



THE C. BOYDEN GRAY

Center for the Study
of the Administrative State

ANTONIN SCALIA LAW SCHOOL • GEORGE MASON UNIVERSITY

The Regulatory Budget in Theory and Practice: Lessons from the U.S. States

James Broughel

CSAS Working Paper 21-47

Regulatory Budgeting and Executive Order 13771



ANTONIN SCALIA
LAW SCHOOL

The Regulatory Budget in Theory and Practice: Lessons from the U.S. States

James Broughel

This article provides a novel theoretical basis for a regulatory budget and compares the theory of regulatory budgeting with implementation of these programs in U.S. states and the federal government during the Trump administration. The first half of the article is devoted to explaining how the cost analysis accompanying some regulatory budgets can be understood as measuring a form of allocative efficiency that corresponds with long-run social welfare. This welfare measure is contrasted with what cost-benefit analysis measures, which is also often confusingly characterized as a measure of efficiency. The second half of the paper evaluates real-world regulatory budgets implemented in U.S. states and compares them to the theoretical basis for a regulatory budget discussed in the earlier part of the article. A theoretically attractive regulatory budget will prevent regulations from being adopted unless they are cost saving (i.e., have negative costs), but states' regulatory budgets have tended to be based on much simpler metrics than cost, and therefore fall short of this theoretical benchmark. At the same time, states' regulatory budgets have been more comprehensive than, for example, the incremental cost budget adopted during the Trump administration. The article concludes that governments should consider the tradeoffs inherent in regulatory budgeting. The simpler regulatory budgets found in states are having more success constraining the overall volume of rules, but without cost analysis, their theoretical basis is less compelling and the full scope of what they are accomplishing is not as transparent as it could be. In general, both the states and the federal government have much to learn from one another about blending the theory and practice of regulatory budgeting.

1. Introduction

In January 2017, then-President Donald Trump signed Executive Order 13771,¹ creating the first federal regulatory budget in U.S. history. The executive order was perhaps most famous for its one-in, two-out regulatory pay-as-you-go (PAYGO) provision, whereby two regulations would need to be eliminated for each new one implemented. A lesser-known, but arguably more important, provision of the order was that the Office of Management and Budget (OMB) would begin a process whereby regulatory agencies would receive annual cost allocations not to be exceeded with the agency's annual rulemakings. The overall cost cap for agencies was initially set at zero but would be set below zero in subsequent years,² meaning many federal agencies would be required to identify cost savings through their regulatory actions.

Before the Trump administration's actual implementation of a regulatory budget, interest in regulatory budgeting likely peaked in the United States in the late 1970s and early 1980s. Robert Crandall of the

¹ Exec. Order No. 13771, 82 Fed. Reg. 9339 (Feb. 3, 2017).

² *Id.* (2)(b).

Brookings Institution has been credited as “probably the first proponent” of a regulatory budget.³ Democratic Senator Lloyd Bentsen introduced the Federal Regulatory Budget Act of 1978,⁴ which would have created a role for Congress in setting regulatory cost allocations for agencies, akin to the role it plays in making fiscal appropriations.

At the time, there was considerable support for a regulatory budget throughout the U.S. federal government. President Jimmy Carter’s 1980 Economic Report of the President references a regulatory budget as a potential means of improving priority setting.⁵ The Joint Economic Committee of Congress issued a subsequent report endorsing a regulatory budget.⁶ Thereafter, OMB circulated a draft Regulatory Cost Accounting Act in 1980.⁷ Later, in 1992, John Morrall III, an OMB official, wrote a report for the Organisation for Economic Co-operation and Development endorsing a regulatory budget.⁸

These early proponents of regulatory budgets were noticeably bipartisan. This may have stemmed from the fact that addressing the economic stagflation of the 1970s was a bipartisan concern, and regulations were perceived as possibly contributing to that problem.⁹ Democratic President Carter was responsible for deregulating trucking and airlines and for abolishing a federal agency, the Civil Aeronautics Board.¹⁰ Although some bipartisan support for a regulatory budget has continued since the 1970s, in more recent years that support has grown more tepid. In the early 2010s, Virginia Senator Mark Warner, a Democrat, called for a regulatory PAYGO system, which would have required the costs of regulations be offset by eliminating costs from existing regulations.¹¹ Outside of the United States, a broad array of countries, including Canada and the United Kingdom,¹² also experimented with regulatory budgeting in the years leading up to Executive Order No. 13771 and since. However, most regulatory budget legislation introduced in Congress has come from Republican sponsors in recent years.¹³

³ See JOHN F. MORRALL III, OFFICE OF MGMT. AND BUDGET, OECD REGULATORY MANAGEMENT AND REFORM SERIES NO. 2, CONTROLLING REGULATORY COSTS: THE USE OF REGULATORY BUDGETING, ORGANIZATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT 11 (1992); Robert Crandall, *Federal Government Initiatives to Reduce the Price Level*, in CURING CHRONIC INFLATION 165–204 (A. Okun and G. Perry eds., 1978).

⁴ S. 3550, 95th CONG. (1978).

⁵ COUNCIL OF ECON. ADVISERS, EXEC. OFF. OF THE PRES., ECONOMIC REPORT OF THE PRESIDENT 125–26 (1980).

⁶ JOINT ECON. COMM., U.S. CONG., REPORT ON THE 1979 ECONOMIC REPORT OF THE PRESIDENT, S. REP. NO. 96–44, at 52–54 (1979).

⁷ OFFICE OF MGMT. & BUDGET, EXEC. OFFICE OF THE PRESIDENT, REGULATORY COST ACCOUNTING ACT OF 1980 (1979).

⁸ MORRALL III, *supra* note 3.

⁹ See Crandall, *supra* note 3; see generally Thomas Hopkins & Laura Stanley, *The Council on Wage and Price Stability: A Retrospective*, 6 J. BENEFIT-COST ANALYSIS 400 (2015).

¹⁰ See James Broughel & Robert W. Hahn, *The Impact of Economic Regulation on Growth: Survey and Synthesis*, REG. & GOVERNANCE (2020) (published ahead of print on Dec. 28, 2020), at 2.

¹¹ See Mark R. Warner, *To Revive the Economy, Pull Back the Red Tape*, WASH. POST, Dec. 13, 2010, <http://www.washingtonpost.com/wp-dyn/content/article/2010/12/12/AR2010121202639.html>. See also Sen. Mark Warner, *Regulatory PAYGO*, <https://www.warner.senate.gov/public/index.cfm/regulatory-PAYGO> (last visited Sept. 1, 2021).

¹² See Canada Pub Gen. Act 2015 C20; UK DEP’T FOR BUS., ENERGY & INDUS. STRATEGY, BETTER REGULATION FRAMEWORK MANUAL (2015). See also Andrea Renda, REGULATORY BUDGETING: A REVIEW OF THE INTERNATIONAL EXPERIENCE, in this series.

¹³ See Jeffrey A. Rosen & Brian Callanan, *The Regulatory Budget Revisited*, 66 ADMIN. L. REV. 835, 849–55 (2014) (surveying regulatory budget legislation introduced over the years).

In the U.S. context, a regulatory budget appears to have grown more controversial over time, perhaps because a regulatory budget is sometimes viewed as a competitor to cost-benefit analysis (CBA),¹⁴ which has gained prominence over the past half century.¹⁵ A regulatory budget involves placing a cap on the overall volume of regulations or on some subset of regulations (such as new regulations). Often the cap is placed on regulatory costs, meaning regulations may not proceed if their costs exceed some level (which could be positive, negative, or zero). Cost estimates or similar analysis are therefore often needed to determine whether regulations exceed the cap. In response, critics of regulatory budgets argue that regulatory budgets ignore benefits.¹⁶ Supporters of the regulatory budget, meanwhile, tend to respond, in turn, that whereas a regulatory budget does often involve analysis of costs, benefits of regulations are still considered because the net benefits estimated in CBA determine the priority in which regulations are implemented.¹⁷

This article takes a different view of the justification for a regulatory budget. Far from being a problem, it will be argued that it is an advantage that the cost analysis accompanying some regulatory budgets downplays the benefits side of the CBA ledger, because the outcomes occurring in markets (which, out of convention, are often tallied on the cost side of the CBA ledger, with nonmarket outcomes on the benefits side) tend to be the determinants of whether a project improves allocative efficiency and long-run social welfare. The linkages between efficiency, social welfare, and the factors considered in a cost analysis are complicated, however, so this article considers several issues. First, it elaborates on the theoretical basis for a regulatory budget, beginning with a discussion of the theoretical basis for CBA and then explaining how this basis relates to the cost analysis associated with regulatory budgets. Second, this article reviews recent attempts to implement regulatory budgets in the U.S. states and considers how these efforts align with the theory of regulatory budgeting discussed in the first half of the paper.

In general, the theory and practice of regulatory budgeting diverge in significant ways. Former President Donald Trump's experiment with regulatory budgeting was more theoretically ideal in some respects, because his administration introduced an innovative form of cost analysis across the government. However, the Trump regulatory budget was also limited in terms of its scope, because many regulations were allowed to escape the cost constraint.¹⁸ By comparison, state regulatory budgets have tended to rely on much simpler metrics than cost, which represents a deviation from the theoretical basis for a regulatory budget discussed in this article. But state regulatory budgets also tend to be cumulative, or nearly so. Thus, the regulatory caps imposed in states apply to the total stock of existing regulations or something close to the total stock, while the federal government took an incremental approach focused on new regulations only. Overall, the states appear to be having more success at constraining, and even reducing, the overall volume of rules, suggesting simpler metrics sometimes work better at preventing regulatory

¹⁴ See generally MICHAEL A. LIVERMORE & RICHARD L. REVESZ, *REVIVING RATIONALITY: SAVING COST-BENEFIT ANALYSIS FOR THE SAKE OF THE ENVIRONMENT AND OUR HEALTH* (2020).

¹⁵ Numerous executive orders from presidents of both major political parties have confirmed the place of cost-benefit analysis in policymaking over the past 50 years. See Exec. Order No. 12991, 46 Fed. Reg. 13193 (Feb. 17, 1981); Exec. Order No. 12866, 58 Fed. Reg. 190 (Sept. 30, 1993); Exec. Order No. 13563, 76 Fed. Reg. 3821 (Jan. 21, 2011).

¹⁶ See LIVERMORE & REVESZ, *supra* note 14. See also Cass Sunstein, *On Neglecting Regulatory Benefits*, 72 ADMIN. L. REV. 445 (2020); Sally Katzen, *Cost-Benefit Analysis without the B: How Rewriting OIRA's Past Threatens Its Future*, 11 J. BENEFIT-COST ANALYSIS 49 (2020); Richard Pierce, Jr., *The Regulatory Budget Debate*, 19 N.Y.U. J. LEGIS. & PUB. POL'Y, 249 (2016).

¹⁷ See John D. Graham, *A Future for Federal Regulatory Budgeting?* 11 J. BENEFIT-COST ANALYSIS 55. See also Anthony Campau, *Regulatory Budgeting in the Trump Administration: A First-Hand Account*, in this series.

¹⁸ See James Broughel & Laura Jones, *Effective Regulatory Reform: What the United States Can Learn from British Columbia* (Mercatus Ctr. at George Mason U., Research Paper, 2018).

accumulation. From a theoretical standpoint, however, this simpler approach creates a tension between an ideal regulatory budget in theory and the implementation of a successful regulatory budget in practice, because the theoretical basis for the simpler state regulatory budgets is less compelling.

