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Public Interest Comment<sup>1</sup> on  
The Office of Management and Budget's  
Draft 2013 Report to Congress on the Benefits and Costs of Federal Regulations

July 23, 2013

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## **The George Washington University Regulatory Studies Center**

The George Washington University Regulatory Studies Center works to improve regulatory policy through research, education, and outreach. As part of its mission, the GW Regulatory Studies Center conducts careful and independent analyses to assess rulemaking proposals from the perspective of the public interest. This comment on the Office of Management and Budget's Draft 2013 Report to Congress offers suggestions for improving the information value of the Report, and does not represent the views of any particular affected party or special interest.

## **Introduction**

Pursuant to the Regulatory Right-to-Know Act,<sup>3</sup> the Office of Management and Budget (OMB) submits to Congress each year an accounting statement and associated report providing estimates of the total annual benefits and costs of federal regulations; an analysis of impacts of Federal regulation on State, local, and tribal government, small business, wages, and economic growth; and recommendations for reform.<sup>4</sup>

OMB's Draft 2013 *Report to Congress on the Benefits and Costs of Federal Regulations* (the Report) provides the public valuable information both on estimates of the effects of major executive branch regulations and also on OMB's focus and priorities. This comment focuses on several topics covered in the Report: the uncertainty in the estimated benefits and costs, trends in

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<sup>1</sup> This comment reflects the views of the authors, and does not represent an official position of the GW Regulatory Studies Center or the George Washington University. The Center's policy on research integrity is available at <http://research.columbian.gwu.edu/regulatorystudies/research/integrity>.

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<sup>3</sup> Consolidated Appropriations Act of 2001 (H.R. 5658, section 624, P.L. 106-554).

<sup>4</sup> This comment does not address Part II of OMB's Report, which reviews agencies' compliance with the Unfunded Mandates Reform Act.

regulatory impacts, estimated benefits and costs for regulations issued in fiscal year 2012, the appropriateness of including employment effects in regulatory impact analysis, and implementation of President Obama's retrospective review initiative. It concludes with a summary of our recommendations to OMB.

## Uncertainty in Estimated Benefits and Costs

Chapter I of the Report presents estimates of the aggregated annual benefits and costs of regulations issued over the last decade with more detail for fiscal year 2012, and examines the broader impact of federal regulation. The benefits and costs of regulations, individually and in the aggregate, are notoriously hard to measure. This annual report probably offers one of the most comprehensive estimates available on the expected benefits and net benefits (benefits minus costs) of federal regulation; but, as OMB acknowledges, it has limitations.

OMB estimates that the “annual benefits of major Federal regulations [it] reviewed ... from October 1, 2002, to September 30, 2012, for which agencies estimated and monetized both benefits and costs, are in the aggregate between \$193 billion and \$800 billion, while the estimated annual costs are in the aggregate between \$57 billion and \$84 billion.” These figures are in 2001 dollars, and based on OMB's aggregation of agencies' ex ante estimates of the benefits and costs of 115 major regulations. As these 115 are a small fraction of the 3,203 final regulations OMB reviewed, do not include any rules issued by independent agencies, and are less than one-quarter of the 536 “major”<sup>5</sup> final regulations executive branch agencies issued during this 10-year window, OMB recognizes its estimates are “not a complete accounting of all the benefits and costs of all regulations issued by the Federal Government during this period.”

The majority of reported benefits derive from air quality regulations that reduce fine particulate matter (PM<sub>2.5</sub>), which the Environmental Protection Agency predicts will reduce premature mortality.<sup>6</sup> In reporting these estimates in its annual report, the OMB recognizes the “significant uncertainty” associated with both “the reduction of premature deaths associated with reduction in particulate matter and ... the monetary value of reducing mortality risk.”

One key source of uncertainty relates to EPA's assumption that “inhalation of fine particles is causally associated with premature death at concentrations near those experienced by most Americans on a daily basis.”<sup>7</sup> EPA bases this assumption on epidemiological evidence of an association between particulate matter concentrations and mortality; however, correlation does

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<sup>5</sup> Major rules are roughly defined as those having an impact of \$100 million or more in a year.

<sup>6</sup> The Report observes: “EPA rules account for 58 to 80 percent of the monetized benefits and 44 to 54 percent of the monetized costs. Of these, rules that have as either a primary or significant aim to improve air quality account for 98 to 99 percent of the benefits of EPA rules... [T]he large estimated benefits of EPA rules issued pursuant to the Clean Air Act are mostly attributable to the reduction in public exposure to a single air pollutant: fine particulate matter.”

<sup>7</sup> Report, p. 17.

not necessarily indicate causation (*cum hoc non propter hoc*), and EPA has not identified a biological mechanism that explains the observed correlation. Risk assessment expert Louis Anthony Cox raises questions as to whether the correlation EPA claims is real. His statistical review of EPA's methodology concludes, with a greater than 95 percent probability, that no association exists, and that EPA's results are a product of its choice of models and selected data rather than a real, measured correlation.<sup>8</sup>

Another key assumption on which the EPA's (and therefore the OMB's) benefit estimates hinge is that "the impact function for fine particles is approximately linear within the range of ambient concentrations under consideration, which includes concentrations below the National Ambient Air Quality Standard"<sup>9</sup> (NAAQS). Both theory and data suggest that thresholds exist below which further reductions in exposure to PM<sub>2.5</sub> do not yield changes in mortality response, and that one should expect diminishing returns as exposures are reduced to lower and lower levels.<sup>10</sup> However, EPA assumes a linear concentration-response impact function that extends to concentrations below background levels. OMB observes "indeed, a significant portion of the benefits associated with more recent rules are from potential health benefits in regions that are in attainment with the fine particle standard."<sup>11</sup>

If EPA's assumptions of a causal, linear, no-threshold relationship between PM<sub>2.5</sub> exposure and premature mortality are inaccurate (in other words, if no association exists, if the relationship is not causal, or if the concentration-response relationship is not linear at low doses), the avoided premature mortality attributable to reducing PM<sub>2.5</sub> would be less than estimated, and possibly as low as zero. Yet, these plausible ranges are not included in OMB's Report.

