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Comment on Peer Review and Information Quality

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Executive Summary

One mechanism that scholars have suggested for improving the quality of regulatory analysis is to increase the use of peer review. This analysis addresses some of the particular peer review procedures discussed in “OMB's Proposed Bulletin on Peer Review and Information Quality.” In general, we think that the OMB bulletin makes some good points, but we also think peer review is not without its problems as a method for improving regulatory analysis.

We recommend that OMB develop a method for evaluating the effectiveness of efforts to implement this new peer review initiative. If, in cooperation with the regulatory agencies, it cannot develop a reasonable approach to evaluation, we recommend that it probably should *not* proceed with this effort. Finally, we suggest that a congressional office of regulatory assessment is more likely to improve regulatory analysis than the introduction of the kind of peer review contemplated here.

Comment on Peer Review and Information Quality

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1. Introduction

One of the goals of regulatory analysis is to help improve the quality of regulation. A second is to help make the regulatory process more transparent. In order to help achieve these goals, the regulatory analysis should meet certain quality standards.

Over the years scholars and practitioners have suggested several ways of improving the quality of regulatory analysis.¹ One mechanism that has achieved some attention is to introduce peer review. We think peer review has some potential to improve regulatory analysis, but it also could actually make things *worse* if not designed properly.

Suppose, for example, that some regulatory agencies have a form of “tunnel vision,” which means they do not consider the broader implications of their policy.² If the same agency selects the peer reviewers, then this could be a problem, because the reviewers may simply serve to rubber stamp an agency’s views. In addition, peer review could give that agency an aura of objectivity, making it more likely that individual regulations would be promulgated that are ineffective or inefficient. We discuss below how to avoid this outcome.

This analysis addresses some of the particular peer review procedures discussed in “OMB’s Proposed Bulletin on Peer Review and Information Quality.” In general, we think that the OMB bulletin makes some good points, but we also think peer review is not without its problems as a method for improving regulatory analysis.

2. Analysis

OMB begins by noting that “[e]xisting agency peer review mechanisms have not always been sufficient to ensure the reliability of regulatory information disseminated or

¹ See Graham and Wiener (1995); Hahn and Sunstein (2002).

² See Breyer (1993).

relied upon by federal agencies.”³ Peer review is only one of several factors that affect the reliability and quality of information. Another important factor, for example, has been the reluctance of OMB to enforce its guidelines effectively.⁴

OMB appears to believe that peer review is a good thing, citing many authoritative sources on the need for peer review. For example, the OMB bulletin quotes the testimony of former OIRA Administrator Sally Katzen. She states that scientific inferences “should pass muster under peer review by those in the same discipline, who should have an opportunity for such review to ensure that underlying work was done competently and that any assumptions made are reasonable.” While we generally agree, we think that the actual impact of peer review on the economic analysis of regulations is an open question that should be investigated.

As is widely recognized in academic work, peer review is not a panacea. One study, published in the *Journal of the American Medical Association*, asked a number of people to conduct a peer review of a paper with deliberate errors included. The resulting peer reviews were ineffective. Experts caught a disturbingly low number of the intentional errors.⁵ Thus, one should not assume that peer reviews conducted by the government will produce beneficial results.

Recommendation 1: OMB, or some other agency, such as GAO, should conduct an evaluation of the peer review program after a certain amount of time, say three years, to determine whether peer review actually led to a marked improvement in the quality of the regulatory analyses.

A basic question is whether peer review will have any substantive impact on the quality of Regulatory Impact Analyses (RIAs).⁶ An RIA is a study conducted by an agency that identifies the need for a regulation, examines alternative approaches, assesses benefits and costs, provides reasons for choosing the regulatory action, and states the

³ OMB (2003): 68 FR 54024.

⁴ See Hahn et al. (2000). See also OMB Information Quality Guidelines (2002).

⁵ See Godlee et al. (1998), at 2. The study gave 420 people a paper with eight deliberate errors for review. For the 221 reviewers who responded, the maximum number of errors detected was five, the median was two, and 16 percent of the respondents did not find any.

⁶ A related and more difficult issue is whether peer review has a more general impact on specific documents used in the regulatory review process.

statutory authority.⁷ However, research reveals that not all RIAs are created equal.⁸ Implementing peer reviews of RIAs is intended to increase the reliability and consistency of agency cost and benefit estimates.

We can think of at least two experimental designs for assessing the impact of peer review on RIAs. One is to compare the quality of RIAs before and after the introduction of peer review. A second is to compare RIAs that are peer reviewed with those that are not at the same point in time. A key issue is how to measure quality. One can use reasonably objective measures that are relatively easy to assess, but may miss important dimensions of quality; alternatively, one can use more subjective measures that are harder to assess and may be more likely to vary across reviewers.⁹ A second problem in assessing the effectiveness of peer review is that many other factors are likely to be changing simultaneously. Suppose, for example, OMB began enforcing its recent guidance for conducting RIAs more vigorously at the same time.¹⁰ Then, it would be harder to disentangle cause and effect.