This article is organized as follows. Section 2 offers a novel theoretical justification for a regulatory budget. The section begins by explaining why CBA, in practice, does not measure Kaldor-Hicks efficiency, but rather is best understood as a social welfare function approach. The social welfare function that forms the basis for CBA is then contrasted with one consistent with allocative efficiency, which has a direct relation to what the cost analysis accompanying a regulatory budget measures. Section 3 describes a series of recent regulatory budgeting reforms in the U.S. states. The section shows how these experiments deviate significantly from the theoretical basis for a regulatory budget discussed in section 2, because almost none of these efforts includes attempts to measure the cost of regulations. Nevertheless, owing to the challenge of producing credible cost estimates for the entire stock of a government's existing regulations, the simpler metrics that states have adopted have some advantages over more complicated metrics. Section 4 discusses lessons learned from the state and federal experiments with regulatory budgeting and concludes that the two levels of government have much to learn from each other. The states should move toward adopting cost analysis similar to that of the Trump administration, while the federal government should expand the scope of its regulatory budget to be cumulative rather than incremental, which may require the use of simpler metrics in some contexts. Section 5 concludes that although Trump's regulatory budget was subsequently dismantled by President Joe Biden,¹⁹ the states will likely continue to build on their reforms, and a future federal administration will almost certainly revive a regulatory budget given both its strong theoretical foundations and its many significant advantages over competing tools like CBA.

2. The Regulatory Budget in Theory

In this section, the welfare basis of CBA is reviewed and is compared with the welfare basis for a regulatory budget. The confusing role of the term "efficiency" is also discussed in both contexts.

a. The Cost-Benefit Analysis Social Welfare Function

The normative basis for regulatory budgeting cost analysis can be seen most clearly by first reviewing what its main alternative, CBA, measures and then comparing how the two forms of analysis are distinct from one another and how they are related. Sometimes, CBA is said to measure allocative efficiency.²⁰ However, this turns out to be misleading. Those making such claims are often referring to a particular notion of efficiency in economics known as Kaldor-Hicks efficiency.²¹ However, this is not the only basis for CBA, because economists lack actual consensus about what CBA measures.²² One group of economists would have CBA measure efficiency, while another, probably larger, group of economists

¹⁹ Exec. Order No. 13992, 86 Fed. Reg. 7049 (Jan. 25, 2021).

²⁰ See John Graham, *Saving Lives through Administrative Law and Economics*, 157 U. PA. L. REV. 395 (2008). See also Richard A. Posner, *Cost-Benefit Analysis: Definition, Justification, and Comment on Conference Papers*, 29 J. LEGAL STUD. 1153 (2000).

²¹ J.R. Hicks, *The Foundations of Welfare Economics*, 49 ECON. J. 696 (1939); Nicholas Kaldor, *Welfare Propositions of Economics and Interpersonal Comparisons of Utility*, 49 ECON. J. 549 (1939).

²² James Broughel, *The Mighty Waves of Regulatory Reform: Regulatory Budgets and the Future of Cost-Benefit Analysis*, 3 BUS. ENTREPRENEURSHIP & TAX L. REV. 206 (2019).

would have CBA evaluate projects on the basis of an individualistic social welfare function in which society has a utility function similar to an individual's utility function.²³

The two approaches appear different, but in terms of the actual production of an economic analysis, the analyst follows similar steps with both methods. The analyst begins by identifying and quantifying the beneficial and harmful impacts of a particular policy, regulation, or other action. He or she then attaches monetary values to those impacts based on a measure of individuals' willingness to pay for or accept those outcomes. These values are then entered into a utility function in order to calculate a present value of benefits and costs.²⁴ The critical difference between the two approaches hinges on how they interpret the utility function. From the perspective of those who see CBA evaluating Kaldor-Hicks efficiency, the utility function can be written as

$$U = \int_{t=0}^{\infty} \beta^t U(c_t) dt, \quad (1)$$

where the utility of the agent equals a continuous sum of discounted utilities. Utility is a function of consumption, c , and β is a discount factor equal to $\frac{1}{1-\rho}$. The parameter ρ is the rate at which the agent discounts future utility. A common utility function used by economists is $U(c) = \frac{c^{1-\theta}}{1-\theta}$, where θ is the consumption elasticity of marginal utility and is usually assumed to be greater than 1.²⁵ A θ value greater than 1 implies risk aversion, which, by extension, implies diminishing marginal utility of consumption,²⁶ and therefore concavity of the utility function.

The purpose of entering costs and benefits into this particular utility function is to identify whether the potential compensation test of Kaldor and Hicks is met.²⁷ A project passes the potential compensation test if those who gain from the project gain by enough to compensate those who lose, such that, at least in theory, everyone affected by the project could be made at least as well off or better than they were before the project was implemented. In this framework, the use of the utility function in equation (1) is often implicit. It takes place via the practice of discounting. Because benefits and costs do not all occur in the same time period, they are discounted at the rate the agent would trade present for future consumption (known as the consumption rate of interest), which, in turn, is determined by the parameters in the agent's utility function. The present value of benefits and costs then determines whether a project's returns are sufficient to return the agent to its preproject level of lifetime utility.

²³ Kenneth J. Arrow, W.R. Cline, Karl-Göran Mäler, Mohan Munasinghe, R. Squitieri, & J.E. Stiglitz. *Intertemporal Equity, Discounting, and Economic Efficiency*, in CLIMATE CHANGE 1995: ECONOMIC AND SOCIAL DIMENSIONS OF CLIMATE CHANGE 125–44, 138 (James P. Bruce, Hoesung Lee & Erik F. Haites eds., 1996). It should be noted that achieving Pareto efficiency, which is distinct from Kaldor-Hicks efficiency, is an aim in the social welfare function-based version of CBA. This is one of the ways the term “efficiency” has come to be misleading and therefore can cause confusion.

²⁴ This step occurs in the analysis when benefits and costs are discounted at a consumption rate of interest. There are various competing theories of discounting, but the main ones all involve a consumption rate of interest. See James Broughel, *Rehabilitating the Opportunity Cost of Capital in Cost-Benefit Analysis* (Mercatus Ctr. at George Mason U., Working Paper, 2021).

²⁵ For a review of recent estimates of this parameter for society, nearly all of which are over 1, see Mark A. Moore & Aidan R. Vining, *The Social Rate of Time Preference and the Social Discount Rate* 8–10 (Mercatus Ctr. at George Mason U., Mercatus Symposium, 2018).

²⁶ This is true via Jensen's inequality, which states that the expected value of two points on a concave function is less than the value of the function at the expected value of the two points.

²⁷ See Broughel, *supra* note 24.

This interpretation of the role of the utility function in CBA is problematic for several reasons. First, market interest rates are commonly used as a proxy for the agent's discount rate,²⁸ because according to economic theory, rational, optimizing agents will set their own personal rate of discount equal to the market interest rate they face.²⁹ However, there are reasons the use of market interest rates to discount benefits and costs in a CBA is a mistake. First, markets may not be in equilibrium; deviations between market interest rates and agents' personal discount rates would make it inappropriate to substitute market rates for agents' rates of time preference. Relatedly, individuals impose externalities on other individuals through their savings decisions, meaning market interest rates are not efficient. Finally, financial markets are incomplete. So even if one assumes an equilibrium is reached, and there are no savings externalities, the incompleteness of financial markets ensures the resulting equilibrium will be inefficient and, hence, should not be the basis for a discount rate in CBA.

Perhaps a greater problem for this method is that there are a multitude of individuals in society and a multitude of different market interest rates facing these individuals, meaning a unique discount rate is actually needed for each and every person affected by a policy. One cannot simply assume that all agents have the same rate of time preference or face the same market interest rate, such that their preferences can be collapsed together into a single utility function. Doing so abandons what economists call *methodological individualism*.³⁰ Methodological individualism says that the economist in his or her model assumes that only individuals act. In the words of economists Donald Boudreaux and Randall Holcomb, “[c]ollections of individuals cannot be fused or aggregated together into a super-individual about whom economists and political philosophers can usefully theorize.”³¹ Because society is not an individual and does not have preferences like an individual, equation (1) cannot be credibly used as a stand-in to describe multitudes of peoples' utility functions collectively.

Even if one accepts this fusing together of individuals, the agent in the model represents only the present generation of citizens.³² So future generations are not granted any weight in CBA according to this approach, except perhaps to whatever extent current citizens decide to care for them through altruism. One could defend the exclusion of future preferences as a matter of standing (i.e., the normative issue of whose preferences get counted in analysis),³³ but this view seems ethically dubious at a minimum, and perhaps economically dubious as well.

It should not be a surprise therefore that many economists abandon the Kaldor-Hicks rationale for CBA. Indeed, elite economists are often quite clear that they believe the compensation principle “is no longer accepted.”³⁴ As an alternative, these economists base CBA on a particular social welfare function that is

²⁸ For example, government guidelines on social discounting use market interest rates as a basis for discounting. See OFF. OF MGMT. & BUDGET, EXEC. OFF. OF THE PRESIDENT, CIRCULAR A-4: REGULATORY ANALYSIS (2003).

²⁹ This characteristic of equilibrium is captured by the famous Ramsey equation, which states that, in equilibrium, the market interest rate r will be equivalent to $\rho + \theta (c'(t))/c(t)$, the agent's rate of time preference. See also James Broughel, *The Tradeoffs between Energy Efficiency, Consumer Preferences, and Economic Growth*, in REGULATION AND ECONOMIC OPPORTUNITY: BLUEPRINTS FOR REFORM 237 (Adam Hoffer & Todd Nesbit eds., 2021).

³⁰ James M. Buchanan, *The State of Economic Science*, in THE STATE OF ECONOMIC SCIENCE: VIEWS OF SIX NOBEL LAUREATES (Werner Sichel ed., 1989).

³¹ DONALD J. BOUDREAUX & RANDALL G. HOLCOMB, THE ESSENTIAL JAMES BUCHANAN 6 (2021).

³² Kenneth J. Arrow, *Discounting, Morality, and Gaming*, in DISCOUNTING AND INTERGENERATIONAL EQUITY 16 (Paul R. Portney & John P. Weyant eds., 1999) (noting how the agent in the Ramsey growth model represents a generation).

³³ On the issue of standing in CBA, see Richard O. Zerbo, Jr., & Allen S. Bellas, A PRIMER FOR COST-BENEFIT ANALYSIS 40–68 (2006).

³⁴ See Arrow et al., *supra* note 23, at 142.

sometimes called an “individualistic social welfare function.”³⁵ The method’s core advantages over the Kaldor-Hicks basis for CBA are twofold. First, it is interconnected with other concepts in economics. The social welfare function approach to CBA has close connections to competitive general equilibrium theory.³⁶ When a market failure is present, in the sense that there is a deviation from the Pareto optimum achieved in general competitive equilibrium, policies guided by this particular social welfare function will move the economy toward that optimum (and hence toward achieving Pareto efficiency). Second, the approach makes no presumption about the current state of markets being efficient or in equilibrium. Rather, the social welfare function simply identifies whether projects are desirable according to a particular objective function associated with some economists’ notion of an idealized market economy.