EPA multiplies these estimated premature mortalities avoided by a dollar value of mortality risk reduction (value per statistical life, or VSL) to monetize economic benefits. But, as OMB notes, "the value of mortality risk reduction is taken largely from studies of the willingness to accept risk in the labor market [where the relevant population is healthy and has a long remaining life expectancy] and might not necessarily apply to people in different stages of life or health status." This caveat is particularly important in the case of PM<sub>2.5</sub> because, as EPA's 2011 report, "The Benefits and Costs of the Clean Air Act, 1990-2020," shows, the median age of the beneficiaries of these regulations is around 80 years old, and the average extension in life expectancy attributable to lower PM<sub>2.5</sub> levels is less than six months.<sup>12</sup>

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<sup>8</sup> Cox, Louis Anthony, Jr. "Reassessing the Human Health Benefits from Cleaner Air," *Risk Analysis*, Vol. 32, No. 5, (May) 2012.

<sup>9</sup> Report, p. 17.

<sup>10</sup> Smith, Anne. "An Evaluation of the Pm2.5 Health Benefits Estimates in Regulatory Impact Analyses for Recent Air Regulations," NERA Economic Consulting, December 2011

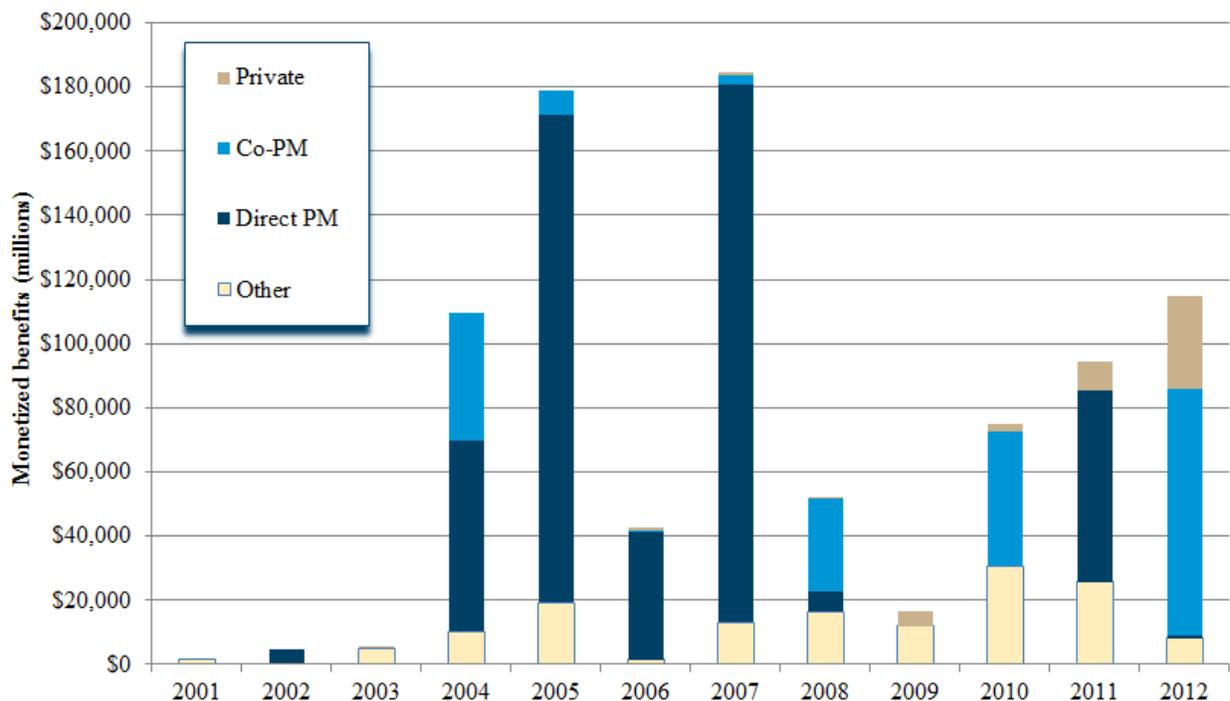
<sup>11</sup> Report, p. 17.

<sup>12</sup> Table 5-8 of U.S. EPA "The Benefits and Costs of the Clean Air Act, 1990-2020," March 2011 presents the age cohorts and life expectancy of the beneficiaries of reduced PM<sub>2.5</sub> exposure. Available at: <http://www.epa.gov/air/sect812/feb11/fullreport.pdf>.

This is a case where it would be informative for OMB to report benefits based on the value of statistical life-years (VSLY) extended, as well as lives saved. As OMB’s Circular A-4 Primer observes, particularly “when there are significant differences between the effect on life expectancy for the population affected by a particular health risk and the populations studied in the labor market studies,” it may be “appropriate to consider providing estimates of both VSL and VSLY, while recognizing the developing state of knowledge in this area.”<sup>13</sup>

PM<sub>2.5</sub> benefits also figure prominently in regulations whose purpose is not to reduce PM<sub>2.5</sub>. EPA calls these “co-benefits” because they arise not directly from reducing the pollution targeted by a particular regulation, but from coincidental reductions in PM<sub>2.5</sub>. While OMB notes parenthetically “that consideration of co-benefits, including the co-benefits associated with reduction of particulate matter, is consistent with standard accounting practices and has long been required under OMB Circular A-4,” it does not highlight how significant these co-benefits are in relation to direct benefits.

**Figure 1**  
**Contribution of Direct PM<sub>2.5</sub> Benefits, PM<sub>2.5</sub> Co-Benefits, and Private Benefits to the OMB's Reported Upper-Bound Regulatory Benefits**



Source: Upper bound benefits reported in OMB’s annual reports to Congress, various years.

<sup>13</sup> Circular A-4 Primer, available at: [http://www.whitehouse.gov/sites/default/files/omb/inforeg/regpol/circular-a-4\\_regulatory-impact-analysis-a-primer.pdf](http://www.whitehouse.gov/sites/default/files/omb/inforeg/regpol/circular-a-4_regulatory-impact-analysis-a-primer.pdf)

Figure 1 illustrates that in 2008, 2010, and 2012 in particular, co-benefits from PM<sub>2.5</sub> reductions represent significant portions of total upper bound benefits. (In 2008, the NAAQS for another criteria pollutant, ozone, derived over 70 percent of its benefits from reductions in PM<sub>2.5</sub>. In 2010, four regulations claimed 100 percent of their benefits from ancillary reductions in PM<sub>2.5</sub>. Three of those regulations targeted emissions of toxic air pollutants and the fourth established NAAQS for sulfur dioxide, another criteria pollutant. In 2012, 99 percent of the reported benefits from EPA’s mercury and air toxics rule, discussed below, were co-benefits.)<sup>14</sup>

OMB provides a good qualitative presentation of the uncertainty surrounding the PM<sub>2.5</sub> benefits, but it should go further. It should reveal to the public the effect of these uncertainties on the range of plausible benefits derived from regulations. OMB should also continue working with EPA and other agencies to reduce these large uncertainties, particularly with respect to the causal nature of PM<sub>2.5</sub> benefits.

