review rendered meaningless.** The peer review process used by the SBA Office of Advocacy does not support the reliability of the report. Only two people examined the document. The authors ignored a significant criticism raised by one of the two reviewers concerning their estimate of economic regulatory costs. As for the second person, the entire review consisted of the following comments: "I looked it over and it's terrific, nothing to add. Congrats[.]"<sup>9</sup>

For the reasons that follow, we conclude that the Crain and Crain report is sufficiently flawed that it does not come close to justifying regulatory reform efforts, such as the REINS Act,<sup>†</sup> which seek to limit protection of people and the environment. If Crain and Crain had used a more straightforward and generally accepted methodology, they likely would have reached a figure that was several orders of magnitude smaller. And, if Crain and Crain had properly considered regulatory benefits, they likely would have found that regulation is a net economic plus for society. Such findings, however, would not comport with the political agenda of the SBA's Office of Advocacy or of the opponents of regulation in general.

---

<sup>†</sup> Regulations from the Executive in Need of Scrutiny (REINS) Act, H.R. 10, 112th Cong. (2011). Under this bill, no new "economically significant" regulations would take effect unless Congress affirmatively approved the regulation within 90 days of receiving it, by means of a joint congressional resolution of approval, signed by the President. For more information on the REINS Act, see Sidney Shapiro, *The REINS Act: The Conservative Push to Undercut Regulatory Protections for Health, Safety, and the Environment* (Ctr. for Progressive Reform, Backgrounder, 2011), available at [http://www.progressivereform.org/articles/CPR\\_Reins\\_Act\\_Backgrounder\\_2011.pdf](http://www.progressivereform.org/articles/CPR_Reins_Act_Backgrounder_2011.pdf).

## **The Crain and Crain Report's Methodology**

The Crain and Crain report purports to provide a complete accounting of all regulatory costs. It divides the regulatory universe into four categories: economic regulations; environmental regulations; tax compliance regulations; and occupational health and safety and homeland security regulations. Notably, the report never provides a clear definition of the term "regulation," nor does it provide clear definitions of each of the four regulatory categories. Next, the authors employ different methodologies to calculate the total costs of regulation in each category. Finally, they add up the costs of regulation for each category to derive a total cost of federal regulations.

The report provides only a part of the data, equations, assumptions, extrapolations, and calculations that would be necessary for replicating the report's results. The authors of this white paper made several attempts to obtain the missing additional materials from the authors of the Crain and Crain report, as well as from the SBA Office of Advocacy, which funded the report, so that we could fully understand and verify the methodologies, data, and assumptions that were employed. The authors of the Crain and Crain report provided us with only very general responses and have given no indication that they would furnish us with the missing information.

Remarkably, a staff member at the SBA Office of Advocacy explained that his office did not have access to any of the additional materials, since it had only contracted to receive the final report from the authors.<sup>10</sup> Thus, the SBA Office of Advocacy entered into an agreement with Crain and Crain to spend taxpayer money on a report whose findings it could not then have verified in any significant way—not even checking the arithmetic.<sup>‡</sup>

Because this underlying information is unavailable, the Crain and Crain report is a political document, rather than an academic study. No academic author would submit such a study for publication without revealing the data and calculations on which the scholar relied. No academic publication would accept such a study unless such information was released. Academic reports also acknowledge and discuss potential weaknesses in their calculations, a modesty that is absent from the Crain and Crain report.

## **Methodological Problems**

### **Economic Regulation Costs**

To calculate the total cost of economic regulations, Crain and Crain employ a regression analysis that purports to establish a correlation between a country's score on the World Bank's "Regulatory Quality Index" (RQI) and the size of the country's economic activity, as measured by GDP per capita.<sup>11</sup> According to the World Bank report, the RQI seeks to measure public "perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development."<sup>12</sup> Crain and Crain have

---

<sup>‡</sup> If the SBA Office of Advocacy contracts to have similar reports performed in the future, we strongly urge it to obtain all the data, equations, assumptions, extrapolations, and calculations as part of the contract, and to make these materials readily available in a useable format on its website.

interpreted the RQI as measuring how friendly a country is to business interests.<sup>13</sup> The World Bank researchers did not intend for the RQI to be used as a proxy measure for regulatory burden or as a tool for critiquing a particular country's regulatory stringency.<sup>14</sup> Nevertheless, Crain and Crain use the RQI in precisely this fashion.

As the World Bank report explains, the RQI is based on public opinion polling, not quantitative data. It is derived from a composite of 35 opinion surveys that asked questions about the regulatory climate of approximately 200 countries.<sup>15</sup> Given its subjective origins, the World Bank researchers responsible for the RQI designed it with a few limited applications in mind—namely, to make meaningful cross-country comparisons as well as to monitor a single country's progress over time. At the same time, these researchers strongly caution against using the RQI for developing specific policy prescriptions in particular countries.<sup>16</sup>

Crain and Crain provide no justification defending their use of the RQI to estimate regulatory costs, nor do they ever acknowledge the myriad theoretical or empirical problems with calculating such costs based on public opinion polling. Significantly, one of the peer reviewers of the Crain and Crain report raised this objection, stating “I am concerned that the index may not measure what the authors say it measures, and even if it does, it may overstate the costs of regulation when used in conjunction with the other measures.”<sup>17</sup> The authors do not appear to have revised the report in response to this comment.

As noted above, the Crain and Crain report uses the RQI, which the authors have converted into a proxy measure for a country's regulatory stringency, as the main variable in their formula for calculating the cost of a country's economic regulations—that is, the supposed reduction in that country's GDP caused by the regulations. The authors do not explain how they devised this formula, nor do they provide any of the underlying data, calculations, and assumptions that they used to devise it. Consequently, no one can verify whether or not the formula provides a reasonable model of reality, nor can anyone verify their calculations.

Using this formula, Crain and Crain calculate the loss in GDP the United States suffers because of economic regulation. It is unclear whether Crain and Crain calculate the loss in GDP as compared to the country with the highest RQI score or whether they calculate the loss in GDP attributed to all regulation. The latter baseline would reflect the GDP in a hypothetical United States that had no economic regulations. Whichever baseline they use, Crain and Crain thus conclude that the cost of economic regulations in the United States in 2008 was \$1.236 trillion, “as reflected in lost GDP.”<sup>18</sup>

Crain and Crain do not clearly define the category of “economic regulations,” other than to note it is broadly inclusive.<sup>§</sup> The lack of a clear definition opens up the possibility that the category of “economic regulations” also includes the other categories of regulations identified by Crain and Crain. If, for example, this category includes some environmental regulation costs, those costs are also the subject of a separate calculation in the report. This would mean that some of

---

<sup>§</sup> The report indicates that the category of economic regulations is broad enough to include “a wide range of restrictions and incentives that affect the way businesses operate—what products and services they produce, how and where they produce them, and how products and services are priced and marketed to consumers.” CRAIN & CRAIN, *infra* endnote 1, at 17.

these regulation costs would be counted twice (once as an economic regulation and once as an environmental regulation), leading to an exaggeration of total regulation costs. Some of the polling data used by the authors of the World Bank study in the calculation of the RQI asks questions of environmental and safety regulations, although the majority of the questions are about tax and price control regulations, trade barriers, access to capital, and regulatory barriers to starting a new business.\*\*

One other significant problem in this category of costs is that the regression analysis used in the report assumes an overly simplistic relationship between regulatory stringency and GDP. As noted above, the Crain and Crain report's formula implies that increases in regulatory stringency *cause* a reduction in a country's economic activity, which are reflected in a decreased GDP. The actual relationship between regulatory stringency and a country's economic activity is not so clear-cut, however, because measurements of GDP do not include regulatory benefits. On this subject, the 2009 OMB report to Congress notes:

The relationship between regulation and indicators of economic activity raises a number of complex questions, conceptual, empirical, and normative. A key issue involves identification of the appropriate measures. For example, is GDP the appropriate measure? As we have seen, many regulations have favorable net benefits, and by hypothesis, such regulations are desirable on standard economic grounds. Of course it would be useful to understand the effects on GDP of particular regulations and of classes of regulations. But while important, GDP is hardly a complete measure of relevant values, and some of the benefits of regulation, such as environmental protection, are not adequately captured by changes in GDP.<sup>19</sup>

Finally, the report's use of the RQI is misleading because it gives the false impression that the U.S. regulatory burden is especially high. In fact, the United States has one of the highest RQI scores, ranking eleventh out of more than 200 countries.<sup>20</sup> The United States ranks higher than many of its competitive trading partners, including China, Germany, Japan, Mexico, South Korea, and Taiwan, and its RQI score has remained fairly constant since 1996, when these scores were first developed.<sup>21</sup> But Crain and Crain's use of the RQI, and the SBA's use of the Crain and Crain report, imply that the U.S. is inferior to these other countries as an excellent place to do business.

