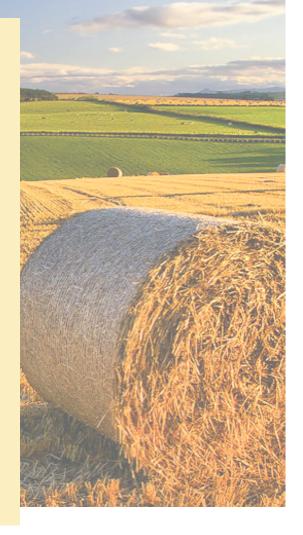
CHAPTER 1:

The Role of Public
Participation in
Retrospective Review
of Regulations

DANIEL R. PÉREZ & ARYAMALA PRASAD MARCH 31, 2020



As far back as President Carter, every administration has required a review of existing federal agency regulations with the goal of making them more effective, more efficient, or altogether eliminating those that are outdated. Nonetheless, evaluations of agency performance in implementing retrospective review (or "regulatory lookback") indicate mixed results. Studies show that a lack of incentives, resource constraints, and methodological challenges prevent retrospective review from being institutionalized as a robust, systematic component of the U.S. regulatory process (Bull 2015; Coglianese 2012; Dudley 2017).

Relatedly, scholars suggest public participation as an invaluable input to regulatory agencies for ameliorating these challenges. Public feedback might assist agencies in identifying regulations and providing additional evidence for use in retrospective analyses. Although numerous studies consider the role of public participation in the regulatory process, few have systematically assessed public comments to determine the extent to which they can provide valuable input for retrospective review. This chapter provides a foundation for analyzing public comments to understand how they might be used to improve agency regulatory lookback efforts.

The chapter is organized as follows. First, we describe the practice of retrospective review and its role in the regulatory process. We then provide an overview of the history of its implementation in the U.S. followed by a discussion of the challenges faced by agencies in conducting retrospective review. We proceed by describing the role of public participation in the rulemaking

process to explain how public comments might assist agencies in conducting retrospective review. We conclude by noting that a lack of empirical research analyzing comments submitted to U.S. regulatory agencies motivates our study to assist USDA to investigate the extent to which public comments can be used in support of retrospective review.

I. Overview of Retrospective Review

Retrospective review is the application of program evaluation to generate evidence-based findings regarding the results of a program after its implementation with the intended use of informing future decisions about the program (Newcomer et al. 2015). Applied to regulation, it is a key element of a "systems approach," (Dudley 2017; OECD 2002)² where retrospective evaluation entails:

Systematic...reviews of the stock of significant regulation against clearly defined policy goals, including consideration of costs and benefits, to ensure that regulations remain up to date, cost justified, cost effective and consistent, and deliver the intended policy objectives (OECD 2012, p. 4; see also Coglianese 2012).

In principle, retrospective review of regulations should conform to the program evaluation principle that evaluation results should "identify ways to improve the program evaluated" (Newcomer et al. 2015, p. 8). The results can assist policymakers in identifying regulations to modify from the stock of existing regulations, increase transparency and public accountability, and result in learning that improves future *ex ante* design of regulations.³ Finally, as described in greater detail below, failure to plan for retrospective review almost certainly guarantees what evaluators describe as "pitfalls in evaluation" (Newcomer et al. 2015, p. 701).⁴ These include failing to clearly identify a program theory (i.e., how actions are expected to cause certain desired outcomes) and failing to identify outputs and outcomes to measure; these are necessary prerequisites for generating evidence on the effectiveness and efficiency of a program.

_

Newcomer et al. (2015) define program evaluation as "the application of systematic methods to address questions about program operations and results...[using] social science research methodologies and professional standards" (p. 8). Specifically, retrospective review is a utilization-focused design: "An evaluation that is utilization-focused is designed to answer specific questions...so that the information provided...can affect decisions about the program's future...Programs for which decisions must be made about continuation, modification, or termination are good candidates for evaluation..." (Newcomer et al. 2015, p.10). See also Patton (2008).

Dudley (2017, p. 9) notes that "key elements of this governance framework are regulatory impact analysis (RIA), risk assessment, and public engagement before new regulations are issued, and evaluation of regulatory outcomes after regulations are in place." OECD (2002, p. 105) describes retrospective review as part of "a systematic approach to regulation making [which is] key to ensuring successful regulatory outcomes.

For additional information on the purpose and benefits of retrospective review of regulations see: Miller (2015, p. 4); Lutter (2013, p. 6-7); Coglianese (2012); Aldy (2014).

See also Dudley (2017, p. 8) describing how "understanding the *causal* relationships between regulatory policies and desired outcomes is a key element of retrospective evaluation."

A. Retrospective Review and the Regulatory Process

Countries with highly structured regulatory systems have identified retrospective review as an area of opportunity for further improving the existing policy process. For instance, in a paper that informed the development of the Organization for Economic Cooperation and Development's (OECD) Framework for Regulatory Policy Evaluation, Coglianese provides a model that highlights different areas pertinent for conducting retrospective evaluation. These include regulatory administration, behavioral compliance, and outcome performance (OECD 2014). This framework serves as a logic model depicting the regulatory process; agencies issue regulations that are intended to cause behavioral changes that are, in turn, expected to generate certain outcomes (Coglianese 2012).⁵

According to Coglianese (2012), retrospective reviews should be conducted such that they are responsive to the concerns of both government officials and the public. Additionally, he notes that they should evaluate both regulatory *processes* and regulatory *outcomes*. Figure 1 presents a streamlined version of the logic model. A more robust model would investigate additional linkages—such as the possibility that other regulations are also affecting regulated entities' behavior or directly affecting an outcome.

Regulatory Agency

Regulation

Implementation & Enforcement

Regulatory Processes

Regulatory Outcomes

Regulatory Outcomes

Figure 1.1: Targets for Retrospective Review in the Regulatory Process

Source: Modified from Coglianese (2012, p. 21).

B. The Need for Retrospective Review of Regulations

Experts note that instituting *ex post* review of regulations demands particular attention given that regulations persist whether or not they are evaluated—in contrast to on-budget programs, which are regularly subjected to rigorous *ex post* evaluation as a condition of continued funding (Dudley 2017). Although the U.S. has developed a robust system of *ex ante* regulatory analyses supporting the development of regulations, such analyses are merely "hypotheses of the effects of regulatory actions" which are rarely tested against real world evidence generated after their implementation (Dudley 2017, p. 7; see also Dudley 2015; Dudley and Miller 2016).

_

⁵ Coglianese generally uses the qualifiers "intermediate" and "ultimate" outcomes to describe what program evaluation scholars usually refer to as "outputs" and "outcomes," respectively. On logic models, generally, see Bickman (1987); Newcomer et al. (2015, p. 64).

In the absence of institutionalized retrospective review, policymakers lack the evidence necessary to answer questions regarding the extent to which their original causal hypotheses (i.e., program theory) were correct.⁶ As one scholar notes, retrospective review is necessary to know "whether the work of the regulator has anything to do with whatever change occurred" (Coglianese 2017). Although regulators are highly qualified subject matter experts in their fields, there are practical limits on their ability to have, *a priori*, all of the knowledge required to model the outcomes of regulations—particularly when they are implemented across different contexts.⁷

Additionally, it is difficult to accurately predict how the behavior of affected parties (i.e., responses to regulatory interventions) will interact with regulations to produce intended outcomes. For example, in a seminal study conducted in 1975, Peltzman found that regulations mandating safety equipment improvements to automobiles resulted in an unintended consequence: drivers drove more recklessly as a result of feeling safer, which caused an increase in pedestrian mortality rates (moral hazard) (Peltzman 1975). Similarly, a study conducted by Gruenspecht in 1982 found that regulators overestimated the benefits of improvements in air quality resulting from more stringent emissions mandates on automobiles (Gruenspecht 1982). He found that the increased cost of the new vehicles led to an unintended behavioral outcome—where consumers continued to drive their older (higher-emission) vehicles for longer than they otherwise would have absent the more stringent requirement.

