Congress, the President, and the Administrative Conference have issued various pronouncements directing or encouraging agencies to build the base of evidence upon which government policies and programs are based. For example, several executive orders direct agencies to engage retrospective review of administrative rules.\(^1\) Congress created the Commission on Evidence-Based Policy Making to issue recommendations encouraging agencies to incorporate outcomes measurement, institutionalize randomized controlled trials (RCTs), and integrate rigorous impact analysis into program design and operations.\(^2\) Although created with a broader mandate than agency rulemaking, the Commission’s recommendations reinforce the requirements of the executive orders. Finally, in Recommendation 2014-5, ACUS provides agencies with a framework for cultivating a “culture of retrospective review” of rules within

\(^1\) See, e.g., Executive Order 12866 § 5, 58 Fed. Reg. 51735, 51739 (Oct. 4, 1993), (“…to…improve the effectiveness of existing regulations… each … agency will periodically review its existing significant regulations to determine whether any such regulations should be modified or eliminated so as to make the agency’s regulatory program more effective in achieving the regulatory objectives…”); Executive Order 13563 § 6, 58 Fed. Reg. 3821, 3822 (Jan. 21, 2011) (requiring agencies to “consider how best to promote retrospective analysis of rules that may be outmoded, ineffective, insufficient, or excessively burdensome, and to modify, streamline, expand, or repeal them in accordance with what has been learned”); Executive Order 13771 § 2, 82 Fed. Reg. 9339 (Feb. 3, 2017) (requiring the repeal of two existing regulations for each new regulation proposed, and leaving in place prior requirements for the repeal of rules, including analyzing the costs and benefits of each action proposed for repeal); Executive Order 13777 § 3, 82 Fed. Reg. 12285, 12286 (Mar. 1, 2017) (requiring the establishment of Regulatory Reform Tasks forces that “shall evaluate existing regulations (as defined in section 4 of Executive Order 13771) and make recommendations to the agency head regarding their repeal, replacement, or modification, consistent with applicable law.”)

\(^2\) See id. at § 4(a)(3); By-Laws and Operating Procedures of the Committee on Evidence Based Policymaking, available at https://www.cep.gov/content/dam/cep/about/by-laws.pdf
regulatory agencies. The ACUS recommendation encourages agencies to use rigorous methods to assess the effects of their existing stock of regulations.³

Meaningful retrospective review of rules is very difficult without some kind of variation. In laboratory settings, scientists vary conditions by exposing one set of subjects to the treatment and then compare that treatment group to the “counterfactual,” that is, by observing an identical set of subjects not subject to the treatment. Regulators cannot “observe the counterfactual” in the same way when retrospectively reviewing their regulations. However, by observing and collecting relevant data from times or places with varied conditions, including regulatory obligations, it is possible for regulators to draw more reliable inferences about what regulatory options may be more effective and therefore enhance the quality of retrospective review. Agencies can introduce – and exploit opportunities for – regulatory variation throughout the lifecycle of rulemaking: at the earliest stage when agencies are considering a new rule; as they write that rule and consider comments on it; and then once the rule has been put into place.

As agencies are considering a rule, they can learn about the potential effects of the regulations they are considering by analyzing or commissioning empirical studies of existing variation or of past regulatory policies. They might, for example, look at variation in existing policies at the state level or perhaps in other countries⁴, taking to heart Justice Louis Brandeis’s observation that “a state may, if its citizens choose, serve as a laboratory; and try novel social and economic experiments without risk to the rest of the country.”⁵ They might also engage in experimentation as part of information gathering to develop a proposed rule or they can solicit empirical data from key stakeholders. For example, in developing certain passive restraints regulations in the 1970s, the National Highway Traffic Safety Administration cooperated in pilot

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⁵ See New State Ice Co. v. Liebmann, 285 U.S. 262, 311 (1932)
projects with automakers and owners of vehicle fleets to experiment with different technological
options.\textsuperscript{6}

As an agency is writing a rule, it can write it in such a way that lends itself to variation
and learning. Namely, the agency can employ a variety of “quasi experimental” approaches and
commit to using statistical techniques to draw the necessary causal inferences. For example,
agencies could draft the rule to allow for greater variation at the state level by setting some
federal minimum standard and allowing states to exceed that standard, therefore allowing for
state-by-state comparisons. Agencies can also take advantage of threshold effects that arise
naturally in rules they adopt. Comparing observations of outcomes for those firms just above
and just below the threshold, the agency can generate an estimate of the so-called average
treatment effect of the regulation. Finally, agencies could choose to simply apply the regulation
to all firms within its scope and compare observations before and after the regulation went into
effect.\textsuperscript{7} Indeed, in any rulemaking, there is variation in the sense that there was the world before
the rule went into effect and the world in which the rule is in effect (or, in the case of a rule that
sunsets, to be described below, the world before the rule went into effect, the world in which the
rule was in effect, and the world after the rule has lapsed.) Learning from this kind of variation
simply requires an agency thinking ahead about how to do retrospective review, using
appropriate statistical and design techniques to control for potential confounders and to
determine the direction of causality.

