Comments to the Little Hoover Commission's Study of Regulatory Reform in California

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We thank the Little Hoover Commission for the opportunity to provide it with comments to help inform its study of regulatory reform in California. The Commission's study aims to address important questions to help the state's regulatory structure work for its citizens to provide important regulatory benefits without undue costs. The recent economic downturn and slow recovery has heightened public concern with these issues, particularly in California, with its unemployment rate hovering at 12 percent.[3] Thus, the Commission's attention to whether and how economic analysis can improve the state's regulatory decisions is both important and timely.

Economic assessment of proposed regulations offers a valuable opportunity to avoid imposing regulations that are not worthwhile and to improve the quality and effectiveness of regulations that are pursued. When given full discretion over whether and how to undertake such assessments, some agencies may either fail to perform them or may do so without sufficient rigor and in an inconsistent manner.

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[3] U.S. Bureau of Labor Statistics, Statistics on Unemployment, December 10, 2010.

Thus, many governments require that new regulations be evaluated from an economic perspective through regulatory assessments prior to promulgation, and many go further to enunciate specific standards for such assessments and mechanisms for independent review. Motivated, in part, by these potential benefits, the past five U.S. Presidential administrations – including both Democratic and Republican – have taken these steps to ensure proper assessment of proposed new Federal regulations. There is near-unanimous consensus that the experience at the Federal level has been a positive one, with regulatory assessment contributing to many improvements in the quality of regulation.

When performed carefully and impartially, proper regulatory assessment is neither "pro-regulation" nor "anti-regulation", but supportive of *good* regulation – that is, regulation that provides positive net benefits to society.[4] Thus, while regulatory assessment has sometimes been used to stop the development of regulations whose costs would exceed their benefits, it has also led to new regulations and increased the stringency of proposed regulations (and provided valuable political support for these actions).

To help the Commission in its work, we provide a brief overview of the use of economic analysis in assessing proposed regulations, with a particular focus on Federal requirements for agencies to undertake regulatory assessments when developing new rules. A number of relevant lessons for California emerge from this experience:

[4] The proper use of regulatory assessment has often been cast in a political discussion with those generally opposed to new regulation (for example, business interests) supportive of assessments and those supportive of new regulation (for example, environmental groups) opposed to the use of assessments. Revesz, Richard L., and Michael A. Livermore, *Retaking Rationality*¸ *How Cost-Benefit Analysis Can Better Protect the Environment and Our Health*, Oxford University Press, 2008. While some environmental advocacy groups have been opposed to regulatory assessment, others have emphasized the potential for regulatory assessment to be supportive of important regulation, given the opportunity it provides to demonstrate the net benefit created by such regulations. Revesz and Livermore, 2008; Sunstein, Cass R., *The Cost-Benefit State, the Future of Regulatory Protection*, American Bar Association, 2002.

1. Regulatory assessment can help to: refine the design of regulations; encourage consideration of regulatory alternatives; avoid regulations that fail to provide positive net benefits; and better enable regulations to account for sectoral and population-specific factors.

2. Requirements that agencies undertake regulatory assessments have improved the quality of regulation. Moreover, review of agency assessments by an independent agency (such as the White House Office of Management and Budget ("OMB")) helps to improve the quality of assessments, and thereby directly and indirectly contributes to better regulation.

3. For regulations creating significant impacts, the potential benefits offered by regulatory assessment (in terms of greater economic benefits and fewer costs) greatly outweigh the costs of undertaking such assessments.

4. Regulatory assessment can provide a valuable *tool* to be used in the *process* of developing regulations to: help identify and refine regulatory alternatives; identify data needs; better account for particular industry circumstances; and generally promote transparency and accountability.

5. Regulatory assessment can contribute to development of data and institutional capacity that improves the effectiveness and quality of regulations.

6. Improved regulatory assessment can help to better allocate economic resources to various regulatory problems.

The following sections elaborate on these issues. We first summarize the fundamentals of the economic assessment of proposed regulations, and then describe the approach taken at the Federal level to establish requirements that such assessments be undertaken for all new significant regulations. Based on this experience, we then identify important lessons for California (or any state) considering requirements for the regulatory assessment, including: the potential merits of undertaking regulatory assessment; key

elements of effective regulatory assessment; and key issues in establishing requirements for regulatory assessment.