Interestingly, the individualistic social welfare function is virtually identical to equation (1), except the interpretation of the utility function is different. Economists who adhere to this approach explicitly abandon methodological individualism.³⁷ The parameters of equation (1) are therefore modified, such that the parameter ρ , the agent’s pure rate of time preference, becomes δ , *society’s* pure rate of time preference. Next, η captures *society’s* inequality and risk aversion and is the social version of the parameter θ . By extension, the welfare measure CBA attempts to evaluate shifts from Kaldor-Hicks efficiency toward social welfare, as measured by this particular social welfare function (which, as noted, is confusingly associated with a competing notion of efficiency, known as Pareto efficiency). Social welfare as understood in this context is associated with a particular philosophical system known as *discounted utilitarianism*.³⁸ The approach can also be understood as incorporating *extended preferences*, meaning benefits and costs affecting individual members of society are aggregated together through the use of the theoretical social planner construct, an individual whose utility function equates with social welfare. Sometimes the planner is referred to as an external “deliberator.”³⁹

The notion of an impartial deliberator has a long history in normative economics and philosophy. Adam Smith referred in his writings to an impartial spectator,⁴⁰ as did Emanuel Kant.⁴¹ In the 20th century, philosopher John Rawls promoted a notion of justice that incorporated the construct of an individual who makes choices from behind a veil of ignorance.⁴² The role of this external deliberator is to judge outcomes in society from the basis of an original position, whereby the chooser does not know which individual he or she might be born as in society. This position frees the deliberator to be objective about the consequences of particular actions. Rawls is the philosopher most commonly associated with this original

³⁵ *Id.* at 138.

³⁶ See Kenneth Arrow, Partha Dasgupta, Lawrence Goulder, Gretchen Daily, Paul Ehrlich, Geoffrey Heal, Simon Levin, Karl-Göran Mäler, Stephen Schneider, David Starrett & Brian Walker, *Are We Consuming Too Much?* 18 J. ECON. PERSPECTIVES 147, 150 (2004) (noting how the discounted utilitarian framework can be linked theoretically to a fully competitive decentralized market economy with a complete set of futures markets and no externalities). See also Anthony E. Boardman, David H. Greenberg, Aidan R. Vining & David L. Weimer, *Efficiency without Apology: Consideration of the Marginal Excess Tax Burden and Distributional Impacts in Benefit–Cost Analysis*, 11 J. BENEFIT-COST ANALYSIS 457, 459 (2020) (noting the connection between cost-benefit analysis and general equilibrium under conditions of “complete, competitive, and undistorted” markets).

³⁷ Kenneth Arrow, *Methodological Individualism and Social Knowledge*, 84 AM. ECON. REV. 1 (1994).

³⁸ See generally Kenneth J. Arrow, *Inter-Generational Equity and the Rate of Discount in Long-Term Social Investment* in CONTEMP. ECON. ISSUES, 89–102 (Murat R. Sertel ed., 1999).

³⁹ See Matthew D. Adler, *Extended Preferences*, in THE OXFORD HANDBOOK OF WELL-BEING AND PUBLIC POLICY 476–517 (Matthew D. Adler & Mark Fleurbaey eds., 2016).

⁴⁰ ADAM SMITH, THE THEORY OF MORAL SENTIMENTS (Printed for A. Millar, A. Kincaid & J. Bell, 1759).

⁴¹ EMANUEL KANT, *IV*, in GROUNDWORK FOR THE METAPHYSICS OF MORALS 393 (Belknap Press of Harvard University Press, 1971) (1785).

⁴² JOHN RAWLS, A THEORY OF JUSTICE (1971).

position thought experiment, but economists used variants of this thought experiment before Rawls did so.⁴³

A result of this extended preferences method of preference aggregation—having the outputs of individual preference orderings enter as inputs into an impartial deliberator’s preference ordering—is that the social welfare function maintains an ordinal notion of utility, a convention to which many economists adhere.⁴⁴ The deliberator’s preference ordering can be expressed using a cardinal utility scale, but the cardinal values include only ordinal information,⁴⁵ because positive affine transformations of these values will contain the same information.⁴⁶

Thus, the net benefit estimates produced by a CBA should not be interpreted as stating anything about the intensity of how much more socially valuable one project is as compared to another. Rather, the net benefits include information only about whether one project is preferred to another. The outputs of a CBA may be expressed in cardinal units in the sense that they are expressed in dollars, but those dollars are not ordinary dollars like those that exist in our wallets. They are not a measure of wealth, because CBA dollars contain only ordinal information about the relative ranking of projects.

The core drawback of the social welfare function approach to CBA is its normative nature. Thus, if one finds the individualistic social welfare function objectionable for any reason, one need not accept it. Next, we turn to whether there might be an alternative social welfare function that is more ethically defensible than the social welfare function that provides the best defense of CBA.

b. The Regulatory Budget Social Welfare Function

“Efficiency” is often called upon to defend the welfare basis for what CBA measures. However, efficiency is also routinely raised as one of the primary benefits of implementing a regulatory budget. Jeffrey Rosen and Brian Callanan argue that “a regulatory budget would better inform priority setting and enhance economic efficiency of regulation across agencies and programs.”⁴⁷ Jim Tozzi, citing legal scholar Yair Listokin, argues that “bounded institutions”, such as a regulatory budget, “may prove superior to traditional unbounded oversight methods” such as cost-benefit analysis.⁴⁸ The idea is that

⁴³ See William S. Vickrey, *Measuring Marginal Utility by Reactions to Risk*, 13 *ECONOMETRICA* 319 (1945); William S. Vickrey, *Utility, Strategy, and Social Decision Rules*, 74 *Q.J. ECON.* 507 (1960); John C. Harsanyi, *Cardinal Utility in Welfare Economics and in the Theory of Risk-Taking*, 61 *J. POL. ECON.* 434 (1953); John C. Harsanyi, *Cardinal Welfare, Individualistic Ethics, and Interpersonal Comparisons of Utility*, 63 *J. POL. ECON.* 309 (1955).

⁴⁴ See Kenneth Arrow, Nobel Memorial Lecture—General Economic Equilibrium: Purpose, Analytic Techniques, *Collective Choice* 112 (Dec. 12, 1972) (noting how the ordinalist view became standard).

⁴⁵ See William Baumol, *The Cardinal Utility Which Is Ordinal*, 68 *ECON. J.* 665 (1958) (here the deliberator is maximizing expected utility over “lotteries” that, in this case, represent the potential outcomes of policy under uncertainty, and their corresponding impacts on the underlying members of the community). See generally JOHN VON NEUMANN & OSKAR MORGENSTERN, *THEORY OF GAMES AND ECONOMIC BEHAVIOR* 617 (1944). See also Harsanyi (1953, 1955), *supra* note 43.

⁴⁶ See JOHN VON NEUMANN & OSKAR MORGENSTERN, at *Id.*

⁴⁷ See Rosen & Callanan, *supra* note 12, at 839.

⁴⁸ Jim Tozzi, *Office of Information and Regulatory Affairs: Past, Present, and Future*, 11 *J. BENEFIT COST-ANALYSIS* 1, 24–37 (2020). See also Yair Listokin, *Bounded Institutions*, 124 *YALE L.J.* 367, 336_95 (2014).

placing a constraint on an activity can force a process of prioritization, thus ensuring that scarce resources are directed from lower priority or less effective projects toward higher priority, more effective ones.⁴⁹

However, there is a more direct line of connection between efficiency and a regulatory cost budget than the priority-setting mechanism described by these authors. A welfare measure corresponding with an intergenerational notion of Kaldor-Hicks efficiency has a connection to what is measured by the cost analysis as part of a regulatory budget. An intergenerational welfare measure is desirable because virtually all public policies have at least some intergenerational effects. Policies, even temporary ones, displace capital investments that have effects over extended periods of time. Children today will be affected by policy in the future when they are adults, but their preferences are not represented in current markets because they have no ability to pay. People are continually being born and dying, so even policies with effects over very short time horizons have an intergenerational character to them. Finally, policy interventions change the identities of the individuals who are born.⁵⁰

Given the problems identified with the *intragenerational* Kaldor-Hicks basis for CBA discussed in the previous section (where standing was only granted to individuals whose preferences are reflected in current markets), one could ask whether there is instead a social welfare function that is consistent with an intergenerational notion of efficiency. Kaldor-Hicks efficiency is sometimes defined as a state of affairs whereby the dollar value of social wealth is maximized.⁵¹ A trademark characteristic of this welfare measure is that it treats one dollar the same irrespective of whose pocket happens to receive that dollar,⁵² so it is insensitive to equity and distributional concerns. Thus, a social welfare function describing efficiency in this context would presumably maximize wealth, irrespective of its distribution.

A social welfare function with these characteristics can be found by setting the parameters δ and η in the individualistic social welfare function equal to zero (thereby giving equal treatment to each generation). In that case, the social welfare function collapses into a special case of the utilitarian social welfare function. The social welfare function becomes $SW = \int_{t=0}^{\infty} U(c_t)dt$, and it is now indifferent with respect to the timing of benefits and costs, because the social welfare function lacks the discount factor, β . If one further assumes that $U(c_t) = c_t$, and therefore that the first derivative of the utility function is $U'(c_t) = 1$, then the social welfare function is now also completely indifferent to the level of consumption of those who gain and lose from a policy change (which may also vary over time). Like CBA presently, this particular social welfare function continues to be indifferent with respect to distributional concerns within a time period. Now, however, it is also indifferent across time periods.

⁴⁹ The defense of regulatory budgets on the basis of forcing priority setting is common. *See, e.g.*, ROBERT LITAN & WILLIAM NORDHAUS, REFORMING FEDERAL REGULATION 140 (1983) (noting how a regulatory budget would encourage “regulators to transfer regulatory costs from low-yield to high-yield programs”); Christopher DeMuth, *The Regulatory Budget*, 4 REGULATION 29, 37 (1980), (stating that “[t]he most attractive feature of the regulatory budget is that it would establish a clear upper limit on the government’s regulatory activities and clear priorities among its various health, safety, environmental, and economic ventures”); Susan Dudley, *Can Fiscal Budget Concepts Improve Regulation?* 19 N.Y.U. J. LEGIS. & PUB. POL’Y 259, 266 (2016) (stating that “[b]y making more transparent the private sector resources needed to achieve regulatory objectives, a regulatory budget would encourage policy officials in the legislative and executive branches, as well as the public, to consider regulatory priorities and tradeoffs”).

⁵⁰ Tim Mulgan, *Utilitarianism and Our Obligations to Future People*, in THE CAMBRIDGE COMPANION TO UTILITARIANISM 326–30 (Ben Eggleston and Dale E. Miller eds., 2014).

⁵¹ *See* Posner, *supra* note 20, at 1153, referring to the Kaldor-Hicks notion of efficiency as “wealth maximization.”

⁵² Kaldor-Hicks efficiency “treats a dollar as worth the same to everyone.” *Id.* at 1154.

Kaldor-Hicks efficiency as a welfare measure is often defended on the grounds of the potential compensation test.⁵³ In practice, the compensation is merely theoretical, which has led this welfare measure to be the subject of considerable criticism in the academic literature.⁵⁴ However, an intergenerational notion of allocative efficiency could be defended on alternative grounds, because it is consistent with utilitarianism. Thus, the body of philosophical support for utilitarianism would seem to provide support for this welfare measure. Utilitarianism, while not universally accepted, is perhaps the most prominent philosophical framework, and it is sometimes regarded as the framework against which all competing moral theories should be judged.⁵⁵

In choosing to adopt the utilitarian social welfare function just described, one encounters certain challenges because utility streams can become infinite in value owing to the absence of discounting.⁵⁶ One way of dealing with these problems of infinite utility streams is to assess utility streams in terms of their value in the limit,⁵⁷ via what is sometimes called an *overtaking criterion*.⁵⁸ The overtaking criterion says that if one utility stream overtakes another and remains permanently above it, then that utility stream is preferred to the other.⁵⁹ Thus, the problem facing society becomes one of maximizing limiting utility, which can be expressed according to the rule

$$\max SW = \max \lim_{t \rightarrow \infty} U(c_t), \quad (2)$$

which states that social welfare is maximized when the terminal utility value is maximized.