Finally, retrospective review can also improve the design of future regulations based on incremental learning—a long-recognized benefit of an "evaluation mindset" that facilitates a culture of continued improvement (Newcomer et al. 2015). For instance, Dudley notes that:

Meaningful regulatory evaluation can offer more value than simply reducing burdens. A systems approach to retrospective review would focus attention on *expost* regulatory evaluation of outcomes as well as costs and can also help inform future *ex-ante* analysis (by testing hypotheses and assumptions regarding causation and outcomes), and improve future regulations (Dudley 2017, p. 8).

In addition to verifying assumptions contained within *ex ante* analyses, experts identify other factors driving the need to conduct retrospective review including: substantive changes in technology or the economy that render regulations obsolete; duplicative requirements imposing unnecessary burden (i.e., requirements also imposed by states or other agencies); and changes in

_

⁶ See Greenstone (2009, p. 114): "The development of reliable estimates of the costs and benefits of regulations begins with the specification of a causal hypothesis or hypotheses....to have any practical relevance, we must be able to subject it to a meaningful test."

For instance, Bull (2015, p. 282-3) notes that although the Office of Information and Regulatory Affairs (OIRA) coordinates agency actions to avoid duplicative requirements with other agencies, evidence suggests the complexity of the context in which regulations operate is too extensive to adequately avoid the creation of these unnecessary burdens. Aldy (2014, p. 24) states that "*ex post* analyses may…highlight the unexpected or unintended in regulatory implementation." See also Dudley and Xie (2019).

administration policy (Eisner et al. 1996; OMB 2012; Lutter 2013). Notably, retrospective review in the U.S. has historically focused on identifying and modifying or eliminating regulations to reduce regulatory burden. Retrospective review can also leverage valuable public input to overcome well-studied cognitive limitations that create knowledge problems for regulators. Ultimately, experts agree that "better prospective analysis…depends on retrospective evaluation" (Coglianese and Bennear 2005).

II. History of Retrospective Review in the United States

For decades, both legislative and executive efforts have attempted to institutionalize retrospective review as part of the U.S. regulatory system. Legislative mandates—including some agency authorizing statutes—contain requirements for regulatory agencies to conduct retrospective reviews of certain types of regulations. Beginning with President Carter, most presidents have issued executive orders requiring federal regulatory agencies to implement retrospective review. Notably, most retrospective review initiatives in the U.S. prescribe reductions in regulatory burden—directing agency efforts towards identifying and modifying or eliminating outdated or unnecessary regulations (Aldy 2014).

A. Legislation

Congress passed the Regulatory Flexibility Act (RFA) of 1980, requiring agencies "to review rules with significant economic impacts on small entities every ten years" (Dudley and Miller 2016). If an agency determines it cannot feasibly complete its review within ten years, the Act requires the agency to publish a notice in the *Federal Register* and allows an extension of the agency's deadline for up to five years. Section 610 lists the criteria that agencies should use to identify regulations in need of review which include:

(1) The continued need for the rule; (2) the nature of complaints or comments received concerning the rule from the public; (3) the complexity of the rule; (4) the extent to which the rule overlaps...with other Federal rules, and...with State and local government rules; (5) the length of time since the rule has been evaluated or the degree to which technology, economic conditions, or other factors have changed in the area affected by the rule.⁹

The Administrative Procedure Act (APA) requires that regulatory agencies allow "interested [parties] the right to petition for the issuance, amendment, or repeal of a rule." Although petitions from the public may include requests to regulate currently unregulated activities, they can also

5

-

⁸ For example, as early as 1945, Herbert Simon noted that the limits of human knowledge affected policymaking which placed limits on rational-comprehensive policymaking (Simon 1945). For an in-depth treatment of the literature on behavioral public choice and its findings on the behavior of regulators see: Dudley and Xie (2019).

⁹ Periodic review of rules, 5 U.S.C. Sec 610.

¹⁰ Rulemaking, 5 U.S.C. Sec 553(3).

include requests to conduct a retrospective review of existing regulations.¹¹ Notably, the APA does not contain procedures for agencies to follow in responding to such public comments, but many agencies have developed their own guidelines and disclosure practices.¹²

Additionally, Congress sometimes writes requirements for agencies to conduct retrospective reviews for a subset of their regulations directly into agency statutes. For example, the Clean Air Act (CAA)—as amended in 1990—required that EPA conduct a retrospective analysis to assess the benefits and costs "to the public health, economy and the environment of clean air legislation enacted prior to 1990" (EPA 1997, p. 6). Finally, the Paperwork Reduction Act (PRA) of 1980 requires agencies to solicit public comment on administrative burden related to regulatory reporting requirements every three years (Balla and Dudley 2014).

B. Executive Actions

Every president since Jimmy Carter has issued at least one document requiring agencies to look back at their existing stock of regulations to identify opportunities to improve regulatory outcomes. Table 1 updates prior efforts to catalogue executive actions related to retrospective review with a summary of various executive orders and other memoranda issued under each administration from Carter administration to the Trump administration.¹³

¹¹ For an in-depth treatment of rulemaking petitions and retrospective review, see Bull (2015, p. 295-305).

The Food Safety and Inspection Service (FSIS) maintains a website listing "petitions for rulemaking and policy change submitted to FSIS that have generated public interest." Available at: https://www.fsis.usda.gov/wps/portal/fsis/topics/regulations/petitions. EPA maintains a list of petitions received by each of its program offices "in the interest of sharing information about the requests the agency has received" Available at: https://www.epa.gov/aboutepa/petitions-rulemaking.

¹³ For an extensive treatment of retrospective review through the Obama administration, see Aldy (2014).

Table 1.1: Executive Actions Requiring Retrospective Review

Administration	Date	Executive Action	
Carter	3/23/1978	EO 12044: Improving Government Regulations	
Reagan	1/22/1981	Presidential Task Force on Regulatory Relief	
Reagan	2/17/1981	EO 12291: Federal Regulation	
Reagan	1/4/1985	EO 12498: Regulatory Planning Process	
G.H.W. Bush	1/28/1992	Memorandum on Reducing the Burden of Government Regulation	
Clinton	1/30/1993	EO 12866: Regulatory Planning and Review	
G. W. Bush	5/2/2001	OIRA Solicitation of Public Comments for Retrospective Review	
Obama	1/18/2011	EO 13563: Improving Regulation and Regulatory Review	
Obama	4/25/2011	OMB Memo: Retrospective Analysis of Existing Significant Regulations	
Obama	7/11/2011	EO 13579: Regulation and Independent Regulatory Agencies	
Obama	5/10/2012	EO 13610: Identifying and Reducing Regulatory Burdens	
Trump	1/30/2017	EO 13771: Reducing Regulation and Controlling Regulatory Costs	
Trump	2/24/2017	EO 13777: Enforcing the Regulatory Reform Agenda	
Trump	4/5/2017	OMB Guidance on Implementing EO 13771	

Source: Modified from Aldy (2014, Table 1).

President Carter issued Executive Order (EO) 12044¹⁴ requiring agencies to "periodically review their existing regulations" and proposed evaluation criteria for identifying regulations from the existing stock that primarily focused on reducing administrative burden. ¹⁵ Scholars note that this EO was the first presidential action to prescribe systematic analysis of significant agency actions (Aldy 2014). Interestingly, this was also the only order to date requiring prospective planning for retrospective review as a precondition to finalizing regulatory actions; for significant regulations, EO 12044 required agency heads to certify that their agency had a plan for conducting retrospective review prior to publication in the *Federal Register*.

In 1981, President Reagan established the Presidential Task Force on Regulatory Relief and issued EO 12291¹⁶ instructing the Director of the Office of Management and Budget (OMB) and the Task Force to "identify duplicative, overlapping and conflicting rules... [and] minimize or eliminate [them]."¹⁷ The order also called for the development of "procedures for estimating the annual

¹⁴ EO 12044 is available at: https://cdn.loc.gov/service/ll/fedreg/fr043/fr043058/fr043058.pdf#page=317

¹⁵ EO 12044, Sec 4.