## **Trends in Annual Benefits and Costs of Regulations Reviewed by OMB over the Last Ten Years**

OMB presents estimates of benefits and costs for each of the last 10 years in Table 1-3 and Figure 1-1. In Chapter 2 of the Report, it compares estimated net benefits of regulations issued over the first four years of the Obama administration to the first four years of the previous two presidential administrations. The way these data are presented is misleading for several reasons.

First, unlike previous years, OMB provides ranges without presenting expected-value estimates in Chapter 1.B. This is contrary to OMB’s own guidance to agencies, which states:

You should provide expected-value estimates as well as distributions about the estimates, where such information exists.<sup>15</sup>

By presenting only ranges, which are particularly wide for benefits, Figure 1-1 obfuscates the trend information.<sup>16</sup> The scale used makes the bars representing the range of cost estimates almost indistinguishable from year to year. OMB should be more transparent in its presentation, and provide central estimates as well as ranges in Table 1-3, and graph central estimates in Figure 1-1.

Second, OMB’s statement that “the estimates we report here are prospective estimates made by agencies during the rulemaking process” is not accurate. OMB *starts* with agencies’ prospective estimates, but then removes benefits and costs for regulations that have since been vacated by courts or superseded by subsequent implementing regulation. While this is necessary to avoid double counting when aggregating regulatory benefits and costs across years to estimate totals, it

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<sup>14</sup> These upper bound benefits data are derived from OMB’s annual reports and the final RIAs developed for individual rules.

<sup>15</sup> Circular A-4, p. 45.

<sup>16</sup> OMB recognizes that the “variability in benefit estimates appears greater than in cost estimates.” Report, p. 19

skews estimates of benefits and costs to current years when looking at trends. Current year estimates include agencies' most optimistic estimate of the outcome of its regulation. It won't be until future years that adjustments will be made to account for subsequent regulations or court actions.<sup>17</sup>

To illustrate, regulations establishing NAAQS claim large benefits associated with air quality improvements, but it is not until implementing regulations are issued that those improvements begin to be realized. When EPA issued its NAAQS for PM<sub>2.5</sub> in 2006, it estimated benefits of almost \$40 billion per year, yet OMB's Report attributes none of those benefits to 2006. Instead, OMB allocates them to subsequent years when implementing regulations were issued, including the cross-state air pollution rule (CSAPR) issued in 2011. The 2010 NAAQS for sulfur dioxide, on the other hand, still takes credit for benefits from emission reductions that will not be achieved without other, subsequent, implementing actions.

For court decisions, the bias toward current regulations is even more apparent. Footnote 15 explains that OMB's estimates exclude rules issued in 2004 and 2005 that courts have vacated. Yet it continues to include in the Obama administration's 2011 tally the CSAPR rule that the U.S. Court of Appeals for the D.C. Circuit vacated in 2012.<sup>18</sup> With claimed net benefits of almost \$40 billion per year, selectively taking credit for the vacated CSAPR clearly affects the trend information OMB presents.

This approach is particularly misleading when these data are used to make comparisons of net regulatory benefits across administrations, as OMB does in Chapter 2 of the Report. Administration officials use these data to support claims of "regulatory moneyball,"<sup>19</sup> suggesting that the Obama administration's superior analysis has achieved greater net benefits than its predecessors, when much of the difference is actually due to OMB's practice of deducting benefits estimated for previous year's rules (such as the 2006 NAAQS and 2005 Clean Air Interstate Rule) and attributing them to more recent rules.<sup>20</sup> Using this accounting method, more recent years will always appear more beneficial than past years.

Another questionable technique for estimating health reductions associated with lower PM<sub>2.5</sub> levels further inflates the estimated benefits of regulations issued after 2009 and makes OMB's comparisons of total benefits across years inconsistent.<sup>21</sup> OMB notes:

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<sup>17</sup> Note that OMB does not attempt to revise ex ante estimates of benefits and costs based on actual experience with a regulation's effects, so under this approach, past year estimates can only be reduced.

<sup>18</sup> EPA presents a timeline for legal action on CSAPR here: <http://www.epa.gov/airtransport/CSAPR/index.html>

<sup>19</sup> See, for example, <http://innovation.luskin.ucla.edu/news/business-and-environment/regulatory-moneyball-lessons-obama-administration-cass-sunstein>.

<sup>20</sup> Given the large benefits attributed to PM<sub>2.5</sub>, years in which regulations that reduce that pollutant are issued report larger benefits, as noted above and illustrated in Figure 1.

<sup>21</sup> For a fuller discussion of the role assumptions regarding the benefits of PM<sub>2.5</sub> reductions, including co-benefits, see Susan E. Dudley, "Perpetuating Puffery: An Analysis of the Composition of OMB's Reported Benefits of Regulation, *Business Economics* (2012) 47, 165–176. doi:10.1057/be.2012.14 <http://www.palgrave->

Midway through FY 2009, EPA made changes to some underlying assumptions as well as updates to some of the model inputs. These changes are reflected in EPA's more recent Regulatory Impact Analyses.”

The new assumption to which OMB refers is that EPA now calculates risk reduction benefits to the lowest level projected by its air quality models, despite the lack of empirical evidence of effects at such low exposure levels. Prior to 2009, EPA calculated benefits below levels that it determined to be “protective of public health” when setting NAAQS, but not below the lowest levels measured (LML) in statistical studies ( $10 \mu\text{g}/\text{m}^3$ ). According to Anne Smith:

In other words, in 2009, EPA suddenly started including an entirely new set of presumed risks in its RIAs, based entirely on an extrapolation that has little to no scientific support and without assessing the statistical confidence for predictions of risk changes even at the LMLs of the studies that EPA started from... Overall, the decision in 2009 to extrapolate risks below the LML caused EPA's estimates of total US deaths due to  $\text{PM}_{2.5}$  to nearly quadruple.<sup>22</sup>

This new, questionable, method is only applied to rules issued since 2009, resulting in dramatically higher benefit estimates per unit change in concentrations for rules issued over the last four years than rules issued earlier. This further biases any comparisons of benefits over time.