I. Fundamentals of Economic and Policy Evaluation of New Regulations

Economic analysis of proposed regulations is a critical element of the regulatory process. When performed properly, such analysis can help ensure that regulations provide positive net benefits to society, aid in the design of regulations with greater net benefits, and provide distributional and other information that can contribute to constructive public deliberations on new policies.[5]

The core element of a sound economic analysis of a proposed regulation is a net present value (NPV) or benefit-cost analysis. Within this framework, the full benefits and costs of proposed policies are estimated and aggregated to determine which regulatory approach (including the option not to regulate) is likely to provide the greatest net benefits (benefits minus costs). When benefits and/or costs occur over time, as they typically do, discounting is performed to aggregate over different time periods.[6] To the extent possible, both the benefits and the costs are estimated in monetary (dollar) terms, which allows for direct comparison of the two. Those benefits and costs that are not monetized should be enumerated and presented in a manner that allows for consideration of both quantified and non-quantified impacts when assessing the net benefits of a proposed rule.[7] When benefit-cost methods are applied to alternative policies – including different stringency levels, implementation schedules, and/or policy instruments – the analysis can help identify which alternative provides the greatest net benefits to society.

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[5] Arrow, Kenneth, Maureen Cropper, George Eads, Robert Hahn, Lester Lave, Roger Noll, Paul Portney, Milton Russell, Richard Schmalensee, Kerry Smith, and Robert Stavins. "Is There a Role for Benefit-Cost Analysis in Environmental, Health, and Safety Regulation?" *Science*, April 12, 1996.

[6] Goulder, Lawrence H. and Robert N. Stavins, "An Eye on the Future: How Economists Controversial Practice of Discounting Really Affects the Evaluation of Environmental Policies" *Nature*, Volume 419, October 17, 2002, pp. 673-674.

[7] Due to many factors, regulatory analyses may not be able to measure and monetize all potential benefits of a proposed regulation. When not monetizing benefits, regulatory analyses can still quantify benefits in physical units, or at least enumerate categories of benefits that are likely to exist but which are not quantified.

Conducting a benefit-cost analysis of a proposed environmental regulation can require that many challenging questions be addressed, including: How will directly regulated entities react as they try to comply with the regulation? What broader economic adjustments will occur within the affected industry and the broader economy? Within the context of any particular regulation, many detailed questions must be addressed to determine the associated benefits and costs. For example, design of air quality regulations requires analysis of how emissions will change, how these emission changes affect environmental quality and human health, and the economic value of improved health and environmental quality. Each of these steps poses challenges that must be overcome to assess air quality benefits.

An analysis of a regulation's benefits and costs is typically complemented by other analyses aimed at determining a regulation's distributional impacts. Even though it may create net gains for society as a whole, a regulation that maximizes net benefits may nonetheless make some groups worse off. Distributional assessments focus on whether certain industries, income groups, or geographic regions may experience particularly positive or negative impacts as a consequence of a proposed regulation. Such analysis can provide policy makers with an opportunity to modify the regulation or supplement it with additional measures to address these impacts.

The combined results from these analyses can provide exceptionally valuable input into regulatory decision-making about whether and how proposed regulations should be implemented, how new regulations should be designed, and whether regulatory proposals should be modified to address particular distributional impacts. Moreover, these analyses provide a very important democratic function by informing both policymakers and stakeholders, and thus contributing to public discourse about the merits and effects of individual regulations.[8]

[8] For example, Executive Order (E.O.) 12866 states that a benefit of regulatory analysis is to "to restore the integrity and legitimacy of regulatory review and oversight; and to make the process more accessible and open to the public." E.O. 12866, September 30, 1993.

Analyzing Benefits

New regulations can – in principle – provide a variety of benefits, including improvements in public health and safety, improved resource utilization, better recreational experiences, aesthetic (amenity) values, and enhanced ecosystem services. To provide some context for how the benefits of proposed regulations are assessed, we consider the particular case of environmental regulations. When analyzing environmental regulations, improvements in human health are often a key benefit. These human health benefits involve longer lives and improved quality of life, but may also include reductions in resource expenditures needed to treat illness and improve productivity by reducing sick days.

Regulations can also improve people's enjoyment of the outdoors by providing or facilitating more rewarding recreational experiences and improving the condition of natural areas. For example, air pollution regulations can improve visibility in urban, rural, and pristine environments. Finally, environmental regulations can provide ecological benefits by expanding the wide variety of ecological "services" provided to society.

When identifying the benefits of proposed regulations, it is also important to be aware that regulations on one activity can lead to shifts to other activities that may create their own risks.[9] For example, elimination of lead in gasoline caused refiners to substitute MTBE, which brings its own environmental concerns. Careful assessment of such substitution is not only important for determining the true benefits created by proposed regulations, but also for identifying other regulatory actions that might be necessary to achieve the sought-after benefits of the proposed regulation.