As noted earlier, one of the primary criticisms leveled at a regulatory budget is that it neglects benefits. However, this criticism turns into an advantage if one's goal is maximizing limiting utility, because by restricting the analysis to the cost side of the ledger, the analyst has likely restricted the focus to those benefits and costs with the highest rate of return, which determine social welfare in the limit.

To see why, out of convention, positive and negative outcomes related to items traded in markets are often counted on the cost side of the ledger in a CBA, while positive and negative outcomes relating to items that fall outside of market activity go on the benefits side.⁶⁰ The main characteristic of goods traded

⁵³ Robin Boadway, *The Welfare Foundations of Cost-Benefit Analysis*, 84 *ECON. J.* 926 (1974); E. J. MISHAN, *COST-BENEFIT ANALYSIS* 317 (1972).

⁵⁴ See, for example, John S. Chipman & James C. Moore, *The New Welfare Economics 1939–1974*, 19 *INT. ECON. REV.* 547 (1978); Amartya Sen, *The Welfare Basis of Real Income Comparisons: A Survey*, 17 *J. ECON. LITERATURE* 1, 24–25 (1979).

⁵⁵ Utilitarianism “is one of the leading theories in recent and contemporary moral philosophy” and “arguably has the distinction of being the moral theory that, more than any other, shapes the discipline of moral philosophy and forms the background against which rival theories are imagined, refined, and articulated.” Ben Eggleston & Dale E. Miller, *Introduction*, in *THE CAMBRIDGE COMPANION OF UTILITARIANISM 1* (Ben Eggleston & Dale E. Miller eds., 2014).

⁵⁶ For a classic discussion of these difficulties, see Tjalling C. Koopmans, *Stationary Ordinal Utility and Impatience*, 28 *ECONOMETRICA* 287 (1960).

⁵⁷ Graciela Chichilnisky, Geoffrey Heal & Andrea Beltratti, *The Green Golden Rule*, 49 *ECON. LETTERS* 175 (1995); Tyler Cowen, *Caring about the Distant Future: Why It Matters and What It Means*, 74 *U. CHI. L. REV.* 5 (2007).

⁵⁸ See Graciela Chichilnisky, *What is Sustainable Development?*, 73 *LAND ECON.* 467 (1997); Cowen, *supra* note 57.

⁵⁹ See Cowen, *supra* note 57, at 15 (noting how one sequence of values is preferred to another “if that former sequence, after some point in time and continuing for the future, remains systematically higher”).

⁶⁰ See *Increasing Consistency and Transparency in Considering Benefits and Costs in the Clean Air Act Rulemaking Process*, 85 *Fed. Reg.* 84130, 84145 (Dec. 23, 2020) (to be codified at 40 C.F.R. pt. 83) (“[S]ocial benefits and social costs are often evaluated separately due to practical considerations. The social benefits of reduced pollution are often attributable to changes in outcomes not exchanged in markets, such as improvements in public health or

in markets is that they are exchanged for money, whereas returns to nonmarket goods come only in the form of utility. Even when nonmarket returns are ongoing, such as with many environmental benefits for example, benefits traded in markets still have an advantage in that their returns can be reinvested through financial markets while the nonmarket goods' returns cannot. Continual reinvestment of some portion of returns means the principal value of wealth grows over time, which increases the return in subsequent periods. This is the source of compounding growth.⁶¹ Thus, market-based benefits and costs can leverage the power of compound interest to increase social welfare in a manner unavailable to most benefits and costs falling outside of market activity. The market-based benefits (costs) will eventually overtake the nonmarket benefits (costs) when such reinvestment occurs.

Although nonmarket outcomes from government policies or regulations conceivably can produce compounding benefits and costs, this seems most likely to occur in the context of catastrophic risks, which are also situations where one can debate whether CBA is even an appropriate policy evaluation tool.⁶² In most ordinary situations, one can reasonably conclude that an analysis focused solely on the cost side of the ledger will identify those benefits and costs with the highest rate of return. Therefore, a regulatory cost cap can be understood as a requirement that regulations not be allowed to proceed unless the rate of return on a project's market-based impacts exceeds some rate. When the cost cap is set at zero, the rate of return must be positive, or, equivalently, regulations may not proceed unless they save money. In order for this criterion to be applied to regulations, however, a cost analysis needs to be conducted so that the analyst can determine whether regulations are increasing or reducing costs. As the next section will explain, many regulatory budgets are not based on any measure of cost of all.

3. The Regulatory Budget in Practice

In recent years, a series of experiments with regulatory budgets has unfolded across U.S. states. These state efforts vary in their approaches but are similar in the sense that all are much simpler than the regulatory budget implemented under Executive Order No. 13771. The Trump administration's regulatory budget was an incremental cost budget, meaning it placed limits on the net costs that regulatory agencies could impose through *new* regulations. Incremental budgets do not take into account how the cost of old regulations might be evolving with time.⁶³ Thus, they miss the continuing effects of past regulations. These continuing effects are likely to be substantial and much larger cumulatively than the effects from the relatively many fewer new regulations that tend to be issued from year to year.⁶⁴ State experiments with regulatory budgets, in contrast to the federal experience, have often come in cumulative form, affecting a broad swath of both new *and* existing regulations from executive agencies.

ecosystems. In contrast, the social costs generally are measured through changes in outcomes that are exchanged in markets.”).

⁶¹ See generally Broughel, *supra* note 24.

⁶² Martin L. Weitzman, *Fat-Tailed Uncertainty in the Economics of Catastrophic Climate Change*, 5 REV. ENVTL. ECON. & POL'Y 275 (2011).

⁶³ See DeMuth, *supra* note 49, and Graham, *supra* note 17 (on the difficulties assessing the cost of existing regulations).

⁶⁴ See generally JAMES BROUGHEL, REGULATION AND ECONOMIC GROWTH: APPLYING ECONOMIC THEORY TO PUBLIC POLICY (2017) (on how the cumulative effect of regulations slows economic growth). See also Bentley Coffey, Patrick A. McLaughlin & Pietro Peretto, *The Cumulative Cost of Regulations*, 38 REV. ECON. DYNAMICS 1 (2020); John W. Dawson & John J. Seater, *Federal Regulation and Aggregate Economic Growth*, 18 J. ECON. GROWTH 137 (2013); Broughel & Hahn, *supra* note 10.

The simplicity of some state efforts might cause some to question whether they indeed constitute regulatory budgeting efforts. For example, few of these efforts involve estimates of costs. For the purposes of this article, a regulatory reform effort is considered to include a regulatory budget if it placed a cap on regulation levels. Such a cap can come in different forms. It might come in the form of a PAYGO requirement, such as a one-in, one-out provision. It might come in the form of a reduction target, such as a goal to reduce regulatory restrictions by 30 percent. Or, it could involve more sophisticated cost offsets, akin to what the Trump administration implemented under Executive Order No. 13771. The unit of measurement, in other words, does not affect whether a reform is considered a regulatory budget or not for the purposes of this article.

a. Legislative Reforms (Virginia, Ohio, and Texas)

Some reforms have focused on a subset of state regulatory agencies rather than implementing a budget for all agencies at once. In Virginia, for example, as part of a Regulatory Reduction Pilot Program passed into law in 2018,⁶⁵ two state agencies, the Department of Professional and Occupational Regulation (DPOR) and the Department of Criminal Justice Services (DCJS), were required to produce a count of their total regulatory requirements.⁶⁶ These two agencies oversee about 8 percent of the sections in the Virginia administrative code,⁶⁷ meaning their rules constitute a small, but not insubstantial fraction of Virginia regulations. Both agencies engage in a significant amount of occupational licensing regulation. At DCJS, regulated professions are primarily in the public safety area.

The count in Virginia was done manually in the sense of being accomplished by human beings rather than computers (as will be shown, some states rely on text analysis software to count regulations). Civil servants read through their respective departments' rules and counted each requirement in place. The 2018 law set a reduction goal for the two pilot agencies of 25 percent of requirements from initial levels. No further cuts were required from other departments in Virginia's case, but all agencies subject to the state Administrative Process Act were required to produce counts of their own regulatory requirements by July 2020,⁶⁸ which set the stage for potential further reductions and possibly the implementation of a state-wide regulatory budget.

In late 2018, the two agencies in the pilot program produced counts of their regulatory requirements. Between the two departments, they had 6,226 requirements (2,730 at DPOR and 3,496 at DCJS).⁶⁹ It became clear at this initial reporting stage that the two agencies, and the state Department of Planning and Budget (DPB) that was overseeing the effort, were interpreting the required cuts as applying to *discretionary requirements*, that is, those whose issuance is not required by law but instead is at the discretion of the regulating agency. This interpretation seemed to conflict with the text of the statute.⁷⁰ Nevertheless, the two agencies identified 4,947 discretionary requirements between them (about 80

⁶⁵ H.B. 883, 2018 Gen. Assemb., Reg. Sess. (Va. 2018).

⁶⁶ "Regulatory requirement" is defined in Virginia as "any action required to be taken or information required to be provided in accordance with a statute or regulation in order to access government services or operate and conduct business." *Id.*

⁶⁷ COMMONWEALTH OF VA., RD356—COMMONWEALTH OF VIRGINIA REPORT TO THE GENERAL ASSEMBLY ON THE REGULATORY REDUCTION PILOT PROGRAM 13 (Aug. 15, 2021).

⁶⁸ H.B. 883, *supra* note 65.

⁶⁹ See Letter from Aubrey L. Layne Jr., Virginia Secretary of Finance, to Members of the Virginia House of Delegates & Senate (Oct. 22, 2018).

⁷⁰ See Broughel, *supra* note 22, at 214.

percent of total requirements) and aimed to cut 25 percent of these, which equates to a total reduction goal of about 1,200 requirements.⁷¹

A year later in 2019, DCJS reported a reduction of 10.14 percent.⁷² According to a report issued at the time, the reductions were “achieved primarily by streamlining the application process for licenses, registration, or certifications.”⁷³ Meanwhile, regulatory boards under DPOR reported a reduction of 9.78 percent, “primarily achieved by lowering barriers to entry into professions and improving regulatory clarity.”⁷⁴ The two agencies had been seeking a reduction of 7.5 percent in order to meet benchmarks established in state law, meaning they exceeded their reduction goals in 2019.

Reform efforts at these agencies were upended to some extent by the coronavirus pandemic in 2020; both departments claimed the pandemic disrupted regular meetings, affecting their progress.⁷⁵ Only DPOR achieved the 15 percent reduction that was mandated by law to be achieved by July 1, 2020. Moreover, the agency barely exceeded the target, with an overall reduction of 15.12 percent relative to the baseline count.⁷⁶ This reduction was achieved mainly by streamlining business registration processes; repealing certain reporting requirements; repealing a regulatory chapter; and eliminating certain badge requirements for apprentices of barbers, cosmetologists, and estheticians.⁷⁷ Meanwhile, DCJS reported a 12.87 percent reduction in 2020 relative to initial levels,⁷⁸ thereby missing its reduction target in 2020.

A final report was issued August 15, 2021, shortly after the July 1, 2021 deadline that signaled the end of the three-year pilot program.⁷⁹ That report noted that DPOR achieved a final reduction of 26.92 percent, exceeding the 25 percent target, while DCJS achieved a 14.14 percent reduction from initial levels, which, although not insignificant, was less than the 25 percent target.⁸⁰

In a report, DPB provided more details about the nature of the cuts. DPOR oversees 18 boards that regulate more than 300,000 professionals. There was significant variation in reductions across boards, with reductions ranging from 0 percent to 100 percent (the natural gas automobile mechanics and technicians license was eliminated), depending on the board. Variation is explained, in part, because the number of discretionary requirements across boards varies from zero to hundreds of requirements. Interestingly, four boards oversee roughly 90 percent of DPOR regulated persons, and each of these boards saw significant reductions. The boards oversee contractors (16.3 percent reduction), real estate (16.5 percent), barbers and cosmetology (32.8 percent), and architects, professional Engineers, land surveyors, certified interior designers and landscape architects (72.1 percent). See table 1.