¹⁶ EO 12291 is available at: https://www.archives.gov/federal-register/codification/executive-order/12291.html

¹⁷ EO 12291, Sec 6(a)(5).

benefits and costs of agency regulations...for purposes of compiling a regulatory budget."¹⁸ Although a regulatory budget was not implemented under this administration, its inclusion in this order mirrors efforts in the Carter administration to consider the implementation of a regulatory pay-as-you-go (PAYGO).¹⁹ Finally, Reagan issued EO 12498²⁰ requiring agencies to submit to OMB a Draft Regulatory Program at least twice a year that "specifically [discussed] the significant regulatory actions of the agency to revise or rescind existing rules."²¹

President G. H.W. Bush's 1992 Memorandum on Reducing the Burden of Government Regulation expanded on the efforts of the Reagan administration and "established a 90-day moratorium on new regulations and required regulatory agencies...[to] eliminate those that impose[d] 'any unnecessary burden" (Aldy 2014, p. 32). Aldy notes that the moratorium "effectively freed up staff resources to focus on retrospective review" and provided expanded criteria for review—including "an emphasis on performance-based and market-based regulatory mechanisms" (Aldy 2014, p. 32).

In 1993, President Clinton issued EO 12866²²—Regulatory Planning and Review—which built off the Carter and Reagan administration orders "to cement the regulatory principles and centralized review that continue to guide the rulemaking process today" (Febrizio, Pérez & Xie 2018) Clinton's order tasked the Administrator of the Office of Information and Regulatory Affairs (OIRA) with convening a Regulatory Working Group which could, among other things, "commission analytical studies and reports by OIRA, the Administrative Conference of the U.S., or any other agency."²³ With regards to retrospective review, EO 12866 instructed agencies to submit their plans for implementing retrospective review to OIRA within 90 days.

Under President G. W. Bush, OMB took a different approach by "solicit[ing] nominations from the public to identify existing rules that merited reform" (Aldy 2014, p. 34). OIRA received "approximately 1,700 responses identifying a total of 316 distinct reform nominations... [and] worked with agencies to revise approximately one hundred regulations under this public nomination process" (Balla and Dudley 2014, p. 27-28). Under the Bush administration, OMB also issued "prompt letters" directly to agencies detailing individual suggestions for regulatory action—oftentimes to modify the stock of existing rules (Aldy 2014).

¹⁸ EO 12291, Sec 6(a)(6).

¹⁹ See: Economic Report of the President Transmitted to the Congress (1980, p. 125): "Because we do not live in a world of unlimited resources we cannot simultaneously achieve all desirable social goals...as a result, proposals have been made [to] develop a 'regulatory budget,' similar to the expenditure budget, as a framework for looking at the total financial burden imposed by regulations..."

²⁰ EO 12498 is available at: https://www.archives.gov/federal-register/codification/executive-order/12498.html

²¹ EO 12498, Sec 2(b).

²² EO 12866 is available at: https://www.archives.gov/files/federal-register/executive-orders/pdf/12866.pdf

²³ EO 12866, Sec 4(d).

In 2011, President Obama issued EO 13563²⁴ which, in addition to reaffirming the principles of EO 12866, focused on improving retrospective review of regulations. The Order stated that the "regulatory system…must measure, and seek to improve, the actual results of regulatory requirements"²⁵ and called on agencies to "consider how best to promote retrospective analysis of rules that may be outmoded, ineffective, insufficient, or excessively burdensome."²⁶ Additionally, similar to EO 12866, it instructed agencies to submit their plans for implementing retrospective review to OIRA but gave them 120 days to do so.

OMB issued subsequent guidance to agencies on implementing EO 13563 which emphasized "the importance of maintaining a consistent culture of retrospective review" along with promoting public consultation as a valuable input in the creation of regulatory agency preliminary plans. The guidance posited that members of the public likely held information valuable for use in retrospective review (OMB 2011). This memo also referenced evaluation literature promoting promising practices in social science research. For example, it stated that:

future regulations should be designed and written in ways that facilitate evaluation of their consequences and thus promote retrospective analysis...to promote empirical testing of the effects of rules both in advance and retrospectively (OMB 2011, p.2).

President Obama also issued EO 13579²⁷ which suggested that independent agencies should also conduct retrospective analyses of their existing rules. In 2012, his EO 13610²⁸ stated that "further steps should be taken...to promote public participation in retrospective review...and to institutionalize regular assessment of significant regulations."²⁹ The EO instructed agencies to take steps to expand public participation in retrospective review and "invite, on a regular basis...public suggestions about regulations in need of retrospective review and about the appropriate modifications to such regulations."³⁰ EO 13610 also required agencies to submit annual reports of their retrospective review reports to OIRA.

²⁴ EO 13563 is available at: https://www.federalregister.gov/documents/2011/01/21/2011-1385/improving-regulation-and-regulatory-review.

²⁵ EO 13563, Sec 1.

²⁶ EO 13563, Sec 6(a).

²⁷ EO 13579 is available at: https://www.federalregister.gov/documents/2011/07/14/2011-17953/regulation-and-independent-regulatory-agencies.

²⁸ EO 13610 is available at: https://www.federalregister.gov/documents/2012/05/14/2012-11798/identifying-and-reducing-regulatory-burdens.

²⁹ EO 13610, Sec 1.

³⁰ EO 13610, Sec 2.

Most recently, President Trump issued EO 13771³¹ requiring that agencies repeal two existing regulations for every new regulation issued. Additionally, the EO established an annual, incremental cost cap of zero for Fiscal Year 2017 and tasked OMB with issuing subsequent guidance on achieving cost savings targets in subsequent years along with guidance on the scope of the "two for one" requirement. OMB has since issued several documents implementing the Trump administration EO.³² Scholars suggest that the mandate to eliminate two regulations for every new one issued could act as a mechanism forcing agencies to conduct retrospective review of their existing stock (Dooling, Febrizio & Pérez 2019).

A subsequent Order, EO 13777³³, established additional mechanisms for identifying regulations for retrospective review by requiring each agency to "designate an agency official as its Regulatory Reform Officer" in addition to establishing a "Regulatory Reform Task Force...[to] make recommendations to the agency head regarding...repeal, replacement, or modification."

III. Challenges to Implementing Retrospective Review

Despite decades of executive and legislative efforts to institutionalize retrospective review as part of the U.S. regulatory process, evaluations of its implementation generally find little success in systematically implementing retrospective review requirements.³⁴ Even when agencies do conduct *ex post* evaluations they seldom measure up to the potential mechanism for systematic evaluation and learning envisioned by scholars. For instance, Dudley notes that, in the U.S., retrospective review has generally focused on reducing administrative burdens—an achievement that falls short of learning from retrospective review to improve future *ex ante* analysis (Dudley 2017). Other scholars also find that when agencies conduct *ex post* analysis they often amount to little more than "business-as-usual management, with little discernible new work on the retrospective analysis and measurement called for" (Lutter 2013).³⁵

Interestingly, this lack of implementation is not merely a problem in the U.S. An OECD report notes that although there is widespread agreement among OECD countries on the value of

³² For an extensive treatment of OMB guidance on implementing 13771 see: Dooling, Febrizio & Pérez (2019).

³¹ EO 13771 is available at: https://www.federalregister.gov/documents/2017/02/03/2017-02451/reducing-regulation-and-controlling-regulatory-costs

³³ EO 13777 is available at: https://www.federalregister.gov/documents/2017/03/01/2017-04107/enforcing-the-regulatory-reform-agenda.

³⁴ For instance, Bull (2015, p.14) notes that many "regulatory lookback" initiatives were simply "one-time affairs" instead of a process attempting to institutionalize retrospective review as part of the U.S. regulatory process. See also: Miller (2015); Coglianese (2012).