It is often difficult to quantify the benefits of proposed regulations, and it can be difficult to monetize the quantified benefits of environmental regulations. For example, understanding the links between emission reductions and physical impacts on environmental quality and health require detailed scientific knowledge of air pollution physics and chemistry, as well as epidemiological or toxicological

[9] Sunstein, 2002.

assessments of how environmental conditions affect the health of human populations. Only then can economists apply methods to monetize the value of these benefits.

Because well-defined markets generally do not exist for environmental improvements and reductions in health risks, alternative methods must generally be employed to estimate the benefits of environmental regulations. For example, to value reductions in premature mortality risk, economists rely upon differences in wages for more risky jobs or survey methods to estimates of the value of a statistical life (VSL), which, in principle, reflects the benefits associated with reductions in mortality risk.[10]

When WTP estimates are not available for certain types of benefits, other methods must be employed. For example, when analyzing health-related benefits, avoided medical expenditures and lost earnings – or cost-of-illness (COI) – has been used as a proxy for the benefits associated with non-mortality (morbidity) benefits. Under the COI approach, the benefit of avoiding an asthma attack that results in a hospitalization would include the costs of medical services and drug therapies typically involved in treating an asthma attack. Because the COI approach only accounts for the avoided healthcare expenditures, but not the value of avoiding pain, discomfort, lost productivity, and other negative effects, COI methods typically understate WTP. On the other hand, given the uncertainty involved in all empirical estimates of environmental regulatory benefits, it is also possible that benefits will be over-estimated in practice.

[10] It is important to understand that – even in economic terms – VSL is not intended to capture the "value of a life." Rather, VSL reflects the aggregate value that a large number of individuals would be willing to pay in exchange for a small reduction in mortality risk. VSL estimates are based on labor market studies in which workers in risky occupations are compensated with higher wages. These wage-risk studies are an example of a "revealed preference" method for estimating WTP, because the value is revealed or inferred from actual, observed behavior. VSL estimates are also based on survey methods, in which individuals' willingness to pay for a reduction in mortality risk is estimated from their responses to carefully designed questions. These studies are said to use a "stated preference" method, as WTP is based on what people say about trading off money for risk reductions.

Analyzing Costs

The cost of a proposed regulation summarizes the economic consequences of actions taken to comply with the new regulatory requirements. There are several types of social cost.[11] The first is compliance cost, which reflects the change in the use of economic resources – materials, labor, and capital – used in complying with the regulation. The most obvious resource costs are those associated with purchasing, operating, and maintaining pollution-control equipment. But, compliance costs can include other less obvious types of adjustments made to comply with regulatory requirements, including changes in firms' production processes or substitutions in supply across firms.[12]

Other costs may arise as industries comply with new regulations. Transition costs may arise if a regulation leads to plant or firm shutdowns, job losses, and production disruptions, which require workers, materials, and equipment to be redeployed within the economy. Finally, effects on the broader economy ("general equilibrium" costs) may arise as actions taken to comply with a regulation ripple through other markets in the economy.

While developing estimates of the costs of a proposed regulation may not involve many of the analytic complexities associated with translating environmental improvements into economic benefits, estimates of costs are also subject to many uncertainties. In particular, cost estimates may depend upon future market conditions that cannot be predicted when regulatory analyses are performed, such as the cost and availability of alternative compliance technologies, or the price of fuels used in providing alternative sources of energy.

[11] For a more complete taxonomy of regulatory costs, see: Jaffe, Adam B., Steven R. Peterson, Paul R. Portney, and Robert N. Stavins. "Environmental Regulation and the Competitiveness of U.S. Manufacturing: What Does the Evidence Tells Us?" *Journal of Economic Literature* 33(1995):132-163

[12] In addition, social welfare may decline if the regulation leads to higher prices for goods and services and these higher prices lead to reduced consumption. For example, compliance with new regulations on electricity generation may lead to increases in the price of electricity, which, in turn, may lead consumers to change their behavior by buying less electricity, investing in more efficient equipment, or switching to other forms of energy. This reduction in consumption can result in a so-called "deadweight" loss.

Likewise, when comparing benefits and costs, it is important to remember that new regulations can provide economic savings by reducing the use of scarce resources, such as health care services. Thus, to the extent that there is a tendency to focus only on a proposed regulation's costs when considering the implications for the broader economy, this narrow view on "costs" rather than changes in the use of resources can lead to misleading conclusions. Put differently, implications for the broader economy will reflect changes in resource use, which will reflect both estimated "costs" and portions of estimated "benefits". Considering only the cost side of the coin, without considering the resource savings, can lead analysts to overstate the impact of a proposed regulation on the broader economy.