Table 1. Regulatory Reductions at Boards within the Department of Professional and Occupational Regulation, Virginia

⁷¹ See Letter from Aubrey L. Layne, Jr., *supra* note 69.

⁷² COMMONWEALTH OF VA., RD403—PROGRESS REPORT ON THE REGULATORY REDUCTION PILOT PROGRAM 3 (Oct. 1, 2019).

⁷³ *Id.*

⁷⁴ *Id.*

⁷⁵ COMMONWEALTH OF VA., RD394—PROGRESS REPORT ON THE REGULATORY REDUCTION PILOT PROGRAM 3 (Oct. 1, 2020).

⁷⁶ *Id.*

⁷⁷ *Id.*

⁷⁸ *Id.*

⁷⁹ COMMONWEALTH OF VA., RD356, *supra* note 67.

⁸⁰ *Id.* at 2.

Board or occupation	Baseline mandatory requirements	Baseline discretionary requirements	Cumulative requirements reduced (number)	Cumulative requirements reduced (percent)
Department of Professional and Occupational Regulation	14	2	0	0.0
Board for Contractors	37	129	21	16.3
Real Estate Board	111	79	13	16.5
Board for Barbers and Cosmetology	23	436	143	32.8
Board for APELSCIDLA	31	104	75	72.1
Common Interest Community Board	85	327	107	32.7
WWWOSSP Board	14	120	8	6.7
Board for Asbestos, Lead, and Home Inspectors	173	123	82	66.7
Real Estate Appraiser Board	79	45	3	6.7
Board for Hearing Aid Specialists and Opticians	20	81	12	14.8
Fair Housing Board	14	16	2	12.5
Auctioneers Board	18	53	3	5.7
Board for Professional Soil Scientists, Wetland Professionals, and Geologists	34	51	10	19.6
Cemetery Board	33	43	9	20.9
Board for Waste Management Facility Operators	14	29	3	10.3
Polygraph Examiners Advisory Board	0	54	4	7.4

Board for Branch Pilots	16	47	1	2.1
Athlete Agents	0	0	n.a.	n.a.
Boxing, Martial Arts, and Professional Wrestling Advisory Board	30	209	2	0.96
Natural Gas Automobile Mechanics and Technicians	0	36	36	100.00
Total	746	1,984	534	26.9

Note: n.a. = not applicable; APELSCIDLA = Architects, Professional Engineers, Land Surveyors, Certified Interior Designers, and Landscape Architects; WWWOSSP = Waterworks and Wastewater Works Operators and Onsite Sewage System Professionals.

Source: COMMONWEALTH OF VA., RD356—COMMONWEALTH OF VIRGINIA REPORT TO THE GENERAL ASSEMBLY ON THE REGULATORY REDUCTION PILOT PROGRAM (Aug. 15, 2021).

A deeper look at the cuts reveals mores insights. DPOR reduced requirements by 534 in total—85 percent of these reductions from streamlining and 15 percent from eliminating requirements altogether. Thus, most of the reductions did not lead to a decline in the number of regulatory requirements in place, though they did likely lead to a reduction in real burdens, highlighting a drawback of using simpler metrics. Thus, final counts of discretionary regulatory requirements at this agency fell from 1,984 discretionary requirements in 2018 to just 1,951 discretionary requirements in 2021.⁸¹

In total, DPOR undertook 36 regulatory actions as part of the reduction effort. These involved repealing a regulatory chapter, reducing filing fees, allowing use of digital forms, and striking unnecessary language and consolidating duplicative requirements.⁸² The Board for Professional and Occupational Regulation (which is under the oversight of DPOR) also issued a report to the General Assembly in late 2020, recommending that licenses for soil scientists, waste management facility operators, and Common Interest Community Manager employees be eliminated because these programs already have national certifications.⁸³

At DCJS, meanwhile, the agency was able to eliminate 130 requirements in their entirety and relax another 291, with 38 more requirements in the process of being eliminated in mid 2021.⁸⁴ About half of the total reduction (210 requirements) related to private security.⁸⁵ Overall, however, discretionary regulations remained flat for the agency (2,977 in 2018 and 2,974 in 2021), again because reductions meant reducing the burden from the requirement, as opposed to eliminating the requirement altogether.

⁸¹ *Id.* at 8.

⁸² *Id.*

⁸³ Board for Professional and Occupational Regulation, Final Report to the General Assembly: Evaluation of the Need for Continued Regulation of Certain Professions and Occupations as Recommended by the Joint Legislative Audit and Review Commission (Dec. 17, 2020).

[https://www.dpor.virginia.gov/sites/default/files/Reports%20and%20Studies/Final_BPOR%20JLARC%20Report_adopted%2012-17-20%20\(1\).pdf](https://www.dpor.virginia.gov/sites/default/files/Reports%20and%20Studies/Final_BPOR%20JLARC%20Report_adopted%2012-17-20%20(1).pdf)

⁸⁴ COMMONWEALTH OF VA., RD356, *supra* note 67, at 10.

⁸⁵ *Id.*

The lack of decline in regulatory requirements may also signal that DCJS was adding requirements even as some were taken away. DPOR’s percentage of actions exempt from the state Administrative Process Act (APA) rose from 39 percent to 48 percent over the course of the pilot program, while the corresponding percentage for DCJS rose from 33 percent to 36 percent.⁸⁶ Actions exempt from the state APA are also exempt from review by DPB, the agency overseeing the pilot program. Thus, the high number of exemptions in Virginia may have hindered the effectiveness of the pilot program. DPB notes that more than half (51 percent) of Virginia regulations promulgated over the previous 15 years were exempt from the state APA.⁸⁷

Thirty-nine additional executive agencies in Virginia were required to submit a regulatory baseline catalog as part of the pilot program, while 32 agencies were exempted from the pilot program.⁸⁸ Twenty-eight of the 39 agencies required to submit baseline catalogs submitted a complete catalog by July 1, 2020,⁸⁹ the date required by law. As of August 15, 2021, when the final DPB report was issued, 38 of the 39 required agencies had completed their catalogs (only the Virginia Employment Commission had not done so). Counts of regulatory requirements for the agencies whose catalogs are publicly available are presented in table 2. (Note that only 35 of the 38 agencies had data available online at the time these data were collected.)

Requirement counts vary from a few dozen at some agencies to well over 100,000 at the Virginia Department of Transportation. DPB cautions that counts may not be fully comparable across agencies, owing to discrepancies in the way that counts were conducted. The numbers are nevertheless instructive, especially within particular agencies. For example, on average, about 53 percent of agency restrictions are discretionary, meaning the agency has the power to amend or remove the requirement without a change in state or federal law.

Table 2. Regulatory Baseline Counts for Departments Subject to the State Administrative Process Act, Virginia

Agency	Discretionary requirements	Total requirements
Board of Accountancy	24	72
Department for Aging and Rehabilitative Services	721	1,829
Department for the Blind and Vision Impaired	43	496
Department for the Deaf and Hard of Hearing	72	87
Department of Agriculture and Consumer Services	5,742	5,777
Department of Behavioral Health and Developmental Services	2,559	3,038
Department of Conservation and Recreation	297	512

⁸⁶ *Id.* at 13.

⁸⁷ *Id.*.

⁸⁸ *Id.* at 3.

⁸⁹ *Id.* at 16.

Department of Corrections	33	2,361
Department of Education	2,110	2,995
Department of Elections	83	603
Department of Environmental Quality	27,131	76,998
Department of Fire Programs	24	52
Department of Forensic Science	121	171
Department of Forestry	34	61
Department of General Services	3,205	5,222
Department of Health Professions	1,564	1,961
Department of Historic Resources	265	468
Department of Housing and Community Development	2,365	5,427
Department of Human Resource Management	—	—
Department of Juvenile Justice	7,271	7,513
Department of Labor and Industry	—	—
Department of Medical Assistance Services	11,667	17,537
Department of Mines, Minerals and Energy	2,795	3,917
Department of Motor Vehicles	830	991
Department of Social Services	2,963	6,860
Department of State Police	57	510
Department of Taxation	2,037	2,281
Department of the Treasury	82	270
Department of Transportation	118,082	136,316
Department of Wildlife Resources	77	723
Motor Vehicle Dealer Board	7	64
Office of the State Inspector General	22	121
State Council of Higher Education for Virginia	144	745
Virginia Alcoholic Beverage Control Authority	930	2,459
Virginia Birth-Related Neurological Injury Compensation Program	82	103
Virginia Department of Aviation	162	276
Virginia Department of Health	—	—
Virginia Employment Commission	—	—
Virginia Racing Commission	2,216	2,254

Note: — = not available.

Source: Virginia Regulatory Town Hall, <https://townhall.virginia.gov/> (last visited Aug. 23, 2021).

In its concluding report, DPB identified five areas where the pilot program could be improved. These relate to (a) inconsistency in counting of regulatory requirements across agencies; (b) a lack of certainty about the source of original authority for some regulations (meaning it is not always clear whether a particular requirement is mandated by law or exists at the discretion of the regulating agency); (c) the high number of agencies claiming their rules are exempt from the state APA or the pilot program (leading to confusion about which agencies are required to comply with the pilot program); (d) inconsistent treatment of requirements incorporated by reference in the administrative code (leading to confusion about how these requirements should be reported in baseline catalogs); and (e) inconsistent compliance with existing periodic review requirements.

To address these challenges, DPB recommended the legislature provide clarity going forward about when regulations are considered mandatory versus discretionary and about who is exempt from the state APA and pilot program. In its final report, DPB fell short of recommending the pilot program be expanded, noting that until some of these issues are resolved, a continued pilot reform program will be less effective than it could be. DPB also noted that making changes to the existing periodic review process is an alternative to expanding the pilot program, since not all agencies are in compliance. DPB found 12 agencies in full compliance with the existing 4-year review requirement for existing regulations, 22 in partial compliance, and 11 not in compliance.⁹⁰

Despite the challenges that DPB identified, some significant reductions do appear to have occurred in Virginia, especially at DPOR, which was able to officially meet its reduction goal of 25 percent. Moreover, the baseline catalogs produced by 38 state agencies make Virginia well positioned to expand the pilot program, should it choose to do so.

A second notable legislative reform was passed in Ohio in 2019.⁹¹ A provision was inserted in the state budget that year that required state agencies to produce base inventories of their regulatory restrictions, where rules that include the words “shall,” “must,” “require,” “shall not,” “may not,” and “prohibit” were defined as including regulatory restrictions. Similar to Virginia’s approach, there was no requirement that these reports be made public, but many subsequently appeared online (see table 4 in section 4 of this article),⁹² and the Ohio Legislative Services Commission released a summary of the catalogs in early 2021 (see Table 3). That report found that state agencies had identified 9,944 rules with restrictions, which included 155,073 restrictions in total.⁹³ The 2019 Ohio legislation also implemented a PAYGO requirement, in place until June 30, 2023, whereby a state agency may not adopt a new regulatory restriction unless it simultaneously removes two other restrictions.⁹⁴

As of mid-2021, the reform appears to be mainly on track. Regulatory agencies have produced baseline catalogs, and compliance with the PAYGO provision appears to be going well. When agencies promulgate a new regulation, they fill out a rule summary and fiscal analysis form, which asks, among other things, whether they are adding or removing regulatory restrictions, and if so, how many.⁹⁵

⁹⁰ *Id.* at 17–18.