³⁵ Lutter (2013) talks about a lack of agency implementation of EO 13563. Aldy (2014, p. 9) finds that: "This process of assessing the regulatory impacts of proposed regulations, with heightened scrutiny for those that would have significant economic impact, has established a culture of prospective analysis. There is, however, less activity, a mixed track record, and fewer resources directed to ex post assessment of Federal regulations."

instituting robust *ex post* analysis, there exists little evidence of such implementation (OECD 2014, 58). Similar to the U.S. experience, scholars find that retrospective review often results in partial assessments with a narrow focus on regulatory burden reduction (Allio 2015). A systematic evaluation across OECD countries finds that:

Very few OECD countries have actually deployed the tool systematically and no dedicated governance structure is usually at hand to support the *ex post* evaluation function. In particular, few countries assess whether underlying policy goals of regulation have been achieved, whether any unintended consequences have occurred and whether there is a more efficient solutions to achieve the same objective. Governments moreover have rarely embarked on comprehensive reviews that investigate the regulatory impacts across sectors; cumulatively; and in terms of wider economic and societal implications (Allio 2015, p. 234).

Experts studying the issue of retrospective review identify several reasons why *ex post* review is not yet institutionalized in the regulatory process (i.e., is not as robust an evaluative process as *ex ante* analysis). These include: 1) lack of incentives; 2) lack of capacity, 3) methodological challenges, and 4) the difficulty of identifying regulations for retrospective review.³⁶

A. Lack of Incentives

A lack of incentives to implement a robust system of retrospective review is partly a function of the previously noted nature of regulations—once they are promulgated, there are few mechanisms forcing agencies to evaluate them. For example, Dudley finds that "once a regulation is in place, neither regulators nor regulated entities have strong incentives for examining its actual impact" (Dudley 2017, p. 7). She notes that incumbent firms that have already invested in complying with regulatory requirements often stand to lose market share to new entrants should such requirements be eliminated or made less stringent.

Regulators and political decision makers also confront similar forward-looking incentives. For instance, regulators' performance reviews are often based on their level of new output (i.e., the number of new regulations they publish rather than the number of existing regulations they improved) (Ellig and Williams 2019). Similarly, policy officials and politicians confront public pressure to "do something"—even in cases where careful analysis might suggest that either inaction or modifications to existing policies would generate better results (Dudley 2017, p. 7).

B. Lack of Capacity

Regulatory agencies also face time and resource constraints affecting their capacity to implement regular and systematic retrospective reviews (GAO 2004; Eisner et al. 1996). Agency staff are

-

³⁶ See: Eisner et al. (1996); Dudley (2017, p. 12). See generally: Greenstone (2009); Aldy (2014); Coglianese (2012); Peacock et al. (2018); Bull (2015).

required to work on retrospective reviews in addition to their other responsibilities. Sometimes they find it difficult to prioritize retrospective reviews over other critical program activities (GAO 2004). Teams responsible for reviewing rules are likely also spending time on drafting rules and other implementation activities related to a rule (Eisner et al. 1996). ³⁷ Despite the resource constraints, agencies must conduct mandatory reviews necessitated by statutes or presidential orders. In such cases, meeting strict deadlines can be challenging. For example, the G. H.W. Bush administration gave agencies 90 days to review all their regulations—an insufficient timeframe for conducting a complete review of any agency's existing stock of regulations (GAO 2004; see also Aldy 2014). In addition, given the low priority for reviews, agencies often reduce the budgets they allocate towards retrospective review activities when they face funding limitations (GAO 2004).

Under the PRA, OIRA must approve any information collection from ten or more parties, and agencies must demonstrate the "practical utility" of the information. These requirements pose an additional barrier to agencies wishing to gather data for retrospective reviews (GAO 2004). During a Government Accountability Office (GAO) review, EPA officials mentioned that even if they have the authority to collect data, PRA approval requirements could take longer than the time allocated for annual reviews (GAO 2004). Department of Homeland Security officials also raised similar concerns that the PRA makes it challenging to obtain meaningful data from regulated entities (GAO 2014).

C. Methodological Challenges

In addition to a lack of incentives and capacity, implementing the type of retrospective review described in this chapter is simply a difficult and complex endeavor. With regard to conducting retrospective review of regulatory outcomes, agencies face a fundamental problem in social science—valid causal inference (Greenstone 2009).

For example, Greenstone notes that a "regulation to reduce air pollution cannot simultaneously be administered to and withheld from the same city." Essentially, estimating a counterfactual—what the world would have looked like absent a regulation—requires the use of evaluation techniques that need oftentimes difficult to obtain data (Greenstone 2009, p. 116). For example, agency staff surveyed identified lack of data as a major barrier to conducting retrospective review, particularly in the case of older rules—where fewer useful data exist (GAO 2004, Eisner et al. 1996). Although agencies might gather additional data, this creates new challenges. For example, in a GAO study, Department of Transportation (DOT) officials mentioned that collecting better data for benefit-cost analyses would increase the burden for states (GAO 2014).

³⁷ Eisner et al. (1996, p. 148) find that "agencies almost universally state that time and resources are too limited to allow for regular, systematic reviews."

The problem of conducting valid statistical inference becomes increasingly problematic with regards to federal regulation—where a single regulatory intervention often operates across multiple, distinct contexts (e.g., rural vs urban), producing differing outcomes. For instance, Allio (2015) notes,

Because policy interventions unfold over time, they may have different impacts on different populations (targeted addressees as well as untargeted groups) at different moments in time. Not all effects are observable and can be evaluated simultaneously when the evaluation occurs. Even a well-defined, individual regulation will often comprise a complex chain of interventions, interactions, and impacts (Allio 2015, p. 194.)

Dudley elaborates on this problem in her study on conducting retrospective review of chemical regulations where she finds that implementation of *ex post* review is particularly challenging for several reasons. For instance, she notes that complex linkages between health outcomes and numerous factors in addition to the regulatory intervention often make it difficult to isolate the effect of the regulation (Dudley 2017). This is made all the more difficult given that exposure-response models are (for obvious ethical reasons) often based on "extrapolations of animal studies or associations observed from epidemiological data" (Dudley 2017, p.14). Finally, she lists additional confounding factors necessitating the use of robust evaluation techniques to generate valid estimates of a regulation's outcomes:

- changes in the environment;
- changes in the units themselves (housing, access to healthy food options, access to recreation, etc.);
- inconsistent or incomplete implementation; and
- faulty methods for monitoring changes over time (Dudley 2017, p.14, 20).

Interestingly, for some regulatory interventions, oftentimes the act of regulating itself forestalls learning and stifles the ability to generate evidence (Pawson 2003). For example, regulations that ban existing products (or take the precautionary approach of preventing their introduction in the first place) create problems for causal estimation by eliminating the opportunity to collect data on its effects (e.g., environmental, health, human safety, etc.) (Dudley 2017). Nonetheless, social scientists have continually improved the state of the science over several decades of dedicated methodological improvement. For instance, in a seminal work, evaluation scholars Shadish, Cook, and Campbell (2002) systematically catalogue methods for generating valid causal inferences (e.g., randomized control trials, quasi-experimental methods, case studies). The authors investigate how various research designs are structured to address threats to validity in testing causal hypotheses and offer prescriptions for improving the generalizability of findings.

In some cases, agencies have successfully leveraged such approaches—highlighting the benefits of planning for retrospective review at the outset of the regulatory process. For example, Lutter

presents a retrospective review conducted by the National Highway Traffic Safety Administration (NHTSA) in 1998 on a rule it published in 1983 as a case study of excellence in *ex post* review (Lutter 2013). He found that "the original prospective study was based on randomly assigning vehicles to have the special [brake lights] under consideration" and that the agency's retrospective review found that "reductions in injuries and damages observed…were less than 5 percent and much less than…33 percent" of what was estimated by the agency's *ex ante* analysis (Lutter 2013, p. 13).

D. Criteria for Identifying Regulations to Review

Another often overlooked issue in implementing retrospective review is the difficulty involved in identifying regulations from the existing stock that are the most promising candidates for review. What criteria should agencies use to guide their selection of existing regulations for review? Here, agencies in the U.S. have generally relied on three mechanisms: 1) legislative and executive requirements; 2) agency expertise; and 3) public participation.

