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John D. Graham
Administrator, U.S. Office of Management and Budget
by email: Dominic_J._Mancini@omb.eop.gov

RE: 2004 Draft Report to Congress on the Costs and Benefits of Federal Regulation and Unfunded Mandates on Sate, Local, and Tribal Entitites

Dear Dr. Graham:

Thank you for the opportunity to review this draft report. In the attached memo I have tried to answer the charge questions you posed, as well as to address larger issues with the Report. Please feel free to contact me if you have any questions about my remarks, or would like further clarification.

Best regards,

Arik Levinson

Comments on *2004 Draft Report to Congress on Costs and Benefits of Federal Regulation*

Executive summary. The executive summary makes two points that, taken without their supporting context, could prove misleading. First, it provides the aggregate of costs and benefits for the 6 major rules written over the past year whose costs and benefits were monetized by the report. This amounts to 6 rules out of 4312 published in the Federal Register. Similarly, the numbers for 1993 to 2003 represent only a small fraction of the regulations issued during that period. The executive summary should make clear the dangers of drawing broad conclusions about the efficacy of regulations based on this small sample.

Second, the executive summary makes the point that the "least regulated" economies in the world experienced relatively faster economic growth. Careful readers of this literature can take issue with both the definition of "least regulated" and with the use of GDP growth as a measure of economic welfare. I fear that some observers will take this executive summary out of context as a blanket indictment of regulation.

Interaction effects. Chapter 1 attempts to aggregate the costs and benefits of federal regulations. While the report carefully acknowledges some of the shortcuts it must take, one major assumption is omitted. Cost benefit analyses of particular, individual federal programs typically measure changes in costs and benefits from some baseline, either the status quo or perfect competition. When considering two programs together, the costs and benefits of the second program depend on whether the baseline includes the first program, and the order in which the programs are considered matters. In other words, the programs have interaction effects.

Because of these interaction effects, it is almost certainly wrong to simply add the separately calculated effects of different programs. In some cases the aggregate costs may be larger than the sum of the individual costs. (The classic example of this is a tax on two complementary goods: the tax on the second of the two exacerbates the deadweight loss of the tax on the first.) In other cases the effects may cancel out. (A classic example of this is the polluting monopolist: regulations designed to increase monopoly production offset regulations designed to reduce pollution.)

I do not know that there is anything that OMB can do to work around this problem, other than acknowledge it as a major obstacle to accomplishing the task set by Section 624 of the "Regulatory Right-to-Know Act."

"Social Regulations". The Draft Report focuses on "social regulations" and excludes "Federal budgetary programs, which caused income transfers." This distinction strikes me as ad hoc and potentially misleading, for several reasons. Social regulations are not defined until page 27, and then they are "rules designed to improve health, safety, and the environment." It seems to me, however, that many of the excluded rules would fit this broad definition.

The alternative to "social regulations" seems to vary throughout the report. Initial it is "budgetary programs," as on page 3. Later, on page 27, the alternative is "economic regulations," which are claimed to increase average wage rates while social regulations decrease them. The justification or intuition for this claim is never provided.

More importantly, however, the claim that "rules that transfer Federal dollars among parties" do not have costs or benefits "because transfers are not social cost or benefits" (p. 3) is largely false. While it is true that a "lump sum" transfer (i.e. a transfer that is not contingent on any behavior by the affected parties) would fit this definition, most of the rules described here do have behavioral responses, and so should be included in a comprehensive cost-benefit analysis.

For example, on page 20 the Report describes a rule "to allow Federal employees to pay for health benefits with pre-tax dollars." While it is true that the $848 million in tax savings is not a correct measure of either benefits or costs, because it is a transfer, employees are receiving a subsidy. If they respond by purchasing more medical services (i.e. more expensive eyeglasses), then there are economic consequences. This policy is more than a lump sum transfer and does have a deadweight loss.

Arbitrary distinction between costs and benefits. It should be noted somewhere in the Report that the division of effects into costs and benefits is somewhat arbitrary. Costs can always be reclassified as negative benefits, and vice versa. For example, the evaluation of the truck driver hours of service rule, on page 13, lists the costs as ranging from negative $905 million to positive $1282 million. Negative costs could simply be interpreted as positive benefits.