Providing information on regulatory trends is an important aspect of this Report, but OMB should reconsider the appropriateness of presenting data by administration (particularly comparisons of selective years within administrations) as it does in Figures 2-1a and b of the Report. Previous reports eschewed such political comparisons, which diminish the value of the report as an objective source of information.<sup>23</sup>

OMB should also take greater care to be consistent in its estimates of regulatory impacts across years. At a minimum, that would call for consistent treatment of vacated rules, and models for measuring and valuing the same regulatory outcomes. OMB might consider using different approaches for presenting data on regulatory trends than it does when summing totals. Trends could rely exclusively on ex ante estimates, while totals make adjustments to avoid double-counting costs and benefits. Of course, an even more informative approach would present ex post estimates of the benefits and costs of regulations issued in previous years, but OMB does not have the capacity yet to perform such analysis (see discussion of retrospective review below).

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[journals.com/be/journal/v47/n3/full/be201214a.html](http://journals.com/be/journal/v47/n3/full/be201214a.html), and Susan E Dudley, [OMB's Reported Benefits of Regulation: Too Good to Be True?](#), Regulation Magazine, Summer 2013.

<sup>22</sup> Smith, Anne. “An Evaluation of the  $\text{PM}_{2.5}$  Health Benefits Estimates in Regulatory Impact Analyses for Recent Air Regulations,” NERA Economic Consulting, December 2011. p. 23

<sup>23</sup> OMB's 2006 report provide annual comparisons by administration, but not selective years. OMB's reports for 2007 and 2008 did not present comparisons by administration.

## Estimates of the Benefits and Costs of Major Rules Issued in Fiscal Year 2012

For fiscal year 2012, executive branch agencies issued 47 major rules, of which they quantified both benefits and costs for 14. Relying on agencies' ex ante estimates for those 14 rules, OMB estimates total annual benefits ranging from \$53.2 billion to \$114.6 billion and total annual costs ranging from \$14.8 billion to \$19.5 billion (all expressed in 2001 dollars).

The report states that “the vast majority of benefits and costs for rules finalized in FY2012 results from two rules: EPA’s court-ordered Mercury and Air Toxics Standards (MATS) rule (the National Emission Standards for Hazardous Air Pollutants From Coal- and Oil-Fired Electric Utility Steam Generating Units and Standards of Performance for Electric Utility Steam Generating Units), and EPA and the Department of Transportation’s Joint Rulemaking to Establish 2017 and Later Model Year Light Duty Vehicle GHG Emissions and CAFE Standards.”

OMB observes that “both rules have benefits that significantly outweigh their costs,” however the estimated benefits derive from questionable assumptions.

### MATS

Ninety-nine percent of the estimated benefits of the MATS rule derive from co-benefits associated with ancillary reductions in PM<sub>2.5</sub>. EPA’s RIA reveals that reductions in mercury emissions (the target of the rule) will offer little in the way of health benefits. The agency estimates the regulation will result in an increase of 0.00209 points in the average IQ of exposed children, for a total of 511 IQ points nationwide. Because children in the United States are exposed to mercury from other sources (natural sources, anthropogenic sources from other countries, and non-utility U.S. sources), EPA estimates they will continue to experience a decrement of 23,909 IQ points nationwide after the rule is fully implemented. Thus, the rule will have reduced the IQ decrement from mercury exposure by barely 2 percent. EPA assigns a dollar value ranging from \$0.5 million to \$6.2 million per year to these gains. It did not attempt to quantify or value the health benefits of the other air toxic emissions associated with this regulation.<sup>24</sup>

If these were the only benefits of the MATS rule, and if one took EPA’s estimates of costs and benefits at face value, the \$9.6 billion in annual cost would be between 1,500 and 19,000 times greater than the benefit. But the benefits of controlling mercury and air toxics comprise less than one ten-thousandths of the total benefits reported for the MATS rule. EPA’s claimed \$33–\$90 billion per year in economic benefits and 11,000 premature deaths avoided are derived by counting co-benefits that arise not directly from reducing toxic emissions, but from reductions in

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<sup>24</sup> See U.S. EPA Mercury and Air Toxics Standard Regulatory Impact Analysis, <http://www.epa.gov/ttn/ecas/regdata/RIAs/matsriafinal.pdf>.

PM<sub>2.5</sub> and carbon emissions that the EPA's models predict will happen as beneficial side effects of the controls that will be required by the rule.<sup>25</sup>

The PM<sub>2.5</sub> benefits attributed to the MATS rule suffer from the problems highlighted above. They are highly uncertain and likely to both overstate health effects and overvalue changes in health outcomes. They are also inflated by the new method for attributing health effects to changes in exposure at the lowest levels measured. Moreover, because PM<sub>2.5</sub> is regulated directly through EPA's NAAQS and associated federal and state programs, it is implausible to expect that incidental reductions caused by the MATS rule will be more cost-effective than the reductions that EPA achieves when it regulates PM<sub>2.5</sub> directly.

Given the contribution of this rule's impact to OMB's total estimated impacts for 2012, OMB should inform the public that the large MATS benefits it presents in the Report are due to reductions in emissions other than mercury, and subject to all the caveats it presents about the uncertainties in modeled benefits of reducing PM<sub>2.5</sub>.

### **Joint GHG-CAFE Rule**

EPA estimates that its joint rule with DOT establishing 2017 and later model year light duty vehicle GHG emissions and CAFE standards (GHG-CAFE rule) will cost between \$6.5 billion and \$10.8 billion per year (annualized at 3 percent and 7 percent rates).<sup>26</sup> It estimates the annualized benefits of the rule—which include avoided premature mortality from reduced PM<sub>2.5</sub> emissions and reductions in carbon dioxide (CO<sub>2</sub>), as well as benefits drivers are expected to derive from additional driving and less time spent refueling—are between \$5.5 billion and \$8.0 billion (using rates of 3 percent and 7 percent respectively). EPA attributes large net benefits to the rule, however, by subtracting from costs the fuel savings consumers will enjoy from the more fuel efficient fleet. These savings overwhelm the costs of the rule, and range from \$20.5 billion to \$27.3 billion per year (depending on discount rate). OMB's Report includes these “negative costs” in the benefit column, along with EPA's other estimated benefits.