II. Federal Requirements for the Economic Analysis of Proposed Regulations

As a result of its many benefits, regulatory impact analysis has become an integral part of the rulemaking process for the U.S. Environmental Protection Agency (EPA) and other Federal regulatory agencies. Requirements to undertake regulatory review of proposed Federal regulations have been implemented through a series of Executive Orders dating back to the Carter Administration.[13] During the Reagan Administration, under Executive Order 12291, agencies were for the first time required to perform an assessment of the benefits and costs of all "major" rules.[14] OMB was assigned with responsibility for ensuring that executive agencies complied with E.O. 12291's requirements.[15] OMB was not given formal authority over approval of proposed regulations, although OMB must approve an

[13] President Carter established Executive Orders12044, which established the Regulatory Analysis Review Group to conduct interagency analysis of cost-effectiveness for "significant" rules.

[14] Even under circumstances when statutory requirements constrain the discretion that Federal agencies can exercise in designing regulations to maximize net benefits (such as the setting of National Ambient Air Quality Standards, NAAQS) agencies are still required to analyze benefits and costs.

[15] OMB's Office of Information and Regulatory Affairs ("OIRA") was assigned the responsibility of fulfilling OMB's responsibilities for regulatory review. E.O. 12866.

assessment before the rule can be published in the Federal Register.[16] Given this power, OMB clearly has influence – albeit not clearly defined – in the process of agency rulemaking.[17]

Since implementation of E.O. 12291, each subsequent Republican and Democratic administration has continued requirements that agencies undertake a Regulatory Impact Assessment ("RIA") for all "major" or "significant" proposed rules, with the threshold for agencies to undertake assessments set at rules that have annual costs of $100 million or more. [18] While various modifications have occurred over time, these have not changed the basic requirements for assessment of proposed regulations. Under the Reagan Administration, a subsequent executive order required that RIA's be provided to OMB earlier in the rulemaking process and required each agency to develop an annual "regulatory plan" outlining proposed regulatory actions.[19] These plans increased further OMB's influence in the regulatory process.[20]

Under the Clinton Administration, the basic framework for regulatory assessment was maintained but modified in several important ways, including: (1) procedures for resolving conflicts and expanding openness; (2) explicit recognition of "equity," "distributive impacts," and qualitative impacts as factors affecting benefit-costs assessments; and (3) modification of the standard for regulatory approval from the

[16] E.O. 12866; Graham, John D., "The Evolving Regulatory Role of the U.S. Office of Management and Budget", *Review of Environmental Economics and Policy*, volume 1, issue 2, summer 2007, p. 172.

[17] For example, Hahn and Sunstein note that E.O. 12291 included: "a formal mechanism for OMB oversight, with a general understanding that OMB had some (undefined) substantive control over what agencies would actually do." Hahn, Robert W. and Cass R. Sunstein, "A New Executive Order for Improving Federal Regulation," 150 *University of Pennsylvania Law Review* 1489 (2002). See also, U.S. General Accounting Office, "Rulemaking, OMB's Role in Reviews of Agencies' Draft Rules and the Transparency of Those Reviews", GAO-03-929, September 2003.

[18] For example, *see* E.O. 12291 or E.O. 12866.

[19] E.O. 12498, signed in 1985.

[20] Sunstein, 2002, p. 8.

requirement that benefits "outweigh" the costs, to a requirements that benefits "justify" costs.[21] OMB also focused attention on the most significant rules, which reduced the quantity of reviews OMB undertook each year and, presumably, focused attention on rules where oversight was itself likely to provide net benefits to society.[22]

Along with OMB's ability to issue "return" letters, in which it formally returns a rule to an agency for reconsideration, it also has the ability to issue "prompt" letters, in which it can suggest an issue that it believes is worthy of agency priority.[23] Thus, OMB can encourage regulatory agencies to pursue potentially valuable new regulations, as well as returning regulations it has identified as providing questionable net benefits.

To facilitate development of effective RIA's, guidance documents have been developed to define more formally the scope and methods that analysts should use to create analyses that are rigorous, balanced, and ultimately informative. OMB has developed guidelines for all executive agencies to follow in preparing their RIA's,[24] and individual agencies have developed guidelines to address particular issues

[21] President Clinton's Executive Order 12866 states: "In deciding whether and how to regulate, agencies should assess all costs and benefits of available regulatory alternatives, including the alternative of not regulating. Costs and benefits shall be understood to include both quantifiable measures (to the fullest extent that these can be usefully estimated) and qualitative measures of costs and benefits that are difficult to quantify, but nevertheless essential to consider. Further, in choosing among alternative regulatory approaches, agencies should select those approaches that maximize net benefits (including potential economic, environmental, public health and safety, and other advantages; distributive impacts; and equity), unless a statute requires another regulatory approach… Each agency shall assess both the costs and the benefits of the intended regulation and, recognizing that some costs and benefits are difficult to quantify, propose or adopt a regulation only upon a reasoned determination that the benefits of the intended regulation justify its costs. E.O. 12866, Section 1(a) and Section 1(b)(6). "Regulatory Planning and Review." *Federal Register* 58(190):51735.