## **Environmental Regulation Costs**

To calculate the costs of environmental regulations, the Crain and Crain report adds up the estimated costs of environmental regulations found in each of OMB's annual reports to Congress on cost-benefit analysis since 2001.<sup>22</sup> These estimates in turn are based on aggregation of the

---

\*\* The World Bank study relied on 35 different sources of global or regional surveys, produced by 33 different organizations. Only 16 of the sources had any measure of regulation at all. Only one specifically mentioned environmental regulations (the World Economic Forum Global Competitiveness Survey). Only 2 of the 35 sources mentioned labor market policy: the African Development Bank (not relevant to the US) and the Institute for Management Development World Competitiveness Yearbook. Neither of these two said which labor market issues they measured, and there was no mention of safety and health by them. See Kaufmann et al., *infra* endnote 11, at 29 (Table 1), 39-71 (App. A).

cost-benefit analyses that EPA produced when developing the regulations. Based on this data, Crain and Crain find that the total cost of environmental regulations in 2008 was \$281 billion,<sup>23</sup> which is 16 percent of the total regulatory costs according to their estimate of total costs.

To generate cost estimates for its cost-benefit analyses, EPA primarily relies on surveys of representative companies that the regulation will likely affect. Because companies know the purpose of the surveys, they have a strong incentive to overstate costs in order to skew the final cost-benefit analysis toward weaker regulatory standards.<sup>24</sup> Agencies must also fill in any data gaps they encounter by making various assumptions. Due to fear of litigation over the regulation, they tend to adopt conservative assumptions about regulatory costs, such that the cost assessment ends up reflecting the maximum possible cost, rather than the mean.<sup>25</sup>

Industry cost estimates—and therefore the cost estimates that EPA develops—do not account for technological innovations that reduce the cost of compliance and produce non-regulatory co-benefits, such as increased productivity. When companies are asked to predict which technology they will employ to comply with a particular environmental regulation, they often will point to the most expensive existing “off-the-shelf” technology available. Once the regulation actually goes into effect, however, companies have a strong incentive to invent or purchase less costly technologies to come into regulatory compliance. As a result, compliance costs tend to be less, and often much less, than the predicted costs. Moreover, the technological innovations tend to produce co-benefits unrelated to the regulation—such as increased productivity and efficiency—that the company strives to achieve in any event. Given these co-benefits, only a portion of the innovative technology’s costs can fairly be counted as compliance costs.<sup>26</sup>

As the following chart indicates, retrospective studies of regulatory costs find that the initial cost estimates are often too high.

Study	Subject of Cost Estimates	Results
PHB, 1980 <sup>27</sup>	Sector level capital expenditures for pollution controls	– EPA overestimated capital costs more than it underestimated them, with forecasts ranging 26 to 126% above reported expenditures
OTA, 1995 <sup>28</sup>	Total, annual, or capital expenditures for occupational safety & health regulations	– OSHA overestimated costs for 4 of 5 health regulations, with forecasts ranging from \$5.4 million to \$722 million above reported expenditures
Goodstein & Hedges, 1997 <sup>29</sup>	Various measures of cost for pollution prevention	– Agency and industry overestimated costs for 24 of 24 OSHA & EPA regulations, by at least 30% and generally by more than 100%
Resources for the Future, 1999 <sup>30</sup>	Various measures of cost for environmental regulations	– Agency overestimated costs for 12 of 25 rules, and underestimated costs for 2 rules

Finally, unlike the OMB reports, which present regulatory costs as a range, Crain and Crain always adopt the upper end of the range for inclusion in their calculations.<sup>31</sup> The authors justify this move by claiming that agencies allegedly have a strong incentive to underestimate regulatory costs, although they provide no empirical evidence to support this claim. In fact, as just explained, it is likely that regulatory costs are overstated. In any case, the choice by Crain and Crain to always take the higher bound estimate, rather than presenting their results as a range of costs, as OMB does, is a misleading use of the OMB data.

Agencies were not required by Executive Order to provide OMB with estimates of regulatory costs and benefits prior to 1988. For this reason, OMB had to rely on non-government estimates in order to estimate regulatory benefits and costs prior to 2000. For environmental regulations issued before 1988, the 2001 OMB report relied on a 1991 study of regulatory costs undertaken by economists Robert Hahn and John Hird.<sup>32</sup>

Hahn and Hird performed no new calculations of regulatory costs, but instead they generated an estimate by synthesizing a set of earlier studies of regulatory costs conducted by a small circle of conservative economists.<sup>33</sup> These estimates are subject to the same limitations as agency-produced cost analyses, including relying on industry-estimates of compliance costs and failing to account for innovation.<sup>††</sup> An additional problem is that the Hahn and Hird study is nearly 20 years old, and many of the earlier studies and data it relies upon are more than 30 years old. The data and assumptions reflected in the Hahn and Hird study cannot be reasonably extrapolated to modern social and economic reality.<sup>‡‡</sup>

## **Occupational Safety and Health and Homeland Security Regulation Costs**

The Crain and Crain report concludes that the total cost of occupational safety and health and homeland security regulations in 2008 was \$75 billion,<sup>34</sup> which is four percent of their total costs. Occupational safety and health regulations accounted for \$65 billion of the total.

### ***Occupational Safety and Health Regulation Costs***

To calculate the occupational safety and health regulations, the Crain and Crain report relies on two sources. The first source, a 2005 study by Joseph Johnson, provides the total costs of all occupational safety and health regulations issued before 2001.<sup>35</sup> The second source, the 2009

---

<sup>††</sup> In addition, many of these earlier studies assume a regulatory baseline of zero for their comparisons of regulatory costs. In other words, these studies assume that in the absence of the regulations under examination, companies would have taken no environmentally protective actions. This assumption has no basis in a reality where other existing regulations (federal, state, and local), fear of tort liability, and simple market forces induce companies to take some minimal level of environmentally protective action all the time. This minimal level of actions represents the proper baseline against which regulatory costs should be measured. To the extent that these earlier studies assume a zero baseline, they grossly overestimate regulatory costs. McGarity & Ruitenberg, *infra* endnote 24, at 2047.

<sup>‡‡</sup> In the intervening years, the U.S. economy and society have drastically changed. For example, scientific knowledge regarding the harmful public health and environmental effects of pollution has greatly improved, the U.S. has shifted from an industrial sector-based economy to a service sector-based one, and even industry has become characterized by more automation and less human labor. See Ian D. Wyatt & Daniel E. Hecker, *Occupational Changes During the 20th Century*, MONTHLY LABOR REV., March 2006.

OMB report to Congress, provides the total cost of all occupational safety and health regulation issued since 2001.

The cost estimate from the 2009 OMB report to Congress is based on a simple aggregation of the cost-benefit analyses that OSHA produced when developing these regulations.<sup>36</sup> As discussed above, the cost assessments generated as part of these cost-benefit analyses greatly overstate the costs of regulations, since the agencies that produce them rely on industry for estimates of compliance costs, adopt conservative assumptions to fill in data gaps, and fail to account for innovation.