Executive Order 12866, reinforced by Executive Order 13563, directs agencies to base regulations on “a compelling public need, such as material failures of private markets to protect or improve the health and safety of the public, the environment, or the well-being of the American people.” However, a very small fraction of the benefits of this rule can be attributed to a “material failure of private markets.” The fuel savings and other driver benefits (additional driving and less refueling) all accrue to vehicle purchasers.

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<sup>25</sup> Note that estimates presented in OMB's are lower than these figures because they are presented in year 2001 dollars, while EPA's estimates are in 2007 dollars.

<sup>26</sup> While the agencies issued a joint rule, they present different regulatory impact analyses, and in EPA's analysis, the private fuel savings are classified as negative costs, rather than benefits. OMB presents EPA's estimates in the annual report to Congress.

As OMB Circular A-4 recognizes, “there is no apparent market failure with regard to the market value of fuel saved because one would expect that consumers would be willing to pay for increased fuel economy that exceeded the cost of providing it.”

OMB observed in its 2011 Report to Congress:

Such regulations may also reduce consumer welfare by causing individuals to purchase products that they would otherwise reject. For example, such products may lack features that consumers prefer, or may have features that consumers do not like, in which case the regulations impose a welfare loss that should be counted in the overall assessment. If regulations that produce economic savings through energy efficiency also produce a loss to consumer welfare, that loss should be taken into account in the analysis.<sup>27</sup>

Circular A-4 directs agencies:

When these cost savings are substantial, and particularly when you estimate them to be greater than the cost associated with achieving them, you should examine and discuss why market forces would not accomplish these gains in the absence of regulation.<sup>28</sup>

The 2011 Report to Congress recommends “continued exploration of these issues,” and says “agencies should clearly separate social and private savings in their Regulatory Impact Analyses, and that when private savings are included, agencies should give careful attention to the conceptual and empirical issues.”<sup>29</sup>

The preamble to the joint rule calls it “a conundrum from an economic perspective that these large fuel savings have not been provided by automakers and purchased by consumers,” but blithely asserts:

A number of behavioral and market phenomena may lead to this disparity between the fuel economy that makes financial sense to consumers and the fuel economy they purchase. Regardless how consumers make their decisions on how much fuel economy to purchase, EPA expects that, in the aggregate, they will gain these fuel savings, which will provide actual money in consumers’ pockets.<sup>30</sup>

There is no justification for such a casual dismissal of real-world data, and for forcing consumers to behave as EPA’s model predicts they should. The foundation of benefit-cost analysis is that consumer choice reveals consumer preferences, which are the only valid metric for gauging consumer welfare. There are numerous possible explanations for why EPA is wrong about

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<sup>27</sup> OMB 2011 Report to Congress on the Benefits and Costs of Federal Regulation, available at: [http://www.whitehouse.gov/sites/default/files/omb/inforeg/2011\\_cb/2011\\_cba\\_report.pdf](http://www.whitehouse.gov/sites/default/files/omb/inforeg/2011_cb/2011_cba_report.pdf)

<sup>28</sup> Circular A-4, pp. 37-38.

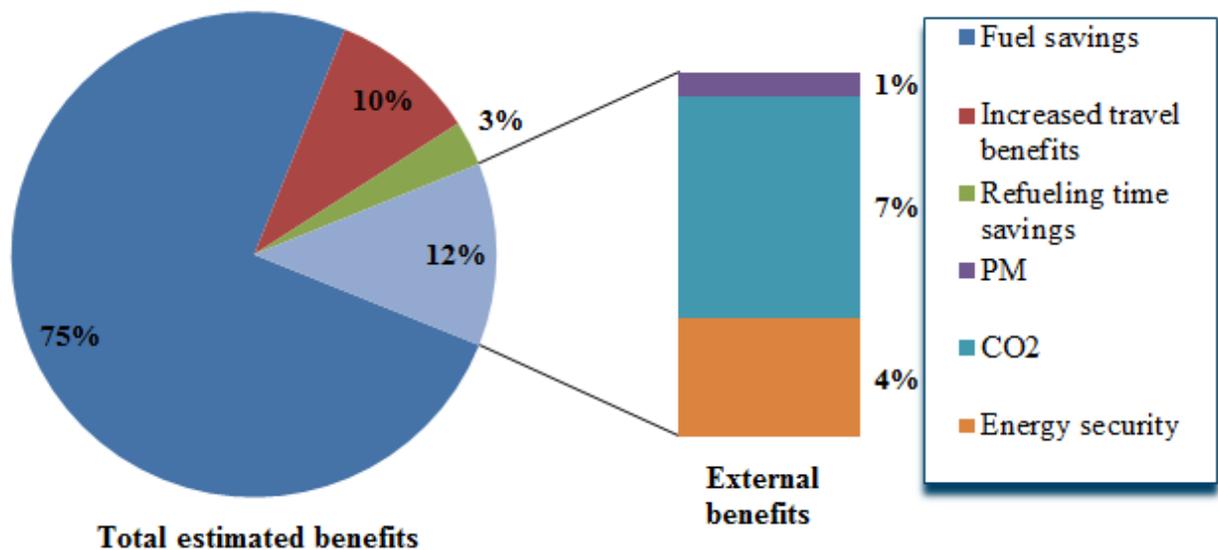
<sup>29</sup> OMB 2011 Report

<sup>30</sup> Joint rule 62924

expected consumer savings. For one thing, consumers are typically risk averse, and are therefore unwilling to accept a risk-free rate of return for an investment whose return is denominated in gallons of gasoline (subject to extreme price volatility). Even if we assumed away those and other risks, consumers would still be unwilling to accept EPA’s low rate of return, because consumers do not live “in the aggregate.” They have different tastes, preferences, and needs when it comes to purchasing a vehicle, and fuel savings is but one factor they consider. Regardless of why there is a “disparity,” we should always prefer real-world data to EPA’s model of the model consumer.