⁹¹ H.B. 166, 133rd Gen. Assemb., Reg. Sess. (Ohio 2019).

⁹² To name a few, see OHIO DEP’T OF AGING, BASE INVENTORY OF REGULATORY RESTRICTIONS (Nov. 2019); OHIO DEP’T OF HIGHER ED., BASE INVENTORY OF REGULATORY RESTRICTIONS (Dec. 2019); OHIO DEP’T OF DEVELOPMENTAL DISABILITIES, BASE INVENTORY OF REGULATORY RESTRICTIONS (Dec. 2019); OHIO DEP’T OF HEALTH, BASE INVENTORY OF REGULATORY RESTRICTIONS (Dec. 2019).

⁹³ OHIO LEG SERV COMM’N. S.B. 9, 134th General Assembly, Fiscal Note & Local Impact Statement (Feb 2, 2021).

⁹⁴ H.B. 166, *supra* note 91.

⁹⁵ See OHIO REV. CODE § 106.024. The Ohio Rule Summary and Fiscal Analysis form is available online at <http://www.jcarr.state.oh.us/assets/files/all-rule-summary-and-fiscal-analysis-rsfa-forms-7-27-21-627.pdf> (last visited Aug. 24, 2021).

According to the Joint Committee on Agency Rule Review, which is tracking progress of the law, agencies subject to the 2-for-1 requirement have added 378 restrictions, while removing 1,802, as of August 24, 2021.⁹⁶ That is a ratio of about 4.8 to 1.0, well in excess of the 2-for-1 requirement. An analysis of regulatory restrictions based on the Mercatus Center’s State RegData project, using similar but not identical terms to those found in the Ohio legislation, also finds that Ohio had 274,470 restrictions in administrative rules in 2020.⁹⁷ In 2021, this number has fallen to 263,349,⁹⁸ representing a decline of about 11,000 restrictions, or 4 percent of the 2020 total.

Table 3. Agency Counts of Regulatory Restrictions, Ohio

Agency	Number of Rules with Restrictions	Number of Regulatory Restrictions
Environmental Protection	1,226	26,123
Public Utilities Commission	632	22,627
Health	767	13,637
Job and Family Services	870	10,004
Public Safety	663	9,602
Commerce	725	9,235
Natural Resources	890	8,747
Workers’ Compensation	333	8,290
Agriculture	716	7,571
Racing Commission	578	6,718
Medicaid	327	6,260
Education	301	3,652
Insurance	114	3,324
Developmental Disabilities	119	2,828
Mental Health and Addiction Services	168	2,792
Rehabilitation and Correction	215	2,644
Aging	143	1,842
Taxation	174	1,538
Administrative Services	274	1,507
Youth Services	93	1,286
Casino Control Commission	223	1,204
Development Services	136	992
Higher Education	61	895
Transportation	91	886

⁹⁶ Joint Committee on Agency Rule Review, *Regulatory Restrictions Report* (Aug. 24, 2021).

⁹⁷ Kofi Ampaabeng & James Broughel, *A Snapshot of Regulation in Great Lakes States 3* (Mercatus Ctr. at George Mason U., Policy Brief, 2021).

⁹⁸ Patrick A. McLaughlin, Jonathan Nelson, Thurston Powers, Walter Stover & Stephen Strosko, State RegData 2.1 (dataset), QuantGov (Mercatus Ctr. at George Mason U., 2021), <https://www.quantgov.org/state-regdata> (last visited Aug. 23, 2021).

Lottery Commission	83	531
Budget and Management	8	283
Veterans Services	14	55
Total	9,944	155,073

Source: OHIO LEG SERV COMM'N. S.B. 9, 134th General Assembly, Fiscal Note & Local Impact Statement (Feb 2, 2021).

Texas is another state to have implemented a regulatory PAYGO requirement through legislation in recent years.⁹⁹ Unlike Ohio's PAYGO requirement, which is set to expire in 2023, Texas's one-in, one-out policy, passed in 2017, is permanent. Given the timing, it was likely inspired by Executive Order No. 13771's one-in, two-out requirement, the implementation of which preceded the Texas law by only a few months.¹⁰⁰ Texas's law states that a state agency may not adopt a proposed rule for which the fiscal note states that the rule imposes positive costs, unless the state agency repeals or amends a rule to decrease the total cost by an amount that is equal to or greater than the cost imposed by the new rule.¹⁰¹ Texas's reform has two notable aspects. First, of the state reforms reviewed in this article, it is the only one to be based on cost offsets. Second, the Texas law includes many broad categories of exemptions, which likely limits the number of regulations offset substantially. For example, the offset requirement does not apply when a rule "is necessary to protect the health, safety, and welfare of the residents of this state,"¹⁰² which may grant regulators significant leeway to avoid the offset requirement.

b. Executive Reforms (Kentucky, Missouri, Oklahoma, and Arizona)

Several state regulatory budgeting experiments have come in the form of red-tape reduction efforts instituted by governors, often, but not always, through the issuance of an executive order. One of the first states to do so in recent years was Kentucky, whose Red Tape Reduction initiative began in 2016 under the leadership of then-Governor Matt Bevin.¹⁰³ The Kentucky reform is notable for having preceded the reforms of the Trump administration. As part of Kentucky's efforts, cabinet agencies were required to conduct a review of their regulations. To promote its efforts, the state created a website where members of the public could submit ideas about improvements for regulations. State employees were similarly asked to assist in the effort by identifying burdensome regulations.¹⁰⁴ Governor Bevin set a verbal goal of a 30 percent reduction,¹⁰⁵ and according to the administration, of more than 4,700 Kentucky regulations initially on the books, 617 had been repealed and 661 had been amended as of May 2019.¹⁰⁶ In total, 27 percent of rules were either repealed or amended up to that point, coming close to Governor Bevin's 30 percent goal. However, a count of regulatory restrictions revealed regulatory agencies in Kentucky succeeded in cutting about 9 percent of restrictions by 2020.¹⁰⁷ This amount was less than the goal that Governor Bevin had set, though larger than reductions that took place at the federal level under President

⁹⁹ TEXAS GOV'T CODE § 2001.0045.

¹⁰⁰ *New Texas Law Reflects Trump Executive Order*, LONE STAR VOICE, Jul. 10, 2017.

¹⁰¹ TEXAS GOV'T CODE § 2001.0045.

¹⁰² TEXAS GOV'T CODE § 2001.0045(c)(6).

¹⁰³ Press Release, Kentucky Cabinet for Economic Development, Gov. Matt Bevin Unveils Red Tape Reduction Initiative to Attack Outdated, Unnecessary Business Regulations (Jul. 6, 2016).

¹⁰⁴ *Id.*

¹⁰⁵ Matt Bevin, *State Red Tape Initiative's Goal Is to Reduce Regs by 30 Percent*, PADUCAH SUN, Aug. 22, 2016.

¹⁰⁶ James Broughel, *Tracking the Progress of Kentucky's Red Tape Reduction Initiative* (Mercatus Ctr. at George Mason U., Policy Brief, 2019).

¹⁰⁷ Kofi Ampaabeng, James Broughel, Ethan Greist, Patrick McLaughlin, Jonathan Nelson, Walter Stover, Stephen Strosko & Hayden Warlick, *A Policymaker's Guide to State RegData 2.0* (Mercatus Ctr. at George Mason U., Policy Brief, 2020).

Trump. The number of regulatory restrictions actually rose during the Trump administration from 1,079,651 on January 23, 2017, to 1,089,742 on January 20, 2021.¹⁰⁸

One reason for the difference between the 27 percent amended or repealed figure and the 9 percent reduction in regulatory restrictions is that different measures are used. The former is based on counts of regulations, while the latter is based on counts of terms. The former also includes amended rules while the latter is a measure of aggregate restrictions reduced. Similar to what may have happened in Virginia, new regulations could have continued to be added during the time of the review, thereby offsetting some of the administration's efforts to reduce regulations. The reduction target of 30 percent was not legally binding either. Governor Bevin lost reelection in 2019, which brought an end to the red tape reform in Kentucky, highlighting the lack of permanence to some reforms implemented via executive actions.

Missouri's No MO Red Tape initiative is another example of a red-tape reduction reform. The program was initiated via a 2017 executive order signed by then-governor Eric Greitens.¹⁰⁹ Missouri's effort included a measure of regulation to track its progress—a "regulatory restriction," which is a metric from the RegData project from the Mercatus Center.¹¹⁰ A regulatory restriction is defined as instances of terms "shall," "must," "may not," "prohibited," and "required." Governor Greitens also announced a 33 percent reduction target.¹¹¹ Like Kentucky, Missouri created a website, which included information about the state's regulatory count and allowed members of the public to submit information about problematic regulations.¹¹² One notable aspect of Missouri's reforms was the extensive outreach efforts undertaken to solicit information about regulations that were bothering the public. Leaders in Missouri set a goal for themselves to receive at least 100 public comments per agency.¹¹³ This goal was exceeded at most agencies, and 5,765 public comments were received in total.¹¹⁴ This number is sizable when one considers the number of comments received in six previous state regulatory reviews exceeded 1,000 in only one instance.¹¹⁵ Overall, regulatory restrictions fell in Missouri from a high of 134,702 to 93,915,¹¹⁶ a cut of more than 30 percent that was in line with the goal of Governor Greitens to reduce restrictions by one-third. Also noteworthy is that the red-tape cutting effort continued into the term of Governor Greitens's successor.¹¹⁷

One prominent feature of Missouri's reforms is that reductions varied significantly by regulatory agency. By early 2019, the Department of Transportation had cut restrictions by 57 percent, while the Department of Conservation had cut them by just 1 percent.¹¹⁸ This variation suggests that reductions may be harder

¹⁰⁸ United States Federal Regulation Tracker (dataset), Quantgov (Mercatus Ctr. at George Mason U., 2021), <https://www.quantgov.org/federal-us-tracker>.

¹⁰⁹ Missouri Exec. Order No. 17-03 (Jan. 10, 2017).

¹¹⁰ Omar Al-Ubaydli & Patrick McLaughlin, *RegData: A Numerical Database on Industry-Specific Regulations for all United States Industries and Federal Regulations, 1997–2012*, 11 REG. & GOVERNANCE 109 (2017).

¹¹¹ *State Agencies Still Considering Rules Cutbacks*, NEWS TRIBUNE, Jan. 14, 2019.

¹¹² Justin D. Smith, *Regulatory Reform at the State Level: A Guide to Cutting Red Tape for Governors and Executive Branch Officials*, 3 BUS. ENTREPRENEURSHIP & TAX L. REV. 276 (2019).

¹¹³ *Id.* at 290.

¹¹⁴ *Id.* at 291.

¹¹⁵ *Id.* at 282.

¹¹⁶ Kofi Ampaabeng et al., *supra* note 107.

¹¹⁷ Governor Mike Parson, Greitens's successor, continued to tout the success of the red tape reforms. *See, e.g.*, Press Release, Office of Governor Michael L. Parson, Governor Parson Joins Second Lady Karen Pence on Briefing Call Regarding White House Principles on Workforce Freedom and Mobility (Jan. 17, 2020), <https://governor.mo.gov/press-releases/archive/governor-parson-joins-second-lady-karen-pence-briefing-call-regarding-white>.

¹¹⁸ Smith, *supra* note 112, at 294.

to achieve at some agencies than others. This could also explain, for example, why DCJS in Virginia, a public safety regulator, had more difficulty making cuts than did an agency regulating professions that do not always have an obvious connection to health or safety. Examples of eliminated restrictions in Missouri included a rule requiring car dealers to have a landline telephone, another requiring milk haulers to attend an in-person training class, and one requiring applicants for a manufacturing incentive program to present evidence of a written offer from another state.¹¹⁹ Although these requirements on their own seem minor, thousands of such requirements, eliminated together, may have significant economic effects.

