



HARVARD Kennedy School

**MOSSAVAR-RAHMANI CENTER**  
for Business and Government

# **Evaluating the Economic Impacts of the U.S. Regulatory System**

**Hilary Gelfond**

June 2020

## **M-RCBG Associate Working Paper Series | No. 148**

The views expressed in the M-RCBG Associate Working Paper Series are those of the author(s) and do not necessarily reflect those of the Mossavar-Rahmani Center for Business & Government or of Harvard University. The papers in this series have not undergone formal review and approval; they are presented to elicit feedback and to encourage debate on important public policy challenges. Copyright belongs to the author(s). Papers may be downloaded for personal use only.



# Evaluating the Economic Impacts of the U.S. Regulatory System

**Hilary Gelfond, MPP Candidate 2020, Harvard Kennedy School**

**Policy Analysis Exercise**

**March 31, 2020**

---

PAE Project Agency: Office of Information and Regulatory Affairs, Office of Management and Budget

Agency Contact: Dominic Mancini, OIRA Deputy Administrator

Faculty Advisor: Joseph Aldy

Seminar Leader: John Haigh



**HARVARD Kennedy School**  
JOHN F. KENNEDY SCHOOL OF GOVERNMENT

*This PAE reflects the views of the author and should not be viewed as representing the views of the Office of Management and Budget, nor those of Harvard University or any of its faculty.*

*Submitted in partial fulfillment of the requirements for the degree of Master in Public Policy.*

## Acknowledgements

Thank you to Dominic Mancini and his staff at the Office of Management and Budget, Office of Information and Regulatory Affairs for the opportunity to collaborate on this project.

This report would not be possible without guidance from HKS faculty. Thank you to my faculty advisor, Professor Joe Aldy, and my PAC seminar leader, John Haigh for their helpful guidance, and comments.

Thank you also to the following individuals who volunteered their time for informational interviews as part of the completion of this project:

Donald Kenkel, CEA Chief Economist

Bridget Dooling, Research Professor at GW Regulatory Studies Center

Jitinder Kohli, Deloitte Managing Director, Former CEO of UK Better Regulation Executive  
OIRA Staff

Michelle Sager, GAO

# TABLE OF CONTENTS

<b>Executive Summary .....</b>	<b>4</b>
<b>Introduction .....</b>	<b>8</b>
Background on Regulatory Process .....	8
Policy Context.....	10
<b>SECTION 1: Retrospective Review .....</b>	<b>12</b>
Methodology .....	12
Retrospective Analysis .....	12
Retrospective Review: Legislative History .....	13
Analysis: Review Practices within Agencies .....	16
Problems with the Current System .....	16
Policy Options.....	18
Recommendations.....	20
<b>SECTION 2: Measuring Cumulative Burden.....</b>	<b>24</b>
Introduction .....	24
Indicators of Cumulative Burden.....	24
Empirical Methods of Estimating Cumulative Burden .....	25
Analysis .....	27
CEA Deregulation Report .....	27
Best Practices for Cumulative Burden Estimation .....	35
Recommendations and Conclusion .....	36
<b>SECTION 3: Independent Agencies .....</b>	<b>37</b>
Background.....	37
Independent Agencies and Retrospective Review Issues .....	37
Arguments for and Against Inclusion in Traditional Regulatory Process .....	38
Recommendations.....	38
<b>SECTION 4: Summary and Conclusion .....</b>	<b>39</b>
<b>Appendix 1: Summary of Recommendations.....</b>	<b>40</b>
<b>Appendix 2: International Experiences with Regulatory Budgets .....</b>	<b>41</b>
<b>Appendix 3: Sample OMB Guidance for Retrospective Review .....</b>	<b>43</b>
<b>Appendix 4: Agency Descriptions of Which Rules to Prioritize for Review .....</b>	<b>45</b>
<b>Appendix 5: Summary of Cumulative Burden Estimates .....</b>	<b>47</b>
<b>References .....</b>	<b>49</b>



# EXECUTIVE SUMMARY

The purpose of the United States regulatory system is to protect the safety, health and wellbeing of American consumers and the environment. Regulation corrects market failures and promotes other social purposes. A well-functioning regulatory system ensures that these standards protect Americans without causing significant market distortions.

This report will answer the fundamental question: how should the impact of the federal regulatory system be evaluated? It will draw on concepts from economics, public finance and law to systematically evaluate past approaches domestically and internationally. The report will examine the feasibility of a process known as retrospective review, which evaluates the impact of regulations after they have been implemented and attempts to eliminate those that are repetitive or ineffective. A complimentary approach is to measure the cumulative burden of regulation to estimate the economic costs of compliance with the aim of finding ways to minimize burdens for businesses and individuals.

## Retrospective Review

Retrospective reviews of regulation have been attempted by every presidential administration since Jimmy Carter. The sheer number of such efforts shows that there has not been lasting success. The primary methods of analysis to evaluate the current ex-post review landscape will be a literature review and practitioner interviews. A legislative history of the review process will inform an evaluation of the effectiveness of administration and Congressional actions. The goal is to evaluate the history of retrospective review attempts, to evaluate current procedures, and to ultimately provide recommendations for improvement.

The following problems emerge:

### Incentive Misalignment

- A collective action problem exists: it is in society's best interest to regularly review the impact of regulations to reduce their burdens, but individual agencies have little internal incentive to do so.

### Resource and Data Limitations

- Resource scarcity forces agencies to prioritize their most urgent needs.
- Agencies have increasingly strained budgets and staff turnover.
- A lack of sufficient data to conduct rigorous reviews also exists. Most regulation as it is currently written does not include data requirements, or the data that is needed to conduct the review is unavailable or expensive.

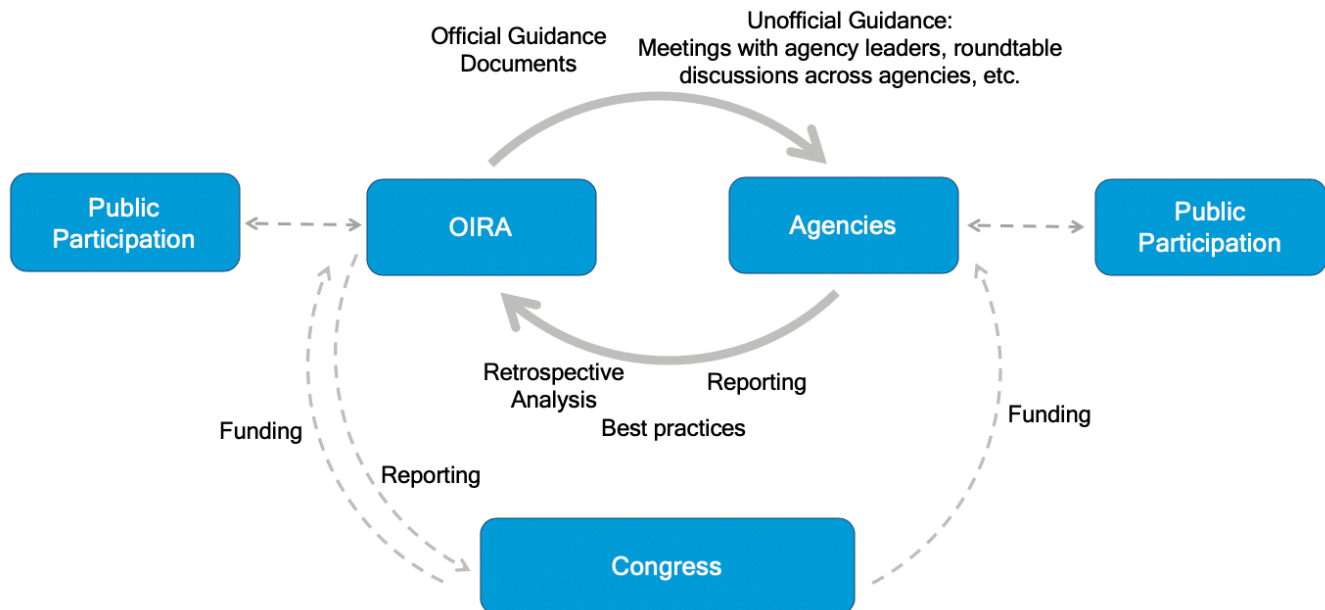
### Lack of Standardization

- Some agencies conduct retrospective reviews on a regular basis while others only do so when required.
- Some agencies publish rules that do not lend themselves easily to retrospective review as they are difficult to monetize and quantify.
- Policy change must be responsive to the differing needs of agencies.

## Recommendations

Of fundamental importance is that OMB OIRA maintain and expand its position at the forefront of creating a culture of regulatory review, as it is uniquely situated as a conduit between agencies and the administration. The figure below shows the process by which OIRA should lead using official and unofficial policy tools.

### OIRA as Leader of the Retrospective Review Process



Agencies should conduct their first review after two years to ensure that rules are being implemented as they were intended. After that, a five-year cycle will allow more time for the impacts of the rule to be established. Agencies should prioritize rules that: are deemed to be economically significant; call for regular review or periodic updating under statute; the public notes as needing review; lead to positive spillover effects for the analysis of other rules.

## Cumulative Burden

It is difficult to account for the cumulative impact of regulations as it requires more than simply adding up the costs of individual regulations. The layering of rules creates complex interaction effects that must be accounted for. This section will evaluate the methods that are currently used to estimate the cumulative burden of regulation and will recommend best practices. The following chart summarizes the variety of methods, and the arguments for and against each:

	Arguments For	Arguments Against
Indicators	<p>Annual OMB Report on Costs and Benefits</p> <ul style="list-style-type: none"> <li>Produced by a reliable source on a regular basis</li> </ul>	<ul style="list-style-type: none"> <li>Costs and benefits only cover rules that are economically significant, potentially leaving out small but important rules.</li> <li>Hard to monetize certain rules</li> <li>Sunk costs not accounted for</li> </ul>

<b>Empirical Methods</b>			<ul style="list-style-type: none"> <li>Costs and benefits are estimated as a range and are highly uncertain.</li> </ul>
	Pages in the Federal Register	<ul style="list-style-type: none"> <li>Easily understandable</li> </ul>	<ul style="list-style-type: none"> <li>Gives no insight into content of regulations.</li> </ul>
	Restriction Words	<ul style="list-style-type: none"> <li>Makes some effort to parse the content of regulations</li> </ul>	<ul style="list-style-type: none"> <li>False positives if deregulatory actions reduce costs but increase the number of restriction words.</li> <li>Has not yet been used for research in a peer reviewed journal.</li> </ul>
	Survey-based indexes	<ul style="list-style-type: none"> <li>If applied consistently over time, can analyze international trends</li> </ul>	<ul style="list-style-type: none"> <li>Relies on surveys</li> <li>U.S. did not complete recent versions of the survey.</li> </ul>
	Econometric studies	<ul style="list-style-type: none"> <li>Evaluates causal relationships between regulation and economic outcomes</li> </ul>	<ul style="list-style-type: none"> <li>Indicators aren't exact proxies of the regulatory burden</li> <li>Few, if any, studies published in peer reviewed journals.</li> </ul>

A 2019 Council of Economic Advisers (CEA) report presents an alternative method of estimating the overall burden of regulation.<sup>1</sup> It can be used to draw lessons for future analyses of cumulative burden. CEA claims that the largest annual savings to real incomes come from changes to consumer broadband privacy and other internet regulations, FDA and HHS modernization efforts, and the reduction of the ACA individual mandate penalty to zero. This presents a large disconnect with what OMB reports in its annual reports to Congress.<sup>2</sup> An in-depth analysis of the tools used by CEA reveal major governance issues and methodological challenges. It also reveals useful insights into best practices for future analyses of the cumulative burden of regulation: the importance of transparency when conducting research that requires making assumptions; and the importance of providing ample citations for statistics and sensitivity analysis.

## Recommendation



**Congress should fund a National Academies Panel to empirically address the question.**

<sup>1</sup> Council of Economic Advisers, "The Economic Effects of Federal Deregulation since January 2017: An Interim Report."

<sup>2</sup> Office of Management and Budget, "2017 Report to Congress on the Benefits and Costs of Federal Regulations and Agency Compliance with the Unfunded Mandates Reform Act."

## Independent Agencies

There currently exist 19 major independent regulatory agencies whose rules are not subject to the traditional regulatory review process despite playing a large role in the economy. They collectively issue thousands of regulations, yet less than half of their major rules provide any information on costs and benefits.<sup>3</sup> This seeming omission has generated calls for independent agencies to be included in the normal regulatory process. The arguments for and against including them are as follows:



### Yes

- Overlapping mandates
- Independent regulatory activities are similar to executive agencies
- Support from former OIRA administrators, ABA, senior officials from independent agencies



### No

- These agencies promulgate rules that don't lend themselves easily to quantification or monetization
- The agencies should maintain independence
- Could create too large of a burden for OIRA

## Recommendation



**Incorporate independent agencies in the normal regulatory review process under OIRA guidance.**

<sup>3</sup> Coglianese, "Improving Regulatory Analysis at Independent Agencies."

# INTRODUCTION

The purpose of the United States regulatory system is to protect the safety, health and wellbeing of American consumers and the environment. Regulation corrects market failures (such as externalities, monopolies, and asymmetric information) and promotes other social purposes. A well-functioning regulatory system ensures that these standards protect Americans without causing significant market distortions.

Regulation is vital to the functioning of the legislative process. While Congress has the Constitutional power to enact laws, it delegates some of the responsibility to implement, interpret and prescribe laws and policies to the executive branch. Agencies do much of this work under guidance from the Office of Information and Regulatory Affairs (OIRA), which is part of the Office of Management and Budget (OMB). The sheer volume of regulation - 3,000 final rules on average are published annually - and its associated impact on the efficiency and economic growth has brought about bipartisan calls for reform to the rulemaking process.

This report will answer the fundamental question: how should the impact of the federal regulatory system be evaluated? It will draw on concepts from economics, public finance and law to systematically evaluate past approaches. Specifically, the report will examine the feasibility of a process known as retrospective review, which evaluates the impact of regulations after they have been implemented and accordingly attempts to eliminate those that are found to be repetitive or ineffective. It will also examine efforts to measure the cumulative burden of regulation to estimate the economic costs of compliance with the aim of finding ways to minimize the burden for businesses and individuals. The report will ultimately recommend that OIRA lead in creating a culture of retrospective review across government entities, including independent agencies, to change how the executive branch approaches the regulatory process. Specific proposals are included throughout the report and summarized in Appendix 1.

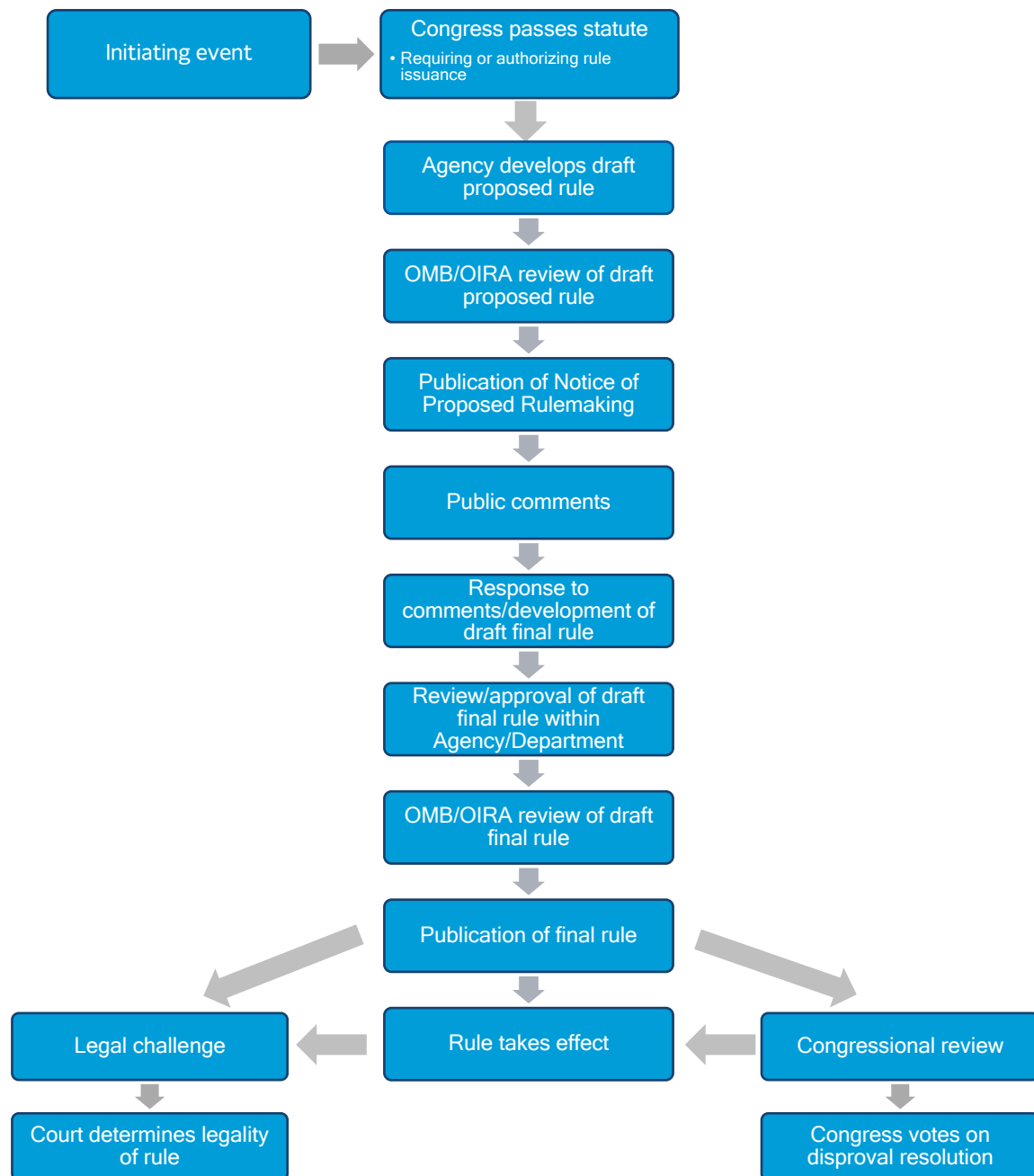
The remainder of this introduction provides background information on the regulatory process and key statutes that have shaped it over time. Section 1 focuses on the retrospective analysis of regulation. It recommends a series of steps intended to encourage agencies to more comprehensively evaluate the ex-post impact of regulations. Section 2 explores the issue of how to measure the cumulative burden of regulation, summarizing current attempts and ultimately recommending that OIRA leave such empirical practices to an outside entity. Section 3 examines how to incorporate independent regulatory agencies into the traditional regulatory process. Section 4 concludes. Five appendices provide supplemental information.

## Background on Regulatory Process

The U.S. federal rulemaking process involves multiple rounds of review by agencies, the administration and the public. A knowledge of this process is key to understanding how the cumulative burden of regulation has evolved over time. A broad overview of the structure of the regulatory process is as follows and is detailed in Figure 0.1.<sup>4</sup>

---

<sup>4</sup> Carey, "The Federal Rulemaking Process: An Overview."

**Figure 0.1. The Rulemaking Process**

Source: Carey, "The Federal Rulemaking Process: An Overview."