Figure 2 illustrates just how significant the fuel savings are to the justification of the rule. Only 12 percent of the total estimated benefits are external to the market, as the preamble recognizes. These include climate impacts, reductions in PM<sub>2.5</sub>, and energy security impacts.<sup>31</sup> The remaining 88 percent are benefits consumers could achieve without regulation if they perceived them to be greater than the costs.

**Figure 2**  
**EPA Estimated Benefits for GHG-CAFÉ Rule**



Source: Table III-105 of the preamble to the final GHG-CAFE rule. Following OMB’s approach, in this graph we classified negative costs as benefits, and negative benefits as costs.

<sup>31</sup> 2017 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions and Corporate Average Fuel Economy Standards, 77 FR 62912. October 15, 2012.

However, as the preamble observes, informed consumers “should have already considered these benefits in their vehicle purchase decisions.”

If so, then no net private benefits would result from the program, because consumers would already buy vehicles with the amount of fuel economy that is optimal for them; requiring additional fuel economy would alter both the purchase prices of new cars and their lifetime streams of operating costs in ways that will inevitably reduce consumers’ wellbeing.<sup>32</sup>

### **Other Rules with Private Benefits**

OMB reports private savings that exceed costs for several other regulations issued in FY 2012, including:

- The Occupational Safety and Health Administration’s hazard communication rule, which OSHA estimates will result in productivity increases that could pay for the costs of compliance more than twice over.
- EPA’s New Source Performance Standards for petroleum refining, for which EPA estimates recovered natural gas will exceed compliance costs.
- The Department of Energy’s Energy Efficiency Standards for Fluorescent Lamp Ballasts and Energy Conservation Standards for Residential Clothes Washers, both of which derive the majority of their benefits from private consumer savings.

Both governing executive orders and Circular A-4 demand a better explanation for “why market forces would not accomplish these [private] gains in the absence of regulation.” OMB provides no explanation why consumers and profit motivated private companies need government mandates to maximize net benefits that accrue to them privately. In reporting agencies estimates, OMB should consider listing private benefits separately (as it directed agencies to do in its 2011 Report), the way it does transfer costs, to distinguish them from outcomes that require collective action to achieve. OMB should also challenge agencies’ estimates of such private benefits when reviewing individual rules.

### **Many rules did not analyze alternatives**

A key element of E.O. 12866 is that “[i]n deciding whether and how to regulate, agencies should assess all costs and benefits of available regulatory alternatives, including the alternative of not regulating.”<sup>33</sup> For particularly significant rules (which would fit within the definition of major used in this report), E.O. 12866 further requires agencies to provide to OIRA:

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<sup>32</sup> Joint rule 62912

<sup>33</sup> E.O. 12866 §1(a).

An assessment, including the underlying analysis, of costs and benefits of potentially effective and reasonably feasible alternatives to the planned regulation, identified by the agencies or the public (including improving the current regulation and reasonably viable nonregulatory actions), and an explanation why the planned regulatory action is preferable to the identified potential alternatives.<sup>34</sup>

President Obama reinforced these requirements in E.O. 13563. However, a brief inspection of the preambles to the 14 major rules on which the total estimates of benefits and costs are based suggests that for many of them, agencies did not conduct the required assessment of alternatives.<sup>35</sup> While a few rules present robust analyses of the costs and benefits of alternatives, many of the preambles present no alternatives to the selected option at all. For others, alternative options are discussed qualitatively. Fraas examined the RIAs of several recent proposed major EPA regulations and found that for several high impact rules, the agency evaluated benefits and costs only for the selected option.<sup>36</sup>

Our review of these rules was not comprehensive. To make more transparent agencies' compliance with key elements of regulatory executive orders, OMB should provide in its annual reports an assessment of how well agencies met established executive requirements for each of the major rules examined. OMB could use the Checklist it provided agencies in 2010<sup>37</sup> as a template for this annual reporting. Not only would such an assessment provide useful information, but it would provide additional incentives for agencies to meet the established requirements in their ex ante analysis.

## Employment and Economic Growth Effects of Regulation

In Section D.3., OMB is right to recognize the complexity of the questions surrounding the effect of regulation on wages and employment. In particular, the report makes a helpful distinction between regulations affecting the employment relationship directly, such as the federal minimum wage, and regulations that have only an incidental effect.

In the former case, the report notes that employment effects may be explored using partial equilibrium analysis. This should allow analysts to estimate employment-related costs and benefits that may be associated with a rule, for use in a benefit-cost analysis, as well as the incidence of those costs and benefits, for use in the discussion of distributional effects in an RIA.

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<sup>34</sup> E.O. 12866 §6(a)3(c)iii.

<sup>35</sup> Our review of the preambles of these fourteen rules suggests that fewer than half conducted the required analysis of alternatives. It is possible the regulatory impact analyses for these rules included a more robust analysis, but if so, that analysis was not reported in the published preambles.

<sup>36</sup> See GW Regulatory Studies Center comment authored by Art Fraas, available at: [http://research.columbian.gwu.edu/regulatorystudies/sites/default/files/u41/Fraas\\_OMB\\_BC\\_20130723.pdf](http://research.columbian.gwu.edu/regulatorystudies/sites/default/files/u41/Fraas_OMB_BC_20130723.pdf)

<sup>37</sup> Agency Checklist: Regulatory Impact Analysis (October 2011) [http://www.whitehouse.gov/sites/default/files/omb/inforeg/regpol/RIA\\_Checklist.pdf](http://www.whitehouse.gov/sites/default/files/omb/inforeg/regpol/RIA_Checklist.pdf)

In contrast, when a regulation influences wages and employment only incidentally, the analysis is much more complex. As the report notes, regulations may have ripple effects in many markets. A general equilibrium model may be useful in helping to sort these out, but it will be unlikely to produce results that can be incorporated into a benefit-cost analysis.

It is important to keep in mind that the business compliance costs that we typically find in a benefit-cost analysis do not, in themselves, represent “costs” as BCA defines costs. Corporations do not experience welfare changes. Instead, business compliance costs are included in BCA as a proxy for welfare changes that real persons are expected to experience, both upstream and downstream of the affected businesses. These welfare changes are many and varied, and they include such things as: consumers’ loss of consumer surplus as regulatory costs are incorporated into the prices of final goods and services; retirees’ loss of income as investment returns are devalued because of compliance costs; property owners’ loss of economic rents as property uses are restricted by regulation; and workers’ loss of human capital and other job-related losses as labor markets adjust to regulatory compliance costs.