Legislative and Executive Requirements

Agencies often identify regulations for review as part of legislative and executive requirements to review a subset of their regulations—often at some regular interval, such as §610 reviews under the RFA or EPA's review requirements under the CAA. Various EOs have also specified criteria for regulators to use for identifying regulations to review. For instance, EO 12044 provided criteria such as "the need to simplify or clarify language" and "the length of time since the regulation has been evaluated." EO 13610 instructed agencies to prioritize "reductions in paperwork burdens" and regulatory burdens on small businesses. Most recently, EO 13777 instructed agency Regulatory Reform Task Forces to identify regulations that "eliminate jobs, or inhibit job creation; are outdated, unnecessary, or ineffective; and impose costs that exceed benefits" as part of its identification criteria. On the supervised supervised agency and the supervised supervised agency are outdated.

Agency Expertise

Ultimately, agencies also rely on their internal expertise to determine rules for review. For example, in 2009, USDA engaged with its 6,000 employees in approximately 500 offices to seek input on its Rural Development mission. Feedback received from employees enabled identification of improvements required in not only regulation but also forms and processes (USDA 2011). Even outside of requirements to do so, some agencies have developed their own mechanisms to conduct reviews. Agencies such as Department of Defense (DOD), Department of Interior (DOI), and the Federal Deposit Insurance Corporation (FDIC) have issued orders to establish review cycles for

³⁹ EO 13610, Sec 3.

³⁸ EO 12044, Sec 4.

⁴⁰ EO 13777, Sec 3(d).

existing rules (Eisner et al. 1996). For example, DOD reviews its rules every two years, and DOI and FDIC conduct retrospective reviews every five years (Eisner et al. 1996). Additionally, agencies might identify problematic rules for review during their implementation. Lawyers can find problems in enforcing or interpreting the rules during enforcement or investigators can gather information on problems from regulated entities (Eisner et al. 1996).

Public Participation

As a complement to both mandated and discretionary internal reviews, agencies have used public participation to identify candidates for review among existing regulations. Several agencies engage with the public during these reviews, but the level of public participation varies (Eisner et al. 1996). A report by GAO found that agencies were more likely to solicit public feedback to select regulations when reviews are discretionary rather than mandatory (GAO 2007). Additionally, reviews that occur under statutes prescribe certain standards for selecting rules to review, therefore, agencies have less discretion in identifying regulations. However, agencies seek public input when conducting both mandatory and discretionary reviews when gathering information on the implementation of existing rules (GAO 2007). GAO also noted that agencies were less likely to share the results of regulatory review for public comments.

Agencies solicit public input for retrospective review through various means. For instance, the APA provides interested parties the right to file a petition to amend or repeal a rule (Eisner et al. 1996). Such petitions are a major driver of regulatory reviews because oftentimes regulated entities and other interested parties request that agencies (i) modify a rule to include new or updated information (ii) reconsider a specific part of the rule, and (iii) waive certain requirements (Eisner et al. 1996). As an example, both DOT and the Mine Safety and Health Administration conduct reviews of entire regulations in cases where the agency receives multiple, similar petitions (Eisner et al. 1996).

Other mechanisms for soliciting public participation include agency requests for comments through advanced notices of proposed rulemaking or requests for information published in the *Federal Register* (ACUS 2013). Relatedly, agencies note that including detailed and specific questions in their requests can result in better feedback for identifying regulations and developing plans for retrospective review (ACUS 2013). Another method used by agencies involves asking external stakeholders to identify the top three rules it should review to assist the agency in creating a master list of frequently-cited rules for review (GAO 2004).

However, many agencies prefer to organize in-person meetings because they are more conducive to deliberation; agency staff can follow up on specific comments or concerns (Eisner et al. 1996). For example, the Department of Labor holds informal meetings with stakeholders to identify opportunities for regulatory reform. Some agencies such as USDA and the Department of Justice (DOJ) also reported interacting with specific stakeholders to obtain public input (GAO 2007). For example, USDA meets with industry committees and holds public hearings/meetings to get

feedback on its regulations (GAO 2007). In the past, FDA has used advisory committees in addition to public comments to narrow down its list of regulations to review (Eisner et al. 1996).

IV. Involving the Public in Retrospective Review

Over the years, multiple administrations have emphasized the importance of retrospective review. Interestingly, among the various methods prescribed to facilitate the regulatory review process, the G. W. Bush, Obama, and Trump administrations have all highlighted the importance of public participation. However, despite these efforts, agencies have not yet systematically integrated public participation into the retrospective review process. Scholars note that agencies should engage with the public to gain better insight in areas including administrative burden, unintended consequences, and efficiency of intended outcomes (Aldy 2014; Sant'Ambrogio et al. 2018).

Between 2001 and 2004, OIRA invited the public to nominate existing rules as candidates for retrospective review. OIRA received several rounds of input from the public—71 suggestions from 33 commenters in 2001 compared to 316 suggestions from 1,700 commenters in 2002. Later in 2004, OIRA invited additional comments on regulations affecting the manufacturing sector and received 189 suggestions from 41 commenters. OIRA worked with agencies to select rules for review based on the suggestions received from the public and agency priorities. According to some estimates, these efforts informed OIRA's identification of just under 200 individual regulations as candidates for retrospective review (Graham et. al. 2005).

In 2011, under the Obama administration, many agencies stated that the external feedback mechanisms (i.e., public comments prompted by the requirements of EOs 13563 and 13610) were helpful in identifying and evaluating regulatory reforms (GAO 2012). In addition to their initial solicitation of public input, pursuant to these executive orders, agencies such as USDA published annual requests for information in the *Federal Register* inviting the public to supplement its own regulatory expertise by helping the agency identify "which regulations should be modified, expanded, streamlined, or repealed" (USDA 2016, p. 4213).

Although agencies did involve the public in the review process, as shown in Table 2, stakeholders generally submitted few comments—with some exceptions. Agency requests for information received an average of 444 comments (Raso 2017)⁴¹—a much lower number of comments than agencies receive on a typical notice of proposed rulemaking (DeMenno 2017). One possible reason for less participation is insufficient outreach activities. Agencies notify the public by announcing their actions in the *Federal Register* or the *Unified Agenda*, but these may not be the most effective

-

⁴¹ Estimated by Raso (2017) using a sample of agency requests for information.

channels for soliciting public participation.⁴² Generally, it is informed stakeholders who routinely check regulation-related websites for updates or notices, not members of the lay public (Sant'Ambrogio and Staszewski 2018). Further, agencies also prefer to speak to regulated entities in informal meetings because the comments often express opinion about the issue area instead of speaking about regulations.

Table 1.2 Number of Comments received on EO 13563

Agencies	Number of Comments
Department of Homeland Security	50 comments
Department of Energy	29 comments
Department of Interior	43 comments
Department of Justice	17 comments
Department of Transportation	102 comments
Environmental Protection Agency	800 comments (approx.)
Department of Housing and Urban Development	42 comments
Department of Agriculture	2100 comments (approx.)
Department of Education	30 comments
Department of Treasury	14 comments

Source: DeMenno (2017)

However, an analysis of public comments submitted to eight agencies reveals that comments may offer valuable information to agencies for use in retrospective review. Specifically, DeMenno (2017) found that 83% of commenters submitted substantive information by sharing their lived experience related to regulations. Comments not only mentioned problems but also provide recommendations regarding cost-benefit estimates, review priorities, and stakeholder engagement. Businesses also pointed out regulatory burdens and included suggestions to reduce them (DeMenno 2017). Moreover, contrary to prior agency officials' observations (GAO 2012), the majority of comments in DeMenno's analysis specified a policy for review.