The process begins once Congress passes a statute, which authorizes agencies to write and issue regulations. Agencies then draft a proposed rule, which must be reviewed and approved within the agency and then by OIRA if significant.<sup>5</sup> OIRA review takes, on average,

<sup>5</sup> Significant rules are those which are subject to OIRA review. They are defined in E.O. 12866 as rules that: "(1) Have an annual effect on the economy of \$100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communities; (2) Create a serious inconsistency or otherwise interfere with an action taken or planned by another agency; (3) Materially alter the budgetary impact of entitlements, grants,



about two months. The public is then notified of the proposed rule and allowed to submit comments (for at least 30 days).<sup>6</sup> After, agencies respond to public comments and develop a draft final rule. The rule is reviewed again by the agency and OIRA and is finally published in the Federal Register. New final rules also must be sent to Congress and GAO for review before taking effect. In rare instances, Congress can pass, and the president can sign, a resolution of disapproval, which makes a rule void. If individuals or corporations bring a claim against a rule to the courts, the court can determine the rule's legality. It will then likely send all or part of the rule back to the agency to fix the problem, in which case the process may be restarted.<sup>7</sup> The entire rulemaking process takes, on average, four years to complete, though significant variation exists.<sup>8</sup>

## Policy Context

Since the New Deal legislation, members of both parties have shaped the regulatory process through a series of laws and executive orders. The Federal Register Act of 1935 was enacted to create a centralized location in which all rules would be published (in the Federal Register) and codified (in the Code of Federal Regulations). The Administrative Procedure Act of 1946 was created to standardize rulemaking across agencies.

Other laws were intended to reduce the perceived burden of regulation. The Paperwork Reduction Act of 1980 aims to reduce the paperwork burden of information collection by government agencies for individuals and small businesses. It also requires that agencies justify the information they collect and state its intended use. The Act created OIRA within OMB to provide oversight. OIRA's role in the regulatory process was expanded in later legislation (see Section 1). The Regulatory Flexibility Act, also enacted in 1980, requires agencies to assess the impact of their regulations on small entities, publish a regulatory flexibility agenda, and contains provisions to ensure that small businesses can participate in the rulemaking process.

Later, the Congressional Review Act of 1996 expedited the procedure by which Congress can disprove of agencies' rules by enacting a joint resolution of disapproval, that, if passed by both houses, can nullify rules. Until the Trump administration, the CRA was used successfully only once.

Executive Orders (E.O.s) more directly influence how agency reviews are conducted at the administrative level. President Reagan's E.O. 12291 and E.O. 12498 required agencies to submit rules to OMB before publication, submit a regulatory impact analysis for major rules, and submit an annual regulatory plan that summarized all significant regulatory actions. All expanded OIRA's role in the rulemaking process.

President Clinton's 1993 E.O. 12866 was the most significant to date, as it initiated the process for prospective regulatory review that is used today.<sup>9</sup> The executive order requires that OIRA govern inter-agency regulatory review and establishes the cost-benefit analysis

---

user fees, or loan programs or the rights and obligations of recipients thereof; or (4) Raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in this Executive order." Rules that are economically significant are those that "have an annual effect on the economy of \$100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communities." These rules are required to undergo a more detailed OIRA review.

<sup>6</sup> Carey, "Counting Regulations: An Overview of Rulemaking, Types of Federal Regulations, and Pages in the Federal Register."

<sup>7</sup> "A Guide to the Rulemaking Process."

<sup>8</sup> Government Accountability Office, "Federal Rulemaking: Improvements Needed to Monitoring and Evaluation of Rules Development as Well as to the Transparency of OMB Regulatory Reviews."

<sup>9</sup> Executive Order 12866: Regulatory Planning and Review.

standard. Circular A-4, published by the Office of Management and Budget (OMB) further instructs agencies on how to conduct such analyses.

More recently, administrations from both parties have implemented policies to review and streamline the promulgation of regulation, though little has been done to evaluate their success.<sup>10</sup> E.O. 13563, published by the Obama Administration, requires executive agencies to publish plans to conduct retrospective reviews. E.O. 13771, enacted by President Trump, requires that for every incremental cost from new regulations, an equivalent cost associated with two existing regulations be repealed. It also places a cap on the total incremental costs of regulations for each fiscal year.

---

<sup>10</sup> “Executive Order 13563: Improving Regulation and Regulatory Review”; “Executive Order 13771: Reducing Regulation and Controlling Regulatory Costs.”

# SECTION 1: RETROSPECTIVE REVIEW

Retrospective review is the administrative process by which agencies review the impact of regulations after they are put into effect. It is shaped by the executive orders, statutes and guidance that inform the analysis process. Retrospective analysis is the technical process used to evaluate the performance of existing regulations to estimate the extent to which the actual benefits and costs regulations incur compare to what was estimated ex-ante.<sup>11</sup> In doing so, the analysis informs whether the rule should be continued or expanded, helping to allocate scarce resources.

## Methodology

Unlike other areas of government and the private sector, there is no systematic method by which rules are reviewed after implementation. This section will explore both retrospective analysis and review. It will first discuss specific methods for conducting retrospective analysis, and then will examine how to incorporate those tools into a comprehensive ex-post review process. Much of the focus, however, will be on retrospective review since the specific analytical processes that agencies use will differ across agencies and rules. The goal is to evaluate the history of retrospective review attempts, to evaluate current procedures, and to recommend improvements.

The primary methods of analysis will be a literature review and practitioner interviews. A legislative history will inform an evaluation of the effectiveness of administration and Congressional actions. Interviews with OIRA practitioners will inform analysis of the ways the administration oversees such review practices.

An analysis of executive agencies' progress on retrospective reviews reveals agency approaches. Data sources include executive agency final retrospective review plans, which were drafted in accordance with E.O. 13563. They contain background information on long-standing approaches to regulatory review, agency priorities for identifying rules for review and key points of contact. While these plans were only truly implemented in their infancy, careful analysis provides unique insights into how agencies perceive their role in the review process, and the extent to which they perceive ex-post review requirements to be feasible. Other sources include documents related to the implementation of President Trump's E.O. 13771's requirement for the creation of a regulatory budget and cost caps, as well as GAO audits of agency actions.

## Retrospective Analysis<sup>12</sup>

The narrowest way to conduct a retrospective analysis is to conduct econometric evaluations for individual regulations to assess whether the regulation is having its intended effect. Such analyses are largely completed by academics but can also be completed by regulatory policy teams within agencies if provided the appropriate tools and resources. To estimate causality, the optimal technique would be a randomized controlled trial (RCT), though in practice, these are quite difficult to conduct due to cost, legal and ethical concerns.

---

<sup>11</sup> "Smarter Regulations Through Retrospective Review."

<sup>12</sup> This section draws heavily from: Aldy, "Learning from Experience: An Assessment of the Retrospective Reviews of Agency Rules and the Evidence for Improving the Design and Implementation of Regulatory Policy."

Instead, quasi-experimental approaches, such as difference-in-difference analysis and regression discontinuity, replicate RCT conditions to infer causal effects.<sup>13</sup>

Applied to the regulatory space, a difference-in-difference approach would focus on two differences: time trends across both the treatment and control groups that could impact the effect of the regulation (such as technological innovation); and the impact of the regulation on the treatment group beyond that which was controlled for by the first difference.<sup>14</sup> Regression discontinuity methods compare outcomes just above and below a regulation's threshold to estimate the "average treatment effect" of the regulation.<sup>15</sup>

The analysis can also help agencies improve the processes by which they conduct prospective analysis, showing that there are mixed conclusions about the accuracy of projections of costs and benefits. For example, Harrington (2000) compares 20 ex-post assessments with their ex-ante estimates, finding that agencies tend to overestimate costs and benefits because they assume complete compliance with regulation.<sup>16</sup> A similar study by the Office of Management and Budget (2005) examined a larger set of regulations and also found the assessments to be overestimated, with benefits tending to be overestimated more than costs.<sup>17</sup> A later study, also by Harrington, found the opposite effect. While the sample sizes in all of these analyses make it difficult to generalize across the broader universe of regulations, they provide guidance about how to gauge economic impacts.<sup>18</sup>

## Retrospective Review: Legislative History

### *Early actions*

Reviews of regulation can be directed by the Administration, by agencies themselves, or by outside independent organizations and academics. The Carter Administration implemented the first attempt at retrospective review and every administration has followed. The 1980 Regulatory Flexibility Act requires agencies to conduct periodic reviews of rules to minimize burdens on small businesses and requires that agencies issue a plan to ensure economically significant rules are reviewed within 10 years of promulgation. The act's success has been mixed, with agencies having different standards for conducting such reviews. E.O. 12291, signed by President Reagan in 1981, has largely shaped today's review process. It places heightened review standards on economically significant rules. Under President Clinton's reinventing government initiatives, the Administration's National Performance Review worked to streamline the regulatory process by eliminating 16,000 pages of regulations. The common theme across these efforts was that they focused mainly

---

<sup>13</sup> Stock and Watson, *Introduction to Econometrics*. Regression analysis estimates the impact of one variable on another variable, holding constant any other factors that may account for the association between them. It requires three main assumptions: 1) all other factors contained in the error term are unrelated to the variable of interest; 2) each observation is independent and randomly distributed; 3) large outliers are unlikely. Difference-in-difference analysis estimates the deviation in the trend over time between a treatment and control group at the time of the treatment. It requires the assumption that the trends in the treatment and control groups would be the same were it not for the treatment. Regression discontinuity estimates the causal effect of a treatment on a narrow range of observations around a cutoff point. It assumes that around the cutoff, the treatment is nearly randomly assigned.

<sup>14</sup> See, for example, Greenstone, Oyer, and Vissing-Jorgensen, "Mandated Disclosure, Stock Returns and the 1964 Securities Acts Amendments."

<sup>15</sup> See, for example, Benneer and Olmstead, "The Impacts of the 'Right to Know': Information Disclosure and the Violation of Drinking Water Standards."

<sup>16</sup> Harrington, Morgenstern, and Nelson, "On the Accuracy of Regulatory Cost Estimates."

<sup>17</sup> Office of Management and Budget, "Validating Regulatory Analysis: 2005 Report to Congress on the Costs and Benefits of Federal Regulations and Unfunded Mandates on State, Local, and Tribal Entities."

<sup>18</sup> Harrington, "Grading Estimates of the Benefits and Costs of Federal Regulation."

on reducing the burdens of regulatory entities, rather than maximizing social benefits.<sup>19</sup> The sheer number of such efforts shows that there has not been lasting success.

### *Obama Administration and retrospective review*

President Obama signed three Executive Orders on retrospective review. E.O. 13563 requires agencies submit to OIRA a plan to periodically “review its existing significant regulations to determine whether any such regulations should be modified, streamlined, expanded, or repealed so as to make the agency’s regulatory program more effective or less burdensome in achieving the regulatory objectives.”<sup>20</sup> A proceeding order made the policy voluntary for independent regulatory agencies. Executive Order 13610 instructs agencies to institutionalize reviews, emphasizes that cumulative burdens be considered, and encourages agencies to regularly report on their progress to OIRA.<sup>21</sup> Explanatory memorandums further expand upon the administration’s intent.

In 2011, these actions spurred 26 agencies to issue retrospective review plans.<sup>22</sup> The plans addressed the following: public participation in the review process; methods to prioritize which rules will be reviewed; retrospective review of the costs and benefits of the regulations being reviewed; the structure and staffing of the responsibility for reviews; and methods to coordinate with other forms of retrospective review already in existence.<sup>23</sup> In the following years of the Obama administration, agencies submitted their progress on conducting such retrospective reviews on an annual basis.

The initial agency plans generated little public attention, likely because the rulemaking pursuant to such reviews made up less than three percent of all rulemaking during that time.<sup>24</sup> In 2014, GAO analyzed retrospective review plans from 22 executive agencies and two independent regulatory agencies.<sup>25</sup> They found that agencies identified over 650 planned analyses and completed 246 by the time of the study. Of those, 225 analyses led to changes to the Code of Federal Regulations that revised or eliminated text. However, GAO found it difficult to obtain a comprehensive summary of the results since they were spread across multiple documents and included few methodological details. Agencies have not published updated retrospective review plans since 2016. Overall, the Obama retrospective review initiative was moderately successful in that it stimulated agencies to think critically about how to evaluate their rules, but it was not transformational.

### *Trump Administration and retrospective review*

The Trump administration has gone further to reduce regulatory burdens through the enactment of E.O. 13771 in 2017, which requires that for every incremental cost from new regulations, an equivalent cost associated with two existing regulations be repealed. It also places a cap on the total incremental costs of regulations for each fiscal year and created a Regulatory Reform Task Force within agencies to identify particularly burdensome regulations. For the 2017 fiscal year, the cost cap was set to zero. For 2018 and 2019, the cap was set to require \$9.8 billion and \$18 billion in cost reductions.<sup>26</sup> Agencies appeared to

---

<sup>19</sup> Aldy, “Learning from Experience: An Assessment of the Retrospective Reviews of Agency Rules and the Evidence for Improving the Design and Implementation of Regulatory Policy.”

<sup>20</sup> Executive Order 13563: Improving Regulation and Regulatory Review.

<sup>21</sup> Executive Order 13610: Identifying and Reducing Regulatory Burdens.

<sup>22</sup> Sunstein, “The Regulatory Lookback.”

<sup>23</sup> Sunstein, “M-11-10: Executive Order 13563, ‘Improving Regulation and Regulatory Review.’”

<sup>24</sup> Raso, “Assessing Regulatory Retrospective Review under the Obama Administration.”

<sup>25</sup> U.S. Government Accountability Office, “Reexamining Regulations: Agencies Often Made Regulatory Changes, but Could Strengthen Linkages to Performance Goals.”

<sup>26</sup> Council of Economic Advisers, “Economic Report of the President, Chapter 2: Deregulation: Reducing the Burden of Regulatory Costs.”

successfully meet their cost caps in the first several years of implementation. However, this was primarily because the Trump administration issued few new rules and most of the deregulation that was completed was simply to repeal or delay the implementation of Obama-era regulation. Whether the task forces impact outcomes still remains to be seen.<sup>27</sup>

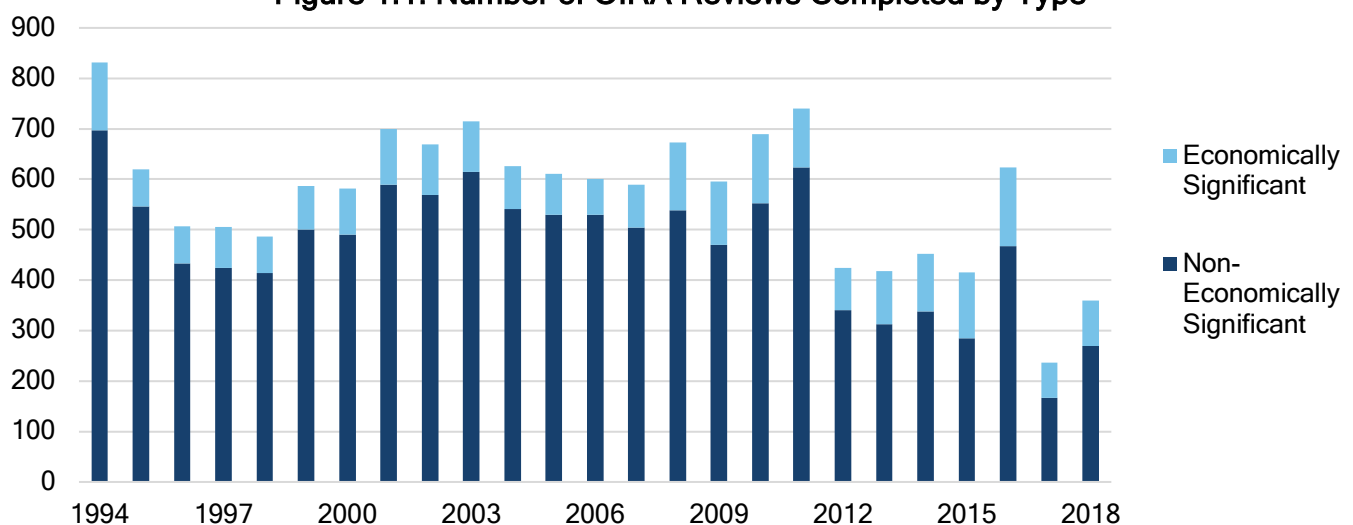
Nevertheless, the Trump administration reports that their deregulatory actions will raise real household incomes by \$3,100 per year after 5-10 years. However, their analysis was built on suspicious assumptions about the extent to which the costs of regulation are passed through to capital and labor decisions (see Section 2). Overall, while it may appear on the surface that E.O. 13771 was effective, very little substantive deregulatory action has actually occurred.<sup>28</sup>

### *OIRA's role*

OIRA, created in 1980 with the Paperwork Reduction Act, is situated within the Office of Management and Budget, which is part of the Executive Office of the President.<sup>29</sup> Approximately 45 people, almost all of whom are career staff with advanced degrees, work in the office. Staff are assigned to branches where they gain expertise in a specific policy area.

Initially, OIRA's primary function was to review and approve agency requests to collect information from the public. Today, OIRA's main responsibilities, outlined in E.O. 12866, have been expanded to what some describe as being a conductor to the regulatory engine. Former OIRA Administrator Cass Sunstein explains that "OIRA is largely in the business of helping to identify and aggregate views and perspectives of a wide range of sources both inside and outside the federal government."<sup>30</sup> That is, the office reviews significant draft and proposed final regulations (except those from independent agencies) and reviews the economic analysis of economically significant rules. Additionally, OIRA publishes a unified agenda, which organizes and consolidates agency plans and actions for regulation for the upcoming year. OIRA is responsible for the implementation of E.O. 13563 and 13771. Figure 1.1 displays a count of the number of rules OIRA reviews each year.

**Figure 1.1. Number of OIRA Reviews Completed by Type**



Source: Congressional Research Service aggregation of data on Reginfo.gov. <https://fas.org/sgp/crs/misc/R43056.pdf>

<sup>27</sup> Ivory and Faturechi, "Secrecy and Suspicion Surround Trump's Deregulation Teams."

<sup>28</sup> Dooling, Febrizio, and Pérez, "Accounting for Regulatory Reform under Executive Order 13771: Explainer and Recommendations to Improve Accuracy and Accountability"; Raso, "How Has Trump's Deregulatory Order Worked in Practice?"

<sup>29</sup> Curtis Copeland, "Federal Rulemaking: The Role of the Office of Information and Regulatory Affairs."

<sup>30</sup> Sunstein, "The Office of Information and Regulatory Affairs: Myths and Realities."



## Analysis: Review Practices within Agencies

Agencies have undertaken variations of retrospective review for decades. At the most informal level, agencies tend to undergo a dynamic rulemaking process where a majority of final rules that are promulgated are revised at some point to issue corrections, stays, amendments and extensions, even when not formally mandated.<sup>31</sup> This is often in response to changing industry conditions and feedback from those directly affected by the regulations.

Statutes across the regulatory landscape also require forms of retrospective review. Section 610 of the Regulatory Flexibility Act requires that agencies review regulations that could have a significant impact on small businesses every ten years. However, vague definitions of what constitutes a review undermine Section 610's effectiveness. In addition, the Administrative Procedure Act allows for members of the public to request a review of rules. Agencies have significant discretion in when and how they respond to such petitions, rendering the option an ineffective solution.<sup>32</sup> Finally, agencies still publish their E.O. 13563 retrospective review plans on their websites, though none have been updated since 2016.

Agencies, to varying extents, also undergo independent periodic reviews of their regulations, though a lack of time and resources tends to prevent a more systematic approach.<sup>33</sup> Some agencies have long-standing lookback procedures for all regulations (or all that are significant). For example, the Department of Defense reviews all significant regulations at 3-year intervals and the Department of Transportation has a long-standing plan to conduct scheduled reviews of regulations every decade. Other agencies conduct periodic reviews of distinct regulations or departments. For instance, the Financial Crimes Enforcement Network reviews each new or significantly amended regulation within the first 18 months of its enforcement date.