[22] While OMB reviewed on average 2,200 rules under the prior executive order, under E.O. 12866, OMB reviewed about 900 rules (about 60 percent fewer) in its first year. OMB, *Report to Congress on the Costs and Benefits of Federal Regulation*, September 30, 1997.

[23] Rather than being sent in response to an agency's submission of a draft rule for review by OIRA, a "prompt" letter is sent on OMB's initiative and contains a suggestion for how an agency could improve its regulations.

[24] U.S. Office of Management and Budget. Circular A-4. September 17, 2003. OMB Circular A-4 outlines "best practices" that agencies should use in conducting regulatory analyses. Circular A-4 applies generally to nearly all federal rulemakings considered to be significant (that is, with an annual effect on the economy of $100 million or more, or an otherwise "material" effect on the economy, environment, or public health.) The guidance is intended to standardize how regulatory impacts are measured and reported across the Federal government.

arising in economic analysis given the nature of the activities they regulate. For example, EPA has developed *Guidelines for Preparing Economic Analysis* in collaboration with outside experts and its Science Advisory Board.[25]

III. Potential Merits of Performing Regulatory Analysis

Experience with Federal requirements for regulatory assessment illustrates the ways in which such assessments can improve the quality of regulatory decisions. Clearly, regulatory assessment can provide an important test for the reasonableness of proposed regulations to ensure that regulations provide positive net benefits to society. Thus, regulatory assessments can reduce the likelihood that regulations imposing net costs (negative net benefits) on society are implemented.

However, experience at the Federal level shows that regulatory assessment can also substantially improve the quality of regulation when used as a tool *during the process* of developing regulations.[26] By providing a clear framework for understanding important regulatory outcomes, requirements for regulatory assessment can bring a new "discipline and rigor" to the *process* of regulatory development.[27] These process improvements typically reveal new information about the consequences (positive and negative) of proposed regulations, encourage regulators to think about alternative regulatory approaches, encourage them to think about particular industry circumstances, and generally help them identify and develop information and data that better inform regulatory decisions.[28] *Thus, in practice, the benefits of*

[25] EPA's Guidelines were revised and released in 2000, and are currently undergoing further revision. EPA. "Guidelines for Preparing Economic Analyses." EPA 240-R-00-03. September 2000.

[26] U.S. Environmental Protection Agency, "EPA's Use of Benefit –Cost 1981-1986," Office of Policy Planning and Evaluation, EPA-230-05-87-028, August 1987; Morgenstern, 1997; Graham, 2007.

[27] It has been suggested that modifications to the standard for regulatory approval from the requirement that benefits "outweigh" costs to a requirement that benefits "justify" costs supported the use of benefit-cost analysis as "an accounting framework for exploring social decisions." Morgenstern, Richard, "The Legal and Institutional Setting for Economic Analysis at EPA," pp. 10-13 in Morgenstern, Richard D. (ed.), *Economic Analyses at EPA: Assessing Regulatory Impact*, Resources for the Future Press, 1997. *See also,* Harrington, Winston and Richard Morgenstern, "Evaluating Regulatory Impact Assessments," RFF Discussion Paper 04-04, March 2004, p.3.

[28] EPA, 1987, p. S-3-4.

regulatory assessment may arise more from its use as a tool to improve regulatory development, rather than a "test" to be used at the end of the process.

At the Federal level, the use of regulatory assessment has contributed to some important regulatory decisions. Regulatory assessment has avoided the implementation of some regulations that were ill-designed, unnecessary, or provided insufficient benefits given their costs. As important, regulatory assessments have led to modifications to the design of regulations that have created greater environmental benefits by increasing the stringency or speed implemented regulations,[29] and reduced the costs of achieving regulatory goals.[30] Thus, as implemented at the Federal level, regulatory assessment has certainly *not* been a one-sided hammer leading to fewer and less stringent regulation.

Regulatory assessments also facilitate the development of *reliable information on regulatory outcomes* that can better inform current and future regulations.[31] When used early enough in the process, regulatory assessments can help identify data necessary to make effective regulatory decisions, and helped identify gaps in existing data that need to be addressed. The availability of such information can be critical for ensuring that regulatory decisions reflect the real tradeoffs posed by regulations, rather than subjective assessments of risks.[32]

[29] For example, rule improvements associated with economic analysis that have lead to increased benefits include more stringent and rapid rules for eliminating lead from gasoline, more stringent standards for lead in water, greater pollutant control for reformulated gasoline, and more stringent controls at certain electricity generation facilities. Morgenstern, 1997, p. 458.

