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Howard Shelanski, Administrator
Shagufta Ahmed, Policy Analyst
Office of Information and Regulatory Affairs
Office of Management and Budget, Washington DC

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Dear Drs Shelanski and Ahmed:

Thanks for the opportunity to read your draft of “Report to the Congress on the Benefits and Costs of Federal Regulations and Unfunded Mandates on State, Local, and Tribal Entities.” I indicated earlier that I would not be able to read all of it carefully enough to provide good comments on all of it, but I did read enough to think about the following suggestions.

First, the overall comment is that this work is very nice. It is readable, comprehensive, sensible, and useful. Congratulations on a great accomplishment.

Second, to the extent that I was able to come up with any solid critique, I would say that the only substantial “omission” is that you could add more than the current mention of distributional effects. Much research has been undertaken on the distributional effects of the “Federal Regulations and Unfunded Mandates” (in your title), and many researchers would think that those distributional effects are important costs or benefits of those programs. Yet the report has no section or even subsection devoted to discussion of those costs or benefits.

The first mention of any distributional effects is on page 3 where the report quotes Executive Order 13563 to say that agencies “select, in choosing among alternative regulatory approaches, those approaches that maximize net benefits (including potential economic, environmental, public health and safety, and other advantages; distributive impacts; and equity).” That quote implies that distributive impacts are some of the required considerations of net benefits (i.e. benefits minus costs). It seems that the report should have some substantial consideration of these distributive costs or benefits.

A substantial economics literature measures distributional effects of various programs, and other literature in economics and moral philosophy proceeds to model the tradeoffs between program objectives and distributional effects by the use of a social welfare function (SWF). One can specify the degree of inequality aversion, and then see which programs raise or lower social welfare – in order to see if the benefits of satisfying the objectives of the program are offset by any adverse distributional impacts. One place that describes and cites some of this literature is in a recent chapter of the IPCC climate assessment report.¹ This letter below tells you how to get a copy of that IPCC report, as it might help in the revisions of page 8 of this draft.

¹ The full citation is: Kolstad C., K. Urama, J. Broome, A. Bruvoll, M. Cariño Olvera, D. Fullerton, C. Gollier, W. M. Hanemann, R. Hassan, F. Jotzo, M. R. Khan, L. Meyer, and L. Mundaca, 2014: Social, Economic and Ethical Concepts and Methods. In: Climate Change 2014: Mitigation of Climate Change. Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Edenhofer, O., R. Pichs-Madruga, Y. Sokona, E. Farahani, S. Kadner, K. Seyboth, A. Adler, I. Baum, S. Brunner, P. Eickemeier, B. Kriemann, J. Savolainen, S. Schlömer, C. von Stechow, T. Zwickel and J.C. Minx (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA.

Third, your table of contents indicates that part I has only two chapters, but chapter 1 is quite long with four major sections. Each section is long, so perhaps the chapter should be subdivided. For example, section D is 17 pages (from page 36 to 53), which could be a separate chapter. It now includes four major subsections:

1. Impacts on State, Local and Tribal Governments
2. Impacts on Small Business
3. Impacts on Wages and Employment
4. Impacts on Economic Growth

But the fourth subsection includes at least two bullet points (on p.51) that are not really about growth at all, but about distributional effects. This discussion is out of place here in a subsection on growth. In any case you need a different subsection on distributional effects, so these two bullets could be expanded and turned into a section:

5. Impacts on the Distribution of Income

Let me next proceed through a few other minor comments in the order of appearance in the report (rather than in order of importance). Page 8 mentions “budgetary transfer rules”, which I did not understand until much later in the report, so it might be useful to define this terminology upon first appearance. Then page 13 mentions “Utility MACT” without saying what MACT stands for. That might be better defined.

The bottom of page 13 mentions “co-benefits”. That discussion made me wonder: what is the importance of the “stacking order”? That is, a proposed SO₂ rule may have the co-benefits of reducing CO₂ under one set of existing regulations, but not if undertaken later under revised existing regulations. If the revised regulations reduce CO₂, for example, then the same proposed SO₂ rule may have less co-benefits of reducing CO₂. For another example, two different proposed rules under the Clean Air Act may have benefits of reducing CO₂, but that seems like double counting. The enactment of one of those proposals would reduce the measure of co-benefits of the other proposal.

Page 18 could benefit from some discussion of the concept of “Quality Adjusted Life Years” (QALY). Maureen Cropper and others have publications about this concept.

On page 21, figure 1-1, what is the interpretation of the error bounds on the cost measures? The benefit measure is normally a statistical concept, such as the value of statistical life (VSL), where the error bounds are confidence intervals based on estimated probability distributions. But often many of the costs are not statistical concepts at all, but derived from engineering analysis. The smokestack scrubber costs \$X millions, with no error bounds. When comparing costs and benefits, the costs are often less than the lower bound of the benefit estimate, making it appear that even the lower bound of the benefit exceeds the cost. Yet the true costs are actually more uncertain than implied. There is uncertainty about the best methodology, as the engineering analysis is only one possible method. Also, if some of the cost is a loss in consumer surplus, for example, that is the area under a demand curve that must be estimated statistically, and has error bounds. The use of a deterministic engineering model does not mean that the costs are certain! I think the error bounds on costs in this figure are understated, so the certainty that benefits exceeds costs is overstated.

On page 24, the second paragraph says “Overall, HHS promulgated the largest number of rules (twenty one).” This sentence is too general or “global.” It needs some kind of qualifier. Do you mean the largest number just within FY 2013?

On page 38, the first full bullet point discusses mercury again, so you might want to mention MACT and connect this discussion to the previous discussion. On page 40, the citation to Becker (2005) in footnote 52 is not in the references at the back. On page 45 the citations are a bit odd in the second paragraph. It mentions Greenstone, Walker, etc., but the reader has to remember that those citations are on the previous page (while List *et al* is on this same page).

On page 50, the second bullet notes that Greenstone finds that nonattainment counties lost 590,000 jobs. ... "Further, these results indicate statistically significant economic costs ...". This sentence appears to overstate the costs, because these jobs may merely have been shifted to other locations (as intended by the regulation, since the nonattainment county is too dirty and therefore needs to cut back production). The production has shifted location, which is not production lost altogether.

On page 51, the first bullet is about how Chay and Greenstone find increased housing values. The footnote 113 gives the citation to Chay and Greenstone (2005) but then proceeds to discuss the six distributional effects of Fullerton (2011), which appears to have almost nothing to do with Chay and Greenstone. That discussion appears to have been crammed into an unrelated footnote because it was not clear where else to put it! But you should now add a whole new section on distributional effects.

If you look on my website at http://works.bepress.com/don_fullerton/, you will see a published version of Fullerton (2011), which you can use to replace the reference to the working paper version. Also on that website you can find the IPCC report mentioned above. Finally, on that website are some other materials that might be useful for expanding the discussion of distributional effects. For example, you might want to see a whole section of that website called "Distributional Effects of Environmental and Energy Policy". The first entry in that section is "Distributional Effects of Environmental and Energy Policy: An Introduction," which is the introductory chapter of a book I edited, called "Distributional Effects of Environmental and Energy Policy" (Ashgate, 2009). That intro chapter summarizes the various previously published papers that are collected within this edited volume. Page "xxv" (25) of that introduction mentions a paper you should see (by Sieg, Smith, Banzhaf, and Walsh, a paper that was originally published in the *Journal of Environmental Economics and Management*).

That's it, good job! I hope these comments are helpful. Let me know if you have any questions or any further requests.

Yours,



Don Fullerton