The Johnson study likewise suffers from several flaws, leading it to overestimate these regulatory costs. The study begins by aggregating the agency-produced cost-benefit analyses for all of OSHA rules issued before 2001.<sup>37</sup> As just noted, these costs estimates are overstated. Nevertheless, the Johnson study then inflates OSHA's cost estimates by multiplying the total of all of the estimates by 5.5. According to Johnson, using the multiplier is necessary to account for the costs of all of OSHA's non-major regulations—since OSHA does not perform cost-benefit analyses for these regulations—and for *finest* levied for violations of any OSHA standards.<sup>38</sup> In other words, the Johnson study assumes that for every dollar industry spends on compliance with OSHA's major rules, it spends \$5.50 on compliance with non-major regulations and on fines for violations of existing OSHA standards.

We see no justification for counting the fines that companies pay for violating regulatory standards as regulatory costs. Instead, these are the costs of *choosing* to break the law. That is, the fines would never have occurred if the firms had not chosen to disobey the law. Under this logic, mass lawbreaking raises regulatory costs, enabling regulatory opponents to argue that we need to reduce regulation because of these high regulatory costs.

The Johnson study took the multiplier of 5.5 from a 1996 study by Harvey James.<sup>39</sup> The James study uses an unpublished and otherwise unavailable 1974 estimate prepared by the National Association of Manufacturers (NAM) of the per-firm cost of compliance with OSHA regulations.<sup>40</sup> Because the report is unavailable, it cannot be checked for accuracy. As we related earlier, industry estimates of regulatory costs are suspect because of the political incentive to inflate such costs. Nevertheless, the Crain and Crain report incorporate the Johnson study without any discussion of this significant limitation in the data.

### ***Homeland Security Regulation Costs***

To calculate the cost of all homeland security regulations, the Crain and Crain report again relies on the 2009 OMB report to Congress,<sup>41</sup> which is based on the cost-benefit analyses that the Department of Homeland Security produced when developing its regulations.<sup>42</sup> The cost assessments provided in these cost-benefit analyses are overstated for all the reasons stated above: industry-supplied estimates of compliance estimates; conservative assumptions to fill in data gaps; and failure to account for innovation.

## **Tax Compliance Regulation Costs**

To calculate the cost of tax compliance regulations, the Crain and Crain report starts with estimates of the time that businesses, non-profit organizations, and individuals spend each year completing tax-related forms and filings, and multiplies it by an estimate of the hourly cost of filling out the forms. Using this methodology, the Crain and Crain report concludes that the total cost of tax compliance regulations in 2008 was \$160 billion,<sup>43</sup> which is about nine percent of their total costs.

The report says it derives its estimates of the time it takes to fill out tax forms from the Internal Revenue Service and the Tax Foundation, a conservative-leaning non-profit organization.<sup>44</sup> However, they do not explain which data they use or how those data contribute to their estimate. To the extent that data from the Tax Foundation are used, the report's estimate of the amount time spent on tax compliance should be viewed with caution since the Tax Foundation tends to be "anti-tax" in orientation.

The authors calculate tax compliance costs for businesses separately from individuals and non-profit organizations, using the reasonable assumption that businesses spend more money per hour complying with tax regulations. Crain and Crain assume that all businesses rely on "Human Resources professionals" to prepare their taxes, but they provide no evidence to justify this assumption. They nevertheless multiply estimates of the amount of time it takes to fill out the tax forms by \$49.77 per hour ("the hourly compensation rate for Human Resources professionals") on tax compliance.<sup>45</sup> The report then appears to assume that all individuals and non-profit organizations have their taxes prepared by accountants or auditors, and it estimates that these entities spend \$31.53 per hour ("the average hourly wage rate for accountant and auditors") on tax compliance.<sup>46</sup> With respect to individuals, this assumption seems particularly unfounded given that millions of American households prepare their own taxes.

## **Conclusion**

---

The Crain and Crain study is rife with flawed methodologies and questionable data and assumptions. Of even greater importance, each of the problems with the Crain and Crain report's methodologies, data, and assumptions lead to an overstatement of regulatory costs. Because of these problems with the Crain and Crain report's reliability, we believe policymakers should disregard its misleading conclusions as they consider matters of regulatory policy.

## Endnotes

<sup>1</sup> NICOLE V. CRAIN & W. MARK CRAIN, *THE IMPACT OF REGULATORY COSTS ON SMALL FIRMS* (2010) (This report was developed under a contract with the Small Business Administration's Office of Advocacy), available at <http://www.sba.gov/sites/default/files/rs371tot.pdf>.

<sup>2</sup> For the three earlier reports, see W. MARK CRAIN, *THE IMPACT OF REGULATORY COSTS ON SMALL FIRMS* (2005) (This report was developed under a contract with the Small Business Administration's Office of Advocacy), available at <http://archive.sba.gov/advo/research/rs264tot.pdf>; W. MARK CRAIN & THOMAS D. HOPKINS, *THE IMPACT OF REGULATORY COSTS ON SMALL FIRMS* (2001), available at <http://archive.sba.gov/advo/research/rs207tot.pdf>; THOMAS D. HOPKINS, *PROFILES OF REGULATORY COSTS* (1995), available at <http://archive.sba.gov/advo/research/rs1995hoptot.pdf>.

<sup>3</sup> CRAIN & CRAIN, *supra* endnote 1, at 6 (2009 dollars).

<sup>4</sup> OFFICE OF MGMT & BUDGET, EXECUTIVE OFFICE OF THE PRESIDENT, 2009 REPORT TO CONGRESS ON THE BENEFITS AND COSTS OF FEDERAL REGULATIONS AND UNFUNDED MANDATES ON STATE, LOCAL, AND TRIBAL ENTITIES 3 (converted from 2001 to 2009 dollars), available at [http://www.whitehouse.gov/sites/default/files/omb/assets/legislative\\_reports/2009\\_final\\_BC\\_Report\\_01272010.pdf](http://www.whitehouse.gov/sites/default/files/omb/assets/legislative_reports/2009_final_BC_Report_01272010.pdf) [hereinafter 2009 OMB Report]. The Regulatory Right-to-Know Act requires OMB to produce a report every year that, among other things, calculates the annual cost of major regulations. Treasury and General Government Appropriations Act of 2001 §624, Pub. L. 106-554, 31 U.S.C. §1105 note.

<sup>5</sup> CRAIN & CRAIN, *supra* endnote 1, at 3-5.

<sup>6</sup> 2009 OMB Report, *supra* endnote 4, at 3 (converted from 2001 to 2009 dollars).

<sup>7</sup> See, e.g., Sidney Shapiro et al., *CPR Comments on Draft 2010 Report to Congress on the Benefits and Costs of Federal Regulations* 16-19 (App. A, Pt. C.) (2010), available at [http://www.progressivereform.org/articles/2010\\_CPR\\_Comments\\_OMB\\_Report.pdf](http://www.progressivereform.org/articles/2010_CPR_Comments_OMB_Report.pdf); Rena Steinzor et al., *CPR Comments on Draft 2009 Report to Congress on the Benefits and Costs of Federal Regulations* 16-19 (App. A, Pt. C.) (2009), available at [http://www.progressivereform.org/articles/2009\\_CPR\\_Comments\\_OMB\\_Report.pdf](http://www.progressivereform.org/articles/2009_CPR_Comments_OMB_Report.pdf); Amy Sinden & James Goodwin, *CPR Comments on Draft 2008 Report to Congress on the Benefits and Costs of Federal Regulations* 5-8 (2008), available at [http://www.progressivereform.org/articles/2008\\_Comments\\_OMB\\_Report.pdf](http://www.progressivereform.org/articles/2008_Comments_OMB_Report.pdf). For all of the comments on OMB's annual reports to Congress on the benefits and cost of federal regulation produced by CPR Member Scholars and staff, see Ctr. for Progressive Reform, *OMB Reports on the Costs and Benefits of Regulation*, <http://www.progressivereform.org/OMBCongress.cfm> (last visited Feb. 5, 2011).