The National Highway Traffic Safety Administration (NHTSA) within DOT has been conducting regular reviews since 1970 and can be looked to as a model.<sup>34</sup> Many of their reviews focus on the effectiveness of the rules in preventing injuries, deaths and accidents, as well as comparing the effectiveness of older and newer vehicle models. Of foremost importance, NHTSA statutes often require that cost-effectiveness be considered, and these results influence the types of rules that are promulgated. Thus, regulators have a built in incentive to conduct retrospective reviews as part of their rulemaking process. In addition, NHTSA does not rely on data from surveys of regulated firms, which have incentives to overstate compliance, nor does their process require the lengthy process involved with the Paperwork Reduction Act. This abundance of reliable data, as well as statutory requirements to evaluate effectiveness are key features that could be applied to other agency review processes.

## Problems with the Current System

Evidence from recent Administration efforts and that of individual agencies reveals several problems with the current retrospective review process. The most significant problem is the collective action problem, followed by resource limitations.

### *Incentive misalignment*

Regulatory review constitutes a pure collective action problem: it is in society's best interest to regularly review the impact of regulations to reduce their burdens, but individual

---

<sup>31</sup> Wagner et al., "Dynamic Rulemaking."

<sup>32</sup> Bull, "Building a Framework for Governance: Retrospective Review and Rulemaking Petitions."

<sup>33</sup> Neil Eisner and Judith Kaleta, "Federal Agency Reviews of Existing Regulations."

<sup>34</sup> Lutter, "Regulatory Policy."

agencies have little internal incentive to do so. Once a regulation is implemented, it is on the books permanently with few direct repercussions if rulemakers do not occasionally review it. Outside interests have little incentive to call attention to the burden of certain regulations once in place due to sunk costs. Once a regulated company makes investments to comply with the regulation, they have little incentive to lobby for the regulation to be repealed because they have already incurred the costs. In addition, the costs to comply with the regulation may create a comparative advantage for regulated companies by creating a high barrier to entry.<sup>35</sup>

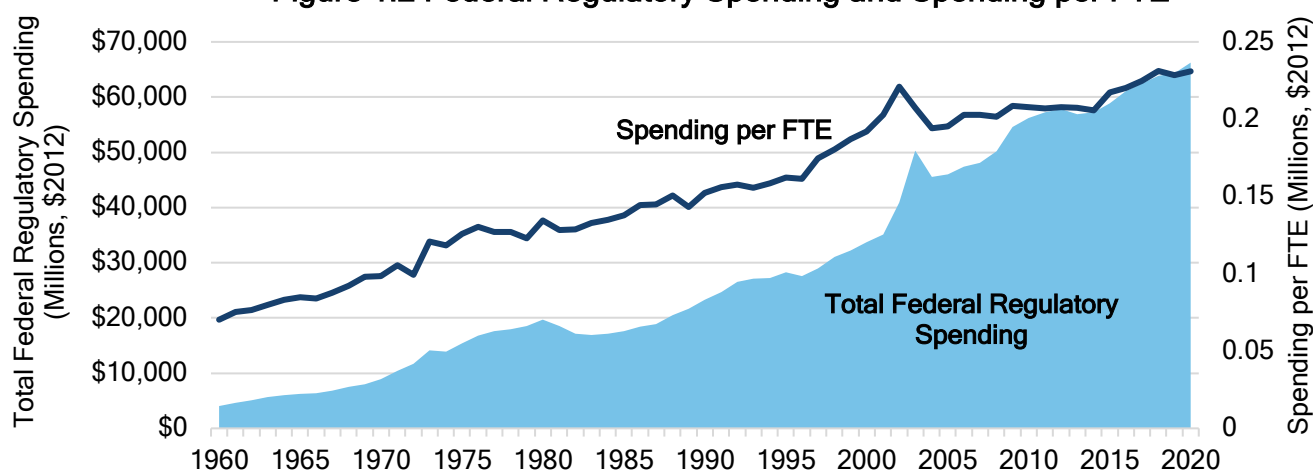
Within agencies, there may also exist a bias towards the status quo, as it takes a significant amount of time to learn which regulations exist and how they interact. Furthermore, agencies may be hesitant to acknowledge that their rules are not working as intended at present, even if they were perfectly executed when first promulgated.

Other areas of the government prevent such incentive misalignments. Tax and spending programs are constantly reevaluated because policymakers must review programs' effectiveness in order to renew its funding. Some tax incentives also have sunset provisions to force policymakers to consider their implications prior to their expiration. While not a perfect parallel, these policies reveal the importance of having evaluation mechanisms in place.

### *Resource and data limitations*

The second problem is resource scarcity, which forces agencies to prioritize their most urgent needs. This is compounded by issues such as increasingly strained budgets and staff turnover. For example, employees in the Departments of Commerce, Homeland Security and Transportation stated to GAO auditors that compliance with Congressional regulatory mandates supersede the time they spend on retrospective review. Officials in HHS report that Administration requirements to complete retrospective reviews are duplicative of other preexisting agency requirements.<sup>36</sup> Furthermore, increases in regulatory spending across agencies, estimated as the amount of federal spending devoted to such activities, outpaces the growth of staff within those agencies, implying increasing burdens on individual federal employees (Figure 1.2).<sup>37</sup>

**Figure 1.2 Federal Regulatory Spending and Spending per FTE**



Source: Regulator's Budget (2020).

<sup>35</sup> Dudley and Mannix, "Improving Regulatory Benefit-Cost Analysis."

<sup>36</sup> U.S. Government Accountability Office, "Reexamining Regulations: Agencies Often Made Regulatory Changes, but Could Strengthen Linkages to Performance Goals."

<sup>37</sup> Febrizio, Warren, and Dudley, "FY2020 Regulators Budget: Homeland Security Remains Key Administration Priority." The regulatory budget is comprised of the "direct taxpayer costs associated with developing, administering, and enforcing federal rules and regulations." It excludes regulations that govern taxation, entitlement, procurement, subsidy and credit functions, as well as government transfers, such as those from the IRS or CMS.

Third, there is a lack of sufficient data to conduct rigorous reviews. Most regulation as it is currently written does not include data requirements, or the data that is needed to conduct the review is unavailable or expensive.<sup>38</sup> Agencies are also hesitant to transfer data collection burdens to states since they are equally resource constrained.

From an evaluation standpoint, it is difficult to evaluate the counterfactual that is needed to conduct a true impact analysis: in many cases it is impossible to estimate the state of the world if the regulation had never been enacted. Similarly, it is difficult to tease out the impact of a single regulation. It must also be considered to what extent rules should be reviewed individually or by a subsector of the economy, and at what frequency.

### *Lack of standardization*

Finally, there is a lack of standardization across agencies. That is, some agencies conduct retrospective reviews on a regular basis while others only do so when required. Granted, this may not be a problem if the scope and breadth of agencies' rulemaking ability varies dramatically. Some agencies publish rules that do not lend themselves easily to retrospective review as they are difficult to monetize and quantify. And, it would be an excessive burden for agencies with little rulemaking action to be forced to devote significant resources to analyzing the few rules they have. At the same time, agencies with large regulatory portfolios may already have effective review procedures in place. Any policy change must therefore be responsive to the differing needs of agencies as well as to the wide variation in the types of rules they publish.

## **Policy Options**

### *Integrate retrospective review plans in new regulations*

Creating a culture of retrospective review requires that agencies include action items to do so when drafting rules. While not the only solution, creating a forcing mechanism utilizes behavioral economic theory about the role of defaults as a way to counteract status quo inertia. Retrospective review can be integrated into new regulations by including in drafts items such as requirements to collect data needed for ex-post evaluation, criteria for determining a rule's success, and a framework for conducting reviews.

This culture does not exist today, despite the Obama administration's encouragement. For example, one analysis after a sampling of final rules in 2014 found that only 36 percent of rules included metrics to evaluate its success, less than a quarter had guidelines on information collection, and none discussed linkages between proposed standards and intended outcomes or timeframes for review.<sup>39</sup>

Senator Kyrsten Sinema introduced a bill that would implement this proposal for final major rules, though it has not been enacted.<sup>40</sup> The policy can also be implemented by executive order.

### *Modify or eliminate regulatory budgeting*

Supporters of regulatory budgets argue that the economic theory of maximizing net social benefits does not hold in real-world policymaking because regulators are subject to incentives that distort behavior and result in inefficiently high regulatory burdens.<sup>41</sup> For example, regulators could have incentives to maximize their agency's authority over a given

---

<sup>38</sup> Miller, "Learning from Experience: Retrospective Review of Regulations in 2014."

<sup>39</sup> Miller.

<sup>40</sup> Sinema, Setting Manageable Analysis Requirements in Text Act of 2019.

<sup>41</sup> Gayer, Litan, and Wallach, "Evaluating the Trump Administration's Regulatory Reform Program." Rosen and Callanan, "The Regulatory Budget Revisited."

policy space. Or, special interests with large stakes in the outcome of regulation could exert undue influence. Because the politics of regulation often distort the theoretical underpinnings of cost benefit analysis, supporters of regulatory budgeting suggest that the system must be fundamentally changed.

Canada, the UK and several EU member states maintain variations of the one-in-one-out policy put in effect by the Trump administration.<sup>42</sup> Most of these programs, however, only apply to compliance and administrative costs for businesses, rather than the regulatory burden as a whole. The added complexity in the Trump Administration's program makes it difficult to directly apply these international experiences.<sup>43</sup> Appendix 2 provides more detail and lessons drawn from around the world.

Regulatory budgets of the type enacted by President Trump come with several shortfalls. The most significant is that the policy violates the underlying reason for government intervention: the correction of market failures.<sup>44</sup> Theory suggests that government intervenes in a market if the benefits of doing so exceed the costs in order to maximize social welfare. A regulatory budget ignores the benefits of regulation when it solely focuses on the costs, serving as a blunt instrument to rein in regulatory burdens. Furthermore, executive orders since E.O. 12291 are built on the fundamental notion that the benefits of regulation should exceed their costs. A shift to a regulatory budgeting framework implies that benefit-cost analysis is no longer sufficient for evaluating the merits of a rule, creating a fundamental change in the functioning of the regulatory state.

#### *Create guidance similar to Circular A-4*

Circular A-4, published in 2003, provides guidance to agencies on how to conduct regulatory analysis before a rule is implemented.<sup>45</sup> It includes an explanation of the need for federal regulatory action and detailed methods for conducting benefit-cost and cost-effectiveness analysis. It is universally accepted as the standard reference for conducting ex-ante reviews of regulation. OIRA could create a similar guidance for retrospective reviews to bring attention to the importance of the process and ensure analyses are conducted rigorously and uniformly across agencies.<sup>46</sup>

#### *Streamline the ex-post review process by topic*

One major concern with today's review process is that it is done on a rule by rule basis rather than examining the interactions between rules that impact a given industry. In doing so, one may find ways to reduce inefficiencies associated with regulatory burdens that span across agencies. For example, the EPA published a retrospective study of the Clean Air Act and its associated regulations.<sup>47</sup> The agency found that the benefits of the reforms far exceeded their costs. A downside of conducting reviews by industry or major topic is that it takes time and academic rigor. Furthermore, if the desire for such reviews exists, history suggests that the private sector or academics at research institutions will step in.

---

<sup>42</sup> Renda, "Feasibility Study."

<sup>43</sup> Gayer, Litan, and Wallach, "Evaluating the Trump Administration's Regulatory Reform Program."

<sup>44</sup> Aldy, "Learning from Experience: An Assessment of the Retrospective Reviews of Agency Rules and the Evidence for Improving the Design and Implementation of Regulatory Policy."

<sup>45</sup> "Circular A-4."

<sup>46</sup> Coglianese, "Moving Forward with Regulatory Lookback."

<sup>47</sup> U.S. Environmental Protection Agency, "The Benefits and Costs of the Clean Air Act, 1970 to 1990."

### *Create a regulatory review commission*

A regulatory review commission would require that a small board of independent regulatory experts evaluate the regulatory environment and propose a package of changes.<sup>48</sup> The package would then be submitted to Congress and the President for a vote.

The benefits of a commission are that it would, in theory, be purely independent from the misaligned incentives that agencies face. It would also allow agencies to focus on their mission without being bogged down by additional administrative responsibilities. As the Commission would review all regulations, it also wouldn't be siloed in evaluating policy impacts, as agency staff might be. The main drawback is that the members of the commission may not have as intricate knowledge of the technicalities of the regulations they review. In addition, the commission would need to meet on a recurring basis to keep pace with new rules that come into effect.

## Recommendations

Past efforts to implement retrospective review were not successful because they failed to correct the underlying incentive problems inherent in the regulatory system. A top-down approach that mandates agencies develop retrospective review plans and then act on them independently will not be effective in the long-term without coordination and buy-in from those most directly affected. To realign incentives, reforms must contribute to the creation of a culture of retrospective review. Any reorganization of regulatory review must also be cognizant of the resource limitations that agencies face. If additional burdens are placed on agencies, additional funding or staff must also be provided. Figure 1.3 highlights the manner in which OIRA can lead in creating a culture of retrospective review. The following sections describe the key components in greater detail.

**Figure 1.3. OIRA as Leader of the Retrospective Review Process**



<sup>48</sup> Mandel and Carew, "Regulatory Improvement Commission: A Politically-Viable Approach to U.S. Regulatory Reform."

*OIRA as coordinator*

Of fundamental importance is that OIRA maintain and expand its position at the forefront of the retrospective review process, as it is uniquely situated as a conduit between agencies and the administration. OIRA should work with agency leaders to achieve buy-in through informal discussions and roundtable meetings. OIRA should also keep Congress informed of changes to the review process. Agency leaders should publish bi-annual reports on their progress toward their retrospective review goals and OIRA should consult with agencies to ensure best practices. OIRA could also increase its communication with industry leaders and labor organizations to gain insight into how specifically the regulatory process could be improved. At the same time, agencies have the technical capacity and industry knowledge to complete the reviews in tandem with their current regulatory responsibilities.

*Create official retrospective review guidance*

OIRA should also create a new reference document to encourage agencies to take up retrospective review best practices. Circular A-4 was effective because it formalized and standardized the process for cost-benefit analysis across agencies. A new guidance for retrospective review could build on that success. While it should not be considered the sole solution, the guidance will push agencies to consider optimal approaches rather than relying on their traditional use of anecdotal evidence and scattershot evaluations. It will build on the earlier analysis agencies completed to build out their retrospective review plans and will emphasize that a one-size-fits-all approach to retrospective review is not effective.

Examples of items to incorporate include:

- Criteria to prioritize which regulations to review
- Best practices for conducting retrospective analysis and evaluating compliance
- Points of contact within agencies
- Criteria to include in the drafting of regulations

Appendix 3 provides a sample retrospective review guidance.

*Require rulemakers to include ex-post evaluation criteria when drafting major rules*

By prospectively planning retrospective reviews of major regulation early in the process, rulemakers set the analysis as a default, undoing the inertia effects that currently dominate. Including ex-post review guidelines within rules themselves also creates a legal burden, further increasing incentives to conduct reviews. OIRA would review plans included in final rules. Examples of items to include are: a statement of what the regulation's objective is, how it will be evaluated, what data is needed to evaluate it, and a timeline for data collection.<sup>49</sup> This can be implemented legislatively, or through an executive order. It could also be institutionalized by OMB.

*Encourage public participation*

Agencies should continue to promote public participation in the review process. If agencies include ex-post evaluation plans in proposed rulemaking, the public will automatically be provided feedback opportunities under the Administrative Procedure Act. By giving regulated entities a say in the process, they will be more likely to go along with the change. Agencies could also benefit from data and perspectives that regulated entities are likely to have. At the same time, the results of reviews and methods used should be made publicly available. Information sharing will only serve to improve the regulatory process as

---

<sup>49</sup> Coglianese, "Moving Forward with Regulatory Lookback."

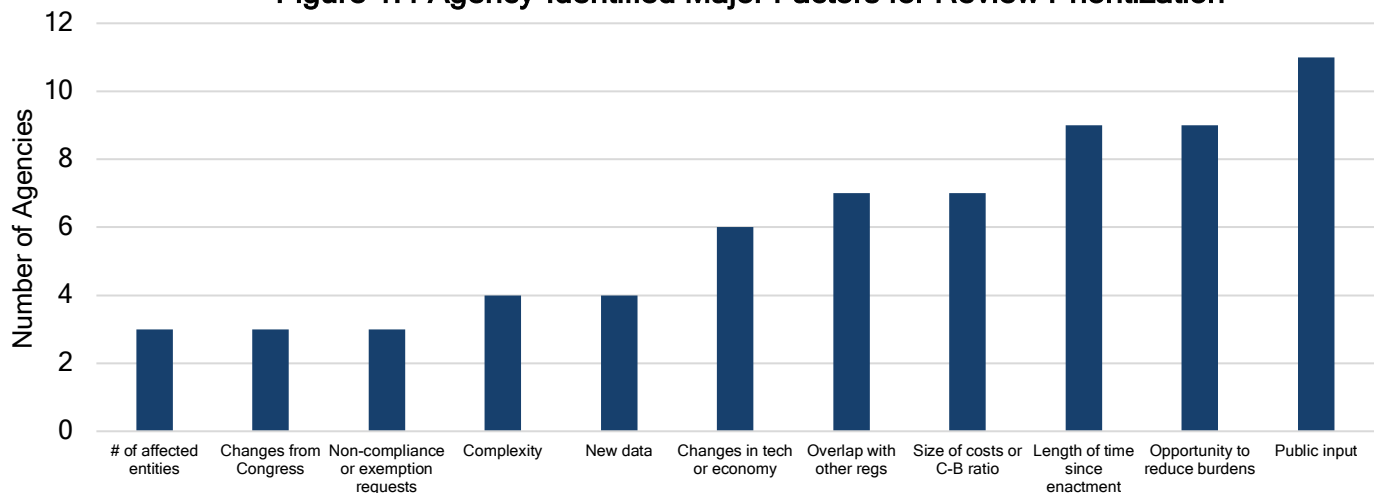


additional analysis could uncover perspectives that were overlooked. Public comments about the impact of regulation and their analysis of retrospective reviews should be made publicly available.

### *Rules to prioritize for analysis*

It would be burdensome for every rule that is enacted to be subject to retrospective analysis. Instead, rules should be prioritized using a combination of factors that ultimately ensure oversight of the rules that have the greatest potential economic impact. To determine which rules this includes, a textual analysis of executive agency 2011 retrospective review plans was undertaken (Appendix 4 contains full dataset). Factors that agencies listed as important to prioritize were extracted and tallied. Figure 1.4 summarizes the results.

**Figure 1.4 Agency-Identified Major Factors for Review Prioritization**



Source: Author's calculations based on 2011 agency retrospective review plans in accordance with E.O. 13563. Chart includes criteria that identified by three or more unique agencies. Other criteria not listed include: continued need (2 agencies), agency discretion (2), and small business impact (2).