[30] For example, rule improvements associated with economic analysis that have reduced costs include the adoption of trading mechanisms for CFCs and lead in gasoline, the reduction in the number of banned asbestos products, tying the phase-out of these products to the cost of substitutes, scaling back of numeric standards for Great Lakes effluent requirements, and promulgation of organic chemical requirements for particularly affected sectors. Morgenstern, 1997, p. 458.

[31] Harrington and Morgenstern, 2004, p. 3.

[32] Sunstein discusses the risks of relying upon anecdotal evidence and other judgmental heuristics when making regulatory decisions. Sunstein, 2002, pp. 6-7, 23-27.

Improvements in information and data about benefits and costs have potential to improve the quality of the regulation under consideration, as well as future regulations.[33] This is particularly true when modeling work can be applied to regulation of other aspects of an industry, or analyses of the benefits of environmental improvements can be applied to regulations of other sectors.[34]

Requirements to perform regulatory assessments can encourage agencies to develop *institutional capacity to perform regulatory assessments*, including utilization of disciplines such as economics, policy analysis, and statistics, which may differ from traditional regulatory capabilities. Developing these capabilities may help agencies develop better regulations by increasing their ability to identify, understand, and quantify regulatory impacts.

Regulatory assessments can also *improve the transparency of the regulatory process and thereby encourage regulatory accountability*. Regulatory assessments provide stakeholder groups with information about the tradeoffs posed by new regulations and by alternative approaches to achieving regulatory goals. Impending review by an independent agency also encourages an otherwise reluctant agency to develop regulations that consider a broader array of factors and outcomes.

Despite the general consensus that requirements for regulatory assessment have improved the quality of regulation, it is important recognize that there are opportunities to improve the process of regulatory assessment at the Federal level, and that such opportunities for Federal reform should be considered seriously by any state when developing its own requirements for regulatory assessment. Case studies have identified many potential improvements in past RIA's,[35] OMB annual reports have indicated

[33] For example, Paul Portney notes that regulators and members of the legislative, judicial and executive branches "would all know less about regulation than they know now were it not for the development of … a tradition of scrutinizing regulatory proposals." As quoted in Morgenstern and Landy, "Economic Analysis: Benefits, Costs, Implications", in Morgenstern, 1997, p. 460.

[34] For example, U.S. EPA analyzes the economic consequences of regulations on the electric utility sector using a standard modeling tool, the Integrated Planning Model (IPM). IPM has been used in RIA's for numerous proposed rules and assessments of proposed legislation. U.S. Environmental Protection Agency, "Integrated Planning Model (IPM)", reviewed January 7, 2011. http://www.epa.gov/airmarkets/progsregs/epa-ipm/index.html.

[35] Morgenstern discusses limitations of twelve the RIA's previously performed. Morgenstern, 1997.

many regulations with questionable net benefits,[36] and many RIA's have failed to meet the standards set out in OMB guidelines.[37] Given these and other concerns, reforms to existing RIA practices and processes have been proposed.[38] Many of these reforms are raised to address the problem of "exceptionally poor priority setting, with substantial resources sometimes going to small problems, and with little attention being paid to some serious problems."[39] Clearly, improved assessment can help reduce discrepancies in the value created by regulatory actions. States considering requirements for regulatory assessment need to consider carefully these reforms along with OMB's current practices.

Despite these potential benefits, requirements for regulatory assessments are not without their costs. Assessments require that administrative resources be devoted to perform analyses, develop relevant data, and review analyses.[40] Given these costs, it is reasonable to ask whether the benefits of performing regulatory assessments outweigh their costs. At the Federal level, no such overall assessment has been performed, but given the administrative costs of regulatory assessment (which can be fairly well estimated), several analysts have concluded that the benefits of assessments almost certainly outweigh their costs given the net economic benefits achieved by the assessments that were performed.[41]

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[36] Hahn and Sunstein, 2002; Hahn, Robert W. and Paul C. Tetlock, "Has Economic Analysis Improved Regulatory Decisions", *Journal of Economic Perspectives* 22(1):67-84, Winter 2008.

[37] More broadly, in a series of analyses, Hahn and colleagues find that RIA's assessed by OMB failed to meet standards laid out in Executive Orders regarding the minimum information needed to assess regulatory impacts. Hahn and Tetlock, 2006, pp. 72-74.

[38] Graham, John. D., "Saving Lives Through Administrative Law and Economics", *University of Pennsylvania Law Review*, Vol. 157(2): 395-540, December 2008; Hahn and Sunstein, 2002; Revesz, and Livermore, 2008; Sunstein, 2002.