An agency might choose to adopt a temporary rule that sunsets after a certain period.
During the period within which such a temporary rule is in place, an agency may more
intensively study or seek feedback on the effects of the rule. Temporary rules are most

\textsuperscript{6} See, e.g., Testimony of Cary Coglianese before the U.S. Senate Committee on the Judiciary, 10-12 (Nov. 7, 2013)

\textsuperscript{7} There are a variety of statistical methods that can help agencies account for confounders and to distinguish between causal and
correlational relationships. For more extensive discussion of these methods, see Joe Aldy, Learning from Experience: An
Assessment of the Retrospective Reviews of Agency Rules and the Evidence for Improving the Design and Implementation of
Coglianse, Measuring Regulatory Performance: Evaluating the Impact of Regulation and Regulatory Policy, Organisation for
appropriate on occasions where uncertainty associated with the rule is high, so that the agency has the chance to learn how the rule operates. On the other hand, it might be inappropriate for an agency to adopt a temporary rule if the rule required a very high fixed cost to comply; this is because firms have likely invested heavily in anticipation of the regulation being put in place and therefore could incur high sunk costs unnecessarily. Before the rule sunsets, the agency could engage in notice and comment rulemaking in the event it chooses to adopt the rule on a permanent basis, or it could scrap the rule, depending on what it has learned.

If the agency decides to write the rule as a temporary rule, it has several options for writing it in ways that permit variation and learning. For example, the agency could write the rule to create the quasi-experimental methods described above. It might also write it in such a way as to create a randomized control trial (RCT). In a regulatory RCT, the agency randomly selects some firms within its regulatory scope to be subject to the regulation, and leaves others not subject to the regulation, thus creating variation across entities. Although writing a rule as an RCT allows an agency to achieve variation, the potential challenges related to such an approach may include fairness concerns or potential market-distorting effects implicated by randomly subjecting some firms to regulation. Agencies must weigh these potential concerns of an RCT against any possible analytical benefits.

After the rule is in place, agencies can achieve variation by considering waivers, exemptions, and otherwise suspending enforcement of the rule for some firms. For example, if a regulated party can demonstrate that an alternative approach to compliance will achieve the same goal, the agency might grant a waiver or exemption. Over time, this may provide the agency

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with information that justifies amending an existing rule, and it may help identify rules that will benefit from retrospective review.\(^{10}\)

In addition to waivers and exemptions, an agency can deregulate a segment of the market on a random basis to create a regulatory experiment. Such deregulatory experiments might not be considered waivers or exemptions, since class-based waivers and exemptions are based on some criteria (i.e. are not random), but nonetheless they are a way for an agency to learn from variation once a rule has been adopted. For example, in 2004, the Securities and Exchange Commission (SEC) began a regulatory experiment with respect to its “Uptick Rule.”\(^{11}\) The rule prohibited short sales at successively lower prices so that if the market was increasing, the Uptick Rule would allow for unrestricted short selling, but in a declining market, the rule would eventually put a halt on short sales beyond a threshold. As part of its experiment, the SEC randomly selected a group of companies consisting of approximately one-third of the Russell 3000 index. Those companies were the “treatment” group; for those companies, the SEC suspended enforcement of the Uptick Rule. The SEC did not suspend enforcement of the rule for the remaining companies: these constituted the “control” group. The SEC’s analysis of the data suggested that the rule did not substantially increase market efficiency. Consequently, the rule was eliminated. Agencies may find they can use waivers, exemptions, and conditional rescinding of rules as a part of their overall efforts to seek causal inferences about the effects of their rules and to revise or rescind rules as such inferences may warrant.

RECOMMENDATION

Learning from Variation

1. To improve the quality of their rules, agencies should seek opportunities to learn from regulatory variation. Agencies can learn from variation they intentionally introduce, with due regard for legal, practical, and fairness limitations, and from variation that otherwise


They can learn from such variation at one or more stages of the rulemaking lifecycle, from pre-rule analysis to retrospective review.

2. Where appropriate, agencies should consider creating variation, such as by establishing a randomized control trial or using a quasi-experimental design. Agencies can also generate variation through creating pilot programs, temporary regulations, or policies that permit state-by-state variation. When agencies deliberately create variation in such ways to facilitate learning more about the effectiveness of different policy options, they should accompany such experimentalism with efforts needed to collect data and conduct reliable analysis of the variation in regulatory policies or practices.

3. Congress should consider ensuring that agencies have adequate resources to conduct analyses of such experiments and, as needed, explicit statutory authorization to create them.

Structuring Sunset Provisions

4. If an agency chooses to establish and learn from a temporary rule, the sunset period provided in such a rule should afford the agency enough time for evaluation and enough time to engage in notice and comment rulemaking in the event it chooses to adopt the rule on a permanent basis.

Data Collection and the Paperwork Reduction Act

5. When gathering data, agencies should be mindful of the potential applicability of the Paperwork Reduction Act, and agencies and OMB should use flexibilities within the Act and OMB’s implementing regulations (e.g., a streamlined comment period for collections associated with proposed rules) where permissible and appropriate.