<sup>8</sup> For examples of instances in which anti-regulatory critics have cited the Crain and Crain report and its conclusions, see, e.g., James L. Gattuso, Diane Katz, & Stephen A. Keen, *Red Tape Rising: Obama's Torrent of New Regulation* (Heritage Foundation, Backgrounder No. 2048, 2010) ("According to a report recently released by the Small Business Administration, total regulatory costs amount to about \$1.75 trillion annually . . ."), available at [http://thf\\_media.s3.amazonaws.com/2010/pdf/bg2482.pdf](http://thf_media.s3.amazonaws.com/2010/pdf/bg2482.pdf); Sen. Mark R. Warner, Op-Ed, *To Revive the Economy, Pull Back the Red Tape*, WASH. POST, Dec. 13, 2010 ("According to the U.S. Small Business Administration, the estimated annual cost of federal regulations in 2008 exceeded \$1.75 trillion."), available at <http://www.washingtonpost.com/wp-dyn/content/article/2010/12/12/AR2010121202639.html?hpid=opinionsbox1>; Press Release, U.S. Chamber of Commerce, U.S. Chamber Calls on Federal and State Lawmakers to Stem the Growing Tide of Excessive Regulation (Oct. 7, 2010) ("Donohue cited statistics from the Small Business Administration's Office of Advocacy estimating the total cost of federal regulations at \$1.75 trillion."), <http://www.uschamber.com/press/releases/2010/october/us-chamber-calls-federal-and-state-lawmakers-stem-growing-tide-excessive> (last visited Feb. 1, 2011).

<sup>9</sup> OFFICE OF ADVOCACY, SMALL BUSINESS ADMINISTRATION, INFORMATION QUALITY PEER REVIEW REPORT FOR THE IMPACT OF FEDERAL REGULATORY COSTS ON SMALL FIRMS 4 (2010) (Bob Litan's peer review), available at <http://www.sba.gov/sites/default/files/files/TheImpactofFederalRegulatoryCostsonSmallFirmsPRFY2010.pdf>.

<sup>10</sup> Telephone Interview with Radwan Saade, Regulatory Analyst, Small Business Administration, Office of Advocacy, Office of Economic Research (Jan. 11, 2011).

<sup>11</sup> CRAIN & CRAIN, *supra* endnote 1, at 18-25. The RQI was developed as part of the World Bank's Worldwide Governance Indicators project, which seeks to establish a variety of indexes for measuring countries' governance and institutional quality. See Daniel Kaufmann et al., *Governance Matters VIII: Aggregate and Individual Governance Indicators 1996-2008* at 2 (The World Bank, Development Research Group, Macroeconomics and

---

Growth Team, Policy Research Working Paper No. 4978, 2009), available at [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1424591##](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1424591##) (follow "One-Click Download" hyperlink at the top of the page).

<sup>12</sup> Kaufmann et al., *supra* endnote 11, at 6.

<sup>13</sup> See CRAIN & CRAIN, *supra* endnote 1, at 21 (explaining that increases in the RQI correspond to "reductions in regulatory burden.").

<sup>14</sup> See *id.*

<sup>15</sup> Kaufmann et al., *supra* endnote 11, at 4.

<sup>16</sup> *Id.* at 5 (describing the RQI as "too blunt a tool to be useful in formulating specific governance reforms in particular country contexts. Such reforms, and evaluation of their progress, need to be informed by much more detailed and country-specific diagnostic data . . .").

<sup>17</sup> OFFICE OF ADVOCACY, *supra* endnote 9, at 2 (Richard Williams' peer review), available at <http://www.sba.gov/sites/default/files/files/TheImpactofFederalRegulatoryCostsonSmallFirmsPRFY2010.pdf>.

Richard Williams is a conservative economist who currently works as the Director of Policy Research at the Mercatus Center, an anti-regulatory think tank. See Mercatus Ctr., *Richard Williams Biography*, <http://mercatus.org/richard-williams> (last visited February 4, 2011).

<sup>18</sup> CRAIN & CRAIN, *supra* endnote 1, at 24 (2009 dollars).

<sup>19</sup> 2009 OMB Report, *supra* endnote 4, at 29.

<sup>20</sup> See Kaufmann et al., *supra* endnote 11, at 89-91 (Table C4). The RQI is designed so that possible scores range from -2.5 (*i.e.*, the greatest regulatory burden, however defined) to 2.5 (*i.e.*, the lowest regulatory burden, however defined). In 2008, the RQI score for the United States was 1.579. CRAIN & CRAIN, *supra* endnote 1, at 24.

<sup>21</sup> See Kaufmann et al., *supra* endnote 11, at 89-91 (Table C4).

<sup>22</sup> CRAIN & CRAIN, *supra* endnote 1, at 25-27.

<sup>23</sup> *Id.* at 31 (Table 6) (2009 dollars).

<sup>24</sup> Thomas O. McGarity & Ruth Ruttenberg, *Counting the Cost of Health, Safety, and Environmental Regulation*, 80 TEX. L. REV. 1997, 2011, 2044-45 (2002).

<sup>25</sup> *Id.* at 2046.

<sup>26</sup> *Id.* at 2049-50. Studies of OSHA's vinyl chloride and cotton dust standards concluded that actual compliance costs were much lower than predicted costs in part because of overall productivity gains achieved by regulatees. When company scientists and engineers were forced to concentrate on cost-effective compliance techniques, they also identified ways to improve the overall productivity of an industrial process, or even an entire industry. See OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION, OFFICE OF PROGRAM EVALUATION, REGULATORY REVIEW OF OSHA'S COTTON DUST STANDARD (2000) (identifying extensive technological improvements and increased productivity in the textile industry spurred by OSHA's cotton dust standard); RUTH RUTTENBERG, REGULATION IS THE MOTHER OF INVENTION 42, 44-45 (Working Papers for a New Society, May/June 1981), (identifying six regulation-induced changes in the vinyl chloride industry that resulted in increased productivity).

<sup>27</sup> Winston Harrington, Richard D. Morgenstern, & Peter Nelson, *On the Accuracy of Regulatory Cost Estimates 6* (Resources for the Future, Discussion Paper 99-18, 1999) (citing PUTNAM, HAYES, & BARTLETT, INC., COMPARISONS OF ESTIMATED AND ACTUAL POLLUTION CONTROL CAPITAL EXPENDITURES FOR SELECTED INDUSTRIES (Report prepared for the Office of Planning & Evaluation, U.S. Env'tl. Protection Agency, 1980)), available at <http://www.rff.org/documents/RFF-DP-99-18.pdf>.

<sup>28</sup> OFFICE OF TECHNOLOGY ASSESSMENT, GAUGING CONTROL TECHNOLOGY AND REGULATORY IMPACTS IN OCCUPATIONAL SAFETY AND HEALTH: AN APPRAISAL OF OSHA'S ANALYTICAL APPROACH 58 (1995).

<sup>29</sup> Eban Goodstein & Hart Hodges, *Polluted Data: Overestimating Environmental Costs*, 8 AM. PROSPECT 64 (Nov./Dec. 1997).

<sup>30</sup> Harrington, Morgenstern, & Nelson, *supra* endnote 27. The Resources for the Future study notes that actual compliance costs can also be less than an agency estimates because there can be less regulatory compliance than the agency anticipates. If an agency overestimates the extent of pollution reduction, or some similar benefit, then the regulation may cost less than the agency estimates. In such cases, the original agency estimate might have been accurate, but it turns out to be wrong because the regulatory industry does not obey the regulation to the extent that the agency predicted. *Id.* at 14-15.

<sup>31</sup> CRAIN & CRAIN, *supra* endnote 1, at 27.

<sup>32</sup> *Id.* at 25.

<sup>33</sup> Robert W. Hahn & John A. Hird, *The Costs and Benefits of Regulation: Review and Synthesis*, 8 YALE J. ON REG. 233, 248-54 (1991).

---

<sup>34</sup> CRAIN & CRAIN, *supra* endnote 1, at 31 (2009 dollars).

<sup>35</sup> *Id.*

<sup>36</sup> 2009 OMB Report, *supra* endnote 4, at 11 (Table 1-2).

<sup>37</sup> Joseph M. Johnson, *A Review and Synthesis of the Cost of Workplace Regulations*, in CROSS-BORDER HUMAN RESOURCES, LABOR, AND EMPLOYMENT ISSUES 433, 453-54, 466 (Table 10) (Andrew P. Morriss & Samuel Estreicher eds., 2005).