Another example is the rule called "patent listing requirements" on page 18. The text notes that "FDA estimates patent holders will suffer approximately a $4.8 billion revenue loss per year. Consumers will save approximately $3.3 billion per year." Yet the total benefits are listed as $230 million per year, and the total costs as "$10 million per year. It must be the case that OMB or FDA has already netted some of the benefits and costs. Therefore the overall size of benefits and costs separately is arbitrary, and depends on how much netting out is done. (This problem is particularly important because one of the criteria for inclusion in this report is the size of the benefits and/or costs.) The Draft Report does not list the net benefits, which would not have this problem.

Large EPA Costs and Benefits. The Draft Report notes in several places that rules promulgated by the EPA appear to be responsible for the majority of Federal costs and benefits. Perhaps the Report could speculate as to why this might be. I have several guesses. It could be that the EPA is the newest Federal Agency studied, and so its major rules have been written most recently and are therefore most likely to be included in the 10 year window. In addition, it could be that EPA rules have been subjected to cost-benefit analysis, and monetized, more than the rules of other agencies, and therefore EPA rules are more likely to be included in the aggregations contained in this report.

Economic growth and macroeconomic indicators. This section is devoted to studying the cross-country correlation between broad measures of regulation and economic growth. The problem with this is that the measures of regulation are imprecise and the measure of economic growth does not capture welfare. There are good regulations and bad regulations, and to lump them together invites misleading generalizations. For example, the Heritage Foundation's "Index of Economic Freedom" lists social regulations as a negative, but regulations that protect property rights as a positive. Therefore, the best way to view these indices is as their developers' subjective assessments of the "quality" of countries' regulations rather than the "quantity." Seen in this light, the results merely show that countries with good regulations grow faster than countries with bad regulations, not that countries with fewer regulations grow faster than countries with more.

Because these indices count some regulations as good and others as bad, I take issue with the Draft Report's finding that "these studies provide broad support for the claim that regulation reduces economic growth."

A less important concern with this section of the report is that GDP growth is a poor measure of welfare. It measures the flow of economic activity rather than the stock of assets. If there is over-fishing, regulations that reduce fish catch will reduce GDP in the short run, but increase long-run economic prosperity. Agricultural regulations to reduce soil erosion would have the same effect, reducing GDP today in exchange for preserving future production. Finally, GDP excludes non-traded benefits: environmental quality, health, workplace safety -- exactly those items that the social regulations are designed to provide.

<u>Plant location decisions and trade.</u> Most of the studies cited by the Report use cross-sections of data at a single point in time, and fail to find an effect of regulatory burden on plant location decisions. These studies cannot control for unobserved characteristics of regions that may be correlated with their propensity to attract firms and to regulate them. However, in recent years, studies have used panels of data (across regions and over time) to try to control for this bias. One example is Becker and Henderson, which the Report cites. Another is my paper with Keller (2002). I have reviewed this newer literature in Brunnermeier and Levinson (2004).

The same is true of the studies of international trade. Recent papers control for the simultaneous relationship between trade and environmental regulations (trade may have a causal effect on regulations). These include Ederington and Minier (2003), and Ederington *et al.* (2004). Some of this literature is summarized in Copeland and Taylor (2003).

Cited References

Brunnermeier, Smita and Arik Levinson. 2004. "Examining the Evidence on Environmental Regulations and Industry Location," *Journal of the Environment and Development*, 13(1): 6-41.

Copeland, Brian R. and M. Scott Taylor. 2003. <u>Trade and the Environment: Theory and Evidence</u>. Princeton University Press.

Ederington, Josh and Jenny Minier. 2003. "Is Environmental Policy a Secondary Trade Barrier? An Empirical Analysis" *Canadian Journal of Economics* 36(1): 137-154.

Ederington, Josh, Arik Levinson, and Jenny Minier. 2004. "Footloose and Pollution-free" *Review of Economics and Statistics*, forthcoming.

Keller, Wolfgang and Arik Levinson. 2002. "Environmental Regulations and FDI to U.S. States." *Review of Economics and Statistics* 84(4).