Based on agency analysis and input from stakeholder interviews, prioritization criteria includes rules that:

- Are deemed to be economically significant
- Call for regular review or periodic updating under statute (such as NAAQS under the Clean Air Act)
- The public notes as needing review
- Affect large numbers of people or businesses
- Are outdated or overlap with other rules
- Allow for learning, leading to positive spillover effects for analysis of other rules

Regarding the frequency of reviews, the goal would be to balance the need for constant monitoring of regulatory burdens with an understanding of the resource constraints that agencies face. OIRA should recommend that new rules be evaluated two years after enactment, and then on a continuing five-year cycle after that. The first review would ensure that rules are being implemented as intended. After, the five-year cycle will allow more time for the impacts of the rule to be established and will give regulators further insights into changing data and technology that may hamper implementation. The costs of doing the review will likely decrease over time as the process becomes routine.

*Shift focus from E.O. 13771 to retrospective review*

Finally, the Trump E.O. to promote deregulation takes a hammer to the regulatory apparatus rather than a scalpel. Given that E.O. 12866 still is in effect, there is a mismatch between the cost-benefit analyses of rules that agencies are required to undertake and the stated objectives of the Trump Administration. Without recognizing the many benefits that regulations provide, removing regulations due solely to their costs may make society worse off. It also places arbitrary caps on agency rulemaking abilities without justification.

While one could argue, in theory, that E.O. 13771 allows for a form of retrospective review as regulators would evaluate the effectiveness of rules they are considering getting rid of, time constraints limit their ability to do so in a systematic way, and agencies may instead unsystematically turn to regulated entities identify the most ineffective rules.<sup>50</sup>

Given the current Administration's emphasis on deregulation, it will not be politically feasible to repeal E.O. 13771. Instead, the administration should focus on strengthening and updating analytical processes in E.O. 12866 and considering ways to systematically review and reduce the current burden of regulation.

---

<sup>50</sup> Andrea Renda, "One Step Forward, Two Steps Back? The New U.S. Regulatory Budgeting Rules in Light of the International Experience."

## SECTION 2: MEASURING CUMULATIVE BURDEN

### Introduction

Retrospective review is used to evaluate the impact of single regulations once they've been put in place. It is much more difficult however, to account for the cumulative impact of regulations. This requires more than simply summing the costs of individual regulations because the layering of rules creates complex interaction effects. This section will evaluate the methods that are currently used to estimate the cumulative burden of regulation and will recommend best practices for doing so. It will evaluate indicators that are commonly used to give shape to the size of regulatory burden, provide critiques of the few empirical studies that have been undertaken, and will conduct an in-depth analysis of the Council of Economic Advisers' approach. Given the complexity of this empirical question, the section will conclude with suggested best practices for the measurement of cumulative burden but will ultimately recommend that Congress fund a National Academies Expert Panel to answer the question with the academic rigor it requires.

### Indicators of Cumulative Burden

There are several ways to quantify the scope of federal rulemaking. Generally, these approaches can be divided into descriptive analyses of government actions over time, index-based methods and empirical studies of the economic impacts of regulation. Appendix 5 contains a summary of the literature on all of these approaches.

#### *Annual OMB Report on Total Costs and Benefits*<sup>51</sup>

Each year, OMB publishes an estimate of the total annual costs and benefits of federal regulations by agency and major rule. The most recent annual report, states that of the five major final rules that were analyzed in 2019, there were \$0.2 to \$3.7 billion in annual benefits and up to \$0.6 billion in costs. Some drawbacks of using this method are that it only covers rules that are classified as economically significant, leaving out smaller rules that, when combined could have a material economic impact. It is also difficult to monetize the costs and benefits of certain rules. And, sunk costs that are incurred by regulated entities are not accounted for. Furthermore, costs and benefits are estimated as a range and are highly uncertain. Adding them together produces even more uncertainty.<sup>52</sup>

#### *Pages in the Federal Register*

Another commonly used metric is the number of pages in the Federal Register. Since it has been published consistently for decades, it has been used as a proxy for changes in the amount of regulatory activity.<sup>53</sup> The number of pages has increased steadily over time, from

---

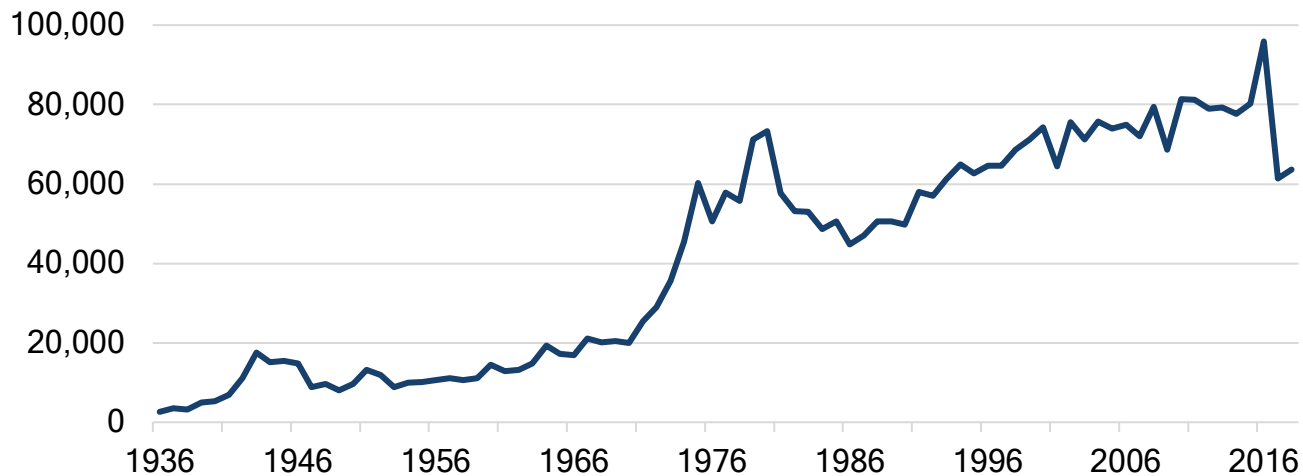
<sup>51</sup> Office of Management and Budget, "2018, 2019 and 2020 Draft Report to Congress."

<sup>52</sup> Carey, "Methods of Estimating the Total Cost of Federal Regulations."

<sup>53</sup> Alternatively, a count of the number of pages in the Code of Federal Regulations can be used to evaluate the change in the stock of regulations over time. This measure faces the same constraints as the count of pages in the Federal Register.

2,620 in 1936 to 64,582 in 2018 (Figure 2.1).<sup>54</sup> While this is an easily digestible statistic that the public can understand, it bears no insight into the content of the regulations, making it a crude measure for analysis.

**Figure 2.1. Number of Pages in the Federal Register (1936-2018)**



Source: Federal Register. Count skips blank pages.

## Empirical Methods of Estimating Cumulative Burden

### *Survey-based methods and indexes*

Indexes can be used to compare the regulatory landscape across countries. While they do not provide direct insight into the specifics of the changing U.S. regulatory burden, one can analyze changes in how the U.S. compares to its competitors if the survey is completed consistently over time. The World Bank's Ease of Doing Business Rankings compares countries across topics such as starting a business, enforcing contracts and trading across borders.<sup>55</sup> The data show that the United States ranks 6<sup>th</sup> in the world as a place to do business, after New Zealand, Singapore, Hong Kong, Denmark and South Korea. OECD's Indicators for Regulatory Policy and Governance (iREG) allows users to compare regulatory and governance practices and procedures across countries.<sup>56</sup> Under their product market regulation statistics, an index of energy, transportation and communication regulation, the United States ranks 27<sup>th</sup>.<sup>57</sup> These methods are flawed because they rely on surveys of regulators. And, as the United States did not complete recent versions of the OECD survey, the organization brought forward responses from earlier years, rendering them an even more flawed measure for analysis in the U.S.<sup>58</sup>

Domestically, researchers have created indexes to compare changes in regulation since a point in time, and particularly, how regulatory burdens change with shocks to the system. For example, Simkovic and Zhang (2019) estimate the share of an industry's annual

<sup>54</sup> Carey, "Counting Regulations: An Overview of Rulemaking, Types of Federal Regulations, and Pages in the Federal Register."

<sup>55</sup> World Bank Group, "Doing Business 2020."

<sup>56</sup> OECD, "Indicators of Regulatory Policy and Governance.";

<sup>57</sup> "OECD Product Market Regulation Statistics."

<sup>58</sup> Koske et al., "The 2013 Update of the OECD's Database on Product Market Regulation: Policy Insights for OECD and Non-OECD Countries"; Aman, "Annex 1 - Final Version of the New Product Market Regulation Questionnaire."

labor spending on regulation-related tasks to develop an index to monitor how businesses respond to regulation.<sup>59</sup> The authors claim that their measure is more nuanced than the crude measures described above, since it does not rely on counts in the federal register or government enforcement budgets. The primary downfall is that the index can only be applied to a designated area of regulation rather than the system as a whole.

### *Econometric studies of the economic impact*

Econometric methods can be used to compare a measure that proxies for the quantity of regulation with economic indicators to determine if any causal links exist. For example, a proxy could be the number of restriction words (such as “must” and “shall”), or the number of pages in the Federal Register. Examples of economic indicators include firm entry and exit, job growth, and output. Researchers at the Mercatus Center conducted such a study in 2016. The researchers use machine learning to estimate the quantity of restriction words in the Federal Register, which they then assign to agencies and industry codes. They found that had the level of regulatory burden remained constant at 1980 levels, the economy would have been approximately 25 percent larger by 2012.<sup>60</sup> Another example of a top-down study is the Crain and Crain report, which estimated the total cost of regulation to be 12 percent of GDP in 2014 (\$2.03 trillion). Both of these reports have been criticized for faulty methodological techniques because the proxy measures they use to measure regulation do not adequately correlate with real-world regulatory burdens.<sup>61</sup> For instance, the use of the number of restriction words requires the assumption that the growth of the use of these words correlates with the growth of regulatory burdens. However, it is quite feasible that number of restriction words in the federal register could increase as deregulatory actions are promulgated. Similarly, an increase in the number of pages in the federal register could reflect an increase in deregulatory rulemaking. As such, there are few, if any, studies in peer reviewed journals that take this approach and the results of such studies should be viewed with caution.

### *CEA approach in ERPs*

CEA has attempted to give shape to estimates of the increasing costs of regulation through a multitude of approaches in its 2018 through 2020 Economic Reports of the President (ERP) and other miscellaneous reports.<sup>62</sup> All of these differ from the rigorous and transparent analysis overseen by OMB.

In their 2018 ERP, CEA references a study that uses the OECD international index of regulation, which estimates that a “standard” decline in a country’s index rating increases its GDP per capita by 1.02 percent over a decade.<sup>63</sup> Extrapolating to the United States, CEA estimates that if the U.S. were to become the most regulatory friendly country in the world (which was Netherlands in the OECD index), U.S. real GDP would be 2.2 percent higher over 10 years and if they increased their index ranking by what a “standard” OECD regulatory reform package would do, real GDP would be 1 percent higher over a decade.<sup>64</sup> The report does not clearly articulate what a “standard” regulatory reform package would include.

---

<sup>59</sup> Simkovic and Zhang, “Measuring Regulation: A Labor Task-Based Approach.”

<sup>60</sup> Coffey, McLaughlin, and Peretto, “The Cumulative Cost of Regulations.”

<sup>61</sup> Parker, “Hyping the Cost of Regulation.”

<sup>62</sup> CEA’s 2020 Economic Report of the President repeats the claims made in earlier ERPs and independent reports, so the analysis is not recounted in this section.

<sup>63</sup> Gal and Égert, “The Quantification of Structural Reforms in OECD Countries.”

<sup>64</sup> Council of Economic Advisers, “Economic Report of the President; Chapter 2: Deregulation That Frees the Economy.” Egert and Gal (2016) define a standard reform package as “the average of all beneficial two-year policy changes that were observed over two consecutive years in the sample.” They do not provide further detail on the composition of such reforms.

CEA's 2019 ERP builds on historical bottom-up studies of the impacts of social regulation as estimated by OMB. CEA adds the costs of new regulatory actions since 2000 to find that total costs were \$421 billion in 2018.<sup>65</sup> To be fair, the authors note that simply calculating the sum of regulatory costs is not sufficient to capture the full burden of regulation. Rather, they argue that the cumulative effects of regulation are transmitted throughout markets due to its effect on capital and labor, which results in deadweight loss (similar to public finance). They use case studies of specific Trump Administration deregulatory actions to illustrate their framework, as described later in this section.

## Analysis

None of the methods described above to estimate cumulative burden are perfect. The fact that there exists such a range indicates, however, that the endeavor to measure the burden of regulation could provide valuable insight for policymakers. The number of pages in the Federal Register serves as an easily understood benchmark to use when engaging with the public on the issue. However, when attempting to assess causal relationships, it may not be the most suitable proxy for the burden of regulation. Similarly, analysis into OIRA and executive agency actions provides insight into the workings of bureaucracy, but still doesn't answer the fundamental question. OMB reports on the annual benefits and costs of regulation similarly provide useful insight into agency actions, but more work needs to be done to evaluate how they serve as indicators of overall regulatory activity.

Due to these fundamental flaws in established indicators of regulatory burden, it is difficult to find an appropriate measure to include in empirical analysis. Cross-country indicators rely on surveys with business leaders. It is also unclear to what extent one can exploit differences in regulatory regimes across countries to estimate the impact of domestic changes. The newly created RegData dataset by Mercatus provides a step in the right direction by parsing the actual content of regulations. Several studies use this data in attempts to estimate cumulative burden, though questions still remain about researchers' ability to infer causality.

Despite the above methodological difficulties, all of the evidence cited supports the general notion that the buildup of regulation exerts some degree of negative impact on economic growth and may also distort business behavior. This statement alone motivates actions to increase social wellbeing by reducing regulatory burdens.

## CEA Deregulation Report

A 2019 CEA report attempts to estimate the economy-wide impact of President Trump's deregulatory agenda, presenting an alternative method of estimating the overall burden of regulation.<sup>66</sup> The authors evaluated the economic impact that a sample of 20 deregulatory actions had on the broader economy, including estimates of the distortions from taxes, impacts on labor supply and capital, and competition. They measure impacts on cost savings, net benefits and real income, with the assumption that the rules estimated are representative of the administration's deregulatory agenda as a whole.<sup>67</sup> The report does not

---

<sup>65</sup> Council of Economic Advisers, "Economic Report of the President, Chapter 2: Deregulation: Reducing the Burden of Regulatory Costs."

<sup>66</sup> Council of Economic Advisers, "The Economic Effects of Federal Deregulation since January 2017: An Interim Report."

<sup>67</sup> Net costs are defined as the aggregate of the costs and benefits of a regulation across the economy. In theory, this should be equal to the net benefits of overturning the regulation. "Cost savings" from overturning a regulation are the costs imposed on those who were harmed from the regulation. Real income subtracts from



mention the foregone benefits that the deregulatory actions spurred (removal of actions such as protections that generated benefits to the environment).

In all, CEA reports that President Trump's deregulatory actions will raise real household incomes by \$3,100 per year after 5-10 years (\$380 billion in total). In addition, the report estimates how the size of the economy would be impacted if the rate of regulatory action were to freeze at current levels. That is, they assert that a regulatory freeze would allow incomes to grow at a greater rate compared to a counterfactual where income growth is bogged down by regulatory burdens. They estimate that the annual cost of regulatory actions in 2001-2016 was .16 percent of real income per year, meaning that if regulations were frozen at 2016 levels, incomes would be .8 percent higher in 2021. Adding Trump's deregulatory actions, they estimate that the economy will grow even more. It must be emphasized that the trends outlined in the report make no attempt to control for key economic drivers, such as changes in legislation, that would certainly have contributed to this trend. For example, the Bush administration promulgated a significant amount of regulatory activity after the reorganization of the Department of Homeland Security and the Obama administration published a flurry of regulation after the enactment of the Affordable Care Act. In contrast, the Trump administration has not enacted any meaningful new legislation that would require regulatory implementation. CEA's estimates therefore likely overstate the economic effects of Trump's deregulatory agenda.

Within the report, CEA claims that the largest annual savings to real incomes come from changes to consumer broadband privacy and other internet regulations, FDA and HHS modernization efforts, and the reduction of the ACA individual mandate penalty to zero. This presents a large disconnect OMB's annual reports to Congress, where almost three quarters of the costs of government regulations are borne by EPA and EPA/DOT joint rules.<sup>68</sup> This raises questions about why CEA does not present cost savings in these areas.

An in-depth analysis of the tools used by CEA reveal useful insights into potential approaches (and hazards) for future analyses of the cumulative burden of regulation. However, as the following section will expand upon, methodological concerns and issues about assumptions underlying the estimates, as well as the transparency of results preclude replication and application of these exact methods to other evaluations.

### *Governance issues*

The first concern is that CEA's real income estimates are magnitudes greater than agency estimates that are subject to OMB-coordinated interagency review, when estimates of the costs of such regulations exist. Of the 20 deregulatory actions highlighted in the report, only four were estimated to have economically significant costs under traditional cost-benefit analysis. Others are from independent agencies that are not governed by traditional regulatory review processes. Several others were either deemed to not be economically significant or did not include quantitative costs in official rulemaking documents. This is particularly telling since OMB's process is internationally regarded as a model for cost-benefit analysis. OIRA's estimates of the net costs of major regulations undergo a transparent process that is outlined by law and official guidance and is subject to public input during comment periods. Table 2.1 compares CEA estimates of the impact of rules to OMB estimates where such data is available.

---

GDP depreciation and the effects of trade on the purchasing power of US residents, as well as the costs of labor, capital and environmental costs.

<sup>68</sup> Office of Management and Budget, "2017 Report to Congress on the Benefits and Costs of Federal Regulations and Agency Compliance with the Unfunded Mandates Reform Act."

Table 2.1. Comparison of CEA and OMB Cost Estimates

Rule	RIN	CEA Estimate	OMB Estimate <sup>69</sup>
Stream Protection Rule	1029-AC63	\$2 billion	< \$100 million
Disclosure of payments by Resource Extraction Issuers	3235-AL53	\$3 billion	Upper bounds: \$239 - \$700 million initial compliance costs plus \$267 million average annual ongoing compliance costs
Definition of “Employer” Under Section 3(5) of ERISA Association Health Plans	1210-AB85	\$17 billion	Qualitative discussion
Arbitration Agreements	3170-AA51	\$1 billion	\$180 million upper bound on attorney fees identified by CFPB and quoted in GAO review of benefit-cost analysis
18-Month Extension of Transition Period and Delay of Applicability Dates (Fiduciary Rule)	1210-ZA27	\$5 billion	\$144-\$291 million with 7% discount rate or \$65-\$252 billion with 3% rate.
Savings Arrangements Established by States for Non-Governmental Employees & Qualified State Political Subdivisions for Non-Governmental Employees	1210-AB76	\$13 billion	< \$100 million
Rescission of Rule Interpreting “Advice” Exemption in Section 203(c) of the LMRDA	1245-AA07	\$15 billion	\$93 million
Protecting the Privacy of Customers of Broadband and Other Telecommunications Services	16-148	\$22 billion	< \$100 million

CEA is not transparent in their methods. It was impossible to replicate CEA’s results with solely the information provided in the report, though two attempts are outlined below. They do not make public the underlying formulas that they used. In addition, CEA estimates that certain deregulations will have a major economic effect despite the initial regulations not being in place long enough to generate economic effects or not yet taking effect at all.

Beyond these specific rule changes, CEA goes a step further by adding in the effects from two non-regulatory provisions: (1) the reduction of the ACA’s individual mandate penalty to zero, which was enacted as part of the Tax Cuts and Jobs Act, and, (2) the Economic Growth, Regulatory Relief, and Consumer Protection Act, which removes some banking

<sup>69</sup> All OMB cost estimates are contained within Federal Register entries for the RIN listed in the second column.

restrictions that were imposed after the 2008 financial crisis. While these actions are certain to have economic impacts, it is misleading for the Administration to include them in a report about regulatory reform since they are not pure regulatory changes. Doing so inflates the cost estimates of regulatory actions.