<sup>38</sup> *Id.* at 455.

<sup>39</sup> HARVEY S. JAMES, JR., ESTIMATING OSHA COMPLIANCE COSTS 10-13 (Ctr. for the Study of Am. Bus., Policy Study No. 135, 1996).

<sup>40</sup> *Id.* James compared the NAM estimate to cost-benefit estimates produced by OSHA. Since the NAM estimate was approximately 5.5 times greater than the aggregate value of OSHA's cost-benefit analyses, he assumes he was justified using a 5.5 multiplier. *Id.* James did not cite an original source for the numbers that he derived from the NAM estimate. He merely cited a book by Robert S. Smith in which the NAM estimate was featured in a table. *Id.* at 4. There is no indication in James' report that he read or made any independent attempt to evaluate the accuracy of the NAM report.

<sup>41</sup> CRAIN & CRAIN, *supra* endnote 1, at 31.

<sup>42</sup> 2009 OMB Report, *supra* endnote 4, at 17-18.

<sup>43</sup> CRAIN & CRAIN, *supra* endnote 1, at 29 (2009 dollars).

<sup>44</sup> *Id.* at 28.

<sup>45</sup> *Id.* at 29.

<sup>46</sup> *Id.* at 29.

---

## **About the Center for Progressive Reform**

---

Founded in 2002, the Center for Progressive Reform is a 501(c)(3) nonprofit research and educational organization comprising a network of scholars across the nation dedicated to protecting health, safety, and the environment through analysis and commentary. CPR believes sensible safeguards in these areas serve important shared values, including doing the best we can to prevent harm to people and the environment, distributing environmental harms and benefits fairly, and protecting the earth for future generations. CPR rejects the view that the economic efficiency of private markets should be the only value used to guide government action. Rather, CPR supports thoughtful government action and reform to advance the well-being of human life and the environment. Additionally, CPR believes people play a crucial role in ensuring both private and public sector decisions that result in improved protection of consumers, public health and safety, and the environment. Accordingly, CPR supports ready public access to the courts, enhanced public participation, and improved public access to information. The Center for Progressive Reform is grateful to the Public Welfare Foundation for its generous support of CPR's work on regulatory issues in general.

**The Center for Progressive Reform**  
455 Massachusetts Ave., NW, #150-513  
Washington, DC 20001  
202.747.0698  
[info@progressivereform.org](mailto:info@progressivereform.org)

Direct media inquiries to Matthew Freeman or Ben Somberg, 202.747.0698,  
[mfreeman@progressivereform.org](mailto:mfreeman@progressivereform.org) or [bsomberg@progressivereform.org](mailto:bsomberg@progressivereform.org).

Visit CPR on the web at [www.progressivereform.org](http://www.progressivereform.org).  
Read CPRBlog at [www.progressivereform.org/CPRBlog.cfm](http://www.progressivereform.org/CPRBlog.cfm).

SIDNEY A. SHAPIRO  
UNIVERSITY DISTINGUISHED CHAIR IN LAW  
WAKE FOREST UNIVERSITY

**BOOKS**

THE PEOPLE'S AGENTS AND THE BATTLE TO PROTECT THE AMERICAN PUBLIC: SPECIAL INTERESTS, GOVERNMENT, AND THREATS TO HEALTH, SAFETY AND THE ENVIRONMENT (2010) (University of Chicago Press) (with Rena Steinzor)

ADMINISTRATIVE LAW AND PROCEDURE: A PROBLEM CASEBOOK (4th ed. 2010) (West Publishing Co.)

ADMINISTRATIVE LAW AND PROCESS, 5th ed. (2009) (Foundation Press) (with Paul Verkuil & Richard Pierce)

SOPHISTICATED SABOTAGE: THE INTELLECTUAL GAMES THAT INDUSTRIES PLAY TO SUBVERT RESPONSIBLE REGULATION (2004) (ELI Press) (with Thomas McGarity & David Bollier)

RISK REGULATION AT RISK: RESTORING A PRAGMATIC APPROACH (2003) (Stanford Press) (with Robert Glicksman)

REGULATORY LAW AND POLICY: CASES AND MATERIALS, 3d ed. (2003) (LexisNexis) (with Joseph Tomain)

WORKERS AT RISK: THE FAILED PROMISE OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (1993) (Praeger Press) (with Tom McGarity)

**ARTICLES**

- *Paul Verkuil and Pragmatic Adjustment in Government*, \_\_\_ CARDOZO L. REV. \_\_\_ (2011) (in press)
- *Administrative Law Inside-Out*, \_\_\_ MIAMI L. REV. \_\_\_ (2010) (in press) (with Ronald Wright)
- *Cost-Benefit Analysis: An Organizational Design Perspective*, \_\_\_ NYU ENV'T'L L. REV. \_\_\_ (2010) (in press)
- *The Social Costs of Dangerous Products: An Empirical Investigation*, 18 CORNELL J. OF LAW & PUB. POL. 775 (2009) (with J. Paul Leigh and Ruth Ruttenberg)
- *"Political Science": Regulatory Science After the Bush Administration*, 4 DUKE JOURNAL OF CONSTITUTIONAL LAW AND PUBLIC POLICY 31 (2009)
- *Eight Things Americans Can't Figure Out About Controlling Administrative Power*, 61 AD. L. REV. 5 (2009) (special issue) (with Richard Murphy)
- *Capture, Accountability, and Regulatory Metrics*, 84 TEX. L. REV. 1741 (2008) (with Rena Steinzor).
- *Beyond Cost-Benefit Analysis: A Pragmatic Reorientation*, 32 HARV. ENV. L. REV. 433 (2008) (with Christopher Schroeder)
- *OMB and the Politicization of Risk Assessment*, 37 ENV. L. 1083 (2007)
- *United Church of Christ v. FCC: Private Attorney Generals and the Rule of Law*, 58 AD. L. REV. 939 (2007)
- *The People's Agent: Executive Branch Secrecy and Accountability in an Age of Terrorism*, 69 LAW & CONTEMP. PROBS. 99 (2006) (with Rena I. Steinzor)
- *A Standards-Based Theory of Judicial Review & The Rule of Law*, 57 AD. L. REV. 107 (2006) (with Richard Levy).
- *The Case Against the IQA*, ENV. FORUM, July/August 2005, at 26.
- *Rethinking Reform of Electricity Markets*, 40 WAKE FOREST L. REV. 497 (2005) (with Joseph P. Tomain).