Her study categorized participants in these regulatory reviews as representing businesses, government (public), and individuals/others. The findings indicate balanced representation in the comment process with business interests submitting 43 percent of comments, government/public submitting 32 percent, and individuals/other accounting for 25 percent. This is a particularly

⁴² An ACUS (2013) report on public engagement recommends the use of social media (e.g., Twitter, YouTube videos). See also: Government Accountability Office (2007). "Reexamining Regulations: Opportunities Exist to Improve Effectiveness and Transparency of Retrospective Reviews."

notable finding given that the type of participation prompted by EO 13563 is different from the observed trends in public comments received during the rulemaking stage—where we observe a greater share of participation from business groups (Yackee and Yackee 2006; Golden 1998; Kerwin and Furlong 2005). There was also variation across agencies. For instance, USDA generally received comments from individuals whereas the Department of Energy (DOE) received no comments from individuals. Business interest participation was higher for DOE, Department of Treasury, Department of Interior, and Department of Transportation. The Department of Education did not receive any comments from business interest groups.

DeMenno's analysis of comments submitted in response to EO 13563 offers preliminary evidence for the claim that commenters provide useful information for retrospective review. Similarly, previous GAO studies found that agency officials benefit from inputs received by stakeholders. Despite these promising findings, there is still a limited understanding of the characteristics of comments submitted to agencies for retrospective review. Ongoing regulatory reform efforts offer an opportunity to examine additional public comments to improve our understanding of their potential to assist agencies in retrospective review.

At present, the Trump administration's EO 13771 encourages agencies to review regulations to reduce regulatory burden. The agencies are seeking inputs from "state, local, and tribal governments, small businesses, consumers, non-governmental organizations, and trade associations" to "modify, repeal, or rescind" regulations. Over the past two years, agencies have solicited feedback on identifying regulations for review. We analyze the comments submitted in response to the executive order to classify public comments and identify regulations for review.

To facilitate our analysis, we first review the literature on public comments in the rule development process. This literature helps us understand important aspects of comments and develop a framework—used in our own analysis of comments in Chapter 2 of this report. As mentioned above, research on public comments mostly focuses on comments received on individual rulemakings throughout the rule development process. Here, numerous scholars have performed in-depth analyses of comments to understand who participates in the process and what information they share. For example, it is established that business interests are generally the most active participants, however, other groups such as advocacy organizations, trade associations or individuals/private citizens also submit comments. Similarly, the content of comments may either provide important technical information or simply reveal preferences to regulators. To identify the key characteristics of public comments, our review of the literature summarizes the trends in public comments to identify types of commenters, information shared in comments, and agencies response to public comments.

V. Public Comments in the Regulatory Process

The APA requires agencies to facilitate public participation in the rulemaking process.⁴³ The law mandates that federal agencies publish a notice of proposed rulemaking in the *Federal Register* with information on rulemaking proceedings to allow interested persons to share their perspectives.⁴⁴ People can submit data or arguments to support their views on proposed regulatory actions. While finalizing a rule, agencies are required to consider public comments and include their response in a concise manner.

Despite the other means of participation, the notice-and-comment process remains central to public participation in rulemaking. The process includes publishing a notice of proposed rulemaking (NPRM) in *the Federal Register* and soliciting comments before finalizing a rule. Executive Order 13563 encouraged agencies to have at least a 60-day comment period. However, the average comment period for economically significant rules is 45 days while comment periods for non-significant rules are open for an average of 39 days (Balla and Dudley 2014). The longer duration of the comment period allows stakeholders to assemble the information to respond to technical and complex rules (Kerwin and Furlong 2018). Interested individuals or organizations can submit comments online through the regulations.gov portal, email, or mail. Many agencies publish their comments under the proposed rule docket on the regulations.gov website.

Although the Section 553 of the APA requires agencies to review and consider the comments but provides no format that agencies must follow when responding to comments. More generally, agencies discuss public comments in the preamble of the final rule to explain how the comments influenced the final product (Kerwin 2001). The preamble may also include specific changes introduced as a result of public comments. Some agencies such as EPA also publish a separate Response to Comment document for each proposed rule, which includes replies to individual comments submitted to the agency. Agencies are likely to explain their position on the submitted comments in the preamble to mitigate chances of judicial review. The courts can review final rules to evaluate whether agencies considered public comments adequately. In the past, courts have ruled that the agency is "obligated to identify and respond to relevant, significant issues raised during [notice-and-comment] proceedings" (Kochan 2017).

⁴³ This rulemaking process refers to Section 553 of the APA, 1946.

Rulemaking, 5 U.S.C. Sec 553. Agencies can withdraw from the notice-and-comment process if there is a "good cause...that notice and public procedure thereon are impracticable, unnecessary, or contrary to the public interest."

Other means of participation include negotiated rulemaking, direct meetings with stakeholders, panels organized by small business office of advocacy, and meetings with Office of Information and Regulatory Affairs when a regulation is under interagency review.

A. Trends in Public Comments

Public participation is open to all stakeholders including trade associations, think tanks, advocacy organizations, government agencies, and consumers. Several studies have attempted to understand the trends in participation by analyzing the number of comments, type of participants, and the type of comments submitted to agencies. Earlier studies suggest that business interests submit more comments than NGOs and consumers (Balla and Dudley 2014). However, some proposed now rules receive more comments from advocacy groups and private citizens.

In an analysis of comments submitted for 11 rules issued by EPA, NHTSA, and the Department of Housing and Urban Development (HUD), businesses submitted most of the comments received by EPA and NHTSA (Golden 1998). Another case study regarding warning labels on cigarette packages suggests that directly affected entities, such as tobacco and advertising industries and health and consumer groups, submitted a large number of comments (Kerwin and Furlong 2018). However, even among the interest groups, participation varies. Stakeholders who participate often are well organized and have financial and human resources to submit well-researched comments. Also, they are more engaged in the prominent rules as opposed to the ones proposing small or routine changes in rules (Kerwin and Furlong 2018).

Although business groups submit a high number of comments, participation from other stakeholders is increasing. For example, a study that examined 30 agency rules and 1,700 comments submitted between 1994 and 2001 found that industry representatives submitted 57 percent of the comments compared to 22 percent submitted by NGOs. Moreover, participation by other groups depends on the nature of the proposed rule and organizational strategy. For example, in a study of EPA comments, business groups submitted more comments than environmental groups. However, the environmental groups mostly agreed with the agency view and did not submit comments to expedite finalization of the rule (Kerwin 2001). It is also likely that certain organizations represent the interests of other stakeholders. For example, the National Academy of Sciences submitted comments on a safety standard rule to represent the interest of consumers (Kerwin 2001). Finally, although there are generalizable differences in the characteristics of comments across groups, the content of public comments can also vary substantively within groups; competing business interests (e.g., shippers, rail operators) are likely to disagree on regulatory policy approaches.

The use of regulations.gov has increased the number of comments received from consumers. Online campaigns encourage individual citizens to participate in sending mass comments to agencies. These are the electronic equivalent of form letters and postcard comments organized by advocacy groups in the past. In recent years, several rules related to environment, natural resources, and communications have received more than 100,000 comments. An analysis of mass comments on EPA rules issued between 2012 and 2016 indicates that these comments are likely to be submitted on complex and economically significant rules (Balla et al. 2019a). These comments are often short in length and express an opinion in favor or against the rule (Balla et al. 2019b). The

quality of comments submitted by stakeholders varies. Regulated entities and business interests tend to submit technical comments. Rules that receive a large number of comments from individuals often include form letters that exhibit political sentiments—although some form letters are relatively sophisticated given that commenters personalize the information included in their own comment (Cuellar 2005). It is possible that the quality of comments varies based on the complexity and saliency of rules. In an analysis of comments submitted for three rules, Bryer found that the rule with low salience and high complexity received better quality public comments (Bryer 2013). In contrast, the rule with high salience and low complexity received comments that were more emotional.

B. Responsiveness of Agencies

Agencies consider public comments, but their responsiveness varies. Some researchers believe that agencies have little incentive to make substantial changes in their final rules in response to public input (Kerwin and Furlong 2018). Agencies often respond to public comments in the preamble of final rules but do not always make changes to the final rule as a result. In an analysis of comments in 1991, Kerwin found that agencies were more likely to disagree with public comments than agree with them. But assessing the influence of public comments on final rules is more complicated because multiple factors can shape an agency's responsiveness.