### *Analytical issues*

Case studies of particular rules that were examined provide the best illustration of what exactly is missing from CEA's estimates, providing a set of best practices for future analysis. The case studies below were chosen because they represent unique areas of the economy and because the CEA report was generous in including information on their impacts. Other rules, such as the Stream Protection Rule (81 FR 93066), were stated to have real income effects of billions of dollars but readers are not provided with any supporting evidence. It is therefore logical to conclude that CEA relied on similarly flawed methods.

### *Case study 1: broadband industry*

Prior to 2016, internet service providers (ISPs) could use and sell consumer data by default unless consumers actively opted out of doing so. By selling their data, ISPs could, in theory, lower subscription fees. In 2016, the FCC reversed this practice by finalizing a rule that would require consumers to opt-in to data sharing.<sup>70</sup> In 2017, President Trump signed a resolution of disapproval under the Congressional Review Act to overturn the rule.<sup>71</sup> CEA claims that the 2016 opt-in rule decreased the price of both wired and wireless internet by about \$40 per subscriber over the life of a household's subscription. Of fundamental importance to this estimate is the assumption that subscriber fees fell due to the repeal of the rule. However, multiple sources at the time assert instead that the steep drop in prices was due to a price war between T-Mobile and Verizon, not the regulatory change.<sup>72</sup> There was also no increase in subscriber fees in anticipation of or after promulgation of the rule.<sup>73</sup> This alone renders CEA's claim regarding the economic impact of this deregulation to be false.

However, if we were to take CEA's assumption as given and evaluate their methodology on a purely academic basis, problems still remain. CEA estimates that on an aggregate basis, the rule would generate net savings of \$11 billion per year, plus additional annual net benefits to the economy of \$5 billion and additional net incomes of \$11 billion. Beyond these headline numbers, it is hard to understand how exactly CEA reached their \$22 billion summary figure. The report lays out industry statistics but gives no insight into how exactly they use that data. Based on what was provided, a rough process could be estimated. Table 2.2 shows the information provided by CEA, the steps in their analytical process that were inferred from the information, and what is missing from the analysis.

---

<sup>70</sup> FCC 16-148: Protecting the Privacy of Customers of Broadband and Other Telecommunications Services.

<sup>71</sup> "Protecting the Privacy of Customers of Broadband and Other Telecommunications Services."

<sup>72</sup> Kessler, "Trump's Claim His Deregulatory Actions Are Saving American Households \$3,000 a Year."

<sup>73</sup> Bureau of Labor Statistics, "Wireless Telephone Services in U.S. City Average, All Urban Consumers, Not Seasonally Adjusted."

Table 2.2. Analysis of Broadband Industry Deregulation

Step	CEA Assumptions	What's missing	Independent Estimate
<b>Estimate the per-unit drop in broadband costs due to the regulation and how much of that is passed through to consumers</b>	A 2003 study of an opt-in program for collecting personal information from credit card issuers estimated a per customer cost of \$37. <sup>74</sup> Applied to wired and wireless internet, this would comprise about 4 percent of the retail price of wireless contracts and 1 percent of the wired contract retail price.	What are baseline broadband contract prices?  Can the 2003 study be applied to present day since technology and data have changed so much since then?	AT&T gave consumers a \$30/month discount if they allowed access to their data. <sup>75</sup>  A 2010 study of the cost of data collection for hospital immunization records found that it cost \$2 per child per year for opt-in policy compared to \$0.29 for an opt-out policy. <sup>76</sup>  The cost of data for advertising purposes is about \$0.005 per profile. <sup>77</sup>
	Goolsbee (2006) estimates that costs in the broadband industry are passed through to retail prices at a 60% rate. <sup>78</sup> Therefore, retail price effects are 6.5 and 1.6 percent for wireless and wired contracts.	What is the original retail price and how were these price effects calculated?  Consumer demand and broadband industry organization may now be different. How can the 2006 study still be justified?	In 2014, the median broadband plan cost between \$35 and \$70, depending on broadband speed. <sup>79</sup>
<b>Estimate how much those price effects impact revenue, on a per-unit and then aggregate basis</b>	In aggregate, overturning the opt-in rule will create a net savings of \$11 billion per year, including a \$1.5 billion annual subtraction for the cost of consumers providing personal data and an addition for producer surplus.	How many people are in the aggregate?  How was the \$1.5 billion figure calculated?  How is producer surplus defined and calculated?	

<sup>74</sup> Staten and Cate, "The Impact of Opt-In Privacy Rules on Retail Credit Markets."<sup>75</sup> Elvy, "Paying for Privacy and the Personal Data Economy."<sup>76</sup> McQuinn, "The Economics of 'Opt-Out' Versus 'Opt-In' Privacy Rules."<sup>77</sup> McQuinn.<sup>78</sup> Goolsbee, "The Value of Broadband and the Deadweight Loss of Taxing New Technology."<sup>79</sup> Nick Russo et al., "The Cost of Connectivity 2014."

	Broadband industry revenue would be \$202 billion/year under the rule.	What year and what is the source of the revenue estimate?	BLS estimates that in 2017, total broadband industry revenue was \$96.1 billion for wireless internet and \$88.7 billion for wired for a total of \$184.8 billion. <sup>80</sup>
<b>Estimate how this change in revenue impacts both the industry and the broader economy</b>	Increase in aggregate supplies of capital and labor and increased competition in data markets creating additional net benefits of \$5 billion and additional real income of \$11 billion.	Where does the real income figure come from? How is it calculated?	
	Marginal cost of public funds = .5	Other places in the report describe it as .48. Which is used?	

Taking CEA at face value on the cause of the decline in subscriber fees, problems still remain. As the “what’s missing” column indicates, questions remain about the sources of many of the estimates, and how numbers were calculated. Attempts to find data independently to replicate the results (shown in the “independent estimate” column) conflicts with that which CEA provides. There is no information on how real income effects are calculated beyond the statement that they exist. The sheer magnitude of the gaps in CEA’s analysis render their results untrustworthy.

#### *Case study 2: savings plans created by states for non-governmental employees*

A 2015 Department of Labor regulation (81 FR 92639) cleared the way for states to require private employers to use payroll deductions for investment in state-managed IRAs for non-governmental employees to expand access to retirement savings accounts.<sup>81</sup> The Trump administration overturned this rule via the Congressional Review Act with the explanation that the administrative and compliance costs associated with the plans reduce potential employee compensation. While OMB found that the 2015 rule would not be economically significant, CEA estimated that overturning the rule would have a \$13 billion effect on real income.

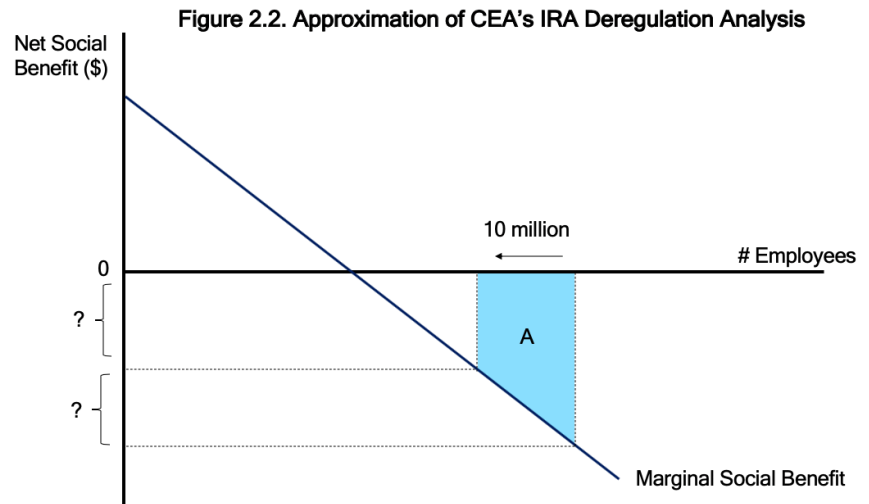
CEA oversimplifies the potential impact of repealing the IRA rule, resulting in an inflated cost estimate. They use an analysis framework similar to that used to evaluate the impact of setting the ACA’s individual mandate penalty to zero.<sup>82</sup> Figure 2.2 replicates that framework for the IRA deregulatory action, with approximations for the change in net social benefits on the left side left unknown as the exact figures are not provided.

<sup>80</sup> Chansky, “Productivity Trends in the Wired and Wireless Telecommunications Industries.”

<sup>81</sup> Savings Arrangements Established by Qualified State Political Subdivisions for Non-Governmental Employees.

<sup>82</sup> Council of Economic Advisers, “Deregulating Health Insurance Markets: Value to Market Participants.”

CEA's framework assumes that a greater than socially optimal number of employees are enrolled in state-sponsored IRA accounts, resulting in a net negative benefit to society (the portion of the blue line below zero). They then assume that by overturning the rule, fewer people will be forced to enroll in the plans, which makes society better off by removing costs on the employer and employee side from fines and taxes (ignore, for now, the notion that lowering access to savings vehicles makes society better off). This results in a leftward movement along the blue line. Using this geometry, they then estimate the societal impact of those costs through deadweight loss and real income effects, illustrated by the shaded area A.



Source: Deregulating Health Insurance Markets: Value to Market Participants (CEA, 2019).

Looking at the specific data that was used (Table 2.3), CEA makes the following assumptions, leaving out crucial details:

**Table 2.3. Analysis of IRA Deregulation**

CEA Assumption	What's missing
The rule will affect 10 million workers, with an average annual IRA contribution of \$1,571.	The \$1,571 figure was based on a pilot study in Illinois with 196 employees. It is unclear whether this can be applied to 10 million workers across the country.
Each \$1,571 deposit into the IRA is a transfer from Treasury to workers of \$526.	Where does \$526 come from? It represents about 1/3 of the total amount of the deposit, so is it meant to approximate the tax benefit?  Why is CEA accounting for transfers? These are not typically included in cost-benefit analyses.
Following Harbinger (1964), the aggregate of employer and employee costs is \$6.5 billion.	Divided by the 10 million employees (see above), this comes out to \$650 per person. However, none of the figures previously mentioned equal this amount on a per-employee basis. How was the \$6.5 billion calculated?
With the deadweight cost of taxes, this adds up to \$10 billion per year.	How was the implied \$3.5 billion in deadweight cost of taxes calculated?
In total, annual real income loss is \$13 billion.	How is real income loss calculated?



Therefore, in addition to using a faulty logical premise about private employee wellbeing from state-sponsored retirement plans, CEA makes economic assumptions that are not supported by evidence or detailed with clear explanations. Furthermore, they apply a theoretical model based on geometric equations to make real world assumptions.

### *Broader analytical concerns*

Two other major issues throughout the report also generate concerns regarding the legitimacy of CEA's estimates. The first issue is how CEA defines and calculates real income. CEA estimates changes in real income as an indicator of the economic impacts of regulation. They state that real income is: "similar to GDP, except that real income subtracts depreciation and reflects the effects of international terms of trade on the purchasing power of U.S. residents, which is an important result of one of the larger deregulatory actions." Beyond this descriptor, however, there is no explanation of how this figure was calculated. The report cites recent ERPs and reports as a source, but inspections of these documents reveals identical language to the above, as well as more citations to the same reports. This is an issue because the public has no indication of how to compare these costs to other economic estimates.

The second issue is the size of the estimate of the marginal cost of public funds. CEA estimates that the marginal excess burden imposed by regulation is .48, implying that regulation has a large impact on the economy (via capital and labor effects) outside of that specific rule change. While it is important to account for these impacts, CEA's estimate is on the high end, making their topline estimates seem much larger than they actually are. Circular A-94, which provides guidelines and for discount rates for use in benefit-cost analysis, uses a value of .25.

### *What went wrong*

To summarize, the case studies above shed light on significant methodological challenges, including:

- The assumption, without supporting evidence, that the Trump administration's deregulatory actions caused the economic impacts that were highlighted.
- A lack of citations for data that is fundamental to the calculation of economic impacts (such as industry revenues).
- Jumping through mathematical processes without explanation, such as going from individual level statistics to aggregates.
- Rounding of numbers in the report such that the intermediary numbers do not add up to topline estimates.
- Circular citations between multiple CEA reports without providing documentation of processes in any of them.

### *Takeaways*

CEA's actions present several lessons as policymakers seek ways to estimate the cumulative burden of regulation. First, transparency in methodology is key.<sup>83</sup> CEA used a unique approach to measure the impacts of regulation beyond traditionally understood methods. However, their incomplete explanations of how they achieved their results makes it hard to accept their underlying conclusions, even if they are correct. If the goal of the report is readability for the general public, then an expanded appendix should be made available so that academic audiences can learn from the report. Similarly, it is important to provide ample

---

<sup>83</sup> "Circular A-4."



citations for statistics and to avoid circular citation patterns. CEA was correct to conduct sensitivity analysis, though more was needed.

Next, CEA should follow OMB's lead in seeking public input because it adds validity to estimates and may even improve processes. CEA should also follow OMB's guidance on the importance of peer review when conducting scientific work in order to increase the quality and credibility of the information that is used to make policy decisions.<sup>84</sup> Data should be made publicly available and outside researchers should be able to replicate the results.

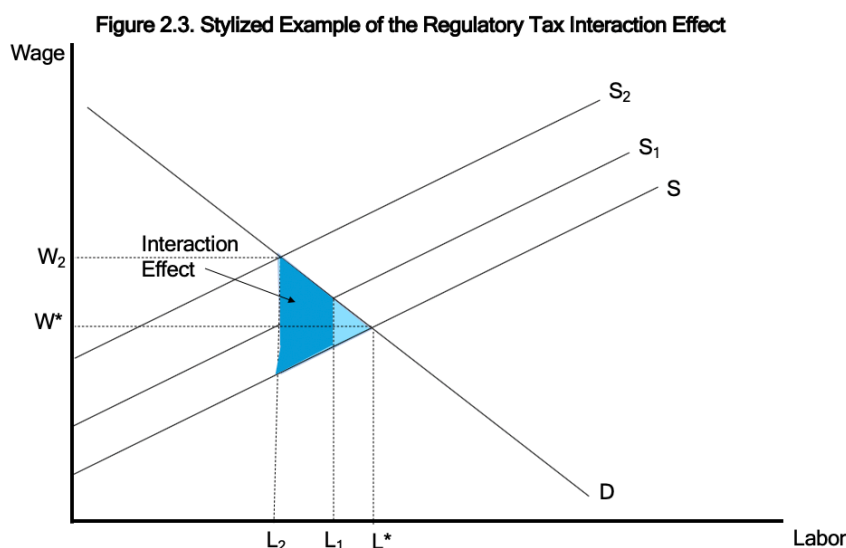
## Best Practices for Cumulative Burden Estimation

### *Tax interaction effect*

Studies of tax interaction effects show that the welfare costs of adding a new tax when analyzed in conjunction with other existing taxes exceeds that of the new tax analyzed in isolation.<sup>85</sup> This same principle can be applied to regulation. The addition of a new regulation on top of existing ones can create adverse incentives, increase compliance costs, and eventually lead to high barriers to entry in the regulated industry. Figure 2.3 shows how the addition of a regulation can generate costs beyond the cost of the regulation itself. The addition of a new regulation ( $S_2$ ) on top of the initial regulated state ( $S_1$ ) increases the size of the shaded area.

Determining the exact size of this gap is less straightforward as the magnitude of the marginal excess burden is likely to vary based on the type of regulation, just as the size of the burden varies based on the type of tax.<sup>86</sup>

As mentioned above, CEA estimates that regulations have a large tax interaction effect (48 percent) while OMB, in official regulatory guidance, suggests a value that is half that size (25 percent).<sup>87</sup> In a review of the related literature, Saez et al. state that the most convincing estimates of the elasticity of taxable income range from .12 to .4, implying a marginal excess burden per dollar of tax revenue raised of \$0.195 for a universal tax increase and \$0.339 for a tax increase for the top 1 percent of the income distribution.<sup>88</sup> Other developed nations use marginal excess burden estimates around 40 percent.<sup>89</sup> On the high end, Feldstein estimates that the excess burden could be up to 76 percent of income tax revenue collected.<sup>90</sup> Any



<sup>84</sup> Bolten, "Issuance of OMB's 'Final Information Quality Bulletin for Peer Review.'"

<sup>85</sup> Goulder, "Effects of Carbon Taxes in an Economy with Prior Tax Distortions"; Aldy, "Advancing Regulatory Policy to Improve the Lives of the American People."

<sup>86</sup> Mannix, "Public Interest Comment on The Office of Management and Budget's Document Marginal Excess Tax Burden as a Potential Cost under Executive Order 13771."

<sup>87</sup> "Circular A-94: Guidelines and Discount Rates for Benefit-Cost Analysis of Federal Programs."

<sup>88</sup> Saez, Slemrod, and Giertz, "The Elasticity of Taxable Income with Respect to Marginal Tax Rates."

<sup>89</sup> Bos, van der Pol, and Romijn, "Should Benefit-Cost Analysis Include a Correction for the Marginal Excess Burden of Taxation?"

<sup>90</sup> Feldstein, "The Effect of Taxes on Efficiency and Growth"; Feldstein, "Tax Avoidance and the Deadweight Loss of the Income Tax."

analysis of the cumulative burden of regulation must be clear in explaining which value they choose and must present a sensitivity analysis to detail how their estimates would change if different assumptions are used.

### *Sunk Costs*

Once a regulation is put in effect, firms incur costs to comply with the new requirements. These costs are not accounted as part of deregulatory actions under E.O. 13771.<sup>91</sup> While it may be impossible to fully quantify, analyses should acknowledge their existence when estimating the burden that regulations impose. At the same time, it may be possible to identify and exclude sunk costs for rules with substantive regulatory impact analyses.

### *Transparency and Good Governance*

The CEA report demonstrates the importance of transparency when presenting research to the public. Because the intermediary numbers they include to explain their logic do not add up to topline figures, it is impossible to replicate their work and verify it. Any report that attempts to estimate the impact of the cumulative burden of regulation must clearly state assumptions, data sources and methods. The report should then be reviewed by other experts in the field before publication, similar to the process for peer-reviewed publications.

## **Recommendations and Conclusion**

The analysis of the cumulative burden of regulation is an interesting research question that can inform rulemaking. However, executive agencies should not be responsible for conducting the analysis because their jurisdiction is limited to the topics covered by their agency mandate. In a resource-constrained world, OIRA has more pressing priorities and should devote its time to fulfilling its current mandate and expanding upon retrospective review.

Due to the complexity of this question, Congress should fund a National Academies panel to estimate the cumulative burden of regulation. The National Academies of Science (NAS) is a non-partisan, non-profit society of scholars. Once they are asked to complete a report, NAS works with the sponsors of the request to define the research question, select a committee of experts and conduct the research. NAS works to ensure that the members of the committee are experts in the field, have diverse perspectives and have no conflicts of interest.<sup>92</sup> After the report is completed, it should be made publicly available and be updated periodically.

Specific research questions the panel should investigate include: What is the cumulative impact of regulation on the economy? What is an appropriate baseline to use? How large is the tax interaction effect for regulation?

---

<sup>91</sup> Mancini, "Guidance Implementing Executive Order 13771, Titled "Reducing Regulation and Controlling Regulatory Costs".