- *Pragmatic Administrative Law*, ISSUES IN LEGAL SCHOLARSHIP, The Reformation of American Administration Law (2005): Article 1, <http://www.bepress.com/ils/iss6/art1/>.
- *Government Benefits and the Rule of Law: Toward A Standards-Based Theory of Due Process*, 57 AD. L. REV. 107 (2005) (with Richard Levy)
- *Improving Regulation Through Incremental Adjustment*, 52 K.U.L. REV. 1179 (2005) (with Robert Glicksman) (2004) (with Robert Glicksman)
- *The APA and the Back-End of Regulation: Procedures for Informal Adjudication*, 56 AD. L. REV. 1159
- *Outsourcing Government Regulation*, 53 DUKE L. REV. 389 (2004).
- *The Information Quality Act and Environmental Protection: The Perils of Reform By Appropriations Rider*, 28 WM. & MARY ENV. L. & POL. REV. 339 (2004).
- *OMB's Dubious Peer Review Proposals*, 34 ENV. L. REP. 10064 (2004)
- *Administrative Procedure and the Decline of the Trial*, 51 KANSAS L. REV. 473 (2003) (with Richard Levy)
- *The Missing Perspective*, THE ENVIRONMENTAL LAW FORUM, March/April 2003 (with Rob Glicksman).
- *Book Review: Regulatory Encounters and American Adversarial Legalism*, 50 AM. J. COMPARATIVE LAW 229 (2002)
- *Matching Public Ends and Private Means: Insights from the New Institutional Economics*, 6 J. SMALL & EMERGING BUSINESS L. 43 (2002)
- *Two Cheers For HBO: The Problem of the Nonpublic Record*, 54 AD. L. REV. 853 (2002)
- *The New GATT Trade Regime, Regulatory Protection, and Public Accountability*, 54 AD. L. REV. 435 (2002)
- *Goals, Instruments, and Environmental Policy Choice*, 10 DUKE ENV. L. & POL. FORUM 297 (2001) (with Rob Glicksman)
- *Top Ten Reasons That Law Students Dislike Administrative Law and What Can (or Should) Be Done About Them?*, 38 BRANDEIS L.J. 351 (2000).
- *Administrative Law After the Counter-Reformation: Restoring Faith in Pragmatic Government*, 48 KANSAS L. REV. 689 (2000)
- *Voluntary Regulatory Compliance in Theory and Practice: The Case of OSHA*, 52 ADMINISTRATIVE L. REV. 1249 (2000)(with Randy Rabinowitz)
- *The Necessity of OSHA*, 8 KANSAS J. LAW & PUBLIC POLICY 22 (1999)
- *OSHA Reform: Cooperation Versus Punishment*, 49 ADMINISTRATIVE L. REV. 713 (1997) (with Randy Rabinowitz)
- *Substantive Reform, Judicial Review, and Agency Resources: OSHA As An Case Study*, 49 ADMINISTRATIVE L. REV. 645 (1997)
- *Analyzing Government Regulation*, 49 ADMINISTRATIVE L. REV. 377 (1997) (with Joe Tomain)
- *OSHA's Critics and Regulatory Reform*, 31 WAKE FOREST L. REV. 587 (1996) (with Tom McGarity)
- *Agency Priority Setting and Review of Existing Rules*, 48 ADMINISTRATIVE L. REV. 370 (1996)
- *A Delegation Theory of the APA*, 10 ADMINISTRATIVE L.J. 89 (1996)
- *Judicial Incentives and Indeterminacy in Substantive Review of Administrative Decisions*, 44 Duke L.J. 1051 (1995) (with Richard Levy)
- *Keeping The Baby and Throwing Out The Bathwater: Justice Breyer's Critique of Regulation*, 8 ADMINISTRATIVE L.J. 713 (1995)
- *The Resolution of Technological Controversies In Regulatory Agencies*, 6 RISK: ISSUES IN HEALTH AND SAFETY 127 (1995)
- *Occupational Safety & Health: Policy Options and Political Reality*, 31 HOUSTON L. REV. 13 (1994)
- *Political Oversight and the Deterioration of Regulatory Policy*, 46 ADMINISTRATIVE L. REV. 1 (1994)
- *Rejoining the Battle Against Noise Pollution*, 9 ISSUES IN SCIENCE AND TECHNOLOGY 73 (Spring 1993)
- *Lessons From A Public Policy Failure: EPA and Noise Abatement*, 19 ECOLOGY L.Q. 1 (1992), reprinted in part in ENVIRONMENTAL VIEWPOINTS (M. Lazzari ed. 1994)
- *Not So Paradoxical: The Rational For OSHA*, 1991 DUKE L.J. 729 (with Tom McGarity), reprinted in part

in LAW AND THE ENVIRONMENT: A MULTIDISCIPLINARY READER (R. Percivil & D. Alevizatos eds. 1997)  
*Poverty and the Politics of Occupational Safety and Health*, 1 KANSAS J. L. & P. 127 (1991) (with Tom McGarity)

- *Reflections On Teaching Administrative Law: Time For A Sequel*, 43 ADMINISTRATIVE L. REV. 501 (1991)
- *Biotechnology and the Design of Regulation*, 17 ECOLOGY L.Q. 1 (1990)
- *Public Accountability of Advisory Committees*, 1 RISK: ISSUES IN HEALTH AND SAFETY 189 (1990)
- *Rethinking OSHA: Rulemaking Reforms and Legislative Changes*, 6 YALE J. REGULATION 1 (1989) (with Tom McGarity)
- *Congress, the Supreme Court, and the Quiet Revolution In Administrative Law*, 1988 DUKE L.J. 819 (with R. Glicksman)
- *Lab Safety and the Law*, 18 CHEMTECH 267 (1988) (with Michael Burns & Robert Foster)
- *Heightened Scrutiny of the Fourth Branch: Separation of Powers and The Requirement of Adequate Reasons for Agency Decisions*, 1987 DUKE L.J. 387 (with Richard Levy); reprinted in part in ADMINISTRATIVE LAW ANTHOLOGY (Thomas Sargentich ed. 1994)
- *Scientific Issues and The Function of Hearing Procedures: An Evaluation of FDA's Public Board of Inquiry*, 1986 DUKE 288
- *Utility Regulation and the Political Process*, 33 KANSAS L. REV. 491 (1985)
- *Responses to Occupational Disease: The Role of Markets, Regulation, and Information*, 72 Georgetown L.J. 601 (1984) (with Elinor Schroeder)
- *Political and Judicial Review of Agency Action*, 60 TEXAS L. REV. 1175 (1982) (with Richard Pierce)
- *Public Regulation of DNA Gene Therapy*, 3 J. LEGAL MEDICINE 185 (1982) (with Tom McGarity)
- *The Trade Secret Status of Health and Safety Testing Information: Reforming Agency Disclosure Policies*, 93 HARVARD L. REV. 837 (1980) (with Tom McGarity), reprinted in part in INTERNATIONAL LIBRARY OF ESSAYS IN LAW AND LEGAL THEORY (2d Series 2001).
- *Rethinking Kansas Administrative Procedure*, 28 KANSAS L. REV. 419 (1980) (with Marilyn Ainsworth)
- *Limiting Physician Freedom to Prescribe a Drug for Any Purpose: The Need for FDA Regulation*, 73 NORTHWESTERN L. REV. 801 (1978)
- *Divorcing Profit Motivation From New Drug Research: A Consideration of Proposals to Provide FDA with More Reliable Test Data*, 1978 DUKE L.J. 154; reprinted in part in PUBLIC HEALTH AND THE LAW: ISSUES AND TRENDS 389 (L. Hogue ed. 1980)
- *Abstention and Primary Jurisdiction: Two Chips Off the Same Block? -- A Comparative Analysis*, 60 CORNELL L. REV. 75 (1974)

## BOOK CHAPTERS

- *The Necessity of Procedural Reform*, in BEYOND ENVIRONMENTAL LAW: POLICY PROPOSALS FOR A BETTER ENVIRONMENTAL FUTURE 37 (Alyson C. Lounoy & David M. Driesen eds. 2010) (Cambridge Press)
- *Occupational Safety and Health*, in LABOR AND EMPLOYMENT LAW AND ECONOMICS (Kenneth G. Dau-Schmidt, Seth D. Harris & Orly Lobel eds. 2009) (Edward Elgar Publishing)
- *Data Protection in the EU*, in ADMINISTRATIVE LAW IN THE EU (George A. Bermann, Charles H. Koch, Jr. & James T. O'Reilly eds. 2008).
- *Peer Review in Regulatory Science*, in RESCUING SCIENCE FROM POLITICS (Rena Steinzor & Wendy Wagner eds. 2006)
- *Procedural Issues and Judicial Review*, in Occupational Safety & Health Law 149 (Randy Rabinowitz ed., 2008 Cumulative Supplement)
- *Procedural Issues and Judicial Review*, in Occupational Safety & Health Law 477 (Randy Rabinowitz ed., 2d ed. 2002)
- *Regulatory Initiatives*, in DEVELOPMENTS IN ADMINISTRATIVE LAW AND REGULATORY PRACTICE 2000-

2001 (Jeffrey S. Lubbers ed., 2002)

● *Regulatory Initiatives*, in DEVELOPMENTS IN ADMINISTRATIVE LAW AND REGULATORY PRACTICE 1999-2000 (Jeffrey S. Lubbers ed., 2001)

● *Regulatory Initiatives*, in DEVELOPMENTS IN ADMINISTRATIVE LAW AND REGULATORY PRACTICE 1998-1999 (Jeffrey S. Lubbers ed., 2000)