Empirical studies suggest mixed results of business influence on rulemaking. Although business interests dominate public comments, this does not mean they have unchecked power in rulemaking. As previously mentioned, business interests can have competing views on regulation, which may reduce their influence. For instance, in an attempt to understand when business interest groups' comments tend to change a rule, scholars identified that a rule change is likely when there is a consensus among the public comments (McKay and Yackee 2007).

Other studies find that public comments exert minor influence on the outcome of final rules. For instance, in an analysis of 474 public comments received by three agencies, Golden (1998) finds that stakeholders have limited influence as only one of the rules was changed significantly from its proposed to final form. Interestingly, when agencies do make changes, they mostly remove regulatory text rather than change their policy positions (i.e., agencies are more likely to remove controversial provisions from a rule than change their framing of a policy issue) (West 2004).

Agencies' responsiveness depends on the information shared in the comments. In an analysis of rules issued by the Federal Election Commission, Nuclear Regulatory Commission, and Department of the Treasury, agencies responded to comments that reflected logical arguments or shared empirical/legal information (Cuéllar 2005). Similarly, an analysis of 1,126 comments submitted to 12 economically significant rules suggests that agencies respond differently to comments that use a legal justification as opposed to an economic argument; agencies are more likely to agree with comments that present economic arguments (Shapiro 2013). It is possible that the legal comments often challenge the validity of the regulation by citing relevant laws. In such a

case, the agency may withdraw the rule instead of changing it or propose it again after incorporating significant changes (Shapiro 2013).

Overall, studies suggest that agencies are interested in obtaining public input on their proposed rules. Based on public comments, USDA made substantial changes to the marketing of organic products (Balla and Dudley 2014). In addition, Furlong's survey of rulemaking agencies indicates a "midpoint of behavior" by decision-makers when it comes to considering public comments (Kerwin and Furlong 2018, p. 199).

VI. Analyzing Public Comments Submitted on Retrospective Review

This chapter described the benefits of conducting retrospective review of regulations along with its history in the U.S. and the challenges associated with institutionalizing it as part of the regulatory process. We noted that difficulty in identifying which regulations from the existing stock should be prioritized as candidates for review persists as a barrier to retrospective review. Relatedly, practitioners and scholars routinely claim that public participation is a valuable input to assist agencies in this regard. However, despite the extensive research on public participation in the rulemaking process, our review identified a lack of systematic, empirical analysis of public comments submitted to agencies as a gap in our understanding of the extent to which comments might help agencies conduct retrospective review.

Preliminary evidence generated by DeMenno (2017) study suggests that these comments may indeed be useful for retrospective review. If comments contain valuable information then systematic analyses of comments could result in better retrospective review. For instance, individual comments may identify regulations as candidates for review, but a synthesis of content received across comments might provide criteria to guide future retrospective review efforts.

In this report, the George Washington University Regulatory Studies Center proposes a framework to examine public comments submitted to agencies as part of their effort to identify regulations to be repealed, replaced, or modified to reduce burdens and improve outcomes for the agricultural sector. In particular, we analyze comments submitted as a result of USDA, EPA, and FDA solicitation of public input to assist in complying with the mandates of EO 13771. Although agencies have requested public comments to identify individual regulations, classifying these comments across subject areas and agencies could better inform regulators of generalizable criteria for guiding their identification strategies. An improved identification strategy could bolster agency efforts to reduce burdens while preserving or expanding benefits.

References:

- Administrative Conference of the United States (ACUS). 2013. "Recommendation 2013-5, Social Media in Rulemaking." *Federal Register* 78(242): 76269-79276.
- Aldy, Joseph E. 2014. "Learning from Experience: An Assessment of the Retrospective Reviews of Agency Rules and the Evidence for Improving the Design and Implementation of Regulatory Policy." Report prepared for the Administrative Conference of the United States, November 17, 2014.
- Allio, Lorenzo. 2015. "Chapter 5: Ex Post Evaluation of Regulation: An Overview of the Notion and of International Practices." In *Regulatory Policy in Perspective: A Reader's Companion to the OECD Regulatory Policy Outlook 2015*. Paris: OECD Publishing. https://doi.org/10.1787/9789264241800-en.
- Balla, Steven J. and Susan E. Dudley. 2014. "Stakeholder Participation and Regulatory Policymaking in the United States." Report prepared for the Organization for Economic Cooperation and Development, October 2014.

 https://regulatorystudies.columbian.gwu.edu/sites/g/files/zaxdzs1866/f/downloads/Balla-Dudley-US-Stakeholder-Reg-Process-11-2014.pdf.
- Balla, Steven J., Alexander R. Beck, William C. Cubbison, and Aryamala Prasad. 2019a. "Where's the Spam? Interest Groups and Mass Comment Campaigns in Agency Rulemaking." *Policy & Internet*, Early View. First published September 26, 2019. https://doi.org/10.1002/poi3.224.
- Balla, Steven J., Alexander R. Beck, Elizabeth Meehan, and Aryamala Prasad. 2019b. "Lost in the Flood?: The Efficacy of Mass Comment Campaigns in Agency Rulemaking." George Washington University Regulatory Studies Center Working Paper, October 2019. https://regulatorystudies.columbian.gwu.edu/lost-flood-efficacy-mass-comment-campaigns-agency-rulemaking.
- Bickman, Leonard. 1987. "The Functions of Program Theory." In L. Bickman (ed.), *Using Program Theory in Evaluation. New Directions for Program Evaluation*. San Francisco: Jossey-Bass.
- Bryer, Thomas A. 2013. "Public Participation in Regulatory Decision-Making." *Public Performance & Management Review* 37(2): 263-79.
- Bull, Reeve T. 2015. "Building a Framework for Governance: Retrospective Review and Rulemaking Petitions." *Administrative Law Review* 67(2): 265-319.
- Coglianese, Cary. 2012. "Measuring Regulatory Performance, Evaluating the impact of Regulation and Regulatory policy." OECD Expert paper No.1, August 2012. https://www.oecd.org/gov/regulatory-policy/1 coglianese%20web.pdf.
- Coglianese, Cary. 2017. "Moving Forward with Regulatory Lookback." *Revista de Direito Administrativo* 276: 13-23.

- Coglianese, Cary and Lori Snyder Bennear. 2005. "Measuring Progress: Program Evaluation of Environmental Policies." *Environment: Science and Policy for Sustainable Development* 47(2): 22-40.
- Council of Economic Advisors (CEA). 1980. *Economic Report of the President Transmitted to the Congress*. Washington DC: U.S. Government Printing Office. https://www.presidency.ucsb.edu/sites/default/files/books/presidential-documents-archive-guidebook/the-economic-report-of-the-president-truman-1947-obama-2017/1980.pdf.
- Cuéllar, Mariano-Florentino. 2005. "Rethinking Regulatory Democracy." *Administrative Law Review* 57(2): 411-99.
- DeMenno, Mercy B. 2017. "Technocracy, democracy, and public policy: An evaluation of public participation in retrospective regulatory review." *Regulation & Governance* 13(3): 362-383.
- Dooling, Bridget, Mark Febrizio and Daniel R. Pérez. 2019. "Accounting for regulatory reform under Executive Order 13771." The Brookings Institution, November 2019. https://www.brookings.edu/wpcontent/uploads/2019/11/ES_11072019_DoolingFebrizioPerez.pdf.
- Dudley, Susan E. 2015. "Improving Regulatory Accountability: Lessons from the Past and Prospects for the Future." *Case Western Reserve Law Review* 65(4): 1027-1057.
- Dudley, Susan E. 2017. "Retrospective Evaluation of Chemical Regulations." OECD Environment Working papers 118. https://regulatorystudies.columbian.gwu.edu/retrospective-evaluation-chemical-regulations.
- Dudley, Susan E. and Sofie E. Miller. 2016. "Regulatory Accretion: Causes and Possible Remedies." *Administrative Law Review* 67(2): 98-114.
- Dudley, Susan and Zhoudan Xie. 2019. "Designing a Choice Architecture for Regulators." George Washington University Regulatory Studies Center Working Paper, December 3. https://regulatorystudies.columbian.gwu.edu/designing-choice-architecture-regulators.
- Eisner, Neil R., Judith S. Kaleta, and Peter L. Strauss. 1996. "Federal Agency Reviews of Existing Regulations." *Administrative Law Review* 48(1): 139-174.
- Ellig, Jerry and Richard Williams. 2019. "David Versus Godzilla: Bigger Stones." George Washington University Regulatory Studies Center Working Paper, September 12. https://regulatorystudies.columbian.gwu.edu/david-versus-godzilla-bigger-stones.
- Environmental Protection Agency (EPA). 1997. "The Benefits and Costs of the Clean Air Act, 1970 to 1990 Retrospective Study." Prepared for U.S. Congress by U.S. Environmental Protection Agency, October 1997. https://www.epa.gov/clean-air-act-overview/benefits-and-costs-clean-air-act-1970-1990-retrospective-study.
- Febrizio, Mark, Daniel R. Pérez, and Zhoudan Xie. 2018. "Executive Order 12866: Regulatory Principles Survive and Thrive for 25 Years." George Washington University Regulatory