Oklahoma is a state that is notable for including an explicit reduction target codified in an executive order.¹²⁰ Like Kentucky and Missouri, Oklahoma also created a website for what it called its Break the Tape initiative. The website allowed for members of the public to submit comments about problematic regulations.¹²¹ The 2020 executive order includes a number of regulatory budgeting elements.¹²² First, the order contains a baseline count of regulatory restrictions for the state. Second, the order includes a reduction target of 25 percent. Third, it includes a one-in, two-out regulatory PAYGO provision.

Arizona's Regulation Rollback initiative is perhaps most notable for a regulatory moratorium the state put in place in 2015, which was subsequently extended each year from 2016 through 2021 through the issuance of an annual regulatory reform executive order.¹²³ In 2020, Governor Doug Ducey's executive order contained a one-in, three-out regulatory PAYGO provision, whereby the ins and outs are measured via rule requests.¹²⁴ The one-in, three-out provision was extended in 2021 and, at that point, was also accompanied by a provision requiring regulatory agencies to review regulations suspended during the COVID-19 pandemic to determine if suspensions should be made permanent.¹²⁵ The moratorium in Arizona is similar to a moratorium that has been in place in Indiana since 2013, which has extended through multiple governors' terms, despite being instituted via executive order.¹²⁶ To date, the Arizona moratorium has existed under one governor, Governor Ducey.

c. Regulatory Review Commissions (Mississippi, Illinois, and New Jersey)

Some state regulatory reforms can be viewed as steps in the direction of a regulatory budget, without formally meeting the definition of a regulatory budget established in this article. Three states are worth noting for their recent attempts to establish commissions to review existing regulations. A regulatory review commission could be viewed as a possible oversight authority overseeing a regulatory budget's implementation or, alternatively, as a mechanism for reviewing existing rules distinct from a regulatory budget.

Mississippi's Tackle the Tape initiative is similar to Virginia's pilot program due to its focus on occupational licensing regulators. In 2017, the Mississippi legislature created an Occupational Licensing Review Commission (OLRC) to review new occupational regulations.¹²⁷ In 2020, the legislature

¹¹⁹ *Id.* at 295.

¹²⁰ Oklahoma Exec. Order No. 2020-03 (Feb. 3, 2020).

¹²¹ *Help Oklahoma Grow: Break the Tape of Regulation* (Oklahoma Break The Tape Initiative) <https://breakthetape.ok.gov/>.

¹²² For a description of some of the key items identified as contributing to successful red tape reduction efforts, see James Broughel, *Constructing a Red Tape Reduction Executive Order* (Mercatus Ctr. at George Mason U., Policy Brief, Feb. 2021); James Broughel, *A Step-by-Step Guide to Using Mercatus Tools to Reduce State Regulation Levels* (Mercatus Ctr. at George Mason U., Policy Brief, April, 2017).

¹²³ Arizona Exec. Order No. 2021-02 (Feb. 12, 2021).

¹²⁴ Arizona Exec. Order No. 2020-02 (Jan. 13, 2020).

¹²⁵ Arizona Exec. Order No. 2021-02, *supra* note 123.

¹²⁶ Indiana Exec. Order No. 13-03 (Apr. 8, 2016).

¹²⁷ H.B. 1425, 2017 Gen. Assemb., Reg. Sess. (Miss. 2017).

expanded OLRC’s powers, granting it authority to also review *existing* licensing regulations from the 29 state boards under the purview of OLRC.¹²⁸ OLRC has the authority to force changes to rules, including the removal of regulations.¹²⁹ The commission is populated by several executive branch officials, including the governor and attorney general, but seems to be mainly overseen by the Secretary of State, who created the Tackle the Tape initiative in 2020.¹³⁰ That effort featured a website similar to those created in Kentucky, Missouri, and Oklahoma.¹³¹ One notable amendment to OLRC’s review process occurred in 2021, when OLRC passed an amendment requiring boards under its purview to submit a regulatory impact assessment along with rules that under review.¹³²

Illinois Governor Bruce Rauner also instituted a red-tape cutting effort in 2016, and as part of that effort, he created the Illinois Competitiveness Council.¹³³ The Council was comprised of a Chair, who came from the governor’s office, as well as ten other members of the governor’s cabinet. The Council oversaw a government-wide review of existing regulations that was conducted by state agencies.

During Chris Christie’s tenure as governor of New Jersey in the early 2010s, a Red Tape Review Group and subsequent Red Tape Review Commission were created.¹³⁴ Legislation that would have created a permanent regulatory review commission in New Jersey passed both chambers of the New Jersey legislature in 2021, before being vetoed by Governor Philip Murphy.¹³⁵

The reforms in Mississippi, Illinois, and New Jersey may not officially constitute regulatory budgeting efforts, because none of them involved placing a cap or setting a reduction target on regulation levels. However, they are similar to the previous state efforts in terms of their emphasis on red-tape cutting. Moreover, creating commissions to oversee a regulatory reform effort, could inform how regulatory budgeting schemes are governed in the future.

d. The Regulatory Reset in Idaho

One of the most novel regulatory reforms to take place in recent years happened in Idaho.¹³⁶ In 2019, newly elected Governor Brad Little signed an executive order creating a red-tape reduction program, which included a one-in, two-out PAYGO policy.¹³⁷ Idaho is a somewhat unique state in that it also has a sunset provision whereby the entire state administrative code expires each July 1 unless the code is extended for an additional year through legislative action.¹³⁸ For the first time, in 2019 the legislature ended its session without passing a reauthorization bill, which meant that the governor at that time was put in a unique position to reauthorize only those regulations his administration deemed worthy of

¹²⁸ H.B. 1104, 2020 Gen. Assemb., Reg. Sess. (Miss. 2020).

¹²⁹ James Broughel & Patricia Patnode, *Taming the Occupational Licensing Boards and Creating Jobs*, DISCOURSE MAGAZINE, Feb. 10, 2021.

¹³⁰ Office of Michael Watson, Secretary of State, *Y’all Politics: Secretary of State Watson Announces “Tackle the Tape” Initiative* (Jul. 30, 2020).

¹³¹ Mississippi Secretary of State, *Tackle the Tape*, <https://www.sos.ms.gov/content/tacklethetape/default.aspx>.

¹³² Anne Summerhays, *Mississippi Secretary of State Watson’s “Tackle the Tape” Initiative Marks One Year*, Y’ALL POLITICS (June 30, 2021).

¹³³ Illinois Exec. Order No. 2016-13 (Oct. 17, 2016).

¹³⁴ Governor Chris Christie, New Jersey Exec. Order Nos. 1, 3 (Jan. 20, 2010); Kim Guadagno, New Jersey Exec. Order No. 41 (Sept. 23, 2010).

¹³⁵ A.B. 4810, 2021 Gen. Assemb., Reg. Sess. (N.J. 2021).

¹³⁶ James Broughel, *Zero-Based Regulation* (Mercatus Ctr. at George Mason U., Mercatus Research, forthcoming).

¹³⁷ Idaho Exec. Order No. 2019-02, Red Tape Reduction Act (Jan. 21, 2019).

¹³⁸ See Idaho Code Ann. § 67-5292 (2019). Tennessee, Utah, and Colorado have similar one-year sunset provisions for some or all rules. See Utah Code Ann. § 63G-3-502(2) (2019); Tenn. Code Ann. § 4-5-226(a) (2019); Colo. Rev. Stat. § 24-4-103(8)(c) (2019).

reauthorization (albeit with the significant added constraint of maintaining compliance with existing statutory obligations). A recent study summarized the results as follows:

All told, 19 percent of rule chapters, 10 percent of pages, and 19,000 regulatory restrictions were allowed to expire on July 1 of 2019. Remaining rules were extended through the issuance of emergency regulations promulgated by the executive branch. The governor's office later claimed that in 2019 it cut or simplified 75 percent of all rules and eliminated 250 rule chapters, 1,804 pages of regulations, and close to 31,000 regulatory restrictions. As a result of these reforms, Idaho became the least regulated state in the nation by some measures.¹³⁹

As the passage above makes clear, the government Idaho used a variety of metrics, including regulatory restrictions but also other measures such as counts of pages and chapters, to track its progress.¹⁴⁰ The Idaho reforms received national attention,¹⁴¹ and they seemed to go relatively smoothly, at least on the basis of a lack of any obvious negative press.

In early 2020, Governor Little rescinded the 2019 executive order and replaced it with one titled, "Zero-Based Regulation," which aimed to institutionalize some of the successes from the prior year.¹⁴² The main elements of the 2020 executive order were the implementation of a permanent regulatory cap and a five-year retrospective review process that required, as part of reviews, that agencies rescind rule chapters and reissue them in updated form if rules are to be maintained. Together with reissued rules, a retrospective analysis is required.¹⁴³ Thus, similar to how the entire state administrative code was repealed and replaced in 2019, agencies are now required to periodically repeal and replace their administrative rule chapters. Both the 2019 and the 2020 reforms may have been inspired by an earlier reform that occurred at the Idaho Board of Pharmacy in 2018. As part of that effort, the agency repealed and rewrote its rulebook, in the process repealing six categories of licenses and reducing the word count in the board's rules by 73 percent.¹⁴⁴

4. Lessons Learned

The differences between the regulatory budgets implemented in these U.S. states and the theoretical basis for a regulatory budget described in section 2 are significant. One of the more striking differences that estimates of regulatory cost play almost no role in the state-level reforms. With the exception of Texas's one-in, one-out requirement, virtually all states' regulatory reduction efforts have involved caps or reduction targets based on much simpler metrics than cost, such as counts of rules, requirements, restrictions, chapters, or words.

This could be viewed as problematic from the standpoint of the theory, because, as outlined in section 2, for regulations to improve long-run social welfare they must be cost saving (i.e., have negative costs). There may be a correlation between word counts and regulatory costs, but it is unlikely to be exact. The Virginia pilot program, in particular, highlights how a lack of economic analysis creates uncertainty as to what is being accomplished. By a simple requirement count, the pilot program agencies in Virginia had very little success reducing aggregate regulatory volumes. However, these agencies engaged in dozens of

¹³⁹ Broughel, *supra* note 136.

¹⁴⁰ *Id.*

¹⁴¹ James Freeman, *The Great Idaho Do-Over*, WALL ST. J., May 16, 2019; *Idaho Quits Worrying About Snails*, WALL ST. J., June 28, 2019; Kevin Williamson, *Idaho's Deregulatory Revolution*, NAT'L REV., May 16, 2019.

¹⁴² Idaho Exec. Order No. 2020-01 (Jan. 16, 2020).

¹⁴³ *Id.*

¹⁴⁴ Broughel, *supra* note 136.

regulatory streamlining exercises, which almost certainly reduced real burdens on the public, perhaps increasing social welfare. Without more information, the success of the Virginia pilot program is difficult to gauge, which may explain the hesitancy on the part of the state budget department to recommend expanding the pilot program.

That said, there are some good reasons for structuring budgets in the manner states have. Producing rigorous cost estimates for every regulation on the books is itself costly. Simplify directing agencies to reduce burdens may be sufficient in most cases to ensure the regulations actually updated or removed reduce costs. Moreover, ideally, costs should be estimated not just once but also on an ongoing basis. Some commentators have described the task of creating a cumulative regulatory budget as “daunting.”¹⁴⁵ However, states such as Ohio and Virginia demonstrate that an accounting of the entire stock of a department’s existing regulations is quite feasible using simple metrics. Regulators in those states were able to produce base inventories of their requirements or restrictions in a relatively short time period, and moreover, these inventories appear to include meaningful information. Table 4 includes information from a base inventory compiled by Ohio’s Department of Developmental Disabilities. Although some restrictions do relate to definitions or to requirements imposed on regulators rather than the public, the base inventory provides a meaningful glimpse into the body of law overseen by this agency.