We would suggest that OMB give the evaluation issue further thought *before* it proceeds with its efforts to implement peer review. If, in cooperation with the regulatory agencies, it cannot develop a reasonable approach to evaluation, it probably should *not* proceed with this effort.

OMB has designed its peer review mechanism so that the agency can choose its peer reviewers and outline a plan to review its own study, subject to broad constraints. We think this is a mistake.

Recommendation 2: Peer reviewers should be selected by a neutral, respected outside body. One possibility would be to have the NAS select such reviewers. Alternatively, respected agencies in the Executive, such as OIRA, CEA or OSTP could be charged with devising a suitable selection mechanism and possibly making choices.¹¹

⁷ See Executive Order 12866 (1993).

⁸ See Morgenstern (1997).

⁹ See Hahn et al. (2000) and Morgenstern (1997).

¹⁰ See OMB (2003b), at Appendix D for OMB's guidance to Federal agencies on the development of regulatory analysis.

¹¹ For a similar recommendation see Lutter (2003), at 9.

The OMB is worried about conflicts of interest of the peer reviewers. We think such concerns are warranted, but that the choice of peer reviewers should be based more on the expertise of the reviewer and his or her reputation in a field. Moreover, OMB should recognize that there are inherent trade-offs between expertise and having actual or perceived conflicts of interest.

Recommendation 3: In selecting peer reviewers, more weight should be given to actual expertise and reputation in a field than perceived conflicts of interest. Actual conflicts of interest should be considered, but it should be recognized that virtually all reviewers will have some potential conflicts.¹²

Note that Recommendation 3 may conflict with Recommendation 2 in the sense that the agencies charged with writing regulations are likely to have specialized knowledge that would be useful in selecting peer reviewers. However, one can address this issue by allowing agencies to help inform the process without being given the authority to select particular reviewers.

Another problem that OMB should consider is the incentive to do a first-rate peer review. OMB basically is silent about the economic incentives facing peer reviewers outside of conflicts of interest. We are concerned about providing incentives to peer reviewers to do a good job on the review. We think it is unlikely that reviewers will do much to improve the quality of regulatory analysis unless they are given adequate incentives to do so.

Recommendation 4: OMB should explore ways to compensate reviewers for something closer to the full value of their time. We recognize this is difficult in government, but the alternative of paying relatively low wages may result in low quality. There is a tendency to get what you pay for in life.¹³

OMB lets the agencies write the peer review policies in consultation with OMB and OSTP. We think this is a mistake. In our view, there is no reason why one peer

¹² See Hahn (2002).

¹³ Simply paying a high wage is not sufficient if the reviewer does not do a good job. Unfortunately, it may be difficult to measure the quality of the peer review.

review document cannot pertain to all of the regulatory agencies. Admittedly, there are some differences across agencies and regulations, but this can easily be accommodated in the policy.

Recommendation 5: OMB should develop the peer review policy for all agencies after consulting with the affected agencies, CEA, and OSTP. If that is not possible, CEA should be added to list of agencies that should be consulted.

In addition, we would also add a couple of points made by our former Joint Center colleague Randall Lutter, who is now chief economist at the Food and Drug Administration. First, peer review efforts should be conducted in a timely manner, so they are useful inputs in the policy process. Second, where reviewers desire it, they should be given anonymity.

3. Conclusion

We can think of many ways to improve the quality of regulatory analysis. While peer review *may* be helpful, it is by no means clear that it will be. Indeed, we are struck by the fact that it has failed to reliably detect errors in an academic setting.¹⁴ There is no reason to think that it will work much better in government.

If OMB decides to go ahead with its peer review initiative, all regulations should not be treated in the same manner. The reason is that the quality of regulatory analysis varies across regulations. If OMB could use some of its own expertise along with agency expertise at the proposed rule stage to identify analyses that are problematic, then it could target resources more effectively to improve analyses that are especially bad.

As an alternative to peer review, we think that Congress should consider initiating a Congressional Office of Regulatory Analysis. The purpose of this independent office would be to review the proposed and finalized RIAs and rules drafted by federal regulatory agencies. Compared to the OMB, which is a part of the same administration as the head of each agency, a regulatory oversight office outside of the executive branch

¹⁴ See discussion above on Godlee et al. (1998).

would have fewer political constraints, and therefore be able to more easily criticize the analysis done by federal agencies. Additionally, the congressional office would help to increase transparency in government regulation to the public, and Congress could use the independent analysis to help improve regulation and the regulatory process.¹⁵ We think such an office is more likely to improve regulatory analysis than the introduction of the kind of peer review contemplated here.¹⁶

¹⁵ For a more in-depth argument for a Congressional Office of Regulatory Analysis, see Hahn and Litan (2003), at 10-13.

¹⁶ The two policy options are not mutually exclusive.

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