● *Occupational Safety and Health Regulation*, VOL. III ENCYCLOPEDIA OF LAW & ECONOMICS (Boudewijn Bouckaert & Gerrit De Geest eds. 2000) (Edward Elgar Publishing), published at <http://encyclo.findlaw.com/tablebib.html>

● *Regulatory Alternatives*, in BLOOD BANKING & REGULATION: PROCEDURES, PROBLEMS, AND ALTERNATIVES (Edward Dauer, ed. 1996) (National Academy Press, Washington)

## RECENT POLICY PAPERS

Center for Progressive Reform, *From Ship to Shore: Reforming the National Contingency Plan to Improve Protections for Oil Spill Cleanup Workers* (Dec. 2010) (with Rebecca Bratspies, Alyson Flournoy, Thomas McGarity, Rena Steinzor & Matt Shudtz), available at <http://ssrn.com/abstract=1724802>

Center for Progressive Reform, *Plausibility Pleading: Barring the Courthouse Door to Deserving Claimants* (May 2010) (with William Funk, Thomas McGarity, & James Goodwin), available at [http://www.progressivereform.org/articles/Twombly\\_1005.pdf](http://www.progressivereform.org/articles/Twombly_1005.pdf)

Center for Progressive Reform, *From Ship to Shore: Reforming the National Contingency Plan to Improve Protections for Oil Spill Cleanup Workers* (September 2010) (with Rebecca Bratspies, Alyson Flournoy, Thomas McGarity, Rena Steinzor, and Matthew Shudtz), available at [http://www.progressivereform.org/articles/BP\\_OSHA\\_1006.pdf](http://www.progressivereform.org/articles/BP_OSHA_1006.pdf)

## AWARDS and HONORS

Arthur Kulp Memorial Award, American Risk and Insurance Association, Contribution to Risk Management and Insurance Literature, Sept., 1995, for WORKERS AT RISK: THE FAILED PROMISE OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION

Chair, Administrative Law Section, American Association of Law Schools (AALS) (1995)

## TESTIMONY

Hearing on Protecting the Public Interest: Understanding the Threat of Agency Capture Before the Subcommittee on Administrative Oversight and the Courts of the Senate Judiciary Committee, U.S. Senate, August 3, 2010

Hearing on the Federal Advisory Committee Act of 2008 Before the Subcommittee on Information Policy, Census, and National Archives of the Committee on Oversight and Government Reform, United States House of Representatives, Apr. 2, 2008

Hearing on Impact of Regulations on U.S. Manufacturing Before the Subcommittee on Regulatory Affairs of the Committee on Government Reform, United States House of Representatives, April 12, 2005

Hearing on Regulatory Reform and Regulatory Accounting Before the Committee on Government Operations, United States Senate, April 22, 1999

Hearing on Occupational Safety and Health Reform Before the Committee on Education and Labor, United States House of Representatives, July 21, 1993.

Hearing on Occupational Safety and Health Reform Before the Committee On Labor and Human Resources and the Subcommittee on Labor, United States Senate, Oct. 29, 1991.

## **FUNDED RESEARCH**

### Administrative Conference of the United States (ACUS):

Agency Review of Existing Rules (1994)  
EPA Regulation of Noise Pollution (1991)  
The Regulation of Biotechnology (1990)  
OSHA Rulemaking Reforms (1989)  
OSHA Management of Rulemaking (1987)  
Scientific Issues and The Function of Hearing Procedures (1985)

### Occupational Safety and Health Administration (OSHA):

Voluntary Regulatory Compliance (1999)  
The Relationship of EPA and OSHA Regulation (1997)  
Cooperative Enforcement Policies (1995)  
OSHA Priority Setting Process (1994)  
Regulatory versus Nonregulatory Priorities (1994)

### Office of Technology Assessment (OTA):

Environmental Abatement Tools and Changing Circumstances (1994)

### Program Group on Society & Technology, Julich, West Germany:

American Administrative Process (1985)

## **FELLOWSHIPS AND VISITING POSITIONS**

Visiting Scholar, School of Public and Environmental Affairs, University of Indiana, 1998-99  
Visiting Professor of Law, Lewis & Clark, Summer 1995  
Visiting Professor of Law, Lewis & Clark Law School, Summer 1993  
Visiting Professor of Law, University of North Carolina, 1990-91  
Humanities Fellow, Freedom's Soil II Project, Hall Center for the Humanities, 1986-87  
Exxon Fellow, Foundations of American Business Colloquium, University of Kansas, Fall, 1985  
Visiting Professor of Law, Georgetown University, Summer, 1984, 1980  
Fellowship, Economics Institute for Law Professors, Dartmouth College, Summer, 1983, sponsored by the Law and Economics Center, Emory University  
Visiting Professor of Law, University of Texas, 1981-82  
Consultant, Department of Health, Education, and Welfare, Secretary's Review Panel on New Drug Regulation, 1976-77

## **PAPER PRESENTATIONS**

Section of Administrative Law & Regulatory Practice, American Bar Association, Fall Meeting, "Depoliticizing Judicial Review," November 5, 2010  
Carodoza Law School Symposium, "Paul Verkuil and Pragmatic Adjustment in Government," Oct. 18, 2010, New York, N.Y.  
Section of Administrative Law & Regulatory Practice, American Bar Association, Brown Bag CLE, "Data Quality Act," Oct. 13, 2010, Washington, D.C.  
New York University Environmental Law Journal, Symposium, "Cost-Benefit Analysis: An Organizational Design Perspective," March 12, 2010, New York, NY

National Association of Environmental Law Societies (NAELS), Annual Meeting, Loyola University – New Orleans School of Law, “Climate Change: Law, Science, and Politics,” March 6, 2010, New Orleans, LA

University of Miami School of Law, Symposium, “Administrative Law Inside Out,” Jan. 30, 2010, Miami, FL.

American Association of Law Schools (AALS), Administrative Law Section, Panelist, “What’s New in Administrative Law?,” Jan. 9, 2010, New Orleans, LA.

Administrative Law and Regulatory Practice Section, American Bar Association, OIRA Review: Something Old, Something New?, October 23, 2009, Washington, D.C.

Administrative Law Institute, Administrative Law and Regulatory Practice Section, American Bar Association, OIRA Oversight in the Obama Administration,” June 10, 2009, Washington, D.C.

Padua University, The Fiscal Crisis and American Political Values, June, 2009, Padua, Italy

American Bar Association, *Regulatory Metrics*, Administrative Law & Regulatory Practice Section, October, 2008, Washington, D.C.

Duke University, *The Bush Administration and Science: Lessons Learned*, October, 2008, Durham, N.C.

American Bar Association, *Regulatory Impact Assessment in the United States and in the European Union*, International Law Section, September, 2008, Brussels, Belgium

University of Montpellier, *Eight Things Americans Can’t Figure Out About Controlling Administrative Power*, Comparative Administrative Law Conference, May, 2008, Montpellier, France (with Richard Murphy)

Padua University, *George Bush and the Politicization of American Administrative Law*, June, 2008, Padua, Italy

American Bar Association, *An Alternative to Cost-Benefit Analysis*, Administrative Law & Regulatory Practice Section, July, 2007, San Francisco, California

Lewis & Clark University, *OMB and the Politicization of Science*, April, 2007, Portland, Oregon

American Bar Association, *Federal Preemption of State Tort Remedies*, Administrative Law & Regulatory Practice Section, February 2007, Miami, Florida

American University, *Judicial Review of Information Quality Act*, May, 2006, Washington, DC.

American Bar Association, Administrative Law & Regulatory Practice Section, *OMB’s Risk Assessment Guidelines*, April, 2006, Hamilton, Bermuda

Boston University Law School, *Owning Standards: Private Standards, Government Regulation, and the New Governance*, Boston, Massachusetts, March, 2006.

American Bar Association, Administrative Law & Regulatory Practice Section, *OMB’s Guidelines for Peer Review*, February, 2005, Washington, D.C.