Table 4. Partial Base Inventory of Regulatory Restrictions from Department of Developmental Disabilities, Ohio

Rule number	Regulatory restriction	Description of regulatory restriction	Statute under which the regulatory restriction was adopted	Is the regulatory restriction expressly or specifically required by state or federal law?	Is a law change required in order to remove the restriction?
5123-1-03	Shall	(B): For the purposes of this rule, the following definitions shall apply.	5123.04, 5123.351, 5123.36	No, general rulemaking authority	No, general rulemaking authority
5123-1-03	Shall	(B)(20): “Single-family home” means a residential building consisting of one dwelling unit designed and arranged for use by one family. The term shall include a manufactured home and a condominium under Chapter 5311. of the Revised Code.	5123.04, 5123.351, 5123.36	Yes, state law	Yes, state law
5123-1-03	Shall	(C)(1): The funds shall be used to acquire housing for individuals receiving supported living in accordance with sections 5126.40	5123.04, 5123.351, 5123.36	Yes, state law	Yes, state law

¹⁴⁵ See Rosen & Callanan, *supra* note 12, at 845.

		to 5126.47 of the Revised Code or individuals receiving supported living funded by a home and community-based services waiver administered by the department.			
5123-1-03	Shall	(C)(2): The housing shall be used as residences for individuals for at least one hundred eighty months.	5123.04, 5123.351, 5123.36	Yes, state law	Yes, state law
5123-1-03	Shall	(C)(3): The funds shall be used to acquire a single-family home, a duplex, a quadplex, a permanently sited manufactured home, a condominium, or newly constructed housing.	5123.04, 5123.351, 5123.36	Yes, state law	Yes, state law
5123-1-03	Shall Not	(C)(5): The funds shall not be used to purchase: (a) Furniture and household items other than those fixed items customarily included in a purchase agreement or a construction contract; (b) Mobile homes; or (c) Housing when the purchase price exceeds, by more than ten percent, the appraised value of the housing.	5123.04, 5123.351, 5123.36	Yes, state law	Yes, state law
5123-1-03	Shall	(C)(6): The funds shall be repaid if any provision of this rule is violated. The repayment shall be calculated by multiplying the amount of funds provided under this rule by the ratio of one hundred eighty minus the number of months the housing is used for residences for individuals (as determined by the department) to the total term of one hundred eighty months, that is:	5123.04, 5123.351, 5123.36	Yes, state law	Yes, state law

Source: OHIO DEP'T OF DEVELOPMENTAL DISABILITIES, BASE INVENTORY OF REGULATORY RESTRICTIONS 1 (Dec. 16, 2019), <https://dodd.ohio.gov/wps/portal/gov/dodd/forms-and-rules/rules-in-effect/regulatory-restrictions-inventory>.

The U.S. federal government and the states likely can learn from one another. The federal government could benefit from adopting simpler metrics and applying them across a broader swath of new and existing regulations. This approach would expand the scope of the federal regulatory budget beyond just new regulations, and perhaps beyond regulations reviewed by OMB (since OMB oversaw implementation

of the federal regulatory budget, but OMB only reviews a minority of federal regulations).¹⁴⁶ The states meanwhile could benefit from incorporating cost analysis into their regulatory reforms, at a minimum for their largest and most significant rules.

Strategic implementation of sunset provisions or mandatory rule repeals could also incentivize the production of ongoing cost analysis. As the Idaho executive order for zero-based regulation demonstrates, periodic rule repeals can trigger ongoing analysis of regulations.¹⁴⁷ If regulations are subject to an expiration date, or otherwise periodically must be refiled or repealed in order to be continued, then they can be subjected to a cost analysis at that time. In this way, a rule could be evaluated multiple times over its lifespan. Expirations can be staggered so that all regulations do not have to be analyzed at once, making the task of producing cost estimates for the entire stock of regulations more manageable.

With regard to provisions such as a one-in, two-out requirement, a PAYGO provision is perhaps most useful as a communication device. The policy signals to the public and to regulators that reducing regulatory burdens is the goal of the government, thereby signaling administration priorities. However, the Trump administration was criticized for the way it counted different classes of rules as “ins” and “outs” under its 2-for-1 policy.¹⁴⁸ When a PAYGO requirement is based on a simple measure, like a count of rules, and is combined with a regulatory budget based on cost estimates (as was the case with the Trump administration), this may hinder the PAYGO requirement’s value as a communication device and create confusion about what the goals of reform are. Notably, the PAYGO provisions in states do not seem to have received the same level of criticism. Nevertheless, a one-in, one-out or similar PAYGO policy is probably most defensible when the policy takes the form of requiring cost offsets. This is the way offset requirements have worked in Canada and the United Kingdom, where administrative or compliance burdens from new regulations have had to be offset.¹⁴⁹

Some scholars, most notably legal scholar Eric Posner, have proposed a *net benefits budget* as an alternative to a regulatory budget.¹⁵⁰ This approach works by requiring agencies to keep positive balances of net benefits, as measured by CBA, over some time period. In particular instances, an agency might be allowed to impose net costs through rulemaking. But those net costs would have to be offset by achieving positive net benefits through some other rulemaking later, such that over time, cumulative agency net benefits exceed zero. The main problem with this approach is it takes for granted that achieving net benefits estimated in a CBA is somehow normatively attractive as an aim for policy. If the welfare measure CBA evaluates is unattractive as a basis for policymaking generally, then it is going to be unattractive as a basis for a regulatory budget as well.

One reason the welfare measure evaluated by CBA is so unattractive as a sole criterion for evaluating policies is its short-termism. CBA is present biased in the sense that present preferences and cost functions dictate how resources should be allocated for all time.¹⁵¹ By contrast, the focus of a regulatory

¹⁴⁶ OMB reviews about 7 percent of final regulations annually. See Broughel & Jones, *supra* note 18, at 14.

¹⁴⁷ The U.S. Department of Health and Human Services finalized a similar periodic review requirement, using a sunset provision as a triggering mechanism. See *Securing Updated and Necessary Statutory Evaluations Timely*, 86 Fed. Reg. 5694 (Jan. 19, 2021).

¹⁴⁸ Broughel & Jones, *supra* note 18.

¹⁴⁹ See Dudley, *supra* note 49, at 269.

¹⁵⁰ Eric A. Posner, *Using Net Benefit Accounts to Discipline Agencies: A Thought Experiment*, 150 U. PA. L. REV. 1473, 1474–1488 (2001).

¹⁵¹ As noted earlier, the discounted utilitarian framework has a connection to general competitive equilibrium theory. The optimal allocation in this framework is an optimum from the perspective of the present moment in time only. See GERARD DEBREU, *THEORY OF VALUE: AN AXIOMATIC ANALYSIS OF ECONOMIC EQUILIBRIUM* 28 (1959) (noting that “[t]he economy is considered as of a given instant called the present instant”). See also TJALLING C.

budget is on increasing long-run social welfare. A long-run approach has strong moral appeal, though the requirement that regulations not be allowed to proceed unless they are cost saving could be perceived as problematic, because it is somewhat insensitive to the preferences of current citizens. Thus, while the CBA criterion anoints current citizens with willingness and ability to pay as dictators, a cost-saving criterion is indifferent to current preferences except to the extent that catering to these preferences also saves money.

Jim Tozzi has argued that passing a cost-benefit test should be a necessary, but not a sufficient, condition for moving forward with a government regulation and that a separate, additional public evaluation criterion should be applied to rules based on a regulatory budget.¹⁵² This approach is attractive because a combined criterion would be neither a dictatorship of the present nor a dictatorship of the future, but rather would seem to balance short- and long-run interests.¹⁵³ In practice, this would likely mean that regulations, to proceed, would have to be shown to be cost saving *and* that current citizens, through their revealed preferences, are voluntarily willing to pay for whatever benefits the regulation generates. A future administration should consider integrating the two evaluation criteria in a similar way. Perhaps the easiest way to do this would be to integrate regulatory budgeting cost analysis into existing OMB guidelines on regulatory analysis, thereby requiring cost analysis be a component of regulatory impact analysis, alongside aspects of CBA.

5. Conclusion: The Return of the Regulatory Budget

The relative simplicity of state regulatory budgets is both their biggest advantage and their greatest shortcoming. The states have demonstrated not only that cumulative regulatory budgets are possible, but that these programs can succeed at reducing the overall volume of regulations by significant margins. These simple regulatory budgets also avoid the daunting task of having to estimate the cost of each and every regulation on the books. However, without estimation of regulatory costs, a great number of welfare-reducing regulations likely remain on states' books, while some welfare-enhancing regulations may have been removed as well. Without cost estimates, the full extent of these programs' accomplishments is unclear, which may affect credibility over time.

The greatest achievement of the Trump administration's regulatory budget is undoubtedly the regulatory accounting scheme implemented under Executive Order No. 13771. The negative cost allocations allotted to federal agencies throughout President Trump's four years in office can be viewed as requirements that these agencies' regulations improve intergenerational efficiency and social welfare over the long run. The innovative cost accounting may even better comply with existing executive orders requiring regulatory analysis because, despite downplaying nonmarket effects, its emphasis on cumulative, long-run impacts arguably makes the analysis more comprehensive than CBA.

Going forward, states should, at a minimum, subject some of their most economically significant rulemakings to cost analysis. Regulatory review commissions, such as the one established in Mississippi,

KOOPMANS, THREE ESSAYS ON THE STATE OF ECONOMIC SCIENCE 60 (Martino Publishing 2013) (1957) (noting how the general equilibrium model can be understood as describing "a stationary state, in which all choices are made once and for all"); Arrow et al., *supra* note 36; Boardman et al., *supra* note 36.

¹⁵² Jim Tozzi, *supra* note 48, at 30 (noting that "the demonstration of positive net benefits is a necessary but not sufficient condition for the execution of a project").

¹⁵³ In the literature, a social welfare function that comprises a mixed criterion, which includes both long-run and short-run concerns as inputs, is sometimes referred to as "sustainable." See Graciela Chichilnisky, Peter J. Hammond & Nicholas Stern, *Fundamental Utilitarianism and Intergenerational Equity with Extinction Discounting*, 54 SOC. CHOICE & WELFARE 397 (2020). See also Arrow et al., *supra* note 36.

are also institutional arrangements worth experimenting with in more contexts. Meanwhile, the federal government, when an administration more open to regulatory budgeting returns, should reestablish in some form the institutions set up by the Trump administration with an eye toward making them more comprehensive and more permanent. This could be accomplished by integrating regulatory budgeting cost analysis into existing OMB guidelines for regulatory impact analyses, by utilizing sunset provisions and similar triggers to analyze portions of the stock of existing regulations over time, and by adopting simpler metrics to track the overall level of the thousands of smaller regulations that escaped the regulatory budget the first go-round.

All told, there are reasons to be optimistic about the future of the regulatory budget. The Trump administration and the states have shown the idea is workable, even if it has been implemented imperfectly. The theoretical basis for a regulatory budget is one of its strongest features, especially given the limitations of its chief alternative, CBA. That said, much more work needs to be done to align the theory and practice of regulatory budgeting. Much like some past regulatory reforms were initially treated as controversial but have now become widely accepted, with some fine tuning, one can easily see how a regulatory budget could grow to become a fundamental pillar of the modern administrative state.