Further research that illuminates the nature and magnitude of these upstream and downstream effects will be very helpful, because non-economists too often assume that compliance costs are somehow “absorbed” by corporations as a cost of doing business. The fact is that, properly measured, both the costs and the benefits of regulation represent changes in real human welfare, and need to be understood as such.

At the same time, we need to recognize that empirical studies demonstrating upstream or downstream welfare effects cannot simply be grafted on to a standard benefit-cost analysis. Studies may persuasively demonstrate welfare changes associated with employment effects, consumer behavior, property values, or financial market returns, but these cannot be incorporated into a BCA without a careful accounting framework that ensures each cost and benefit is counted once, and only once.

## **Retrospective Review and Implementation of Executive Order 13563**

Through a series of Executive Orders, including Executive Order 13563, President Obama has encouraged federal regulatory agencies to review existing regulations “that may be outmoded, ineffective, insufficient, or excessively burdensome, and to modify, streamline, expand, or repeal them in accordance with what has been learned.” EO 13563 additionally instructs executive branch agencies to develop and submit to the Office of Information and Regulatory Affairs (OIRA) retrospective review plans “under which the agency will periodically review its existing significant regulations to determine whether any such regulations should be modified, streamlined, expanded, or repealed so as to make the agency’s regulatory program more effective or less burdensome in achieving the regulatory objectives.”

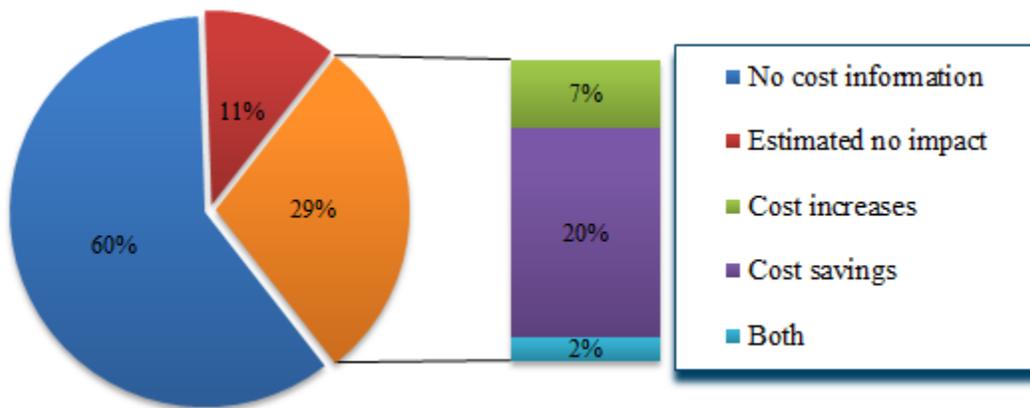
Chapter II of the Report suggests that the implementation of Executive Order 13563 will have a “significant impact” by reducing some paperwork requirements and producing “significant quantifiable monetary savings” to the regulated public. However, there is little evidence to suggest that the planned savings will be significant, and some recent research would suggest that some retrospective review actions will add—significantly—to regulatory burdens, rather than reducing them.

In May 2013, the George Washington University Regulatory Studies Center published a working paper entitled *EPA’s Retrospective Review of Regulations: Will it Reduce Manufacturing Burdens?*. This working paper examined the January 2013 retrospective review progress report of the Environmental Protection Agency (EPA) to gauge whether the implementation of EO 13563 will actually reduce the burden on the regulated public. It concluded that:

[a]n examination of EPA’s retrospective review plan and progress report does not reveal the unprecedented cost savings and burden reductions for which many observers had hoped. Only one fifth of the regulatory actions in EPA’s retrospective review progress report are expected to reduce costs. EPA provides no information on the effects of the majority of its retrospective review actions. It expects 11 percent of them will have no effect, and a number of regulatory actions will actually increase burdens on regulated entities.

While retrospective review has the potential to reduce burdens on the regulated public, an analysis of EPA’s retrospective review plan suggests that the reviews may also increase these burdens. Because EPA does not provide either a cost or savings estimate for 60 percent its retrospective review actions, the agency’s existing estimates could be seriously over- or under-estimating the potential savings or costs posed by its retrospective review efforts.

**Figure 3**  
**How Much of EPA's Progress Report Includes Cost/Savings Information?**



Source: Environmental Protection Agency, *EO 13563 Progress Report, January 2013*. For categorization, see Appendix A of the George Washington University Regulatory Studies Center’s working paper, *EPA’s Retrospective Review of Regulations: Will it Reduce Manufacturing Burdens?*.

Given how little information agencies are providing on potential costs and savings, it is difficult to gauge whether the effect of EO 13563's implementation will be "significant quantifiable monetary savings" to the regulated public, as OMB's draft report suggests.

As stated in the Report: "importantly, *rules should be written and designed, in advance, so as to facilitate retrospective analysis of their effects.*"<sup>38</sup> This is a crucial component for the successful creation of a retrospective review culture in regulatory agencies, especially when applied to economically significant or major rules that have the greatest effect on the regulated public.

As administrator of OIRA, Cass Sunstein echoed this goal in his April 25, 2011 memo to the heads of executive departments and agencies:

With its emphasis on "periodic review of existing significant regulations," Executive Order 13563 recognizes the importance of maintaining a consistent culture of retrospective review and analysis throughout the executive branch. To promote that culture, future regulations should be designed and written in ways that facilitate evaluation of their consequences and thus promote retrospective analyses.<sup>39</sup>

The instruction to incorporate retrospective review into rules when they are first written was repeated in his June 14, 2011 memo: "future regulations should be designed and written in ways that facilitate evaluation of their consequences and thus promote retrospective analyses and measurement of 'actual results.'"<sup>40</sup> However, an examination of the 47 major rules issued by executive agencies in fiscal year 2012 indicates that agencies are not acting on OMB's retrospective review guidance.

Of the 47 major rules from fiscal year 2012 listed in the Report, none reference OMB's guidance to agencies on this subject. In fact, only two have any consequential mention of retrospective review at all,<sup>41</sup> and none has a prospective plan for evaluation of the rule's effects. The two rules which mention retrospective review (both of which are HHS rules) do so because the rules were a result of retrospective review, but indicate no plan to conduct retrospective review in the future.