[39] Hahn and Sunstein, 2002. Tengs, et al. provides one assessment of how reallocation of resources across regulations could achieve reductions in mortality at no additional cost. Tengs, Tammy, et al., "Five Hundred Life-Saving Interventions and Their Cost-Effectiveness," *Risk Analysis* 15:369, 1995.

[40] In addition, assessment may affect the timing of regulatory development, although, in practice, it could either slow down or speed up the process. While requirements for regulatory assessment potentially add additional steps to the regulatory process, such steps can avoid or reduce disputes over regulatory decisions at later stages.

[41] Morgenstern and Landy, 1997, p. 463; Hahn and Tetlock, 2008, pp. 79-80.

IV. Key Elements of Effective Regulatory Assessment

For regulatory assessments to achieve their full potential, they should embody several key elements:

- *Independent*. The development and review of regulatory assessments should be as "independent" and "dis-passioned" as possible. At the Federal level, independence is encouraged through the separation of the reviewing agency (OMB) from the regulatory agencies that develop assessments, and by efforts to foster a culture of independent, expert review within OMB.

- *Transparent and Well-Documented.* Assessments should be transparent and well-documented to ensure that data sources, assumptions and methodologies are well understood by staff within the regulatory agency, as well as by reviewers and stakeholders. Transparency can improve the quality of analysis by increasing accountability to stakeholders and to the reviewing agency.

- *Integrated as an Element Regulatory Development.* Assessment performed after rules have been developed limits the potential to contribute to more effective regulation and places undue pressure on analysts to reach conclusions supportive of proposed rules (by, for example, limiting alternatives or costs considered.)[42] By contrast, integrating assessment within the process of developing regulations allows information about regulatory consequences to affect regulatory design.

- *Tailored to the Specific Regulatory Context.* Reliable and informative assessments need to account for the specific regulatory context, which depends, among other things, upon industry conditions, the nature of the regulatory consequences, and the state of data development. To

[42] Harrington and Morgenstern, 2004, p. 16. Morgenstern and Landy, 1997, p. 473.

account for this variation, assessments should be tailored to the specific regulatory context, rather than viewed as a "cookie cutter" requirement.

- *Expert and Rigorous*. Assessment that provides reliable information on the economic impacts of a regulatory proposal needs to be expert, rigorously developed, and grounded in state-of-the art and reliable methods and data. This does not mean that each and every assessment needs to be developed using the most costly approaches and case-specific data and analysis. Many methods – such as benefits transfer – have been developed in an effort to allow useful economic assessments to be developed cost-effectively. However, an analysis that is truly deficient due to lack of data or lack of funding (effort) may be of limited value to the process of helping improve the quality of regulations.[43]

- *Sufficiently Funded*. The development and execution of rigorous analysis requires funding to employ qualified analysts and to develop necessary data. Funding needs to be commensurate with expected regulatory requirements, whether those faced by agencies developing assessments or those reviewing assessments. Failure to provide sufficient funding risks creating a review process that acts as a bottleneck on regulatory development and can lead to costly delays in the development of regulations.[44]

In practice, achieving all of these elements may be difficult, given tradeoffs among achieving various goals, particularly given likely limits on funding. In particular, any institutional process for regulatory assessment must grapple with tradeoffs between the quality and quantity of regulatory assessment. Given these tradeoffs, most processes need to consider which regulations to assess, and whether the quality of regulations should be proportionate to regulations' likely consequences. At the

[43] For example, Morgenstern and Landy concluded that "in cases where the underlying science or risk assessment is extremely uncertain, a full-scale economic analysis often serves little useful purpose." Morgenstern and Landy, 1997, p. 465.

[44] For a discussion of OIRA experience with the consequences of staffing for the regulatory process, *see* Revesz, 2008, p. 26-27, 32.

Federal level, regulatory agencies are only required to perform RIA's for "significant" rules, thus focusing resources on rules where assessment is most likely to result in significant benefits.

Having identified the key elements of regulatory assessment, policymakers must consider how best to ensure that agencies develop assessments that meet these standards. It is likely insufficient simply to create requirements for regulatory assessment without mechanisms to ensure that agencies follow such requirements. Thus, an important element of any effective legal and institutional approach to regulatory assessment is the ability to enforce the requirements. At the Federal level, the ability of OMB to return a rule to an agency for further consideration provides some discipline on the process. Previous experience with OMB requirements shows that agencies can and do adjust the quality of their assessments to such "enforcement" actions taken by a reviewing agency.[45] Standards for transparency in the process of regulatory assessment can help ensure that agencies develop informative and useful assessments.