- Studies Center, September 2018. <u>https://regulatorystudies.columbian.gwu.edu/25-years-eo-12866-reg-studies-reflection.</u>
- Golden, Marissa Martino. 1998. "Interest groups in the rule-making process: Who participates? Whose voices get heard?" *Journal of Public Administration Research and Theory* 8(2): 245-270.
- Government Accountability Office (GAO). 2004. "Federal Rulemaking: Regulatory Review Processes Could Be Enhanced." GAO-14-423T, Mar 11. https://www.gao.gov/products/GAO-14-423T.
- Government Accountability Office (GAO). 2007. "Reexamining Regulations: Opportunities Exist to Improve Effectiveness and Transparency of Retrospective Reviews." GAO-07-791, July 2007. https://www.gao.gov/new.items/d07791.pdf.
- Government Accountability Office (GAO). 2012. "Agencies Could Take Additional Steps to Respond to Public Comments." GAO-13-21, December 2012. https://www.gao.gov/assets/660/651052.pdf.
- Government Accountability Office (GAO). 2014. "Reexamining Regulations: Agencies Often Made Regulatory Changes, but Could Strengthen Linkages to Performance Goals." GAO-14-268, April 11. https://www.gao.gov/products/GAO-14-268.
- Graham, John D., Paul R. Noe, and Elizabeth L. Branch. 2005. "Managing the Regulatory State: The Experience of the Bush Administration." *Fordham Urban Law Journal* 33(4): 101-148.
- Greenstone, Michael. 2009. "Toward a Culture of Persistent Regulatory Experimentation and Evaluation." In *New Perspectives on Regulation, edited by David Moss and John Cisternino*. Cambridge, MA: The Tobin Project.
- Gruenspecht, Howard K.1982. "Differentiated Regulation: The Case of Auto Emissions Standards." *American Economic Review* 72(2): 328-31.
- Kerwin, Cornelius M. 2001. *Rulemaking: How government agencies write law and make policy* (2nd ed.). Thousand Oaks, CA: CQ Press.
- Kerwin, Cornelius M., and Scott R. Furlong. 2005. "Interest Group Participation in Rule Making: A Decade of Change." *Journal of Public Administration Research and Theory* 15 (3): 353-370.
- Kerwin, Cornelius M., and Scott R. Furlong. 2018. *Rulemaking: How government agencies write law and make policy*. Thousand Oaks, CA: CQ Press.
- Kochan, Donald J. 2017. "The commenting power: Agency accountability through public participation." *Oklahoma Law Review* 70(3): 601-622.
- Lutter, Randall. 2013. "Regulatory Policy: What Role for Retrospective Analysis and Review?" *Journal of Benefit-Cost Analysis* 4(1): 17-38.

- McKay, Amy, and Susan Webb Yackee. 2007. "Interest group competition on federal agency rules." *American Politics Research* 35(3): 336-357.
- Miller, Sofie E. 2015. "Learning from Experience: Retrospective Review of Regulations in 2014." George Washington University Regulatory Studies Center Working Paper. https://regulatorystudies.columbian.gwu.edu/sites/g/files/zaxdzs1866/f/Retrospective%20Review%20in%202014 MillerS 11 3.pdf.
- Newcomer, Kathryn E., Joseph S. Wholey, Harry P. Hatry. 2015. *Handbook of practical program evaluation*. San Francisco: Jossey-Bass. http://www.blancopeck.net/HandbookProgramEvaluation.pdf.
- Office of Management and Budget (OMB). 2011. "Retrospective analysis of Existing Significant Regulations." Memorandum for the Heads of Executive Departments and Agencies. M-11-19. https://www.whitehouse.gov/sites/whitehouse.gov/files/omb/memoranda/2011/m11-19.pdf.
- Office of Management and Budget (OMB). 2012. "Reducing Reporting and Paperwork Burdens." Memorandum for the Heads of Executive Departments and Agencies. https://obamawhitehouse.archives.gov/sites/default/files/omb/inforeg/memos/reducing-reporting-and-paperwork-burdens.pdf.
- Organisation for Economic Co-operation and Development (OECD). 2002. OECD Reviews of Regulatory Reform, Regulatory Policies in OECD Countries: From Interventionism to Regulatory Governance. Paris: OECD Publishing.
- Organisation for Economic Co-operation and Development (OECD). 2012. *Recommendation of the Council on Regulatory Policy and Governance*. Paris: OECD Publishing.
- Organisation for Economic Co-operation and Development (OECD). 2014. *OECD Framework for Regulatory Policy Evaluation*. Paris: OECD Publishing.
- Patton, Michael Quinn. 2008. *Utilization-Focused Evaluation*. Thousand Oaks: Sage Publications.
- Pawson, Ray. 2003. The Science of Evaluation: A Realist Manifesto. London: SAGE.
- Peacock, Marcus, Sofie E. Miller, and Daniel R. Pérez. 2018. "A Proposed Framework for Evidence-Based Regulation." George Washington University Regulatory Studies Center Working Paper, February 2018. https://regulatorystudies.columbian.gwu.edu/proposed-framework-evidence-based-regulation.
- Peltzman, Sam. 1975. "The Effects of Automobile Safety Regulation." *Journal of Political Economy* 83(4): 677-725.
- Raso, Connor. 2017. "Assessing regulatory retrospective review under the Obama administration." The Brookings Institution, June 2017.

- https://www.brookings.edu/research/assessing-regulatory-retrospective-review-under-the-obama-administration/.
- Sant'Ambrogio, Michael and Glen Staszewski. 2018. "Public Engagement with Agency Rulemaking." Final Report prepared for the Administrative Conference of the United States, November 19. https://www.acus.gov/report/public-engagement-rulemaking-final-report.
- Shadish, William R., Thomas D. Cook, and Donald T. Campbell. 2002. *Experimental and quasi experimental designs for generalized causal inference*. Boston: Houghton Mifflin.
- Shapiro, Stuart. 2013. "When Will They Listen? Public Comment and Highly Salient Regulations." Working Paper, Mercatus Center, George Mason University, September 2013.
- Simon, Herbert A. 1945. Administrative Behavior. New York: Free Press.
- US Department of Agriculture (USDA). 2011. "Final Plan for Retrospective Analysis: Pursuant to Executive Order 13563." U.S. Department of Agriculture, August 2011. https://obamawhitehouse.archives.gov/sites/default/files/other/2011-regulatory-action-plans/departmentofagricultureregulatoryreformplanaugust2011.pdf.
- US Department of Agriculture (USDA). 2016. "Identifying and Reducing Regulatory Burdens." *Federal Register* 81(16): 4213-4214.
- West, William F. 2004. "Formal Procedures, Informal Processes, Accountability, and Responsiveness in Bureaucratic Policy Making: An Institutional Policy Analysis." *Public Administration Review* 64(1): 66-80.
- Yackee, Jason Webb and Susan Webb Yackee. 2006. "A bias towards business? Assessing interest group influence on the US bureaucracy." *The Journal of Politics* 68(1):128-139.