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<sup>38</sup> Report, page 9.

<sup>39</sup> United States. Office of Management and Budget. Office of Information and Regulatory Affairs. *Memorandum for the Heads of Executive Departments and Agencies: Retrospective Analysis Of Existing Significant Regulations*. By Cass Sunstein. April 25, 2011.

<sup>40</sup> United States. Office of Management and Budget. Office of Information and Regulatory Affairs. *Memorandum for the Heads of Executive Departments and Agencies: Final Plans for Retrospective Analysis of Existing Rules*. By Cass Sunstein. June 14, 2011.

<sup>41</sup> Department of Health and Human Services, *Regulatory Provisions To Promote Program Efficiency, Transparency, and Burden Reduction*. May 16, 2012. RIN 0938-AQ96.  
Department of Health and Human Services, *Medicare and Medicaid Programs: Reform of Hospital and Critical Access Hospital Conditions of Participation*. May 16, 2012. RIN 0938-AQ89.

Examination of upcoming major rules indicates that this trend will continue without additional OMB action. A prime example is the Food and Drug Administration's proposed rule, *Standards for the Growing, Harvesting, Packing, and Holding of Produce for Human Consumption*, which includes standards for the reduction of microbiological contamination in food and subsequent foodborne illness.<sup>42</sup>

FDA expects this rule to result in a 65 percent reduction in foodborne illness from raw produce.<sup>43</sup> Given the specificity—and significance—of the expected benefits of this rule, it is both possible and essential for FDA to review the standards once they have been implemented to gauge whether the claimed benefits are substantiated. While FDA references this possibility briefly in the accompanying regulatory impact analysis, the text of the proposed rule itself does not mention retrospective review or hold the Agency accountable to a retrospective review schedule.

This leaves the public without the information needed to determine whether the proposed rule is accomplishing its intended purpose. A written commitment to ex-post review will make it possible for the public—and for the agencies that regulate them—to measure whether a particular rule has had its intended effect, and where opportunities for improvement lie.

OMB should take actions to enforce existing guidance pertaining to the retrospective review goals outlined in Executive Order 13563, particularly the repeated prompts to incorporate retrospective review plans and metrics into rules as they are written.

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<sup>42</sup> Food and Drug Administration, *Standards for the Growing, Harvesting, Packing, and Holding of Produce for Human Consumption*. January 16, 2013. RIN 0910-AG35.  
<https://www.federalregister.gov/articles/2013/01/16/2013-00123/standards-for-the-growing-harvesting-packing-and-holding-of-produce-for-human-consumption#h-17>

<sup>43</sup> Food and Drug Administration, *Analysis of Economic Impacts – Standards for the Growing, Harvesting, Packing and Holding of Produce for Human Consumption*. Page 78. Aggregate Benefits Estimates.  
<http://www.fda.gov/downloads/Food/FoodSafety/FSMA/UCM334116.pdf>

## Conclusions and Recommendations

OMB's Draft 2013 *Report to Congress on the Benefits and Costs of Federal Regulations* continues to provide the public valuable information both on agencies' estimates of the effects of major executive branch regulations and also on OMB's focus and priorities. However, it could be improved. This comment focuses on several areas: 1) clarifying for the public the influence of estimated benefits attributed to reducing PM<sub>2.5</sub> on total benefits and the uncertainty surrounding those estimates; 2) improving OMB's presentation of trends in regulatory impacts; 3) critiquing the estimated benefits and net benefits for regulations issued in fiscal year 2012; 4) providing a checklist of agency compliance with key regulatory requirements, and 5) evaluating and suggesting improvements to implementation of President Obama's retrospective review initiative. The comment also commends OMB for its clear discussion of the merits and difficulties of including employment effects in regulatory impact analysis.

The benefits reported both for fiscal year 2012 and over the last decade are dominated by EPA regulations that reduce fine particles (PM<sub>2.5</sub>) either directly or incidentally. OMB provides a good qualitative presentation of the many uncertainties surrounding the PM<sub>2.5</sub> benefits, but it should go further. It should reveal to the public the effect of these uncertainties on the range of plausible benefits derived from regulations.

EPA's Mercury and Air Toxics rule contributes more than half of the total benefits OMB reports for 2012. Given that large contribution, OMB should inform the public that the large benefits it presents in the Report are *not* due to reductions in mercury and air toxics, but rather to PM<sub>2.5</sub>, and subject to all the caveats it presents about the uncertainties in modeled benefits. OMB should also continue working with EPA and other agencies to reduce these large uncertainties, particularly with respect to the causal nature of PM<sub>2.5</sub> benefits.

Another large component of FY 2012's net benefits reflects "private benefits." OMB provides no explanation why consumers and profit motivated private companies would need government mandates to maximize net benefits that accrue to them privately. In reporting agencies' estimates, OMB should consider listing private benefits separately, the way it does transfer costs, to distinguish them from outcomes that require collective action to achieve. OMB should also challenge agencies' estimates of such private benefits when reviewing individual rules, as required by both governing executive orders and Circular A-4.

OMB presents estimates of trends in benefits and costs in several sections of the Report. While this is an important element of the Report, OMB should reconsider whether it is appropriate to make comparisons with selected years of previous administrations. Previous reports eschewed such political comparisons, which diminish the value of the report as an objective source of neutral information.

OMB should also take greater care to be consistent in its estimates of regulatory impacts across years. At a minimum, that would call for consistent treatment of vacated rules, and of models for measuring and valuing the same regulatory outcomes (such as PM<sub>2.5</sub>). OMB might also consider using different approaches for presenting data on regulatory trends than it does when summing totals.

To make more transparent agencies' compliance with key elements of regulatory executive orders, OMB should provide in its annual reports an assessment of how well agencies met established executive requirements for each of the major rules examined. OMB could use the Checklist it provided agencies in 2010 as a template for this annual reporting. Not only would such an assessment provide useful information, but it would provide additional incentives for agencies to meet the established requirements in their ex ante analysis.

In its efforts to successfully implement Executive Order 13563 and its implementing guidance, OMB should encourage agencies to include plans for retrospective review of their regulations in new rules as they are written to ensure improved regulatory outcomes. This information will tell both the agency and the public how accurate the agency's estimates were, and will provide information for future rulemakings on how best to evaluate the effects of such standards.