V. Key Issues in Establishing Effective Regulatory Review Requirements

Experience at the Federal level with requirements for regulatory assessment suggests that states considering such requirements need to address several key issues. States must first consider whether requirements for regulatory assessment are appropriate given the cost of undertaking such assessments. An important consideration in this decision is whether the costs of undertaking assessments (including the cost of developing institutional capacity) justify the likely benefits in terms of improved regulatory outcomes. For smaller states, this may not be the case given the relatively fixed costs of the assessment process, although more flexible institutional approaches might address such cost concerns.[46] For any state, limiting review to "significant rules" that are anticipated to impose a threshold economic impact can

[45] For example, Graham notes that the quality of agency RIA's changed after he "returned" more than twenty bad or poorly reasoned proposed rules in his first year as head of OIRA. Graham, 2007, p. 173.

[46] For example, while rules imposing "significant" economic impacts may emerge infrequently in smaller states, when they do, a state could create requirements for assessment but rely upon third-party institutions to undertake regulatory assessments, and (separate) third-party institutions or peer review panels to review such assessments.

help target the use of assessments to circumstances where rule improvements are likely to be worth the administrative costs.

If a state opts to develop requirements for regulatory assessment, it must consider the desired standards for assessment and the role of assessment in regulatory decisions. Will all regulations need to pass a strict benefit-cost test, or will assessments rely upon a less strict standard (for example, the need for benefits to "justify" costs, as with current OMB review), and consider distributional factors? Will standards proscribe methodologies and assumptions, or leave these standards to the regulating or reviewing agency? Also, states will want to consider how they can encourage economic analysis to be performed as an element of regulatory development, rather than after regulatory development, to help better inform the process.

As important as the standards themselves are the mechanisms used to enforce them. Independent review of agency regulatory assessments – as done at the Federal level – is clearly a prime mechanism for ensuring that regulatory assessments are used most effectively.[47] However, states may want to consider alternatives to the OMB-model, given existing laws and institutions in the state, the administrative costs of developing new institutions, and the state's goals in developing requirements for regulatory assessment. For example, assessments could be reviewed by a panel of experts, although such panels must be sufficiently funded to ensure they can perform a thorough review, and the process for selecting the panel must be impartial to avoid biasing conclusions.

In addition, the role of independent review need not be limited to review of proposed rules. A reviewing institution could propose potential areas for future regulatory work (as with OMB "prompt

[47] The OMB-model for regulatory assessment is not the only possible legal and institutional approach to using economic analysis in regulatory development. Other approaches include: legal requirements with no review or oversight; economic analysis by an independent institution, rather than the regulating agency; and formal approval by a reviewing institution after rule development and assessment. While we do not consider the relative merits of these alternatives, the current Federal system has many merits over these alternatives. Moreover, most scholars and analysts that have given serious consideration to potential Federal reforms do not propose modifications that radically change the current basic Federal model in which OMB reviews agency analyses. Graham, 2008; Hahn and Sunstein, 2002; Revesz, and Livermore, 2008; Sunstein, 2002.

letters") or propose modifications to existing regulations. These recommendations might be based on broad assessments of relative effectiveness and economic impacts (benefits and costs) across existing rules.

When developing an institution to review the assessments developed by individual agencies, many considerations will affect its ability to provide *independent, expert review* of individual regulatory analyses. An institution staffed by trained and experienced economists will be most able to provide reliable and accurate assessment of economic impacts. Also, staff able (and encouraged) to collaborate with scientists from various technical disciplines will be best able to ensure that the health, safety, and environmental benefits of proposed regulations are properly considered. Insulation of the institution from political pressures will help promote a culture of independent analysis within the institution. Thus, the control of institution funding and position within the state government – relative to executive, legislative, and judicial branches – are important considerations.

VI. Conclusion

Experience with regulatory assessment and review at the Federal level shows that there are many merits to developing such processes at the state level. This is particularly true for California, given the size of its population and economy (reflecting more economic activity than any other state in the U.S.), its large body of existing regulations, and the large number of regulatory and policy challenges it faces. Improved regulatory assessments offer the potential to improve the allocation of economic resources to best address the many important social, public health, environmental, and policy concerns faced by the State.

With several decades of experience, the practice of regulatory assessment and review at the Federal level provides valuable lessons for how assessment can improve the quality of regulation. When used properly, regulatory assessment provides valuable information that can improve the design of

regulation to better incorporate alternative regulatory mechanisms, better account for specific circumstances, and help target regulation toward the most important problems. While requirements for assessments are valuable, independent, expert review of these assessments is necessary to ensure the transparency and accountability of regulatory agencies to such standards. Any state taking meaningful steps to promoting better assessment of proposed regulations needs to consider seriously how it will ensure that such review is systematically undertaken.

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