North Carolina Academy of Trial Lawyers, *The Last Progressive Force in America*, Asheville, N.C., October, 2005

National Academy of Sciences, *Integration of Peer Review Mechanisms with the Requirements of the Federal Advisory Committee Act and the Administrative Procedure Act*, Washington, D.C., November, 2004

Institute Of Law and Economic Policy, *Outsourcing Regulation*, San Diego, California, April 2003

William and Mary School of Law, *Data Quality and Environmental Protection: The Perils of Regulatory Reform By Appropriations Rider*, Williamsburgh, Virginia., April 2003

Administrative Law and Regulatory Practice Section, *Rulemaking and the Data Quality Act*, Washington, D.C., October 2002.

University of Limerick, Limerick, Ireland, *Trade Agreements, International Regulatory Standards, and Public Accountability*, April 2002.

University of Arkansas School of Law, *Developing A Scholarly Persona: An Institutional Perspective*, Fayetteville, Arkansas, April, 2002

Society for Risk Analysis, *Harmonization of Risk Regulation: Decision Pathways and Public Accountability*, Seattle, Washington, December 2002.

Hall Center for the Humanities, Faculty Seminar, University of Kansas, *International Regulatory Standards, and Public Accountability*, November 2001.

Discussion Club, University of Kansas, *International Regulatory Standards, and Public Accountability*, November 2001.

Administrative Law and Regulatory Practice Section, American Bar Association, *Global Regulatory Standards: Decision Pathways and Public Accountability*, Sanibel Island, Florida, April, 2001

U.S./European Biotechnology Initiative Workshop, *Regulation and Political Culture*, Florence, Italy, Dec. 2000

Annual Meeting of the OSHA Committee of the Labor Law Section of the American Bar Association, *Judicial Review Issues*, Laguna Beach, California, March 2000.

Annual Meeting of the Western Economics Association, *Regulatory Risks, Goals and Instruments*, San Diego, California, July, 1999

Annual Meeting of the OSHA Committee of the Labor Law Section of the American Bar Association, *Judicial Review Issues of Regulatory Compliance*, Miami, Florida, February, 1999

Semi-Annual Meeting of the Risk Analysis and Policy Association (RAPA), *Pending Legislation to Establish Risk Review Procedures: Introduction*, Washington, D.C., March, 1999

Fourth Annual Conference: Managing Ergonomics in the 1990s, *Administrative Procedure and Risk Regulation: Should There Be Peer Review?*, Cincinnati, Ohio, June, 1997

American Bar Association, Section of Administrative Law & Regulatory Practice, *Priority Setting and the Review of Existing Rules*, Washington, D.C., Oct., 1995

National Academy of Sciences, Institute of Medicine Blood Safety Forum, *The Reform of Regulation*, Washington, D.C., Jan. 1995

Franklin Pierce School of Law, *The Resolution of Technological Controversies In Regulatory Agencies*, Oct. 1994

Southeastern Association of Law Schools, *The McCrate Report and Law School Clinics*, Charleston, S.C., July, 1994

National Hearing Conservation Association, *Does Noise Regulation Have A Future?*, Feb. 1994, Atlanta, Georgia

New Challenges in Occupational Health, *Conference Summary*, March 1993, Houston, Texas

Labor and Employment Law Committee, Administrative Law Section, American Bar Association, *Generic Rulemaking and the Occupational Safety and Health Act*, Boston, Massachusetts, Feb. 1993

Acoustical Society of America, *Noise Regulation in the United States*, St. Lake City, Utah, May 1992

Section of Administrative Law and Regulatory Practice, *Comments: Ossification of the Rulemaking Process*, Dallas, Texas, February, 1992

Chamber of Commerce of the United States, Luncheon Speaker Series, *Presidential Oversight of Agency Rulemaking*, Washington, D.C., May 1991

Section of Administrative Law and Regulatory Practice, American Bar Association, *Benefit-Cost Analysis*, Phoenix, Arizona, May 1991

Department of Occupational Medicine, Duke University School of Medicine, *OSHA Regulation of Toxic Chemicals*, Raleigh, N.C., Dec. 1990

American Society Safety Engineers, *The Future of OSHA*, Kansas City Chapter, Kansas City, Missouri, Oct. 1988.

Conference on OSHA Reform, General Accounting Office, *Legislative Reform of OSHA*, Washington, D.C., Sept 1988

American Industrial Hygienists Association, Heart of America *What Is Wrong With OSHA*, Chapter, Kansas City, Missouri, Sept. 1988

Administrative Law Section, American Bar Association, *Reforming Rulemaking At OSHA*, Clearwater, Florida, 1988

Occupational Safety and Health Law Subcommittee, Labor Law Section, American Bar Association, *Is Legislative Reform Necessary For OSHA?*, St. Thomas, V.I., April 1988  
 Administrative Law Section, American Bar Association, *The Prospects of Internal Reform At OSHA*, San Diego, California, February 1988  
 Kansas Trial Lawyers, *Update On Constitutional Issues: H.B. 2661 and S.B. 110*, Lake of the Ozarks, Missouri, June 1986  
 36th Annual Government's Industrial Safety and Health Conference, *Federal Worker and Community Right To Know Statutes*, Topeka, Kansas, November 1985  
 Exxon Colloquium on the Foundations of American Business, *Capitalism and Community Values: The Role of the Consumer Movement*, Lawrence, Kansas, September, 1985  
 American Industrial Hygiene Conference, *The Constitutionality of Required Disclosure of Trade Secrets*, Las Vegas, Nevada, May, 1985

## EDUCATION

University of Pennsylvania Law School Philadelphia, Pennsylvania Degree: J.D. (May 1973)	Honors: Graduated <u>Cum Laude</u> ; Editor, University of Pennsylvania Law Review; Class Standing: Top 10%
Wharton School of Finance and Commerce University of Pennsylvania Philadelphia, Pennsylvania Degree: B.S. Economics (May 1970)	Honors: Graduated <u>Cum Laude</u> ; Dean's List (All Semesters); Beta Gamma Sigma (Business Honorary)

## EMPLOYMENT

<u>Wake Forest University</u> University Distinguished Chair	From 2004
Associate Dean for Research and Development	From 2007
<u>University of Padua</u> Visiting Professor	Spring, 2009
<u>University of Kansas</u> Associate Dean for Research	1999-2004
John M. Rounds Professor of Law	1988-2004
Professor of Law	1982-1988
Associate Professor of Law	1976-1980
<u>Lewis &amp; Clark Law School</u> Visiting Professor	Summer, 1993, 1995
<u>University of North Carolina</u> Visiting Professor	1990-1991
<u>University of Texas</u> Visiting Professor	1981-1982
<u>Georgetown University</u> Visiting Professor	Summer, 1984, 1980
<u>Department of Health, Education &amp; Welfare (HEW)</u> Deputy Legal Counsel, Secretary's Review Panel on New Drug Regulation	1975-76

Federal Trade Commission  
Trial Attorney, Bureau of Competition  
Pepper, Hamilton & Sheetz  
Summer Associate

1973-1975

Summer, 1972

**COURSES**

Administrative Law, Regulatory Law and Policy, Risk Regulation Seminar

Committee on Oversight and Government Reform  
Witness Disclosure Requirement – "Truth in Testimony"  
Required by House Rule XI, Clause 2(g)(5)

Name:

1. Please list any federal grants or contracts (including subgrants or subcontracts) you have received since October 1, 2008. Include the source and amount of each grant or contract.

NONE

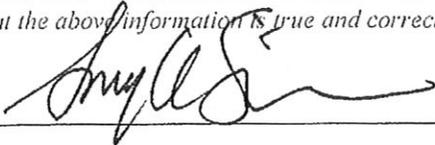
2. Please list any entity you are testifying on behalf of and briefly describe your relationship with these entities.

Center for Progressive Reform. I am the Vice-President.  
I am also a Law professor at Wake Forest University, but I  
am not testifying on behalf of WFU.

3. Please list any federal grants or contracts (including subgrants or subcontracts) received since October 1, 2008, by the entity(ies) you listed above. Include the source and amount of each grant or contract.

CPR HAS NO federal grants.

I certify that the above information is true and correct.  
Signature:



Date:

9 FEB 2011