<sup>92</sup> "Study Process: Where the Nation Turns for Independent, Expert Advice."

## SECTION 3: INDEPENDENT AGENCIES

### Background

There currently exist 19 major independent regulatory agencies, such as the Securities and Exchange Commission and the Interstate Commerce Commission, whose rules are not subject to the traditional regulatory review process despite playing a large role in the economy. The agencies themselves are defined in the Paperwork Reduction Act. They are generally united by the fact that they are structured to be insulated from political tailwinds.<sup>93</sup> Independent agencies collectively issue thousands of regulations, yet less than half of their major rules provide any information on costs and benefits.<sup>94</sup> These agencies are exempt from E.O. 12866 and the Unfunded Mandates Reform Act. They are required however, to submit their rules to Congress (via the GAO) under the Congressional Review Act. This seeming omission has generated calls for independent agencies to be included in the normal regulatory process.

### Independent Agencies and Retrospective Review Issues

Despite not being included in the traditional process, some independent agencies still review their regulations on a prospective or retrospective basis, either voluntarily or due to other statutory requirements. For example, CFTC and OIRA entered into a memorandum of understanding (MOU) in 2012 for OIRA to provide technical assistance to CFTC in considering the costs and benefits of Dodd-Frank Regulations and to assist with the implementation of best practices.<sup>95</sup> An analysis of CFTC practices before and after the implementation of the MOU found that the share of rules using quantitative analysis increased substantially, revealing positive results from the effort.<sup>96</sup>

With regard to ex-post review, CFPB is a leader. Under Dodd-Frank, CFPB is required to review the effectiveness of each significant rule within five years of its effective date.<sup>97</sup> Several other financial regulators are also required to review regulations at least once a decade under the 1996 Economic Growth and Regulatory Paperwork Reduction Act.<sup>98</sup> The FTC maintains a schedule to ensure that rules are reviewed every decade (it is accelerated if changes in economic conditions precipitate earlier review). The Federal Reserve reviews its rules at least once every five years. Furthermore, after President Obama signed E.O. 13579, the OIRA Administrator sent a memo to independent agencies providing voluntary guidance on how they could conduct retrospective reviews. The following year, 21 independent agencies published plans to do so, though most simply iterated on processes that they have had in place for years, such as continuing to consult with the public.

---

<sup>93</sup> Revesz and Datla, “Deconstructing Independent Agencies (and Executive Agencies).” Political insulation can be implemented through limits on the President’s ability to remove top officials, designated term lengths for appointees and rules related to the balance of political representation, among other restrictions.

<sup>94</sup> Coglianese, “Improving Regulatory Analysis at Independent Agencies.”

<sup>95</sup> OIRA and CFTC, “Memorandum of Understanding.”

<sup>96</sup> Committee on Capital Markets Regulation, “A Balanced Approach to Cost-Benefit Analysis Reform.”

<sup>97</sup> Government Accountability Office, “Dodd-Frank Regulations.”

<sup>98</sup> Government Accountability Office.

## Arguments for and Against Inclusion in Traditional Regulatory Process

One major reason for independent agency exemption from traditional regulatory analysis is that many of the rules these agencies promulgate do not easily lend themselves to monetization or quantification.<sup>99</sup> And, since these agencies were founded on the principle of being independent of the President, a deeper integration into the executive regulatory process could undermine original intent. Opponents also argue that adding 19 additional agencies to OIRA's portfolio would create too high of a burden and would require additional resources.

On the other hand, supporters of the change argue that many independent agency regulatory activities are actually quite similar to executive agencies and they should therefore be subject to the same oversight. In addition, since the mandates of independent and executive agencies overlap, giving OIRA the ability to conduct a comprehensive review of the regulatory landscape could serve the public interest. The Administrative Conference of the United States, the American Bar Association, former senior officials from independent agencies, and former OIRA administrators have all expressed support for including independent agencies in the traditional review process.<sup>100</sup> Senator Rob Portman introduced legislation in Congress to do the same.<sup>101</sup>

## Recommendations

Independent regulatory agencies should be included in the normal regulatory review process, as outlined by the Institute for Policy Integrity.<sup>102</sup> Because these agencies are functionally similar to executive agencies, it makes logical sense for them to be reviewed in the same way. OIRA's role at the helm of the regulatory process uniquely situates it to ease the transition by providing guidance on best practices to independent agencies, and ultimately to coordinate regulation across agencies. Furthermore, these agencies already work with OIRA to submit information collection requests, so lines of communication are already set. This reform can be implemented through executive order.

---

<sup>99</sup> Coglianese, "Improving Regulatory Analysis at Independent Agencies."

<sup>100</sup> Institute for Policy Integrity, "Strengthening Regulatory Review: Recommendations for the Trump Administration from Former OIRA Leaders."

<sup>101</sup> S.3208: Regulatory Accountability Act.

<sup>102</sup> Institute for Policy Integrity, "Strengthening Regulatory Review: Recommendations for the Trump Administration from Former OIRA Leaders."

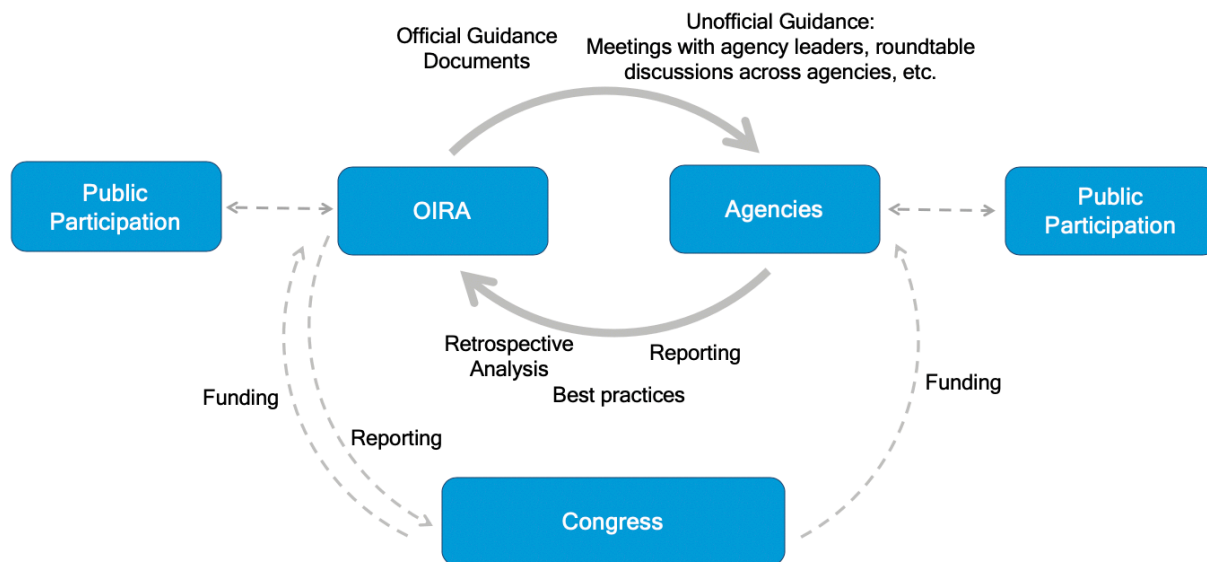
## SECTION 4: SUMMARY AND CONCLUSION

This report analyzed ways to evaluate the impact of federal regulations, considering retrospective reviews, the cumulative burden of regulation, and the incorporation of independent agencies into the traditional rulemaking process. Key takeaways and recommendations emerge: evidence suggests that the cumulative burden of regulation is large, costly and increasing, but there is not yet a widely agreed upon method of estimating the true cost. Congress should fund a National Academies panel to investigate the question. OIRA's role as an aggregator of regulatory knowledge should be expanded to lead in creating a culture of retrospective review. OIRA should publish guidance on how to conduct such review, including standards to incorporate such plans as rules are written and should promote public involvement in the process. Review of rules promulgated by independent agencies, both ex-post and ex-ante, should be included in traditional processes. Above all, OIRA should work with its agency contacts to promote a culture of review to realign incentives towards maintaining a flexible, growth-friendly regulatory state.

# APPENDIX 1: SUMMARY OF RECOMMENDATIONS

## Retrospective Review

### OIRA as Leader of the Retrospective Review Process



## Cumulative Burden

- Congress funds a National Academies panel to empirically evaluate the question, heeding the following best practices:
  - Transparency
  - Sufficient citations and explanations of assumptions
  - Sensitivity analysis

## Independent Agencies

- Include significant rules in the traditional review process.

## APPENDIX 2: INTERNATIONAL EXPERIENCES WITH REGULATORY BUDGETS

The United States is not alone in its desire to review the impacts of its regulations. EU member states, the UK and Canada have attempted similar programs, to varying degrees of success.<sup>103</sup> The EU as a governing entity is considering a similar policy as well. This section will explore the process by which both of these countries came to adopt statutory regulatory budgeting practices, similar to that which was enacted by President Trump.

### *Canada*

The premise of Canada's commitment to reducing regulatory burdens takes root in the province of British Columbia's 2001 commitment to reduce its regulatory burden by one third in three years by requiring that ministries establish a baseline inventory of regulatory requirements and then requiring that any new regulatory requirement be accompanied by an elimination of at least two others. After surpassing this goal, the required reduction has been increased several times. As a result, regulatory requirements, actions that entities must undertake to meet their regulatory responsibilities, have been reduced by 49 percent compared to the 2001 baseline prior to the rule change.

In 2012, Canada's parliament took a similar approach through its Red Tape Reduction Action Plan.<sup>104</sup> It consists of a one for one rule that requires that new administrative burden costs be offset by equal cost reductions elsewhere. A similar rule applies for each new regulation that is enacted. Administrative burden costs are a measure of how much time and money businesses spend on compliance. Since implementation in 2012-13, the program has resulted in a \$24.33 million net reduction in administrative burden.

### *UK*

The U.K. implemented a one-in-one-out regulatory plan in 2011 in which departments must find the net cost to business of complying with a regulation, validate that cost with a Regulatory Policy Committee and offset the measure with another deregulatory action.<sup>105</sup> By 2016, the government increased the ratio to one in, three out.

An important distinction is that the UK's system involves reducing regulatory costs, and not necessarily the regulations themselves in an effort to reduce direct costs on businesses. Such costs include compliance and enforcement costs, and administrative burdens. Examples include paperwork costs and the costs of modifying equipment and staff to comply with regulations. These are offset by direct benefits. This distinction has led to what supporters call a more holistic approach to reducing regulatory burdens by incentivizing regulators to implement new procedures to expand the use of technology and simplify regulations (by, for example, decreasing the amount of data that needs to be collected). They

---

<sup>103</sup> Renda.

<sup>104</sup> "Red Tape Reduction Action Plan."

<sup>105</sup> Gayer, Litan, and Wallach, "Evaluating the Trump Administration's Regulatory Reform Program."



state that these changes were “powerful - because they reduce costs for businesses while maintaining protections.”<sup>106</sup>

On the other hand, critics dispute the effectiveness of the program as a whole because a bulk of costs arising from regulations were not included in the analysis and little has been done to evaluate the impacts of the changes on the regulatory system.<sup>107</sup> Enthusiasm for the one in three out initiative has declined over time and is now used as a secondary policy tool to work towards other broader regulatory reform initiatives.

### *Lessons*

Several lessons emerge from the UK experience. The list below is adapted from written testimony submitted by Jitinder Kohli, the Chief Executive of the U.K.’s Better Regulation Executive, which oversaw the reforms described above.<sup>108</sup>

1. *Focus on the cost of regulations.* The counting of regulations does not lend much tangible value to businesses as they strive to reduce their compliance costs. Instead, one-in-one-out policies should strive to reduce paperwork costs and other factors that directly influence businesses.
2. *It is possible to reduce regulatory costs while still protecting the public.* The UK focused on how they regulate rather than what by attempting to streamline and automate processes. In striving to make the regulatory process better, officials were able to create a unique coalition of unions and business.
3. *Focus on small businesses.* Changes that affected small businesses had a much greater marginal effect.
4. *Importance of culture change.* Government regulators tend to focus solely on dealing with regulatory issues as they arise, as they are mandated to do. They have little scope to evaluate as a whole the regulations that already exist. To promote this culture change, UK agencies worked with businesses and regulators on the ground to understand the difficulties they faced.

The UK experience suggests that instead of focusing on the number of regulations being cut and pairing that with cost caps, the Trump administration could narrow its approach to just reducing administrative costs. This could fit into a regulatory landscape that aims to promote growth. The downside is that a focus on only administrative costs places focus on a small fraction of total costs. Therefore, this strategy is not recommended.

---

<sup>106</sup> Quote by Jitinder Kohli, published in Peacock, “Implementing a Two-for-One Regulatory Requirement in the U.S.”

<sup>107</sup> Andrea Renda, “One Step Forward, Two Steps Back? The New U.S. Regulatory Budgeting Rules in Light of the International Experience.”

<sup>108</sup> Kohli, “Written Testimony of Jitinder Kohli for the Subcommittee on Health Care Benefits, and Administrative Rules and the Subcommittee on Government Operations.”

## APPENDIX 3: SAMPLE OMB GUIDANCE FOR RETROSPECTIVE REVIEW

This Appendix outlines the structure of an official OMB guidance for retrospective review. While in outline format, much of the content about best practices for conducting such reviews can be found in Section 1 of the report.

### Introduction

This section includes language explaining the importance of retrospective review, the purpose of this guidance and its goals.

The introduction should also include an allowance for agency discretion in how to evaluate their rules, guidance on which rules should be prioritized and how frequently, guidance for where the evaluations should be published (including data availability) and guidance for how the public can comment on reviews.

### Key Elements of a Retrospective Review

- Language in the preamble of major rules should include a framework for review of rules at a later date. Items included in the framework should include:
  - Statement of the expected outcome of the rule and how it will be evaluated
  - Timeline for data collection and review
  - Data requirements for effective review
  - Standards to evaluate the success of the rule
  - Statement assigning oversight of the review
- Identification of the analytic methods that will be used. This can include an empirical study, how the rule was selected for analysis, and whether feedback from stakeholders will be sought.
- Evaluation of the impact of the rule
- Statement about what will be done with the results, including whether and how the rule will be modified after the analysis is completed.

### Preparing a Retrospective Review

The process for completing a retrospective review should mirror that of an RIA. Key components are detailed below:

1. Describe the need for the review

Explanation of what the rule is, who it affects, and provide a summary of previously estimated costs and benefits. This should also include a summary of the quantity and content of public comments received about the rule.

## 2. Define the metrics being used in the review

This should include examples of indicators that can be used and ways to estimate thresholds or cutoffs to determine the success of the regulation.

## 3. Explain the steps used to ensure high quality data and sound methodological techniques, including the use of any experimental designs.

This should include best practices for data collection and any necessary reporting associated with it, an outline of potential methodological techniques and how the data can be included in such processes.

## 4. Evaluate the time horizon of analysis

Statement of the initial time horizon that was laid out, how long has this rule been in effect, whether there were any modifications to the rule since enactment, and anything else related to the timeline.

## 5. Quantify and monetize benefits, costs and potential savings from the rule

When possible, econometric analysis should be undertaken to establish some degree of causality. This could also include a distributional analysis, which could consider the health or economic effects that accrue to disadvantaged groups, changes in business structures resulting from the rule and any transfer payments (such as changes in taxes paid or provision of goods or services by the government to businesses or individuals).

## 6. Evaluate non-quantified and non-monetized impacts of the rule

Some impacts cannot be easily quantified or monetized, despite their importance. These should still be systematically analyzed, by for example, explaining whether trends resulting from the rule are positive or negative. Externalities, positive or negative, resulting from the rule could also be considered.

## 7. Explain any remaining uncertainties in the rule and its analysis

For example, do parts of the rule still need to be implemented? Were there data limitations that prevented comprehensive analysis? To what degree of certainty are estimates presented?

## 8. Draw conclusions about the impact of the rule

After undertaking the analysis, agencies should suggest whether the rule needs to be amended or repealed or should remain as it is currently written.

## Summarizing Analysis

The retrospective review should also include an executive summary with high level details about what the rule being evaluated was, metrics for success, how the review was conducted, results, and potential actions to be taken due to the analysis.

# APPENDIX 4: AGENCY DESCRIPTIONS OF WHICH RULES TO PRIORITIZE FOR REVIEW

Executive Agencies	Factors for Prioritization
<b>Department of Agriculture</b>	<ul style="list-style-type: none"> <li>* Continued need for regulation</li> <li>* Nature of comments or petitions received from the public</li> <li>* Complexity</li> <li>* The extent to which the regulation overlaps or conflicts with other regulations</li> <li>* The length of time since the regulation has been evaluated or the degree to which technology, economic conditions, or other factors have changed in the areas affected by the regulation</li> <li>* The extent to which there is opportunity to reduce burdens while still achieving statutory objectives and requirements</li> </ul>
<b>Department of Commerce</b>	<p>Divided by agency, but combined for this list:</p> <ul style="list-style-type: none"> <li>* Number of affected entities</li> <li>* Costs, benefits and the cost/benefit ratio</li> <li>* Level of risk the regulation addresses</li> <li>* Availability of new data or information;</li> <li>* Existence of duplicative regulations, creation of other/newer statutes or regulations</li> <li>* Significant changes in technology, cost, or best practices</li> <li>* The continued need for the regulation;</li> <li>* The types of complaints or comments received concerning the regulation from the public (public comments, town hall meetings, discussions with stakeholders)</li> <li>* The complexity of the regulation</li> <li>* The length of time since the regulation has been evaluated</li> </ul>
<b>Department of Defense</b>	<ul style="list-style-type: none"> <li>* Discretionary approach in selection determined by the functional programs issuing regulations</li> <li>* Identify rules that are obsolete, unnecessary, unjustified, excessively burdensome, or counterproductive</li> <li>* Regulations that warrant strengthening, complementing, or modernizing</li> </ul>
<b>Department of Education</b>	<ul style="list-style-type: none"> <li>* Are the regulations achieving their intended outcomes?</li> <li>* Have changes in the economy or other external factors had an impact on the regulations' effectiveness, led to a change in benefits for the intended beneficiaries of the regulations, or led to a change in costs?</li> <li>* Are the regulations outmoded, unnecessary, or out of date?</li> <li>* Has Congress amended the authorizing statute such that prompt review is necessary?</li> <li>* Does ED anticipate reauthorization of the authorizing statute in the near term such that prompt review of existing regulations would likely be disrupted or not lead to regulatory revisions that could be implemented before reauthorization?</li> <li>* Have regulated parties expressed confusion about the regulations or requested changes?</li> <li>* Can the regulations be understood and implemented without extensive legal interpretation, non-regulatory guidance, or technical assistance?</li> <li>* What do relevant data show about the effectiveness and benefits of the regulations in comparison to their costs?</li> <li>* What resources in terms of time, staff, finances, and technology will be needed to review and possibly amend the regulations?</li> <li>* If the regulations relate to a formula or discretionary grant program, are they sufficient to administer the program?</li> <li>* Have issues with the regulations been identified in Office of Inspector General (or other) audits or GAO studies?</li> </ul>
<b>Department of Energy</b>	<ul style="list-style-type: none"> <li>* Economically or otherwise significant rulemakings with the potential to result in significant energy and economic savings</li> <li>* Potential to improve the analyses underlying standards rulemaking</li> <li>* Improve procedures that regulated entities must follow to carry on important economic activities.</li> </ul>
<b>Department of Health and Human Services</b>	<ul style="list-style-type: none"> <li>* Taking inventory, creating a list for the first round and then a list of potentially outdated regulations</li> <li>* Use existing information and input from meetings with stakeholders and the public</li> <li>* The priority was first, to identify regulations that agencies could easily modify, streamline, or rescind to address regulatory burdens or inefficiencies, and second, to identify regulations that may be ripe for review because of changes in circumstance. These proposed candidates for review are then divided into categories according to regulations that:</li> <li>* Require updating in recognition of changing technology</li> <li>* May be revised to reduce the reporting and recordkeeping burdens</li> <li>* Can be cleaned up to eliminate outdated provisions</li> <li>* Can be modified to increase flexibility and reduce burdens on states</li> </ul>
<b>Department of Homeland Security</b>	<p>Rule selection</p> <ul style="list-style-type: none"> <li>* Primary factor: public feedback</li> <li>* Secondary factors: experience of program officials, feedback from the field, enforcement challenges, advisory councils, reports of oversight entities, accident/incident data, changed circumstances.</li> </ul> <p>Rule prioritization</p> <ul style="list-style-type: none"> <li>* Primary factor: net benefits</li> <li>* Secondary factors: significance designation of rule, RFA review, duplication and harmonization, ability to amend without statutory change, previous revision, resources</li> </ul>
<b>Department of Housing and Urban Development</b>	<ul style="list-style-type: none"> <li>* Identified by the public</li> <li>* widely-used regulations</li> <li>* Complexity and scope of regulations</li> <li>* Need for regulatory waivers</li> </ul>

<b>Department of Interior</b>	<ul style="list-style-type: none"> <li>* Is obsolete due to changes in the law or practice</li> <li>* Duplicates or conflicts with other rules</li> <li>* Has not been reviewed in 10 years</li> <li>* Is considered burdensome or unnecessarily restrictive based upon public or internal comments</li> </ul>
<b>Department of Justice</b>	<ul style="list-style-type: none"> <li>* Could result in greater net benefits to the public if modified</li> <li>* Could be replaced by other, less burdensome regulatory alternatives without compromising regulatory objectives.</li> <li>* Have been overtaken by new circumstances or technologies; or</li> <li>* Require outdated reporting practices</li> <li>* Have been in place for long periods of time without revision</li> <li>* Overlap, duplicate, or conflict with other federal rules or with State and local rules</li> <li>* Have been the subject of petitions suggesting ways to enhance net benefits or improve efficacy</li> </ul> <p>In selecting rules for review, the working group will prioritize rules that meet these criteria and:</p> <ul style="list-style-type: none"> <li>* Impose high costs or burdens on the public or affect a large number of entities</li> <li>* Have disproportionate distributional impacts on certain entities, such as small businesses.</li> </ul>
<b>Department of Labor</b>	<ul style="list-style-type: none"> <li>* Stakeholder input</li> <li>* Impact on small businesses</li> <li>* Age of the regulation</li> <li>* Number of entities/workers affected</li> <li>* Evidence of non-compliance</li> <li>* Relationship to accidents</li> <li>* Injuries, security or equity</li> <li>* Paperwork, petitions for modification or exemption</li> <li>* Technological change and new scientific research</li> <li>* Transparency and clarity</li> </ul>
<b>Department of State</b>	<p>The Department will not impose a mandatory schedule for review on the organizations that promulgate rules. Instead, bureaus establish their own priorities and guidelines, giving priority to significant regulations affected by:</p> <ul style="list-style-type: none"> <li>* Comments from the public, internal feedback and other agencies</li> <li>* Changes in legislation</li> <li>* Simplify language based on the provisions of the Plain Writing Act of 2010</li> </ul>
<b>Department of Transportation</b>	<ul style="list-style-type: none"> <li>* The nature and extent of public complaints or suggestions (e.g., petitions for rulemaking)</li> <li>* The need to simplify or clarify regulatory language (e.g., based on requests for interpretation).</li> <li>* The need to eliminate overlapping or duplicative regulations</li> <li>* The need to eliminate conflicts or inconsistencies with other rules.</li> <li>* The length of time since the last review</li> <li>* The importance or relevance of the problem originally addressed.</li> <li>* The burdens imposed on, and the benefits achieved for, those affected and how they compare to originally estimated.</li> <li>* The degree to which technology, economic conditions, or other involved factors have changed.</li> <li>* The number of requests for exemption and the number granted</li> </ul> <p>Priority determinations:</p> <ul style="list-style-type: none"> <li>* Accident investigation or a review of accident or incident data</li> <li>* Public comment in response to reports</li> <li>* General requests for public comments and/or public meetings</li> <li>* The factors set out in the preceding paragraph</li> <li>* Identify a burden imposed on small entities that is no longer needed to achieve a safety objective</li> <li>* Other factors, such as budgetary resources, legislative requirements, or judicial mandates</li> </ul>
<b>Department of Treasury</b>	<ul style="list-style-type: none"> <li>* Largely relies upon those entities most familiar with the benefits and costs associated with various regulations - the public, the regulated industries, and the regulatory and enforcement groups at each bureau - to identify the specific portions of regulations that should be subjected to a prioritized and targeted retrospective review and revision process</li> <li>* Economic impact of the regulatory project on the public, industry or government</li> <li>* Reduced burden or intrusiveness on the public, small businesses, and industry, including greater efficiency, reducing record keeping requirements, harmonization with other agencies' regulations, and the number of industry members and/or people affected by the regulation.</li> <li>* Public attention</li> <li>* Level of complexity and prescriptive nature of the regulation.</li> <li>* Opportunity to employ plain language principles.</li> <li>* Time elapsed since the last review of the regulation/guidance.</li> <li>* Updating outmoded or obsolete regulations or guidance.</li> <li>* Potential for savings to the taxpayer.</li> <li>* Potential for reduction in burden hours for recordkeeping and reporting.</li> <li>* Significance of the regulation under Executive Order 12866.</li> <li>* Bureau and Department resources.</li> </ul>
<b>Department of Veterans Affairs</b>	<ul style="list-style-type: none"> <li>* Consultation with VA's senior leadership.</li> <li>* All VA regulations under development are monitored for compliance with VA's performance standards for timely completion.</li> <li>* Regulation rewrite projects and future regulatory actions are integrated into existing priorities, based upon their significance, urgency, and the availability of regulatory resources.</li> </ul>

Source: Items are cited directly from Agency Final Plans for Retrospective Reviews, all found here:

<https://obamawhitehouse.archives.gov/omb/oira/regulation-reform>

## APPENDIX 5: SUMMARY OF CUMULATIVE BURDEN ESTIMATES

	Author	Year	Method	Result
Government and International Indicators	Federal Register <sup>109</sup>	2018	Number of Pages Published	1976: 50,505 2018: 67225
	OMB Costs and Benefits <sup>110</sup>	2019	Annual costs and benefits of regulation	\$0.2 to \$3.7 billion in annual benefits and up to \$0.6 billion in annual costs.
	World Bank <sup>111</sup>	2020	Ease of Doing Business Ranking	The U.S. ranks 6th out of the countries studied.
	OECD	2018	Indicators of Product Market Regulation (measure of regulatory barriers to firm entry and competition)	The U.S. ranks 27th out of 35 countries.
	OIRA <sup>112</sup>	2019	Number of Reviews	Economically significant: 117 Not economically significant: 357
	CEA ERP <sup>113</sup>	2018	Extrapolate cross-country differences in regulatory burden to estimate GDP effect	If US were to be the most regulatory friendly country (Netherlands) or deregulate by a standard amount, real GDP would be 2.2% or 1% higher, respectively.
Empirical Studies of Cumulative Burden	Coffey, McLaughlin, Peretto (Mercatus) <sup>114</sup>	2016	Effects of the number of restriction words on value added to GDP for 22 industries from 1977-2012	Economic growth dampened by .8 percent per year since 1980. Had levels been constant at 1980 rate, GDP would have been 25 percent larger by 2012.
	Dawson and Seater <sup>115</sup>	2013	Estimate the relationship between number of pages in CFR and TFP, capital and labor. 1949-2005.	Regulation added since 1949 has reduced aggregate growth rate by 2 pp on average. Increases in regulation account for much of the 1970s economic slowdown
	Bailey and Thomas <sup>116</sup>	2017	1998-2011. Estimates the relationship between industry-level data on firms (firm births and deaths) and RegData's regulatory intensity index.	More regulated industries had fewer new firm entrants and slower employment growth
	Égert and Gal <sup>117</sup>	2017	Quantifies the impact of structural reforms to regulation	Reducing regulatory barriers to competition increases GDP per capita in OECD countries by .7% over 5 years.

<sup>109</sup> Carey, "Counting Regulations: An Overview of Rulemaking, Types of Federal Regulations, and Pages in the Federal Register."

<sup>110</sup> Office of Management and Budget, "2018, 2019 and 2020 Draft Report to Congress."

<sup>111</sup> World Bank Group, "Doing Business 2020."

<sup>112</sup> "Reginfo.Gov."

<sup>113</sup> Council of Economic Advisers, "Economic Report of the President; Chapter 2: Deregulation That Frees the Economy."

<sup>114</sup> Coffey, McLaughlin, and Peretto, "The Cumulative Cost of Regulations."

<sup>115</sup> Dawson and Seater, "Federal Regulation and Aggregate Economic Growth."

<sup>116</sup> Bailey and Thomas, "Regulating Away Competition: The Effect of Regulation on Entrepreneurship and Employment."

<sup>117</sup> Gal and Égert, "The Quantification of Structural Reforms in OECD Countries."

	Gutierrez and Philippon <sup>118</sup>	2017	Regresses RegData on firm concentration indicators	Positive relationship between firm concentration and regulation
Empirical Studies of Sector-Specific Cumulative Burden	Greenstone, List, and Syverson <sup>119</sup>	2012	Estimates effect of air quality regulations on manufacturing plant TFP. 1972-2003	Regulation of manufacturing plants is associated with a \$21 billion annual economic cost in that sector, equivalent to 8.8% of profits.
	Walker <sup>120</sup> <a href="#">6/24/20 11:44:00 AM</a> <a href="#">6/15/20 11:49:00 AM</a>	2011	Estimates how changes resulting from the Clean Air Act impact job transitions.	Strengthening emissions standards in the 1990s resulted in a 15 percent employment decline in the polluting sector in the following decade.

<sup>118</sup> Gutiérrez and Philippon, “Investmentless Growth: An Empirical Investigation.”

<sup>119</sup> Greenstone, List, and Syverson, “The Effects of Environmental Regulation on the Competitiveness of U.S. Manufacturing.”

<sup>120</sup> Walker, “Environmental Regulation and Labor Reallocation.”



# REFERENCES

- "A Balanced Approach to Cost-Benefit Analysis Reform." Accessed March 31, 2020. <https://www.capmksreg.org/wp-content/uploads/2018/10/A-Balanced-Approach-to-Cost-Benefit-Analysis-Reform.pdf>.
- "A Guide to the Rulemaking Process." Federal Register, 2011. [https://www.federalregister.gov/uploads/2011/01/the\\_rulemaking\\_process.pdf](https://www.federalregister.gov/uploads/2011/01/the_rulemaking_process.pdf).
- Aldy, Joseph E. "Learning from Experience: An Assessment of the Retrospective Reviews of Agency Rules and the Evidence for Improving the Design and Implementation of Regulatory Policy," n.d., 133.
- Aman, Johal. "Annex 1 - Final Version of the New Product Market Regulation Questionnaire," 2018. [https://www-oecd-org.ezp-prod1.hul.harvard.edu/economy/reform/Annex%201\\_PMR%20questionnaire.pdf](https://www-oecd-org.ezp-prod1.hul.harvard.edu/economy/reform/Annex%201_PMR%20questionnaire.pdf).
- Bailey, James, and Diana Thomas. "Regulating Away Competition: The Effect of Regulation on Entrepreneurship and Employment." *Journal Of Regulatory Economics* 52 (October 2017): 237-54.
- Bennear, Lori Snyder, and Sheila M. Olmstead. "The Impacts of the 'Right to Know': Information Disclosure and the Violation of Drinking Water Standards." *Journal of Environmental Economics and Management* 56, no. 2 (September 2008): 117-30.
- Bolten, Joshua. "Issuance of OMB's 'Final Information Quality Bulletin for Peer Review.'" Memorandum for Heads of Departments and Agencies. Office of Management and Budget, December 16, 2004. <https://obamawhitehouse.archives.gov/sites/default/files/omb/assets/omb/memoranda/fy2005/m05-03.pdf>.
- Bos, Frits, Thomas van der Pol, and Gerbert Romijn. "Should Benefit-Cost Analysis Include a Correction for the Marginal Excess Burden of Taxation?" *Journal of Benefit-Cost Analysis* 10, no. 3 (2019): 379-403. <https://doi.org/10.1017/bca.2019.11>.
- Bull, Reeve T. "Building a Framework for Governance: Retrospective Review and Rulemaking Petitions." *Administrative Law Review* 67, no. 2 (2015): 265-319.
- Bureau of Labor Statistics. "Wireless Telephone Services in U.S. City Average, All Urban Consumers, Not Seasonally Adjusted." Data Viewer, 2020. <https://beta.bls.gov/dataViewer/view/timeseries/CUUR0000SEED03;jsessionid=3FC2FA567FE64B8B40823BA372EAF948>.
- Carey, Maeve P. "Counting Regulations: An Overview of Rulemaking, Types of Federal Regulations, and Pages in the Federal Register." Congressional Research Service, September 3, 2019. <https://fas.org/sgp/crs/misc/R43056.pdf>.
- . "Federal Rulemaking: The Role of the Office of Information and Regulatory Affairs." Congressional Research Service, 2011. <https://crsreports.congress.gov/product/pdf/RL/RL32397>.
- . "Methods of Estimating the Total Cost of Federal Regulations." Congressional Research Service, January 21, 2016. <https://fas.org/sgp/crs/misc/R44348.pdf>.
- . "The Federal Rulemaking Process: An Overview." Congressional Research Service, 3. <https://fas.org/sgp/crs/misc/RL32240.pdf>.
- Chansky, Nathan F. Modica and Brian. "Productivity Trends in the Wired and Wireless Telecommunications Industries: Beyond the Numbers: U.S. Bureau of Labor Statistics." Accessed March 16, 2020. <https://www.bls.gov/opub/btn/volume-8/productivity-trends-in-the-wired-and-wireless-telecommunications-industries.htm>.
- "Circular A-4." Office of Management and Budget, September 17, 2003. <https://www.whitehouse.gov/sites/whitehouse.gov/files/omb/circulars/A4/a-4.pdf>.
- "Circular A-94: Guidelines and Discount Rates for Benefit-Cost Analysis of Federal Programs." Office of Management and Budget, 1992. <https://obamawhitehouse.archives.gov/sites/default/files/omb/assets/a94/a094.pdf>.
- Coffey, Bentley, Patrick A McLaughlin, and Pietro Peretto. "The Cumulative Cost of Regulations." *Mercatus Center*, 2016, 72.
- Coglianese, Cary. "Improving Regulatory Analysis at Independent Agencies." *American University Law Review* 67, no. 3 (2018): 733-67.
- . "Moving Forward with Regulatory Lookback." *Yale Journal on Regulation* 30, no. 57 (2013): 57-66.
- Committee on Capital Markets Regulation. "A Balanced Approach to Cost-Benefit Analysis Reform." Committee on Capital Markets Regulation, October 2013. <https://www.capmksreg.org/wp-content/uploads/2018/10/A-Balanced-Approach-to-Cost-Benefit-Analysis-Reform.pdf>.
- Council of Economic Advisers. "Economic Report of the President, Chapter 2: Deregulation: Reducing the Burden of Regulatory Costs." Council of Economic Advisers, March 2019. <https://www.whitehouse.gov/wp-content/uploads/2019/03/ERP-2019.pdf>.

- . “Deregulating Health Insurance Markets: Value to Market Participants.” Council of Economic Advisers, February 2019. <https://www.whitehouse.gov/wp-content/uploads/2019/02/Deregulating-Health-Insurance-Markets-FINAL.pdf>.
- . “Economic Report of the President; Chapter 2: Deregulation That Frees the Economy.” The White House, 2018. <https://www.govinfo.gov/content/pkg/ERP-2018/pdf/ERP-2018-chapter2.pdf>.
- . “Smarter Regulations Through Retrospective Review.” Council of Economic Advisers, May 2012. [https://obamawhitehouse.archives.gov/sites/default/files/lookback\\_report\\_rev\\_final.pdf](https://obamawhitehouse.archives.gov/sites/default/files/lookback_report_rev_final.pdf).
- . “The Economic Effects of Federal Deregulation since January 2017: An Interim Report.” Council of Economic Advisers, 2019. <https://www.whitehouse.gov/wp-content/uploads/2019/06/The-Economic-Effects-of-Federal-Deregulation-Interim-Report.pdf>.
- Curtis Copeland. “Federal Rulemaking: The Role of the Office of Information and Regulatory Affairs.” Congressional Research Service, 2011. <https://www.everycrsreport.com/reports/RL32397.html>.
- . “The Regulatory Flexibility Act: Implementation Issues and Proposed Reforms.” Congressional Research Service, February 12, 2008. <https://apps.dtic.mil/dtic/tr/fulltext/u2/a476961.pdf>.
- Dawson, John W., and John J. Seater. “Federal Regulation and Aggregate Economic Growth.” *Journal of Economic Growth* 18, no. 2 (2013): 137-77.
- Dooling, Bridget C E, Mark Febrizio, and Daniel R Pérez. “Accounting for Regulatory Reform under Executive Order 13771: Explainer and Recommendations to Improve Accuracy and Accountability.” The Brookings Institution, November 2019. [https://www.brookings.edu/wp-content/uploads/2019/11/ES\\_11072019\\_DoolingFebrizioPerez.pdf](https://www.brookings.edu/wp-content/uploads/2019/11/ES_11072019_DoolingFebrizioPerez.pdf).
- Dudley, Susan E., and Zhoundan Xie. “Designing a Choice Architecture for Regulators.” *Public Administration Review* 80, no. 1 (2020): 151-56. <https://doi.org/10.1111/puar.13112>.
- Dudley, Susan, and Brian Mannix. “Improving Regulatory Benefit-Cost Analysis.” *Journal of Law and Politics* 34, no. 1 (2018). [http://files.www.lawandpolitics.org/issues/vol-xxxiv-no-1-fall-2018/Dudley\\_and\\_Mannix\\_edited\\_final10.10.18.pdf](http://files.www.lawandpolitics.org/issues/vol-xxxiv-no-1-fall-2018/Dudley_and_Mannix_edited_final10.10.18.pdf).
- Eisner, Neil R., Judith S. Kaleta, and Peter L. Strauss. “Federal Agency Reviews of Existing Regulations.” *Administrative Law Review* 48, no. 1 (1996): 139-74.
- Elvy, Stacy-Ann. “Paying for Privacy and the Personal Data Economy.” *Columbia Law Review* 117, no. 6 (2017): 1369-1459.
- Executive Order 12866: Regulatory Planning and Review, 3 CFR 12866 § (1993). <https://www.archives.gov/files/federal-register/executive-orders/pdf/12866.pdf>.
- Executive Order 13563: Improving Regulation and Regulatory Review, 3 CFR 13563 Code of Federal Regulations § (2011). <https://www.govinfo.gov/app/details/CFR-2012-title3-vol1/CFR-2012-title3-vol1-eo13563/summary>.
- Executive Order 13610: Identifying and Reducing Regulatory Burdens, 77 FR 28467 § 93 (2012). <https://www.federalregister.gov/documents/2012/05/14/2012-11798/identifying-and-reducing-regulatory-burdens>.
- Executive Order 13771: Reducing Regulation and Controlling Regulatory Costs, 82 FR 9339 § (2017). <https://www.federalregister.gov/documents/2017/02/03/2017-02451/reducing-regulation-and-controlling-regulatory-costs>.
- FCC 16-148: Protecting the Privacy of Customers of Broadband and Other Telecommunications Services, 47 CFR Part 64 § (2016). <https://www.govinfo.gov/content/pkg/FR-2016-12-02/pdf/2016-28006.pdf>.
- Febrizio, Mark, Melinda Warren, and Susan Dudley. “FY2020 Regulators Budget: Homeland Security Remains Key Administration Priority.” George Washington University Regulatory Studies Center, October 2019. <https://regulatorystudies2.drupal.gwu.edu/sites/g/files/zaxdzs3306/f/downloads/RegulatorsBudget/GW%20Reg%20Studies%20-%20FY2020%20Regulators%20Budget%20-%20MFebrizio%2C%20SDudley%2C%20MWarren.pdf>.
- “Federal Register Pages Published.” Federal Register, 2018. <https://www.federalregister.gov/uploads/2019/10/pagesPublished2018-1.pdf>.
- Feldstein, Martin. “Tax Avoidance and the Deadweight Loss of the Income Tax.” *The Review of Economics and Statistics* 81, no. 4 (November 1999): 674-80.
- . “The Effect of Taxes on Efficiency and Growth.” Working Paper. Working Paper Series. National Bureau of Economic Research, May 2006. <https://doi.org/10.3386/w12201>.
- Gal, Peter, and Balázs Égert. “The Quantification of Structural Reforms in OECD Countries: A New Framework.” *OECD Journal: Economic Studies* 2016, no. 1 (March 7, 2017): 91-108. [https://doi.org/10.1787/eco\\_studies-2016-5jg1lqspxtvk](https://doi.org/10.1787/eco_studies-2016-5jg1lqspxtvk).
- Gayer, Ted, Robert Litan, and Philip Wallach. “Evaluating the Trump Administration’s Regulatory Reform Program.” The Brookings Institution, October 2017. [https://www.brookings.edu/wp-content/uploads/2017/10/evaluatingtrumpregreform\\_gayerlitanwallach\\_102017.pdf](https://www.brookings.edu/wp-content/uploads/2017/10/evaluatingtrumpregreform_gayerlitanwallach_102017.pdf).

- Goolsbee, Austan. "The Value of Broadband and the Deadweight Loss of Taxing New Technology." *The B.E. Journal of Economic Analysis and Policy* 5, no. 1 (April 2006): 1-31.
- Goulder, Lawrence H. "Climate Change Policy's Interactions with the Tax System." *Energy Economics* 40 (December 2013): S3-11. <https://doi.org/10.1016/j.eneco.2013.09.017>.
- . "Effects of Carbon Taxes in an Economy with Prior Tax Distortions: An Intertemporal General Equilibrium Analysis." *Journal of Environmental Economics and Management* 29, no. 3 (November 1, 1995): 271-97. <https://doi.org/10.1006/jeem.1995.1047>.
- Goulder, Lawrence H., and Roberton C. Williams III. "The Substantial Bias from Ignoring General Equilibrium Effects in Estimating Excess Burden, and a Practical Solution." *Journal of Political Economy* 111, no. 4 (August 2003): 898-927. <https://doi.org/10.1086/375378>.
- Government Accountability Office. "Dodd-Frank Regulations: Agencies Conducted Regulatory Analyses and Coordinated but Could Benefit from Additional Guidance on Major Rules." Government Accountability Office, December 11, 2013. <https://www.gao.gov/products/GAO-14-67>.
- . "Federal Rulemaking: Improvements Needed to Monitoring and Evaluation of Rules Development as Well as to the Transparency of OMB Regulatory Reviews." Government Accountability Office, April 2009. <https://www.gao.gov/new.items/d09205.pdf>.
- Greenstone, Michael, John A. List, and Chad Syverson. "The Effects of Environmental Regulation on the Competitiveness of U.S. Manufacturing." *NBER Working Paper* No. 18392 (n.d.): 52.
- Greenstone, Michael, Paul Oyer, and Anette Vissing-Jorgensen. "Mandated Disclosure, Stock Returns and the 1964 Securities Acts Amendments." *Quarterly Journal of Economics* 121, no. 2 (2006): 399-460.
- Gutiérrez, Germán, and Thomas Philippon. "Investmentless Growth: An Empirical Investigation." *Brookings Papers on Economic Activity* 48, no. 2 (Fall) (2017): 89-190.
- Harrington, Winston. "Grading Estimates of the Benefits and Costs of Federal Regulation." *Resources for the Future*, 2006. <https://doi.org/10.2139/ssrn.937357>.
- Harrington, Winston, Richard D. Morgenstern, and Peter Nelson. "On the Accuracy of Regulatory Cost Estimates." *Journal of Policy Analysis and Management* 19, no. 2 (2000): 297-322. [https://doi.org/10.1002/\(SICI\)1520-6688\(200021\)19:2<297::AID-PAM7>3.0.CO;2-X](https://doi.org/10.1002/(SICI)1520-6688(200021)19:2<297::AID-PAM7>3.0.CO;2-X).
- Harris, Sarah. "Reviewing Regulatory Review." *National Affairs* (blog), 2013. <https://www.nationalaffairs.com/publications/detail/reviewing-regulatory-review>.
- "Indicators of Product Market Regulation - OECD." Accessed February 13, 2020. <http://www.oecd.org/economy/reform/indicators-of-product-market-regulation/>.
- Institute for Policy Integrity. "Strengthening Regulatory Review: Recommendations for the Trump Administration from Former OIRA Leaders." Institute for Policy Integrity; New York University School of Law, 2016. [https://policyintegrity.org/files/publications/RegulatoryReview\\_Nov2016.pdf](https://policyintegrity.org/files/publications/RegulatoryReview_Nov2016.pdf).
- Ivory, Danielle, and Robert Faturechi. "Secrecy and Suspicion Surround Trump's Deregulation Teams." ProPublica, August 7, 2017. <https://projects.propublica.org/trump-town/staffers/category/taskforce?page=1>.
- Kessler, Glen. "Trump's Claim His Deregulatory Actions Are Saving American Households \$3,000 a Year." *Washington Post*, August 15, 2019. <https://www.washingtonpost.com/politics/2019/08/15/trumps-claim-his-deregulatory-moves-are-saving-american-households-year/>.
- Kohli, Jitinder. "Written Testimony of Jitinder Kohli for the Subcommittee on Health Care Benefits, and Administrative Rules and the Subcommittee on Government Operations." U.S. House of Representatives, October 24, 2017. <https://docs.house.gov/meetings/GO/GO24/20171024/106529/HHRG-115-GO24-Wstate-KohliJ-20171024.pdf>.
- Koske, Isabell, Isabelle Wanner, Rosamaria Bitetti, and Omar Barbiero. "The 2013 Update of the OECD's Database on Product Market Regulation: Policy Insights for OECD and Non-OECD Countries." OECD Economics Department Working Papers. OECD, March 31, 2015. <https://www-oecd-ilibrary-org.ezp-prod1.hul.harvard.edu/docserver/5js3f5d3n2vlen.pdf?expires=1584714922&id=id&accname=guest&checksum=F179ED23157E31D00F9C9CC70BCAA DC9>.
- List, John, Daniel Millimet, Per Fredriksson, and W. Warren McHone. "Effects of Environmental Regulations on Manufacturing Plant Births: Evidence from a Propensity Score Matching Estimator On." *The Review of Economics and Statistics* 85, no. 4 (November 2003): 944-52.
- Lutter, Randall. "Regulatory Policy: What Role for Retrospective Analysis and Review?" *Journal of Benefit-Cost Analysis* 4, no. 1 (March 2013): 17-38. <https://doi.org/10.1515/jbca-2012-0012>.
- Mancini, Dominic. "Guidance Implementing Executive Order 13771, Titled 'Reducing Regulation and Controlling Regulatory Costs'." Memorandum. Office of Management and Budget, April 5, 2017. <https://www.whitehouse.gov/sites/whitehouse.gov/files/omb/memoranda/2017/M-17-21-OMB.pdf>.
- Mandel, Michael, and Diana G. Carew. "Regulatory Improvement Commission: A Politically-Viable Approach to U.S. Regulatory Reform." Progressive Policy Institute, n.d. [https://www.progressivepolicy.org/wp-content/uploads/2013/05/05.2013-Mandel-Carew\\_Regulatory-Improvement-Commission\\_A-Politically-Viable-Approach-to-US-Regulatory-Reform.pdf](https://www.progressivepolicy.org/wp-content/uploads/2013/05/05.2013-Mandel-Carew_Regulatory-Improvement-Commission_A-Politically-Viable-Approach-to-US-Regulatory-Reform.pdf).

- Mannix, Brian. "Marginal Excess Tax Burden and EO 13771." George Washington University Regulatory Studies Center, February 20, 2020. <https://regulatorystudies.columbian.gwu.edu/sites/g/files/zaxdzs3306/f/downloads/PICs/GW%20Reg%20Studies%20-%20Marginal%20Excess%20Tax%20Burden%20and%20EO%2013771%20-%20BMannix.pdf>.
- . "Public Interest Comment on The Office of Management and Budget's Document Marginal Excess Tax Burden as a Potential Cost under Executive Order 13771." George Washington University Regulatory Studies Center, February 2020. <https://regulatorystudies.columbian.gwu.edu/sites/g/files/zaxdzs3306/f/downloads/PICs/GW%20Reg%20Studies%20-%20Marginal%20Excess%20Tax%20Burden%20and%20EO%2013771%20-%20BMannix.pdf>.
- McQuinn, Alan. "The Economics of 'Opt-Out' Versus 'Opt-In' Privacy Rules." Information Technology and Innovation Foundation, October 6, 2017. <https://itif.org/publications/2017/10/06/economics-opt-out-versus-opt-in-privacy-rules>.
- Miller, Sofie E. "Learning from Experience: Retrospective Review of Regulations in 2014." George Washington University Regulatory Studies Center, 2015. <https://regulatorystudies.columbian.gwu.edu/sites/g/files/zaxdzs3306/f/downloads/WorkingPapers/GW%20Reg%20Studies%20-%20Learning%20from%20Experience%20Retrospective%20Review%20-%20SMiller.pdf>.
- Nick Russo, Danielle Kehl, Robert Morgus, and Sarah Morris. "The Cost of Connectivity 2014." New America, October 30, 2014. <https://www.newamerica.org/oti/policy-papers/the-cost-of-connectivity-2014/>.
- OECD. "Indicators of Regulatory Policy and Governance." Accessed February 1, 2020. [https://qdd-oecd-org.ezp-prod1.hul.harvard.edu/subject.aspx?Subject=GOV\\_REG](https://qdd-oecd-org.ezp-prod1.hul.harvard.edu/subject.aspx?Subject=GOV_REG).
- "OECD Product Market Regulation Statistics." OECD, n.d.
- Office of Management and Budget. "2017 Report to Congress on the Benefits and Costs of Federal Regulations and Agency Compliance with the Unfunded Mandates Reform Act." Office of Management and Budget, 2017.
- . "2018, 2019 and 2020 Draft Report to Congress on the Benefits and Costs of Federal Regulations and Agency Compliance with the Unfunded Mandates Reform Act," 2019. [https://www.whitehouse.gov/wp-content/uploads/2019/12/2019-CATS-5899-REV\\_DOC-Draft2018\\_2019\\_2020Cost\\_BenefitReport11\\_20\\_2019.pdf](https://www.whitehouse.gov/wp-content/uploads/2019/12/2019-CATS-5899-REV_DOC-Draft2018_2019_2020Cost_BenefitReport11_20_2019.pdf).
- . "Validating Regulatory Analysis: 2005 Report to Congress on the Costs and Benefits of Federal Regulations and Unfunded Mandates on State, Local, and Tribal Entities," 2005, 184.
- OIRA and CFTC. "Memorandum of Understanding," May 9, 2012. [https://www.whitehouse.gov/sites/whitehouse.gov/files/omb/inforeg/inforeg/regpol/oira\\_cftc\\_mou\\_2012.pdf](https://www.whitehouse.gov/sites/whitehouse.gov/files/omb/inforeg/inforeg/regpol/oira_cftc_mou_2012.pdf).
- Parker, Richard. "Hyping the Cost of Regulation." *The Regulatory Review*, June 25, 2018. <https://www.theregreview.org/2018/06/25/parker-hyping-the-cost-of-regulation/>.
- Peacock, Marcus. "Implementing a Two-for-One Regulatory Requirement in the U.S." *The George Washington University Regulatory Studies Center*, 2016, 23.
- Portman, Rob. Regulatory Accountability Act, Pub. L. No. S. 3208 (2020). <https://www.congress.gov/bill/116th-congress/senate-bill/3208?s=1&r=1>.
- Federal Register. "Protecting the Privacy of Customers of Broadband and Other Telecommunications Services," September 21, 2017. <https://www.federalregister.gov/documents/2017/09/21/2017-20137/protecting-the-privacy-of-customers-of-broadband-and-other-telecommunications-services>.
- Raso, Connor. "Assessing Regulatory Retrospective Review under the Obama Administration." *Brookings* (blog), June 15, 2017. <https://www.brookings.edu/research/assessing-regulatory-retrospective-review-under-the-obama-administration/>.
- . "How Has Trump's Deregulatory Order Worked in Practice?" *The Brookings Institution* (blog), September 6, 2018. <https://www.brookings.edu/research/how-has-trumps-deregulatory-order-worked-in-practice/>.
- "Red Tape Reduction Action Plan." Government of Canada, 2012. <https://www.canada.ca/content/dam/canada/tbs-sct/migration/hgw-cgf/priorities-priorites/rtrap-parfa/rtrapr-rparfa-eng.pdf>.
- "Reginfo.Gov," 2020. <https://www.reginfo.gov/public/>.
- "Regulatory Budgets, One In/Three Out, Etc." Accessed January 3, 2020. [https://www.regulation.org.uk/deregulation-regulatory\\_budgets.html](https://www.regulation.org.uk/deregulation-regulatory_budgets.html).
- Renda, Andrea. "Feasibility Study: Introducing 'One-In-One-Out' in the European Commission." Centre for European Policy Studies, December 5, 2019. <https://www.ceps.eu/ceps-publications/feasibility-study-introducing-one-in-one-out-in-the-european-commission/>.
- . "One Step Forward, Two Steps Back? The New U.S. Regulatory Budgeting Rules in Light of the International Experience." *Journal of Benefit-Cost Analysis* 8, no. 3 (2017): 291-304. <https://doi.org/10.1017/bca.2017.18>.



- Revesz, Richard L. "Cost-Benefit Analysis and the Structure of the Administrative State: The Case of Financial Services Regulation." *SSRN Electronic Journal*, 2016. <https://doi.org/10.2139/ssrn.2733713>.
- Revesz, Richard L., and Kirti Datla. "Deconstructing Independent Agencies (and Executive Agencies)." *Cornell Law Review* 98, no. 4 (2013): 769-843.
- Rosen, Jeffrey A., and Brian Callanan. "The Regulatory Budget Revisited." *Administrative Law Review* 66, no. 4 (2014): 835-60.
- Ryan, Stephen P. "The Costs of Environmental Regulation in a Concentrated Industry." *Econometrica* 80, no. 3 (2012): 1019-61. <https://doi.org/10.3982/ECTA6750>.
- Saez, Emmanuel, Joel Slemrod, and Seth H Giertz. "The Elasticity of Taxable Income with Respect to Marginal Tax Rates: A Critical Review." *Journal of Economic Literature* 50, no. 1 (March 2012): 3-50. <https://doi.org/10.1257/jel.50.1.3>.
- Savings Arrangements Established by Qualified State Political Subdivisions for Non-Governmental Employees, 29 CFR Part 2510 § (2016). <https://www.govinfo.gov/content/pkg/FR-2016-12-20/pdf/2016-30069.pdf>.
- Simkovic, Michael, and Miao Ben Zhang. "Measuring Regulation: A Labor Task-Based Approach." *University of Southern California Law School Legal Studies Working Paper Series*, no. Paper 298 (2019). <http://pdfs.semanticscholar.org/1943/85220c06dcf71d140008be37ffe41bfc6573.pdf>.
- Sinema, Kyrsten. Setting Manageable Analysis Requirements in Text Act of 2019, Pub. L. No. S. 1420 (2019). <https://www.congress.gov/bill/116th-congress/senate-bill/1420>.
- Staten, Michael, and Fred Cate. "The Impact of Opt-In Privacy Rules on Retail Credit Markets: A Case Study of MBNA." *Duke Law Journal* 52, no. 4 (February 1, 2003): 745-86.
- Stock, James, and Mark Watson. *Introduction to Econometrics*. 3rd ed. Pearson, 2011.
- National Academies of Sciences, Engineering and Medicine. "Study Process: Where the Nation Turns for Independent, Expert Advice," 2020. <https://www.nationalacademies.org/studyprocess/index.html>.
- Sunstein, Cass. "M-11-10: Executive Order 13563, 'Improving Regulation and Regulatory Review,'" 2011. <https://www.whitehouse.gov/sites/whitehouse.gov/files/omb/memoranda/2011/m11-10.pdf>.
- Sunstein, Cass R. "The Office of Information and Regulatory Affairs: Myths and Realities." *Harvard Law Review* 126, no. 7 (2013): 1838-78.
- . "The Regulatory Lookback." SSRN Scholarly Paper. Rochester, NY: Social Science Research Network, November 26, 2013. <http://papers.ssrn.com/abstract=2360277>.
- Treasury Board of Canada. "Annual Report to Parliament for the 2018 to 2019 Fiscal Year: Federal Regulatory Management Initiatives." Treasury Board of Canada, 2018. <https://www.canada.ca/content/dam/tbs-sct/images/reports/frmi-ifgr/2018-19/frmi-ifgr-eng.pdf>.
- U.S. Census Bureau. "Information: Summary Statistics for the U.S., States and Selected Geographies: 2017." Economic Census, 2017. <https://data.census.gov/cedsci/table?q=EC1751BASIC%3A%20Information%3A%20Summary%20Statistic%20for%20the%20U.S.%20States,%20and%20Selected%20Geographies%3A%202017&hidePreview=true&table=EC1751BASIC&tid=ECNBASIC2017.EC1751BASIC&lastDisplayedRow=73&n=517311%3A517312%3AN0600.51>.
- U.S. Environmental Protection Agency. "The Benefits and Costs of the Clean Air Act, 1970 to 1990." U.S. Environmental Protection Agency, October 1997. <https://www.epa.gov/sites/production/files/2015-06/documents/contsetc.pdf>.
- U.S. Government Accountability Office. "Reexamining Regulations: Agencies Often Made Regulatory Changes, but Could Strengthen Linkages to Performance Goals." United States Government Accountability Office, April 2014.
- Wagner, Wendy, William West, Lisa Peters, and Thomas McGarity. "Dynamic Rulemaking." *NYU Law Review* 92, no. 1 (April 2017): 183-266.
- Walker, W. Reed. "Environmental Regulation and Labor Reallocation: Evidence from the Clean Air Act." *American Economic Review* 101, no. 3 (May 2011): 442-47. <https://doi.org/10.1257/aer.101.3.442>.
- World Bank Group. "Doing Business 2020." Text/HTML. The World Bank, 2020. <https://www.doingbusiness.org/en/doingbusiness>.

